Cross-Cultural Differences in the Impact of the COVID-19 Pandemic on Psychological Health

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Abstract: The primary purpose of this literature review is to demonstrate the variations in the mental health of people during the COVID-19 pandemic that have birthed from cross-cultural barriers. COVID-19, caused by severe acute respiratory syndrome (SARS-CoV-2) virus strain, is a contagious and detrimental disease with a host of symptoms, causing fatalities throughout the world. To help curb the spread of the virus, people are social distancing and wearing face masks. These behaviours, although crucial for combating this deadly virus, have implications on psychological health. Previous studies from similar global scenarios show the alarming rise in stress levels and mental health disorders. However, the differentiating influence of the prevalent cultural variables on its people remains largely unexplored. From different symptoms of depression to implementing different health-coping mechanisms, ideological and institutional divides in cultural contexts significantly portray how a person responds to a health crisis. Following a literature review, a study has been proposed to investigate the effect of social restrictions across North American and South Asian samples on psychological health and well-being. Finally, anticipated results and analyses of data collected are presented. Taken together, this paper challenges cultural competency norms and underlines the need for culturally sensitive diagnosis and treatments, especially during a period where the surging rates of mental health disorders necessitates this change.

Keywords: anxiety, cross-culture, coping, COVID-19 pandemic, depression, psychological health.

1. Introduction

A novel coronavirus that emerged from Wuhan, China, near the end of 2019, coronavirus disease 2019 (COVID-19) has caused over 2 million deaths worldwide and 100 million cases reported as of January, 2021, transforming into one of the most detrimental health situations faced on a global scale. ("WHO Coronavirus Disease (COVID-19) Dashboard", 2021). The World Health Organization (WHO) had declared it a pandemic on 11 March, 2020 and several restrictions were consequently imposed ("Coronavirus disease 2019 (COVID-19): Situation Report – 51", 2020). To overcome this health crisis, medical researchers are absorbed in developing vaccines and treatment drugs. In addition, communities have to endorse certain social measures to limit the extent of the virus. This has necessitated a major change in the way humans normally live in order to curb the spread of the contagious virus.

Previous research has shown that the virus spreads more when people are indoors, close together, and/or are not wearing a face covering (Swain, 2020; Wiersinga et al., 2020). One such major restriction recommended by the WHO is using non-medical masks by the general public when people are inside or outside and unable to distance themselves from others to control transmission, whereas more vulnerable people (those with critical health conditions and/or are over 60 years of age) and healthcare workers should wear surgical masks ("Advice on the use of masks in the community during home care and in healthcare settings in the context of the novel coronavirus (COVID-19) outbreak", 2020). Although controversial, the use of face mask has the potential of linearly decreasing the effective transmission rates, preventing illness and asymptomatic transmission (Eikenberry et al., 2020). A British Broadcasting Corporation survey reported that as of April 6, 2020, at least 100 countries had announced complete or partial lockdowns ("Coronavirus: The world in lockdown in maps and charts", 2020). 'Lockdowns' that include curfews, travel restrictions and closures of public places have been promulgated to minimise human interaction, and have proved effective (Alfano and Ercolano, 2020; Lau et al., 2020). Social distancing practises have had a tremendously positive impact of curtailing the proliferation of the virus (Thu et al., 2020). Mandatory as well as discretionary quarantining measures are also in place. Altogether, quarantine, combined with the aforementioned measures, could potentially reduce COVID-19 infections and deaths as predicted through a Cochrane rapid systemic review based on simulation studies (Nussbaumer-Streit Et Al., 2020).

Previous scenarios such as the 2003 severe acute respiratory syndrome (SARS) outbreak also followed the implementation of similar quarantining practises (DiGiovanni et al., 2004). Although these measures are paramount to combating the virus, they are inconsistent with the natural routines of people. As a result, they may negatively affect psychological health and well-being, primarily causing stress-related conditions. For example, previous studies, primarily from evolutionary psychology, have demonstrated the well-recognised need of mammals for social proximity and attachment. Social touch is an evolutionary bonding mechanism with emotional implications. Affective touch, mediated by specific C tactile neurological systems, can reduce negative feelings and

