Psychological Impact of COVID-19 Pandemic During 2020

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Before the end of 2019, no one would have ever imagined the rapid change that the Sars-Cov-2 pandemic was going to bring in people’s lives, all across the globe. Now, we can clearly distinguish the effects it has caused, in multiple levels of everyday life. The present article presents essential literature review points concerning the connection of personality characteristics and psychological aspects and COVID-19 influence on people’s lives, concerning the period until the end of 2020. Specifically, it examines how people reacted to the COVID-19 pandemic and how they formed their coping strategies depending on (a) personality characteristics based on “Big Five” and HEXACO, (b) Emotional Intelligence, (c) locus of control. It also makes a basic reference to COVID-19 influence on mental health problems. We investigated the effects of the pandemic on people’s lives from a psychological sight, using methods of classifying personality traits such as the Big Five and Hexaco. In addition, the four types of Emotional Intelligence were correlated with COVID-19 pandemic coping strategies. Similar connection was made in Health Locus of Control as it presents the causal behavior depending on personal beliefs. Regarding the psychological dimensions of COVID-19, it is clear that Emotional Intelligence has a positive effect on inclusion coping strategies. At the same time, demographic factors also contribute in the way the individual manages the pandemic. Man’s approach to health is directly influenced by the global or local view of it, and by observing behaviours, the attitude of citizens is evident according to what causes they attribute. In conclusion it is a fact that the pandemic has led to an increase in mental disorders worldwide.

Keywords: COVID-19 pandemic, mental health, personality factors, Emotional Intelligence Health Locus of Control

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Introduction

The COVID-19 pandemic is deemed to be the greatest global health disaster the past 100 years and the most significant enemy that man had to cope with since the 2nd World War (Chakraborty & Maity, 2020). Regardless of their better life quality, the spread of COVID-19 seems to be faster in USA, Italy, Spain, France, Germany, and UK compared to India, Pakistan, Bangladesh, Indonesia, and Malaysia where the weather is warm and humid and the spread rate is serade (Iqbal et al., 2020). A study gave out that high temperature and humidity can stop the COVID-19 transmission whereas the opposite (low humidity, low temperature) can elongate the survival time of COVID-19 on infected sides, so it’s easy to see that environmental parameters can affect the spread rate of the virus (Iqbal et al., 2020). The probability of a pandemic is usually underestimated by people until they experience it (Sands, Mundaca-Shah, & Dzau, 2016) by having to wear a mask (Xiao & Torok, 2020).

At this stage of the ongoing pandemic, we, therefore, thought it is vital to understand the effect of COVID-19 on psychological outcomes as a sociodemographic variable. We chose the Big Five personality traits to determine the psychological coping strategies during the pandemic (Nikcevic & Spada, 2020). Personality traits have an impact on the variety of cognitive, emotional, and behavioral responses (Costa, Terracciano, & McCrae, 2001; McCrae & Costa, 1997; McCrae & Terracciano, 2005), and hence can impact the way people respond to stress coming from health-related issues. Since coping is an attempt to control stress driven by emotions, people who manifest Emotional Intelligence can alter the way of getting through stress according to their emotional abilities (Prentice, Zeidan, & Wang, 2020). Demographic elements have been proposed by some researchers as potential risks for more adaptive cognitive responses during a pandemic (Park et al., 2020). Age, gender, race, socioeconomic status, and being a parent include these risk factors (Atchison et al., 2020; Lund, 2020; Park et al., 2020). Demographic variables had less direct impacts than personality characteristics (Volk et al., 2020). However, in view of the unparalleled variety of stressors and challenges of COVID-19, examining the correlations of adaptive and maladaptive coping responses could inform public health initiatives and risk management strategies of individuals if future circumstances require continued play an important role in connecting most adaptive or maladaptive COVID-19 coping responses (Volk et al., 2020).

Methodology

This research was carried out by identifying the available published literature reviews and case studies about the effects of Covid-19 in the first wave of the pandemic in mental health. The database of Science Direct and Google Scholar were used in order to collect literature reviews about the topic using as keywords: “COVID-19”, “mental health”, “psychology”. We also did second research with keywords “Health Locus of Control”, “Big Five” after the research in the first articles. All literature reviews that are chosen are published from March 2020 to December 2020.

