RESEARCH ARTICLE

ANXIETY AND EMOTIONS OF COVID-19: THE EMOTIONAL UNDERPINNINGS OF DEALING WITH THE CORONA VIRUS DISEASE

Dr. Geoffrey Wango[1,*], Prof. Gidraph Wairire[2] and Dr. Charles Kimamo[3]

[1]Psychology Department, University Of Nairobi, Nairobi, Kenya
[2]Department of Sociology and Social Work, University Of Nairobi, Nairobi, Kenya
[3]Psychology Department, University Of Nairobi, Nairobi, Kenya

ARTICLE INFO

ABSTRACT

By incorporating emotionality, this paper proposes to enrich cognitive information processing among the general public in times of crisis as evident in COVID-19. Two distinct emotional responses namely fear and anxiety with sufficient enthusiasm profoundly influences our behaviour and responses towards the disease. Fear because the threat of the corona virus disease is real, and anxiety because of the novelty that stimulates our utmost attention toward COVID-19. The anxiety powerfully influences preferences and stimulates our involvement in the COVID-19 health and wellness campaign. The discussion enhances a phenomenological theoretical perspective concerning cognitive and emotional processes as mutually engaged and in turn supportive as countries and the public adopt various intervention measures aimed at curbing the spread of the COVID-19 pandemic. The discussions demonstrate the cognitive information process and fathoms out how people can appropriately practice emotions as tools towards dealing with the fear and anxiety of COVID-19.

INTRODUCTION

Since the Corona Virus Disease, 2019 (COVID-19) was announced in China in December 2019 the pandemic has become a central focus all over the World. There have been high fatalities as of 30th August 2020 in Brazil (124,729), India (68,569), Mexico (66,329), United Kingdom (41,527) and the United States of America (191, 058), (www.worldometers.info › coronavirus › 2020). Several cases of infection and deaths have been reported among clinical health care providers and other front line service providers who came into direct contact with infected patients in clinical settings, particularly hospital wards and isolation centres. 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 hospital wards, home care settings and during the handling of cargo (World Health Organization, 2020a; 2020b; 2020c; 2020d; 2020e). Besides, people within and outside medical settings are now required to strictly follow similar protective measures including wearing of face masks, regular washing of hands and use of sanitizers.

*Corresponding author: **Dr. Geoffrey Wango,**
Psychology Department, University Of Nairobi, Nairobi, Kenya.

Some of these measures like wearing of the face masks have been noticed to yield social discomfort, which again may bring about stress, but at the same time failure could expose the concerned persons. Therefore, COVID-19 raises various emotional reactions. Emotions are highly significant for all of us because they affect us and prompt us to act in various ways (Mordka, 2016). However, what is emotion? Emotions are feelings that influence behaviour. An emotion is a mental state that has a specific response (Cabanac, 2002; Cannon, 1927; Griffiths, 1997; Kleinginna & Kleinginna, 1981; Mordka, 2016; Oatley& Duncan, 1994). Emotion is also conceptualized as an encompassing phenomenon that often includes anger, disgust, fear, joy, sadness, and surprise (Cabanac, 2002; Lazarus 1991; Oatley & Johnson-Laird, 1987; Smith & Lazarus, 1993).Emotions have been associated with enthusiasm in that sensations highly drive our motivations (Cabanac, 2002; Cannon, 1927). In that case, therefore, emotions are a catalyst for various aspects of our everyday lives, including career, religion and political inclinations. Mordka (2016: 31) states that "emotions are considered either as natural or concupiscible", that is, they are both voluntary (controlled) and involuntary (largely uncontrolled), conscious and unconscious, passionate and fervent and thus they certainly have inherently motivational characteristics.

Emotions, including anxiety, occupy a prominent place in contemporary psychology (Ekman & Davidson, 1994; Griffiths, 1997; Lazarus, 1991; Mordka, 2016; Oatley, Keltner, & Jenkins, 2006; Smith & Lazarus, 1990). A major aspect is the role of emotions, particularly anxiety as evidenced in neurophysiology. The human brain and hence our physiology generates distinctive emotional responses (Eccles, 1989; Fonberg, 1986; Gray 1981; 1987). On the one hand, there is the part that generates emotions that leads to excitement, elation, and enthusiasm; while on the hand the subsystem generates emotions that fall in the class of anxiety, stress, and fear. All these have emotional significance in that information can affect what we know, and of course how we react to it (hence the information on COVID-19 in *Table 1*) including our enthusiasm, that is, our involvement or lack of it. Thus, our emotions and motivation influence learning. Scholars have put it across that emotions affect performance and behaviour, and this is an interplay of various persons and situations (Doron & Martinent, 2016; Wagstaff, 2014) including COVID-19 (White, Marston, Shore & Turner, 2020).It is evident that anxiety and enthusiasm have a logical component and hence influence our decision-making processes. However, they rely on our emotional state. Thus it is emotionality, for instance, our reactions to COVID-19 that confronts our circumstances.

Since emotions are mental experience, it implies that powerful threats, in particular, can motivate us to learn about new things, including obtaining new or additional knowledge, new or additional skills. Studies in neurophysiology and psychology point toward the distinctive roles that different emotions play in stimulating and motivating actions, even incrises. Furthermore, studies on the psychology of voting in a particular pinpoint on the role of emotions in political attentiveness (Marcus& Mackuen, 1993; Mordka, 2016). It can be stated that emotions can assist in effective decision making, rather than disrupt life experience, and in turn, improve on the quality of life. In this paper, we propose an in-depth examination of emotions to elucidate ways of dealing with a crisis such as COVID-19. Mordka (2016: 34) summarizes the structure of emotions as follows:

> *Therefore emotions (at first glance) are embodiments of the surrounding environment that carry specific information, relative to the state of the subject under the existing rationale (points of adaptation).*

For this paper and the magnitude of COVID-19, we do not want to entrench fully into emotions in too much detail; it suffices to outline the two major concepts, that is, fear and anxiety. Cisler, Olatunji, Feldner, and Forsyth (2016) contends that fear and anxiety are the principal and relevant emotions from which emotions regulation can be distinguished. Psychologists make a distinction between fear and anxiety (Cisler et al., 2016; Barlow, 2002; Öhman, 2000; Öhman & Mineka, 2001). While fear is often associated with an immediate, specific threat, anxiety refers to a motivating defence system from a non-specific threat cue (American Psychiatric Association, 2013; Cisler et al., 2016). Thus, while the cause of fear may be known or understood in several instances, the cause of anxiety is often poorly defined. Thus, fear is the anticipation that something unpleasant, harmful or destructive will happen to someone, while in anxiety, the threat may be impending and may not necessarily occur. Fear sets us in motion with thoughts or behaviours of what we can do, or need to do to deal with the threat.