moderate physical pain (von Mohr et al., 2017). Social isolation and loneliness have a strong positive correlation with mortality (Steptoe et al., 2013). Social disengagement places individuals at a greater risk of developing coronary heart diseases (Barth et al., 2010), cognitive impairment in elderly persons (Bassuk et al., 1999), and clinical depression and anxiety, especially amongst children and adolescents (Loades et al., 2020). In fact, social isolation measures are commonly employed as a form of punishment and torture in prison systems. Solitary confinement is a lawful punitive practice, and not an unusual one because it is an effective disciplinary sanction considering it has severe effects on the body from anxiety, headaches and fatigue to insomnia, dizziness and hallucinations, thus active as a negative reinforcement practice (Gallagher et al., 2014).

Social touch helps people in times of stress (von Mohr et al., 2017). Thus, touch deprivation has significant impacts on people. The pandemic induced social isolation is no exception from these effects. The Harris poll results published by the American Psychological Association (APA) showed that the pandemic is having a negative impact on adults, with an average reported stress level of 5.9 during pandemic on a scale of 1 (little or no stress) to 10 (a great deal of stress), which is substantially higher than the value of 4.9 reported for 2019 ("Stress in America™ 2020: A National Mental Health Crisis", 2020). Studies conducted in China (Wang et al., 2020) and South Korea (Park et al., 2020), two of the initial countries infected by the virus ("Coronavirus disease 2019 (COVID-19) Situation Report – 94", 2020), also demonstrated a rise in stress levels. Taken together, it is clear that social distancing impacts the psychological health and well-being of individuals.

For most people, the changes in circumstances are unprecedented and they are having to adjust to new realities—such as a pandemic where people cannot freely interact with friends and relatives or show their smiles without a mask—which poses extreme and existential stress. Though the effect of the pandemic and the consequential distancing guidelines may be similarly felt throughout the world, not everyone responds to these changes in the same way. While it may be relatively unclear how much the impact of the pandemic and consequential social distancing norms vary across cultures, we know from prior research that individual cultures and subcultures have standard as well as specific impacts on how the situation influences their populations. There are a variety of traits and aspects of these cultures that influence how individuals respond to the pandemic and their larger psychological health.

A. Past Instances

Novel as it is, the COVID-19 pandemic is comparable to certain infectious outbreaks from history, dating as far back as the 1918 influenza pandemic to the global SARS outbreak in 2003 and the Ebola outbreak in West Africa from 2014 to 2016 in more contemporary times. A plethora of research studies from instances of disasters and pandemics note alarming increases in community stress levels (Reynolds et al., 2007; Chua et al., 2004; Mills et al., 2007). Social representations during the Ebola outbreaks were depicted as key factors in

instilling fear and anger in the people. How people perceived and emotionally faced the epidemic was influenced by that. People experienced greater stress levels and blamed political authorities and the mass media (Mondragon et al., 2017).

Due to the similarities of these grave health situations, most of the past research findings apropos of impact on common people and their varied responses are transferrable to the current scenario. Public mask use is also more prevalent in many Asian countries, which have longer experience with novel coronavirus epidemics. Wearing masks was effective at limiting community spread during the 2003 SARS epidemic (Lau, Tsui, Lau, & Yang, 2004; Wu et al., 2004), and widespread mask use is a prominent feature of the relatively successful COVID-19 response in Taiwan (Wang, Ng, & Brook, 2020).

2. Predictors of Cultural Differences

To accurately evaluate the validity and empirical basis of culture impacting psychological health and well-being, the constructs need to be operationally defined first. Consolidating normative, psychological and structural definitions, culture was classically defined as explicit and implicit patterns of and for behavior, acquired and transmitted by symbols, the core of culture consists of traditional ideas and attached values; cultural systems are considered products of action as well as elements of future actions (Kroeber & Kluckhohn, 1954). This definition underscores the attributes of culture, addressing crucial facts and the influence of context on behavior. There are certain salient elements that are the distinguishing factors between cultures responsible for the disparities caused by cultural contexts. People in different cultures perceive emotions differently, are exposed to stress differently, react to these stressors differently, develop different mental illnesses, and when similar, the symptoms and/or treatment measures vary. Thus, it is imperative that cultural contexts be comprehended adequately and be given importance apropos of their value and influence over our psychological health. There are certain salient elements that are the distinguishing factors between cultures responsible for the disparities caused by cultural contexts.