Findings

Personality Traits and Covid-19

Big Five factors and COVID-19. The five-factor personality model, often referred to as the Big Five (Goldberg, 1990), namely, Extraversion, Agreeableness, Conscientiousness, Openness to Experience, and Neuroticism, may be utilized to convey the most influential personality traits, has been validated and applied for decades throughout various societies and environments (McCrae & John, 1992). When it comes to
Extraversion (E), research indicates that people higher on E are more likely than people lower on E, to use problem-focused coping (Hooker, Frazier, & Monahan, 1994; McCrae & Costa, 1986). Agreeableness (A): instead of following other types of emotion-focused coping methods such as self-blame and wishful thinking, individuals high on this tendency typically cope by seeking support from others (Hooker et al., 1994). Conscientiousness (C): Individuals high on C have been found inclined to be cautious, responsible, and consistent, coordinated, efficient, hard-working, and achievement-oriented (McCrae & John, 1992; McCrae & Costa, 1987). Openness to Experience (O): People high on O are considered to be curious, original, intelligent, creative, artful, inventive, creative, and versatile (Prentice et al., 2020). Neuroticism (N): Several researchers have claimed that people high on N are less likely to invest in problem-focused coping and are more likely to participate in emotion-focused behavior, such as avoidance and blaming themselves (Hooker et al., 1994; Terry, 1994). Research results suggest that extroversion impacts a person’s interaction with requested COVID-19 quarantine procedures (Carvalho, Pianowski, & Gonçalvez, 2020). Conscience and neuroticism have also been found to be strongly correlated with the implementation of social distancing in order to prevent contamination with COVID-19 (Abdelrahman, 2020). This indicates that people who are more likely to conform with social distancing and others that experience nervous and frightened feelings appear to be more likely to prefer to pursue social distancing (Abdelrahman, 2020). Inconsistency in the actions of people who are vulnerable to neuroticism in the handling of pandemic disease can be related to their level of neuroticism. Neuroticism and coronaphobia are reliable fear factors that relate to the psychopathology of adults during the COVID-19 crisis (Lee & Crunk, 2020).

**Big Five, COVID-19, mental health issues and the consequences.** We also know that those suffering from pandemic-related psychological distress tend to show raised levels of post-traumatic stress, general stress, anxiety, health anxiety, and suicidality (Chong et al., 2004; Wheaton, Abramowitz, Fabricant, & Bernam, 2011; Wu, Suhasini, & Brosh, 2009; Yip, Cheung, Chau, & Law, 2010) which may last well beyond the course of the pandemic (Nikcević, Marino, Kolubinski, Leach, & Spada, 2020). In a very recent study undertaken at the peak of the pandemic (April 2020) Lee and Crunk (2020) showed that neuroticism predicted both generalized anxiety and depressive symptoms controlling for a wide array of sociodemographic variables (e.g., age, gender, etc.), COVID-19 factors (e.g., infected status), and vulnerability factors for experiencing psychological distress during a pandemic (health anxiety and reassurance-seeking behaviors) (Nikcević et al., 2020). The Big Five personality traits have also been found to predict work and social adjustment difficulties during the pandemic with neuroticism emerging as a vulnerability factor and agreeableness as a protective factor (Nikcević & Spada, 2020). The data also show that being employed in this period is associated with higher levels of COVID-19 psychological distress, both in terms of the reported COVID-19 anxiety as well as the COVID-19 anxiety syndrome (Nikcević et al., 2020). This would mean assisting people in reducing the time spent checking for COVID-19 information and threats as well as monitoring for signs of infections and worrying about the possibility of becoming infected (Nikcević et al., 2020). Our findings also highlight that being younger (that is, in one’s thirties in our sample) is associated with higher levels of COVID-19 anxiety and generalized anxiety and depression symptoms (Nikcević et al., 2020).