Put more plainly, the appearance or emergence of a threatening intrusion causes us to stop, look, listen, and get ready for action (Marcus & Mackuen, 1993). COVID-19 presents with both fear and anxiety (Duan, & Zhu, 2020); fear because we know with certainty of disease that has caused over 870,000 deaths worldwide and anxiety because we cannot predict whether or not we, our family members, friends or community will be victims. Thus, the uncertainty though the threat is real causes anxiety. Scholars such as Cisler et al. (2016) and Barlow, Allen, & Choate, 2004)deal with fear and anxiety in the same way often arising from the fact that it can be difficult to verify if the threat is real, impending or does not exist at all. This is the same reaction in times of crisis, such as the COVID-19 pandemic. However, DSM-5 (American Psychiatric Association, 2013) notes that fear and anxiety may be experienced differently between children and adults, while the degree and type of fear and anxiety may be varied across different occasions. Indeed, several social economic and political activities in the world, including significant business and several aspects of our lives have come to a complete halt. Fear and anxiety about the disease are real, and this sparks in us various emotions including limitations in everyday activities, social distancing, panic buying and self- medication (Roy et al., 2020). Additionally, the pandemic has refused to pass by as would have been expected of other calamities. Thus, dealing with COVID-19 is not the fight/flight system (Gray, 1987).

The pattern of the development of COVID-19 cannot be fully outlined in such a paper, and hence ours is an approximation. This is because of several reasons. First, it is possible that anyone can contract the virus. With time, and as anxiety abates, people get to realise that it is crucial to be careful, which leads to the following point. Second, health authorities highly suggest the use of precautionary measures to avoid infection of self and others. This leads to a need to evaluate our actions. Third, the emotional reaction accompanying the threat of COVID-19 cannot quickly be subdued or exonerated. This is because our reactions are combined with high levels of nervousness leading to anxiety and thus can cause severe emotional and psycho-pathological problems (PPPs). Thus, though there are numerous illnesses including cancer, common cold, malaria, and HIV/AIDS, COVID-19 stands in sharp contrast due to the high risk and the present obsession with it. Our attention and interests in COVID-19 are expressed privately and furtively as the globe comes to an absolute close with the lockdowns. The emotional involvement that accompanies the pandemic has short and long term effects to all of us, children and adults, the general public and other helping professionals, including clinicians and social workers.

Purpose and Rationale: On the face of it, this paper opines that crisis such as COVID-19 profoundly affects our emotions and that in particular, it involves a lot of fear and anxiety that should motivate us to act in specific ways in a bid to contain the disease and thus save and others from the pandemic. In particular, the general public may require general awareness before they can be motivated to act in certain ways to both contain the COVID-19 as well as deal with their fears and anxieties. At the intuitive level, any threat is an excellent reason to spur action. The threat of COVID-19 generates enthusiasm that stimulates government, public/community, family and individual involvement. Subsequently, the World Health Organization (2020f) has issues various guidelines on mental health and psychosocial considerations during the

COVID-19 outbreak. This paper outlines a series of interventions in dealing with COVID-19 (Tabari, Amini, Moghadami,&Moosavi,2020). First, we demonstrate that fear and anxiety though different, is related to distinctive emotional responses that can assist in dealing with a crisis such as the present pandemic. Second, we demonstrate that people's fears and anxieties during such a pandemic vary and are valid. However, this feature of individual personalities can be positively made use of to deal with the crisis appropriately. Third, we have considered several distinctive parts in the COVID-19 mitigation and control are culminating in the decision-making processes. Fourth, we demonstrate explicitly that fear and anxiety can move people to learn and acquire COVID-19 related information and thus assist the government and the public deal with the present and future crisis. As a result, the paper proposes that emotions such as anxiety can work cooperatively with active learning to shift attention to appropriate behaviour, thus enabling marked transformations towards desired conduct.

Methodology and Theoretical Perspective: This paper adopts the phenomenological approach. Phenomenology is a qualitative research approach that is uniquely positioned to support inquiry into the natural phenomenon, our human experiences (Barua, 2015; Ekman& Davidson, 1994; Finlay, 2011; Kafle, 2011; Laverty, 2003;Van Manen, 1997;Moustakas, 1994; Wertz, 2015).It seeks to explain in detail the principles, meaning and structure of people's lived experiences (Neubauer, Witkop, & Varpio, 2019; Vagle 2018;Van Manen, 1997; 2014).Phenomenology has strong philosophical underpinnings that relate to human experience in that it provides useful insights of both what is experienced and how it is experienced (Neubauer, Witkop, & Varpio, 2019; Teherani, Martimianakis, Stenfors-Hayes, Wadhwa, & Varpio, 2015). For this paper, phenomenology lays prominence on the extent to which our emotions are of fundamental importance to dealing with a crisis such as COVID-19. COVID-19 is linked phenomenologically to our present emotions in such a sensitive way as elucidated by Mordka (2016: 34):

> *An emotion can be distinguished from other cognitive processes, each of which has its specifics. The specificity of emotions means that they divide the world into a positive and a negative, something no other power or information processing can do. An emotion constitutes that something is "important" and, as a result, it makes this something "more or less important" to set up a hierarchy of actions. Subjects (entities who take actions instead of just being subjected to actions) may, in theory, take an infinite number of activities, but emotions introduce an element of radical simplification.*

This paper illustrates the specifics of such an approach with various questions such as follows: What is the experience of anxiety, and the impact of this experience on our reactions to COVID-19? What does it mean to adhere to certain regulations on COVID-19? What are the personal experiences of success or failure to adhere to health regulations, including the high stakes? How can clinicians effectively communicate their clinical reasoning towards curbing the COVID-19 pandemic? The answers to these questions constitute the underpinnings of the social-psychological management of COVID-19.To quote Mordka (2016: 34) "emotions not only introduce the idea of things being "positive or negative", but they also prioritize things according to the value they assign, they also involve

action (behaviour) as their intrinsic characteristics." In essence, the methodological and theoretical approach can be applied in various contextual settings, including the 'behavioural immune system' (Schaller, 2011).Hence, the phenomenological approach of exploring COVID-19 interventions should be increasingly perceived from the perspective of those who experienced it, that is, the individual and community (Henriksson, Friesen, & Saevi, 2012; Neubauer, Witkop, & Varpio, 2019; Teherani et al., 2015; Wertz, 2015).