A. Individualist versus Collectivist Ideologies

One way to conceptualize cultural differences is along a spectrum from individualism to collectivism. Individualism versus collectivism in simple terms is a social dynamic outlining the degree of priority given to intrapersonal and interpersonal needs, desires, traits and values. (Brewer and Chen, 2007). This cultural dimension moulds community personality and is ingrained into the most individuals. This social dynamic impacts people in many ways, such as how they respond to stress. Future research is needed to better understand how collectivism versus individualism affects the level of stress people experience in response to the pandemic and how people respond to that stress. Figure 1 depicts the cultural task analysis model that portrays the interaction between culture and psychological processes. It dynamically links cultural mandates (ideals sanctioned by the cultural group), cultural tasks (means or routines to achieve the mandates) and psychological
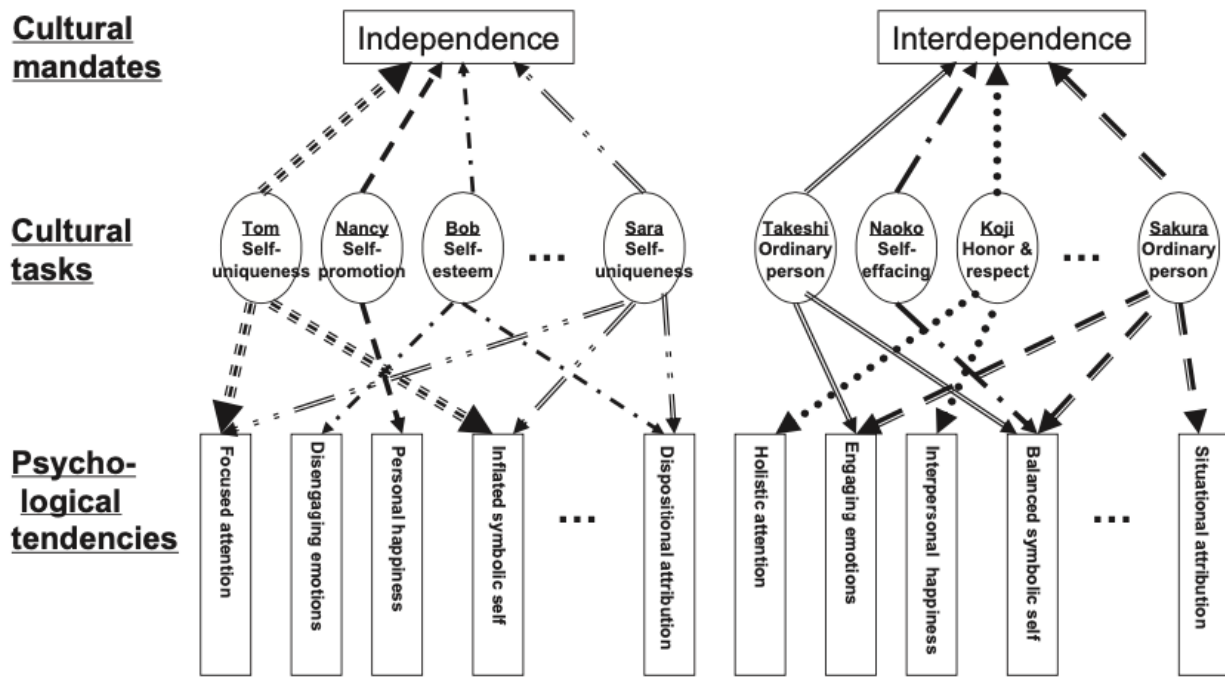
Fig. 1. Cultural task Analysis Model (Kitayama et al., 2009)

tendencies with an a priori account for cross-cultural differences without homogenizing each culture (Figure originally from Kitayama et al., 2009).

The cultural tasks are key differences in interpersonal functioning that affects how people respond to stress. For example, individualistic cultures, such as North America and Western Europe, are strongly associated with maintaining autonomy in close social relationships, whereas collectivism cultures, such as South and East Asia and Latin America, focus on mutual interdependence and prioritizing society or the in-group's needs over that of oneself (Triandis, 1995). Consequently, healthy psychological functioning is strongly associated with achieving the goals of individualism in Western cultures and of collectivism in Asian cultures (Chentsova-Dutton et al., 2007). As a result, depression is associated with diminished emotional response for European American (Allen et al., 1999), while being associated with enhanced emotional responses for Asian Americans (Chentsova-Dutton et al., 2010). Consequently, no behaviour or experience holds categorical or universal meaning across the world. How people behave—and how others interpret that behaviour—is inextricably linked to the larger culture.