**Hexacofactors and COVID-19.** Honesty-Humility (H) and Agreeableness (A), measures of selflessness and forgiveness respectively, should be related to a willingness to cooperate with regulations that benefit others (Volk et al., 2020) though to date; neither H nor A have been associated with COVID-19 responses.
Garbe, Rau, & Toppe, 2020). It could well be that O relates to a willingness to adopt new government rules or science-based evidence, but it could also relate to a tolerance for unrealistic conspiracy theories (Volk et al., 2020). There have been no published links between COVID-19 responses and Openness to Experience (O), which is associated with an increased tolerance for, and appreciation of, new ideas (Lee & Ashton, 2008). In particular, similar to general coping responses (Campbell-Sills, Cohan, & Stein, 2006), three general domains of personality appear to have relevant effects on COVID-19 coping: extraversion, conscientiousness, and emotional stability (Volk et al., 2020). As a measure of one’s willingness to engage in social relationships, extraversion is perhaps not surprisingly associated with a decreased willingness to engage in social distancing with other individuals (Carvalho et al., 2020). Conscientiousness, a measure of self-control and planning, is positively related to social distancing and to indicators of cautious rule-following like handwashing and stockpiling goods (Carvalho et al., 2020; Garbe et al., 2020). Finally, lower emotional stability (e.g., neuroticism, negative affectivity, or emotionality) is associated with increased feelings of stress and worry and to increase stockpiling of goods (Garbe et al., 2020; Somma et al., 2020). Moreover, higher E, lower X, and lower C would be associated with less adaptive COVID-19 coping responses, such as more avoidance and negative appraisals, alongside less problem-solving and seeking socioemotional support. Seeking socioemotional support was associated with higher E and X (Volk et al., 2020).

**Personality traits by gender.** Women have reported more emotional distress and negative thoughts in response to COVID-19 than men (Liu et al., 2020; Park et al., 2020; Wang et al., 2020), particularly a tendency to worry more about their family and their health than financial concerns (McLaren, Wong, Nguyen, & Mahamadachchi, 2020). Recent polls (Kaiser Family Foundation, 2020; Pew Research Center, 2020) show that women are reporting higher levels of distress during the coronavirus crisis compared to men; these polls appear to be surveying participants on their feelings of stress and worry rather than on symptoms of depression (Lee & Crunk, 2020). On the other hand, men were experiencing higher levels of depressive symptoms related to the general economic stress associated with the coronavirus crisis (Lee & Crunk, 2020). Another noteworthy finding was that men were more than twice as likely as women to experience depression when considering other sociodemographics, COVID-19 factors, and other fear variables (Lee & Crunk, 2020).

**Personality traits by racial factors.** In particular, personality can act as a mediator between demographic factors and individual coping and health-related behavior (Cheng & Furnham, 2003; Nabi et al., 2008). The study revealed that participants from Spain and Italy were most likely to stay home, while those from Sweden and Singapore were least likely. It also revealed that Italian participants had the highest rates of washing hands while Chinese had the lowest (Jones, Imperial College London Big Data Analytical Unit, & YouGov Plc, 2020). Also, Whites were more than three times more likely to suffer from depression than their non-White counterparts. This finding is inconsistent with Lee and Crunk’s (2020) recent study, which showed that Black and Hispanic participants had higher coronaphobia scores than Whites (Lee & Crunk, 2020).

**Personality traits by family status.** Parents tend to worry not only about their own health, but the health of their children and their families in general (Park et al., 2020; Wang et al., 2020). Results also showed that individuals with more children tended to make greater use of avoidance strategies, a sobering finding, given the importance of parents’ well-being in promoting the well-being of their families in general (Park et al., 2020; Wang et al., 2020). Only two demographic factors had significant direct links with COVID-19 responses (Volk et al., 2020) First, SES was positively associated with socioemotional support seeking (Volk et al., 2020).
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**Personality traits and hygiene practice.** People who declared that they maintain good personal hygiene practices were shown to be more likely to adopt social distancing (Abdelrahman, 2020). For example, Qatar is considered to be a multinational society (Mahgoub & Qawasmeh 2012) so that members of each group may perceive other groups as outgroups; therefore, individuals who adhere to good personal hygiene practices might perceive others as “less clean” or more contaminated, which, in turn, increases the probability of being infected (Speltini & Passini, 2014); thus, they embrace more protective behavior, such as social distancing (Abdelrahman, 2020).