Coping with COVID-19:The Emotional Response and Management: There are various measures aimed at closures, and these can be significantly associated with improved control of the COVID-19 (*Table 1*). It is acceptable that these interventions are significantly associated with reducing the risk of infection, with a lower rate of going out behaviour as well as people taking other precautions such as wearing of masks, washing of hands and use of sanitisers. Nevertheless, the risk of infection is still apparently high, and infection could be fatal. For example, there is no guarantee that a person who has been infected and recovered cannot be re-infected. The strategies are examined in various sub-themes in this section.

General and Specific Exigencies: There is need to blunt ones' ability to differentiate between the important (taking precautions) and the incidental (our emotions, and of course actions). The two coalesce over time and thus, our coping mechanisms. In that case, the World Health Organization objectives for COVID-19 response must be translated to specific intervention measures as follows:

COVID-19 requires a case-by-case risk assessment. From the World Health Organization intervention strategies(WHO, 2020a; 2020b, 2020c; 2020d; 2020e; Tabari et al., 2020), it is possible to categorize the COVID-19 threat and effectively categorize it into various zones. Three specific zones, such as red (highly susceptible), yellow (ritual compliance) and green (strict compliance) can be identified according to intensity, as shown in *Table 2* below:

The categorization can enable the public to be more cautious and thus assist deal with the pandemic by taking precautions. The destructive attempts labelled in red enable the public to discern the process whereby, slowly and tentatively, people approach the issue of COVID-19 with more considerable precautions. At the same time, people can assess the effect of their actions on their surroundings, and these actions represent their ability to cope with the anxieties of COVID-19. In several instances, many people will adopt a less risky approach, be highly restrained and well-controlled. This is a significant reaction during the epidemic and immediately hereafter as attempts are made to regularize our lives.

However, it has been noted that during the course of 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 other none essentials. 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 highly discouraged among adults and children. Most of these are compensatory behaviours aimed at compensating of contact (Cauchemez, Valleron, Boë¨lle et al., 2008; Gift, Palekar, Sodha et al., 2010; Mizumoto, Yamamoto, & Nishiura, 2013). Thus, the behaviours go beyond mere protest of government restrictions and attention-seeking inclinations. They could also be negative attitude tendencies, while still others are attempts to express anger, and sometimes acts of despair. However, these persons may be some of the hitherto hidden carriers that unconsciously spread of COVID-19. Overall, they also represent a severe struggle between life and its challenges. Thus, we need to re-examine motive and intervening variables, as demonstrated in Figure1:

The motive that drives unnecessary shopping and inappropriate social gatherings might be boredom or inactivity. Therefore, people need to be encouraged in more appropriate actions, such as hobbies and exercising. It is acceptable that most of the people, especially in low and middle-income countries, rely on wages obtained daily income. However, again, for many reasons, most people, especially the youth, believe that they are not vulnerable to illness. In any case, COVID-19 has a high recovery rate and a low death rate. It seems inconceivable that people would take the fatality as seriously as they should. Humans are often blinded by the false perceptions that life is a carefree, happy time, and we should have our freedom. Yet our personality and emotional structure should permit us to the passionate, emotional process of COVID-19 as it is a glaring truth.

Analysis: Severity and Intent, Suggestibility and Oversensitivity: It seems valid to conclude that people have various inclinations, some out of desperate reactions while others are based on logical decision-making. Still, diversity suggests a need for self-control and proper personality and social functioning. In that case, we propose that emotionally, a connection can be established between actions and motivations and the reality of COVID-19. This is by outlining the stages in the COVID-19 awareness campaigns as follows:

- Awareness of the coronavirus disease (*Tables, 1, 2, 4* and *5)*
- Threat and dealing with fear and anxiety of getting infected with COVID-19
- Need to protect self from COVID-19 (*Tables1, 2*)
- Taking precautionary measures to prevent infection for self, family and others (*Tables 1*)
- Commitment (this includes an enhanced understanding of the risk zones in *Table 2*)

Amidst these stages are various levels of risk management and assessment (*Tables 4, 5, 6 and 7*) as follows:

- Awareness of COVID-19 and risk management
- Probability of infection/level of agreement
- Devotion (taking precautions, adherence safety provisions)
- Likelihood to adhere to intervention measures/satisfaction
- COVID-19 priority level, this includes quality of adherence to taking care of self, family and others

The emotional turmoil, during and after the pandemic, can be dealt with by merging the stages that allow a greater level of assessment as follows:

In the case description of COVID-19, a person can identify certain characteristics used to identify a compulsive interest to protect self and others from the disease, and thus diffuse anxiety and at the end, improved outcome. This can be illustrated by the following actions that motivate our emotions and thus synchronized with a rationale:

One can identify and see definite signs of attention and intentionality and identify the actions (sometimes these can be events) that can serve as the immediate motivating force behind taking precautions against COVID-19 including the establishment of primary care clinics (PCCs).Similarly, we should ask if the general public has adequate if a tenuous understanding of COVID-19 and hence the logic of ensuing that the general public and communities obtain adequate information on COVID-19 (Nassiri, 2020). The motive would be to seek treatment if infected or to take precautions to avoid infection. In that case, the four levels, from low risk of infection to a suspected case, probable and confirmed cases should be albeit clearer as demonstrated below:

The first attempt is to obtain information that would help minimize the anxiety around COVID-19. This is because accurate information will inform us of who has contracted the disease and probably who may not as yet have contracted the virus. The second step is, therefore, to accelerate our response of the immediate surroundings, and this is where we make use of the risk categorization demonstrated in *Table 2*. Remember, a failed attempt to take precautionary measures (*Tables 1* and *2*) increases the threat leading to a degeneration of the situation. It is not always possible to estimate an illness with the utmost precision. This is because an apparent infection such as the coronavirus can eventually turn into a lethal act completed over time. From a definitional point of view, COVID-19 can be treated at different points on a universal developmental continuum illustrated as follows:

In-depth investigation always shows that even a seemingly insignificant infection such as COVID-19 can be fatal, while acute illness including admission into the intensive care unit can, and do in many instances or eventually lead to recovery. Study of emotions tends to conclude that feelings of calmness, quietness, placid, and of course safety and security is an indication of the absence of threat (hence less anxiety), while as a matter course, feeling of fearfulness, dread or apprehension is an immense indicator of the presence of threat (Gray, 1987).What then, are the earmarks of separating the threat of COVID-19 from the lethal? This can be illustrated using the diagram below:

We can only discern that the process of taking precaution from infection should be an assessment of the chances of infection and hence the effects of precautionary interventions. That is why we are convinced that the attempts at prevention can deal with both the anxiety and the fear of infection. A second point follows this; that the social environment (surroundings) and hence our actions have severe consequences as illustrated below by adopting the compliance models.