Although there are larger cultural differences, within-culture heterogeneity exists as well. Cultural characterisation reports dominant norms, but individuals may respond differently. For example, a study reported that only 61-67% of the Western population inclined towards individualistic tendencies following that model of self, goals and pursuit (Triandis et al., 1998). However, being collectivist in highly individualistic societies is positively correlated with depression, obsessive compulsive disorder and social anxiety. Meanwhile, having individualist tendencies amidst a highly collectivist society is positively correlated with paranoia, narcissism and antisocial personality disorder (Caldwell-Harris & Ayçiçegi, 2006).

Individualism versus collectivism may also influence self-efficacy. A longitudinal study on Chinese migrants found that collectivist orientations increases cultural self-efficacy, which is the capability of an individual to function effectively in culturally diverse situations (Briones et al., 2009). In addition, low self-efficacy, which is more commonly observed in individualist cultures, is directly linked with depression and anxiety since people are unable to reach the goals that deem themselves worthy and indulge in rumination (Bandura et al., 1997; Du et al., 2014). In such scenarios, collectivism has the potential to alleviate the depression as well (Du et al., 2014). Being part of a group and accepting and giving more social support made Indonesians more optimistic in life, and they perceive less stress than Swedish people, who generally have more individualistic tendencies (Adrianson et al., 2013). Another analysis found that the behavioural manifestations of collectivism, for example ethnocentrism, can play a role in inhibiting transmission of pathogens (Fincher et al., 2008), directly curbing the spread of COVD-19. Interdependence, sociability and emphasis on common goals acted as a buffer against anxiety and stress of COVID-19 for Italian emerging adults (Germani et al., 2020).

While individualistic cultures perceive greater stress, the freedom and possibilities awarded with independence has positive effects on health (Fischer and Boer, 2011). Furthermore, the threat of isolation may be felt greater amongst those that feel a sense of belonging to the community, and the autonomy and choice for interaction provided by individualism is more closely linked to one's psychological well-being (Lykes & Kemmelmeier, 2013). Individualistic cultures promote such other function advantages. For example, the discovery of newer technologies such as COVID-19 vaccines may take place quicker when individuals are challenged by the status quo and deviate from traditions. Nonetheless, it remains unclear if the

maladaptive behaviours that increase risk of transmission and negatively impact mental health may surpass these benefits conferred by individualist societies.

B. Family Dynamics

Another relevant variable to be considered is family dynamics. Family size is positively related to recovery, and family bond is demonstrated to be important in collectivist cultures (Ugwu et al., 2018). Previous studies indicate that family relations are crucial in maintaining good psychological health and well-being (Thomas et al., 2017), especially during social isolation periods when maximum time is spent with family members. Household sizes are much larger in Asian and African countries as compared to American and European nations. Average household size in India is 4.8, 3.1 in China, 2.3 in the United Kingdom and 2.6 in the United States ("Household Size and Composition Around the World, 2017", 2018). An experimental study showed that people living in nuclear households had substantially poorer health status and greater alcoholic and smoking habits as compared to joint families (S.B. et al., 2014). Similarly, emotional support provided by families reduces chances of relapse in schizophrenic patients, but only in collectivist cultures (López et al., 2004). Having a larger family household may decrease loneliness thereby diminishing its adverse impacts on mental health (Loades et al., 2020).

Another aspect to be considered here is the concern of infecting family members with COVID-19, which may also make people more vigilant and dutiful towards safety guidelines. For example, families acted a haven for Italian-emerging adults during the initial stages of the COVID-19 lockdown, and it made them perceive the situation as severe, taking stringent measures and following guidelines because of the fear of infecting relatives (Germani et al., 2020). However, this could lead to over-dependence on family. Nuclear families have an advantage that children have significantly higher emotional maturity due to which they can cope well (Kondiba & Hari, 2018)). Family-connectedness plays an integral role in supporting its members, especially adolescents who have not completely matured emotionally, helping them to cope with mental health disruptions due to the COVID-19 pandemic. But over-dependence on family during the pandemic could hinder the journey of adolescents into adulthood (Germani et al., 2020).