**Emotional Intelligence (EI) and COVID-19.** EI denotes the “ability to monitor one’s own and other’s feelings and emotions, to discriminate among them, and to use this information to guide one’s thinking and actions” (Salovey & Mayer, 1990, p.189). Researchers revealed that people with higher EI utilize approach-oriented coping strategies, and individuals low on EI employ avoidance-oriented coping strategies (Perković Kovačević, Požgain, Filaković, & Grujičić, 2018). EI was measured by four dimensions, namely, Self-Emotion Appraisal (SEA), Other-Emotion Appraisal (OEA), Utilization of Emotions (UOE), and Regulation of Emotions (ROE) based on the ability model (Prentice et al., 2020). Family and relatives can be a good source of dealing with such restrictions as reflected in emotion-oriented coping (Prentice et al., 2020). UOE is also important as this dimension indicates that individuals with a high level of UOE are more goal-oriented and confident in what they opt to do (Prentice et al., 2020). Individuals with a high level of OEA manifest in understanding the emotions of others who may express distress and other negative emotions towards these preventive measures. Emotions are contagious (Prentice et al., 2020). Whilst education does not make a difference in the task and emotion-oriented coping, less educated people tend to take avoidance approach, and engage in drinking and other hedonistic behaviours to cope with the lockdown and other preventive measures, as shown in this study (Prentice et al., 2020). Some may perceive these measures as indications of uncertainty towards length and scale of such restrictions, as interruptions to their daily routines, which may result in emotion-oriented coping. Others may view these measures as an opportunity for them to spend more time with family and on themselves, and hence opt for more task-oriented coping (Prentice et al., 2020).

**Health Locus of Control.** The COVID-19 pandemic is currently having unprecedented effects on the physical health of individuals worldwide, with millions of confirmed cases and hundreds of thousands of deaths (Sigurvinssdottr, Thorisdottir, & Gylfason, 2020).

The mental health impact of COVID-19 may depend on the locus of control, which is to what extent people believe that they control their own lives (internal locus) or whether other forces are in control (external locus, such as the influence of powerful others or by chance). Individuals with a strong internal locus of control may be more likely to take precautionary measures and believe that their actions matter. However, those who feel less in control could internalize more the threat of the pandemic, which may lead to negative feelings (Wallston, 1976).

People differ in their motives for and the expected consequences of engaging in or reducing a particular type of health behaviour. For instance, some may engage in a health-enhancing behaviour to achieve a health goal (e.g., improving cardiovascular fitness), whereas others do so for reasons unrelated to health (e.g.,
enjoyment of jogging). It is assumed that increasing an individual’s experience in a given situation will lead to the development of specific expectancies. These expectancies subsequently play a greater role in determining one’s future behavior in that situation than more generalized expectancies (Cheng, Cheung, & Lo, 2016).

Positive psychology theories (Carr, 2011) posit that positive health beliefs play a central beneficial role in global health appraisal, which refers to the subjective evaluation of one’s current mental and physical health status (e.g., physical well-being, emotional problems; Schweizer & Döbrich, 2003). Individualism is particularly relevant to control beliefs, as cultural theories state that countries higher in individualism (e.g., Canada) promote self-reliance and environmental mastery, whereas those lower in individualism (e.g., Japan) value interdependence and harmony with the environment (e.g., Triandis, 1995). These cultural differences have been extended to health-related control beliefs. Specifically, individuals from more (vs. less) individualist countries are more likely to perceive their health as being under their own behavioural control (Wrightson & Wardle, 1997), and theories of personal control suggest that such health control beliefs may incite these individuals to take more proactive actions to maintain healthy (Rotter, 1990). Hence, we predict stronger positive links between I-HLOC and specific health behaviour in countries higher (vs. lower) in individualism. In countries with a higher degree of power distance (e.g., Malaysia), citizens are generally more accepting of a social hierarchy in which some possess more social power than others, but such a hierarchical social structure is largely absent in countries with a lower degree (Hofstede, 2001).

The relationship between locus of control beliefs and health-care-related behaviors appears to be, at best, highly complex (Cheng et al., 2016).

The findings of a study (Sigurvinssdottir, Thorisdottir, & Gylfason, 2020), indicated that, during a global pandemic, locus of control remains a vital psychological attribute, where there was a more external locus related to greater symptoms and an internal locus to decreased symptoms, consistent with other work on the topic. Furthermore, COVID-19 risk was only related to more mental health symptoms when the external locus was medium or high, but not low. The relationship between COVID-19 exposure and mental health is only present among those who are high or medium in the external locus of control (Sigurvinssdottir, Thorisdottir, & Gylfason, 2020).

Mental disorders and COVID-19. Preliminary data suggest the COVID-19 pandemic has adverse effects on mental health in approximately a quarter of the general population (Pakenham et al., 2020). The symptoms of some patients with psychiatric disorders could be increased by the harsh lockdown, fear of infection, and its consequences. Anecdotally, as a result of the pandemic, individuals with preexisting mental health conditions may be at risk for worse results (Cabrera, Karamsetty, & Simpson, 2020).