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.	-Reduced contacts such as hugging, kissing, shaking of hands -Closure of education institutions including schools, 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 festivities -Social distancing including online shopping -Border closure and restrictions
(2)Identifying, isolating and caring for patients early, including providing optimized care for infected patients.	-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.	-Awareness raising and risk communication to the general public -Washing of hands and other aspects of social hygiene -Use of sanitisers -Adoption and 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 multisector partnership.	-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)

Table 2.COVID-19 Threat Categorization Zones

Red zone	Yellow Zone	Green Zone
-Crowded places such as bus parks, public transport, religious/ worship places, lifts, beaches and open-air markets -Public gatherings and social functions such as parties, bars and restaurants -Sports activities -Gyms, saloons and massage parlours	-Meetings such as board meetings and interview panels -Public transport including motorbikes and overcrowded buses, vehicles (personal or public) -Prisons / confinement -Residential areas with communal areas -Banking halls -Malls and supermarkets	-Staying at home -Indoor activities such as gardening -Personal and private exercises including taking a walk while maintaining social distancing -Private cars that are not overcrowded and driver and passengers wearing masks -Online interactions including online meetings and online shopping

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

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

Table 4:Phase and Intensity of Emotional Connection

|	Awareness Phase	Levels of Assessment
1.	Awareness of the disease	Awareness of COVID-19 and risk management
2.	Threat and dealing with fear and anxiety	Probability of infection/level of agreement
3.	Seeking protection from COVID-19.	Devotion (taking precautions, adherence safety provisions)
4.	Taking precautionary measures to prevent infection	Likelihood to adhere to intervention measures/ satisfaction
5.	Commitment	Quality of adherence
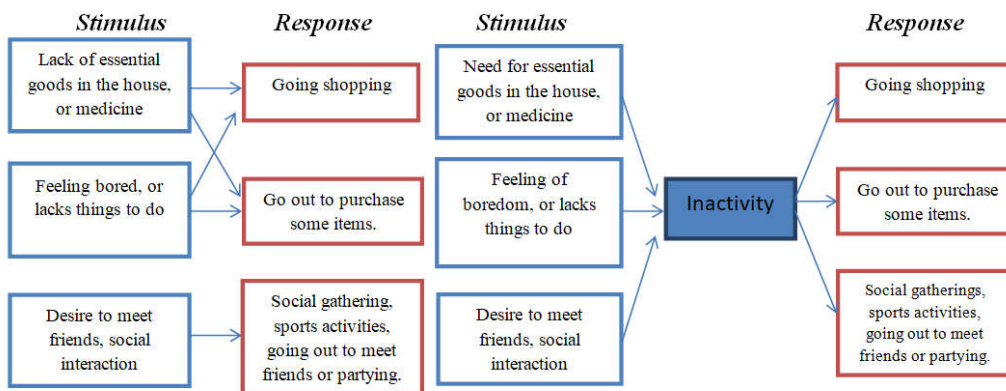
Figure 1.Motive as Intervening Variable

Table 5.Motivation and Emotion: Creating a Rationale

Write down why you do the following things based on your understanding of the coronavirus disease.	
Activity	Because (rationale)
Washing of hands	
Sanitizing	
Wearing of face mask	
Maintaining social distancing	
Contacting insuitable ways friendsand family member	
Eating healthy foods	
Going shopping only for essential goods and drugs	
Restricted visits and social gatherings	
Holding online meetings	
Self-isolation and self-quarantine	
Obtaining correct information about the coronavirus disease	
Exercising	
Meditation and reflection	
Prayer and reading the scriptures	
Sharing with the less privileged in society	
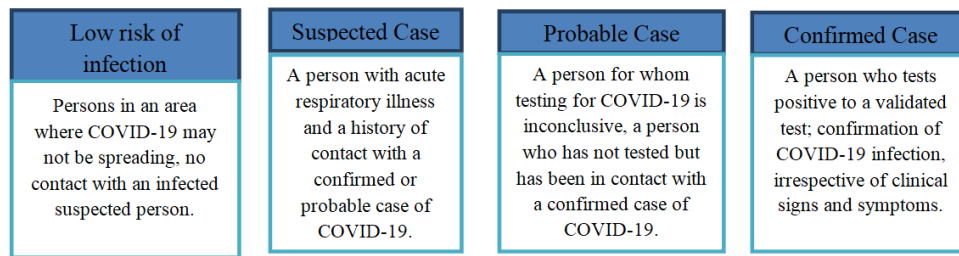
Adapted from World Health Organization (2020a; 2020b; 2020c; 2020d;2020e)

Figure 2.Motive as Intervening Variable

Figure 3.COVID-19 Motives as an Intervening Variable on a Continuum
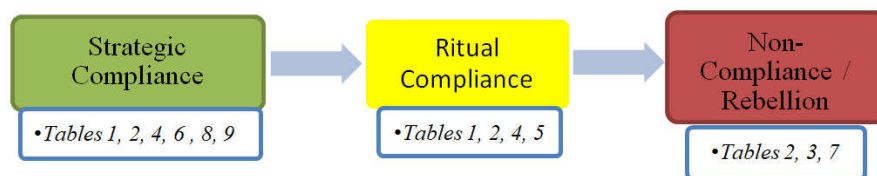

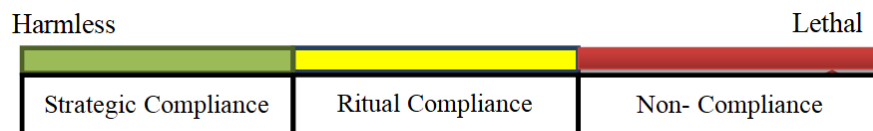**Figure 4.COVID-19 Motives and Compliance to COVID-19**

Figure 5.COVID-19 Motivation Intervening Variables for Enhanced Control
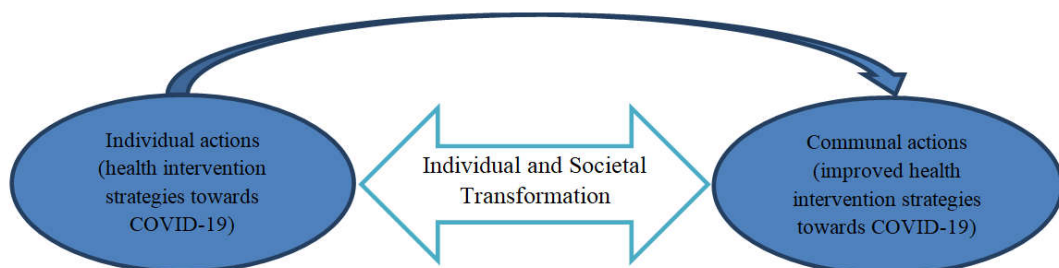

Figure 6.Personalised Social Psychological Framework for COVID-19

Table 6.Motivation and Emotion: Assessing our Actions

Identify your adherence to the following healthy intervention measures aimed at curbing the coronavirus disease.				
Activity	Not at all	Sometimes	Very often	Always
Washing of hands				
Sanitizing				
Wearing of face mask				
Maintaining social distancing				
Contacting a friend or family member at a distance				
Eating healthy foods				
Going shopping only for essential goods				
Holding online meetings				
Self-isolation and self-quarantine				
Obtaining correct information about the coronavirus disease				
Meditation and reflection				
Exercising				
Praying and reading the scriptures				
Sharing with the less privileged in society				

Table 7.Motivation and Emotion: Risk Management Assessment

Identify your involvement in the following activities to assess your risk management of the coronavirus disease.					
Activity	Very Low	Low	Medium	High	Very High
Going to crowded places					
Attending public gatherings					
Involvement in several social activities					
Going to social places					
Gyms, saloons and massage parlous					
Attending social gatherings					
Partying and celebrations					
Going to malls and supermarkets					
Social interactions					
Visiting family and friends					
Family gatherings					
Family get-togethers					
Children playing together without masks					
Travelling from one place to another					
Travelling in overcrowded vehicles					
Sharing (clothes, cigarettes, other items)					
Attending meetings					
Maintaining contact (hugging, kissing, shaking of hands)					
Casual contacts					
Haphazard and impromptu shopping					

Table 8.Exit Phase and Passion of Emotional Connectivity

	Awareness Phase	Levels of Assessment
1.	Awareness of COVID-19	Increased levels of awareness of COVID-19 and managing risk
2.	Dealing with threats, fears and anxieties	Probability of infection/level of agreement
3.	Seeking protection (including vaccination) from COVID-19.	Improved health hygiene and devoutness (taking precautions, adherence safety provisions)
4.	Taking precautionary measures to prevent infection and seeking treatment	Adherence to intervention measures/ satisfaction
5.	Commitment to management/eradication of COVID-19 (epidemiology of the disease)	Quality of adherence to health standards as a top priority

Table 9:Improved Mental health and Psychological Resilience during COVID-19

Group	Happening	Effect	Intervention
Children	Disruption in school life Being at home House/home confinement Limited play Uncertain future	-Children are likely to experience worry, fear and anxiety -Children at increased risk of abuse (physical and psychological), and increased exposure to witness violence -Desire to be close to the parent -Seeking an answer to the crisis	-Give child love and attention by spending time with them -Assist children to find ways to express themselves such as through creative activities -Provide a structure that makes it possible to re-establish a routine -Encourage the child to share their concerns and feelings (these include fears and anxieties). -Assure the child/ren that all will be well -Find favourable activities that the child and family can enjoy such as reading a book, movie or favourite cartoon
Young people	Disruption in young adulthood School / College/ Higher education interrupted	-Seeking a logical explanation -Impatience, irritability and anger	-Social support (keeping in touch) -Encourage creativity and innovativeness (reading, writing, painting) -Restructuring daily life -Exercise and hobbies
Adults	Disruption of family Limitations in daily activities Domestic crisis Economic /financial hardship Disruption of work	-Fear and anxiety -Frustration and disappointment -Social distancing	-Adequate awareness -Psychological support services to deal with distress -Prayer and meditation -Exercise and taking a walk -Social connection -Resumption of activities of daily living
The sick, older people and other vulnerable and marginalized people	Disruption of daily schedules Disrupted health facilities Social isolation Self medication	-Extremely frightened and pre-occupation with fear -Thoughts of death -Loneliness -Frustration	-Medical attention -Healthy nutrition -Appropriate hygiene -Keeping to routines or creating new ones including activities which give a sense of achievement -Maintaining social connections

This is why we propose a collective action approach that is typically highly self-restrained and well-controlled conduct (*Tables 1, 2, 4, 5* and *6*). The proposed individual activities in *Appendices 1, II* and *III* consider these behavioural actions.

Lifestyle, Emotional Inner World, and Thought Patterns:
One of the difficulties in accepting and adopting appropriate conduct such as in COVID-19 is that certain acts as illustrated in *Table 5* above are mistaken as ordinary (regular or conventional), and hence the cause of death involves an element of chance. Admittedly, there are the fatalities as a result of the disease and death in itself has elements of chance. Even then, the potential for accidental deaths, when conjoined with the fears and anxieties regarding COVID-19 is mixed up with understanding and intentionality. However, we must not misread the signs, for both the most vulnerable populations as well at the least at risk of infection populations to create social harmony rather than social immunity. This is possible through a personalized social psychological framework of reference, as illustrated in *Figure 6* below: This framework enables us to comprehend the individual transformations vis-a-vis social-psychological meanings of interventions against COVID-19. Subsequently, we can identify and reassess our actions, as illustrated in *Table 6* below:

An apparently simple action such as failure to wash hands or sanitize can eventually turn into a lethal act completed over time as a person, or other is infected with the virus. An in-depth investigation shows that both the seemingly significant attempts at disease prevention such as going shopping only for essential goods and threatening insignificant acts such as going out to do the shopping for lack of anything to do has the same destructive processes. In that case, an excellent way to evaluate risk is to manage it, as demonstrated in *Table 2* above.