In times of pandemic, as in disasters, there is an increased risk of Post-Traumatic Stress Disorder (PTSD), depression, and anxiety (Douglas, Douglas, Harrigan, & Douglas, 2009). Quarantine has negative and potentially prolonged effects on the psychological health of individuals, including post-traumatic stress symptoms, confusion, and anger (Brooks et al., 2020). A survey of stabilized patients with COVID-19 before discharge from quarantine facilities found that 96 percent of survivors endorsed symptoms of posttraumatic stress (Bo et al., 2020).

Depression and generalized anxiety, which are among the most common forms of psychopathology globally (World Health Organization, 2017), seem to be on the rise during this infectious disease outbreak (American Psychiatric Association, 2020; Mazza et al., 2020; Sonderskov et al., 2020; Wang et al., 2020; Xie et al., 2020; Lee & Crunk, 2020). Most surveys of the general public show increased symptoms of depression,
anxiety, and stress related to COVID-19, as a result of psychosocial stressors such as life disruption, fear of illness, or fear of negative economic effects (Moreno et al., 2020).

The stress and anxiety caused by the coronavirus (COVID-19) pandemic presents a serious threat to psychological well-being in populations worldwide and may also extend to body image outcomes (Horne, Swami, & Furnham, 2020).

Adolescents with Attention Deficit Hyperactivity Disorder (ADHD) may have more difficulty adjusting to lockdown (Cortese et al., 2020).

Individuals high in hypochondriasis likely experience mental anguish during infectious disease outbreaks because they misinterpret their symptoms of somatic distress as signs of infection (Taylor, 2019).

With the unpredictable situation and a lot of unknowns about the novel coronavirus, misinformation and fake news are being easily spread via social media platforms (Erku et al., 2020), creating unnecessary fears and anxiety.

This population (elder people) not only are expected to suffer from a higher physical risk due to coronavirus, but they are also more prone to the negative psychological effects of social isolation (Solomon, 2020; Vahia et al., 2020).

**Discussion**

In broad ways, COVID-19 coping strategies appear to be similar to general coping strategies involving problem-solving, emotional/social support seeking, positive appraisals, and avoidance (Chew et al., 2020; Roesch & Weiner, 2001; Zeidner & Saklofske, 1996). Emotional intelligence has a significant impact on positive coping strategies and is proved to be trainable; thus training can be provided to residents who have difficulty in coping with these restrictions and interventions to prevent further damage to themselves or the local communities. On the other hand, age, gender, and education play important roles in their coping (Prentice et al., 2020).

Unfortunately, although it was expected, the consequences of the COVID-19 crisis appear to be worsening people’s mental health worldwide (American Psychiatric Association, 2020; Mazza et al., 2020; Sonderskov et al., 2020; Wang et al., 2020; Xie et al., 2020). Generally, there is a higher prevalence of symptoms of adverse psychiatric outcomes among the public when compared to the prevalence before the pandemic (Huang, 2019; Lim et al., 2018).

Health control beliefs have moderately strong links with global health appraisal, but it is worth noting that the magnitude of the links between such beliefs and specific health behavior is modest (Cheng et al., 2016). It is obvious how important it is to work on empowering the knowledge and the health belief system of people as well as train and familiarize people with specific health behaviors in order to get them ready for facing difficult and unpredictable situations.

Last, but not least for one more time personality measurement provides us with very important knowledge. The findings we have concerning the personality characteristics can be made good use of, in order to predict the reactions of people with specific characteristics in stress conditions as well as protect, support, and motivate (handling individualized and collective motives and values) people.

**Conclusion/Further Implications and Limitations**

The challenge of the present health situation makes it extremely important for research in general as well as psychological research to investigate the influences on peoples' lives and behaviours. This bibliographic
review imprints and highlights peoples’ reactions to COVID-19 depending on their personality characteristics and basic psychological aspects as mentioned above. Further quantitative and qualitative research is necessary to provide updated data, since this review end at the end of 2020, in order to have an integrated picture from the beginning till the end of the pandemic. This will also give the scientific community precious elements about how people react in health crises as well as what the necessary preconditions are to build satisfactory coping strategies for people and for societies.

References