The step-by-step process can be accelerated when the responses of the immediate surroundings are aligned to our expectations. Behaviour, including our emotions and motivations, are defined in a variety of ways, including appropriate or desired actions. In phenomenological terms, a community or society may perceive conduct in positive (conforming, acceptable) and negative (non-conforming, unacceptable) ways. In that case, certain actions may not, and do not correspond to the cultural conceptions, orientations, categories and expectations. Still, these cultural orientations exist in the constituted realm and established social understanding and are part of our human experience and an essential component of our interpretation of our world (Smith, Flower, & Larkin, 2009; Spinelli, 2005; Tuffour, 2017; Van Manen, 2014). Thus, though the actions outlined in *Table 3* may have no social bearings in ordinary everyday living, they are negatively construed as inappropriate in the present circumstances amidst COVID-19. This is the social-psychological approach within the phenomenological framework of this presentation. This is further illustrated using a risk management assessment of the threat categories (*Table 4 and 6*) and the compensatory behaviours (*Table*3) that enable us to evaluate our actions with their intensity in risk. This is illustrated in *Table 7*. Note that while earlier attempts (*Tables 1, 2, 4* and *5*) minimize the anxiety around COVID-19 to a certain extent and set the stage for reduced infections, the actions in *Table 3* and *7* are dangerous acts. Again, these are aligned to the suggested activities in Appendices 1, II and II. However, there is an apparent difference between the two tones.

Indeed, the actions represent, in many ways, a failed attempt to grasp the severity of COVID-19. Are there people who are indifferent to the COVID-19 threat? Are these attention-seeking behaviours? To some extent, yes, and in several ways are geared towards providing gratification aimed at certain necessary zeal. Yet, it is vital to take into consideration that there are the asymmetrical persons who do not display any symptoms of the virus. Indeed, a failed attempt can, and often leads to a degeneration of the situation. Nonetheless, such behaviours need to be discouraged and terminated so that appropriate, more welcoming conduct is intertwined with the persons and their ways of life.

Exiting and Lifting the Lid: Adoption of Strategic Conceptual Approaches: This paper has demonstrated the steady step-by-step approach to the COVID-19 crisis. It aims at education and awareness, as well as an enhanced understanding of the emotions of the public. The precautionary measures against COVID-19 will not suddenly cease even after various countries recede on various regulations and reopen to restart the economy after the pandemic break. This is chiefly because even if the restrictions are loosened, people will advertently be concerned about their health and safety. There will be social, economic and physiological effects due to COVID-19 (Arpacia, Karataşb, & Baloğluc,2019; Duan, & Zhu, 2020).Amidst the certainty, most of the safety precautions that involve healthy living will be continued and escalated even after COVID-19, especially in low-and middle-income countries as government and health officials, take a moment to work towards improved health. Countries will evolve different approaches due to the profound implication of COVID-19. This can be realised through a review of *Table 4*, revised as *Table 8* below:

The social psychological and emotional turmoil may not immediately cease. Hence, by merging the stages that allow for assessment and management, it will be possible to deal with the present circumstances and later exit the lockdown and passionately open the emotional connectivity with COVID-19 but with slight modifications in health regulations. A dominant idea of the current system is improved mental health and psychological resilience during COVID-19 (World Health Organization (2020f). We need to be extra careful so that we do not spiral into a complete psychological crisis. This requires scaling down of certain activities intending to get our ordinary life back to marginal levels as envisioned in *Table 9*. The new orientation is a new mind-set, a way of living differently, and of course, several changes or transformations in our lives. Overall, we must be savvy about the need to learn from the experiences of others (Neubauer, Witkop, & Varpio, 2019).

The emotional responses that are labelled anxiety tend to reflect mechanisms that already join cognitions with emotions (Mordka, 2016; Oatley & Johnson-Laird, 1987). Subsequently, various experiments in cognitive psychology have tended to demonstrate that adverse events increase attention and that emotional reactions are crucial to the stimulation of attention (Derryberry 1991; Marcus & Mackuen, 1993; Pratto & Oliver, 1991). Thus, people, for instance, are likely to abandon complacency amidst COVID-19 and in turn start to pay more attention from the signals that pinpoint that something is entirely wrong, and other aspects such as our health and family are threatened. The statistics on COVID-19 are a tell-tale sign of a pandemic. This takes us to the second class of emotional arousals that monitors the current behaviour and hence our use

of a variety of *Tables1* to *9*). Using the phenomenological approach, we argue that there is a need for various systems that generate moods of enthusiasm or elation so that our tasks and social activity are directed to COVID-19 and other health and personal concerns. The behavioural approaches derived from the discussion (Appendices 1, II and III) can assist provide feedback on COVID-19. These activities are essential for COVID-19 and can enhance the proper performance of the behaviour. Not all stressful events lead to nervousness. In the same way, COVID-19 may not always be fatal. However, cognitive rigidity may confound the COVID-19 crisis. Additionally, an inflexible cognitive approach makes it difficult for the individual (and public) to resolve COVID-19 epidemic amicably. Thus, we certainly need to adopt practical solutions. It is also reasonable to assume that individuals (and the public) will be rational, just as certain strategies will be ineffective for a variety of reasons. There is also the compulsive interest to safeguard public and individual rights and freedom.

Conclusion

COVID-19 currently has no treatment despite the severity and anonymity of the disease. Incorporating a phenomenological research methodological approach into COVID-19 is highly experiential in that it creates unique opportunities to learn various strategies of managing the pandemic. Additionally, it broadens our understanding of this complex phenomenon involving how to cope with the crisis and after the lockdown. However, as Mordka (2016: 34) states, emotions cannot be identified without proper behaviour (hence the identification of various behaviours explicated illustrated in various Tables 1 to 9). At the same time, Mordka adds that appropriate, suitable or desirable behaviour is not merely a feature of the phenomenon of emotions, but also of other mental activities and hence our exploration of COVID-19 almost always using the emotions but explained using several diagrams. The emotionality has two essential aspects that are behaviour and communication that are pertinent to phenomenology. But, as demonstrated in this paper, the success of various efforts aimed at curbing COVID-19 is highly dependent upon both improved awareness of the potential dangers of the disease as well as tactful approaches. Therefore, checklists provided in Appendices I, II and III are methodological approaches that should be realigned to a particular phenomenonby adopting an interpretative phenomenological analysis (Mair, 2020; Smith, Flower, & Larkin, 2009; Spinelli, 2005; Tabari et al., 2020; Tuffour, 2017; White et al., 2020).

In the end, the philosophical orientation and intervention strategies adopted for COVID-19 must be methodologically designed in phenomenological terms. We have argued elsewhere (Wango, Wairire & Kimamo, 2020) that the low and middle-income countries have their own more unique health constructs that will inadvertently influence the processes of managing COVID-19, and of course, as with other countries, aligned with their philosophical tenets (Mair, 2020; Tabari et al., 2020). This is in line with Mordka (2016), who says that emotions capture our world and hence are part of our perception. Perhaps this is why various countries have, and will continue to approach the pandemic albeit differently rather than using explicit guidelines. Nevertheless, the emotional underpinnings though out rightly phenomenological can enable us to take into considerations various tactics so that we are self-conscious and transparent in our conceptualisation of COVID-19.

Declaration of Conflicting Interests

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

REFERENCES

American Psychiatric Association 2013. *Diagnostic and Statistical Manual of Mental Disorder, DSM-5*. American Psychiatric Association.

Arpacia, I., Karataşb, K., & Baloğluc, M. 2019. The development and initial tests for the psychometric properties of theCOVID-19 Phobia Scale C19P-S.*Personality and Individual Differences,* 164, 1 - 6.

Barua, A. 2015. Husserl, Heidegger, and the transcendental dimension of phenomenology. *Indo-Pacific Journal of Phenomenology,* 7, 1: 1 - 10.

Barlow, D. H. 2002. *Anxiety and its disorders: the nature and treatment of anxiety and panic*. New York: Guilford Press.

Barlow, D. H., Allen, L. B., & Choate, M. L. 2004. Toward a Unified treatment of emotional disorders. *Behaviour Therapy,* 35, 205 – 2.30

Cabanac, M. 2002. What Is Emotion? *Behavioural Processes*, 60, 2: 69 – 84.

Cannon, W. B. 1927. The James-Lange theory of emotions: a critical examination and an alternation. *American Journal of Psychology*, 39: 106 - 124.

Cauchemez, S., Valleron, A. J., Boe¨lle, P. Y., et al. 2008. Estimating the impact of school closure on influenza transmission from Sentinel data. *Nature*, 452: 750 - 754.

Cisler, J. M., Olatunji, B. O., Feldner, M. T., & Forsyth, J. P. 2016. Emotion Regulation and the Anxiety Disorders: An Integrative Review. *Journal of Psychopathological Behavioral Assessment*, 32, 1: 68 - 82.

Derryberry, D. 1991. The Immediate Effects of Positive and Negative Feedback Signals. *Journal of Personality and Social Psychology*, 6, 1:267 - 278.

Doron, J., & Martinent, G. 2016. Appraisal, coping, emotion and performance during elite fencing matches: A random coefficient regression model approach. *Scandinavian Journal of Medicine and Science in Sports, 27*, 1015 - 1025.

Duan, K., & Zhu, G. 2020. Psychological Interventions for people affected by COVID-19 epidemic. *The Lancet Psychiatry*, 7, 4: 300 - 302.

Eccles, J. C. 1989. *Evolution of the Brain: Creation of the Self*. London: Routledge.

Ekman, P., & Davidson, R. J. Eds.. 1994. *The Nature of Emotion: Fundamental Questions*. New York: Oxford University Press.

Finlay, L. 2011. *Phenomenology for psychotherapists: researching the lived world*. Wiley-Blackwell, USA.

Fonberg, E. 1986. 'Amygdala, Emotions, Motivation, and Depressive States." In *Emotion: Theory, Research and Experience*. Plutchik, R., & Kellerman, H. Ed.. London: Academic.

Gift, T. L., Palekar, R. S., Sodha, S. V., et al. 2010. Household effects of school closure during pandemic H1N1 2009, Pennsylvania, USA. *Emerging Infectious Diseases, 16*, 8: 1315 - 1317.

Gray, J. A. 1981. 'The Psychophysiology of Anxiety.' In *Dimensions of Personality*. Lynn, R. Ed.. New York: Pergamon.

Gray, J. A. 1987. *The Psychology of Fear and Stress*. 2nd Ed.. Cambridge: Cambridge University Press.

Griffiths, P. E. 1997. *What Emotions Really Are*. Chicago: The University of Chicago Press.

Henriksson, C., Friesen, N., & Saevi, T. 2012. *Hermeneutic phenomenology in education: method and practice.* Sense Publishers, Netherlands.

Kafle, N. P. 2011. Hermeneutic phenomenological research method simplified. *Bodhi: An Interdisciplinary Journal*, 5: 181 - 200.

Kleinginna, P. R., & Kleinginna, A. M. 1981. A categorized list of emotion definitions, with suggestions for a consensual definition.*Motivation and Emotion*. 5: 345 - 379.

Lazarus, R. S. 1991. *Emotion and Adaptation*. Oxford, Oxford University Press.

Laverty, S. M. 2003. Hermeneutic phenomenology and phenomenology: a comparison of historical and methodological considerations. *International Journal of Qualitative Methods*, 2: 1 - 29.

Mair, S. 2020. What will the world be like after coronavirus? Four possible futures.*The Conversation*. https://theconversation.com/what-will-the-world-be-like-after-coronavirus-four-possible-futures-134085, downloaded on 27th April 2020.

Marcus, G. E., & Mackuen, M. B. 1993. Anxiety, Enthusiasm, and the Vote: The Emotional Underpinnings of Learning and Involvement During Presidential Campaigns. *American Political Science Review, 83*, 3: 672 – 685.

Mordka, C. 2016. What are Emotions? Structure and Function of Emotions. *Studia Humana,* 5: 3, 29 - 44.

Moustakas, C. E. 1994. *Phenomenological research methods*. Thousand Oaks, CA: Sage.

Mizumoto, K., Yamamoto, T., & Nishiura, H. 2013. Research Report Contact behaviour of children and parental employment behaviour during school closures against the pandemic influenza A H1N1-2009 in Japan. *Journal of International Medical Research*, 41: 3, 716 - 724.

Nassiri, R. 2020. Perspective on Primary Care Approach to COVID-19. *Journal of Healthcare Communications, 5*, 2:4, 1 – 4.

Neubauer, B. E., Witkp, C. T. & Varpio, L. 2019. How phenomenology can help us learn from the experiences of others. *Perspectives of Medical Education*, 8, 2: 90 - 97.

Oatley, K., & Duncan, E. 1994. The experience of emotions in everyday life. *Cognition and Emotion,* 8, 369 - 381.

Oatley, K., & Johnson-Laird, P. N. 1987. Towards a cognitive theory of emotions. *Cognition and Emotion*, 1, 1: 29 - 50.

Oatley, K., Keltner, D., & Jenkins, J. M. 2006. *Understanding emotions*. Wiley-Blackwell.

Öhman, A. 2000. Fear and anxiety: evolutionary, cognitive, and clinical perspectives. In: Lewis, M., & Haviland-Jones, J. M. Eds.. *Handbook of Emotions*. New York: Guilford Press, pgs. 573 - 593.

Öhman, A., & Mineka, S. 2001. Fears, phobias, and preparedness: toward an evolved module of fear and fear learning. *Psychological Review, 108*: 483 - 522.

Pratto, F., & Oliver, P. J. 1991. Automatic Vigilance: The Attention-grabbing Power of Negative Social Information. *Journal of Personality and Social Psychology*, 61:380 - 391.

Roy,D., Tripathya, S., Kara, S. K., Sharmaa, N., Vermaa, S. K.,& Kaushalb, V. 2020. Study of knowledge, attitude, anxiety & perceived mental healthcare need in Indian population during COVID-19 pandemic. *Asian Journal of Psychiatry, 51*, 1 – 7.

Schaller, M. 2011. The behavioural immune system and thepsychology of human sociality. *Philosophical Transactions Of The Royal Society,* 366, 3418 - 3426.

Smith, J. A., Flower, P., & Larkin, M. 2009.*Interpretative phenomenological analysis: theory, method and research*. Sage.

Smith, C. A., & Lazarus, R. S. 1990. *Emotion and adaptation. In* Pervin, L. A. Ed.. *Handbook of Personality: Theory and Research*. New York: Guilford p.609 - 637.

Spinelli, E. 2005. *The interpreted world: an introduction to phenomenological psychology*. Sage.

Tabari, P., Amini, M., Moghadami, M., & Moosavi, M. 2020. International Public Health Responses to COVID-19 Outbreak: A Rapid Review. *Iranian Journal of Medical Sciences*, 45, 3: 157 - 169.

Teherani, A., Martimianakis, T., Stenfors-Hayes, T., Wadhwa, A., & Varpio, L. 2015. Choosing a qualitative research approach. *Journal of Graduate Medical Education*, 7, 4: 669 - 670.

Tuffour, I. 2017. A critical overview of interpretative phenomenological analysis: A contemporary qualitative research approach. *Journal of Healthcare Communications*, 2 4: 52:1 - 5.

Vagle, M. 2018. *Crafting phenomenological research*. London and New York: Routledge Taylor and Francis Group.

Van Manen, M. 1997. *Researching lived experience: human science for an action sensitive pedagogy.* London and New York: Routledge Taylor and Francis Group.

Van Manen, M. 2014. *Phenomenology of practice: Meaning-giving methods in phenomenological research and writing*. Walnut Creek, CA: Left Coast Press.

Wagstaff, K. 2014. Emotion regulation and sport performance. *Journal of Sport and Exercise Psychology, 36*, 401 - 412.

Wango, G. M., Wairire, G., & Kimamo, C. 2020. Patterns of Development of COVID-19 in Low- and Middle- Income Countries: Suggested Psychological Intervention Strategies. *IOSR Journal of Humanities and Social Science, 25*, 6: 52 - 65.

Wertz, F. J. 2015. Phenomenology: Methods, historical developments, and applications in psychology. In Sugarman, M. J., & Slaney, K. L. Eds., *The Wiley handbook of theoretical and philosophical psychology: Methods, approaches, and new directions for social sciences.* London: Wiley-Blackwell, pp. 85 - 101.

White, P. J., Marston, H. R., Shore, L., & Turner, R. 2020. Learning from COVID-19: Design, Age-friendly Technology, Hacking and Mental Models. *Emerald Open Research. 2.* 21: 1 - 11.

World Health Organization 2020a. *Coronavirus Disease 2019 COVID-19 Situation Report – 76, Dated 5th April 2020.* World Health Organization. https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200405-sitrep-76-

covid-19.pdf?sfvrsn=6ecf0977_2, downloaded on 8th April 2020.

World Health Organization 2020b. *Coronavirus Disease 2019 COVID-19 Situation Report – 77, Dated 6th April 2020.* World Health Organization. https://www. who.int/docs/default-source/coronaviruse/situation-reports/20200406-sitrep-77-covid-19.pdf?sfvrsn=21d1e632_2, downloaded on 8th April 2020.

World Health Organization 2020c. *Coronavirus Disease 2019 COVID-19 Situation Report – 79, Dated 8th April 2020.* World Health Organization. https://www.who.int/ docs/default-source/coronaviruse/ situation-reports/20200408-sitrep-79-covid-19.pdf?sfvrsn=4796b143_4, downloaded on 11th April 2020.

World Health Organization 2020d. *Coronavirus Disease 2019 COVID-19 Situation Report – 80, Dated 9th April 2020.* World Health Organization. https://www. who.int/docs/default-source/coronaviruse/situation-reports/20200409-sitrep-80-covid-19.pdf?sfvrsn=1b685d64_2, downloaded on 12th April 2020.

World Health Organization 2020e. *Coronavirus Disease 2019 COVID-19 Situation Report – 97, Dated 26th April 2020. https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200426-sitrep-97-covid-19.pdf?sfvrsn=d1c3e800_6,* downloaded on 30th April 2020.

World Health Organization 2020f. Mental health and psychosocial considerations during the COVID-19 outbreak, https://www.who.int/docs/default-source/coronaviruse/mental-health-considerations.pdf, downloaded on 12th May 2020.

Wu, J. T., Cowling, B. J., Lau, E. H., et al. 2010. School closure and mitigation of pandemic H1N1 2009, Hong Kong. *Emerging Infectious Diseases,* 16, 3: 538 - 541.

www.worldometers.info › coronavirus › 2020*. COVID-19 Corona Cases.* Last Updated August 4th September2020, 6.51 GMT, https://www.worldometers.info/coronavirus/, downloaded on 4[th]September 2020.

****