C. Cultural Impacts on Adherence to Pandemic Guidelines

National and state governments across the globe have implemented certain social distancing parameters, some stringent, some relatively relaxed ((("Coronavirus: The world in lockdown in maps and charts", 2020). Nonetheless, the efficacy of these measures depends on adherence. There are vast differences in adherence to safety guidelines within and between cultures, which deserves further search. Previous research has determined that citizens of South Korea were more likely to follow government guidelines of behavioural measures during the COVID-19 crisis than those of the United States (Al-Hasan et al., 2020). The collectivism embedded in the culture is

also a casual factor of adherence in East and South Asian societies. As mentioned earlier, collectivism imbibes a moral obligation to society, and an instinct to follow the actions of the masses, especially that of official authorities, resulting in a relatively smoother flow of following of guidelines. Collectivistic orientation provides a social connection and that sense of social responsibility leads people to follow guidelines more effectively such as washing hands and distancing themselves (Kim et al., 2006).

Furthermore, lockdowns caused public transport closures. Anxiety could occur as a fear of insecurity and lack of necessities such as food and medical services, which like rely on transport. This affects European and Americans more since these countries have more efficient public transport systems, which makes the population highly dependent on these services (De Gruyer et al., 2017).

D. Cultural Response and Acceptance of Psychological Disorders

Several Asian cultures are plagued by heavily stigmatized notions with regards to mental illnesses (Ng, 1997). A focus group exploration found that in such cultures, psychopathology is affected by the role of shame, subordination and entrapment that force people to not use mental health services, primarily because of the fear of a failure of professionals to maintain confidentiality regarding their mental health status (Gilbert et al., 2004). In comparison to Western nations, people with mental illnesses are discriminated against and socially distanced from in Asia. Irrespective of their actions, they are just instinctively viewed as dangerous and aggressive. The study supporting these claims also found the role of religion, supernatural and superstition prevailing (Lauber & Rössler, 2007). Even more distressing is that families are less-acceptable of mentally ill individuals as well (Zhang et al., 2019). This sheds light on the urgency to eliminate inequalities in mental health treatments in Asia.

India is one country bedevilled by these social stigmas. A study conducted in India showed that one-third of the participants are unable to recognise causes and symptoms of mental disorders due to lack of knowledge and awareness, displaying negative attitudes towards those with mental health issues; moreover, one in five displayed had stigmatised behaviour (Gaiha et al., 2020). Therefore, prognosis of mental health problems became much more challenging, providing certain unreliability to the statistics of depression and anxiety amongst Indians. The prevalence of stigma towards mentally ill people amongst South Indians was 74.61%, and this bias is a major hindrance to quality of mental health care (Venkatesh et al., 2015), whose need increases exponentially during the COVID-19 pandemic because of surging depression and anxiety rates.

3. Variations in Impact of the Covid-19 Pandemic on Mental Health

Individualism versus collectivism, family dynamics, adherence to pandemic guidelines and cultural stigmas play a crucial role in influencing the degree of impact the pandemic

and consequential regulations have on an individual's mental health, causing much psychological distress.

The WHO defines mental health as a 'state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community' ("Mental health: strengthening our response", 2018). Events in life affect mental health and well-being, and stress is known to affect psychological behaviour (Bovier et al., 2004).

Psychopathology (the study of abnormal behaviour) poses the question, "what is abnormal?" Where is the line drawn between normative culture scripts (comprising the perceptions, thoughts, feelings and actions deemed normal in a given cultural milieu) and deviant culture scripts (comprising the deviations from the norms such as serious distress)? Consider this example: Spirit encounters are common and regarded as normal amongst Hmong people (an ethnic group from Southeast Asia), but denotes schizophrenic associations in the United States (Adler, 1991). In this manner, culture plays a crucial role in understanding of mental health. The COVID-19 pandemic has had deleterious effects on human health, as elucidated earlier. As observed from previous pandemic-like situations, times of pandemics and disasters are accompanied by greater risks of depression, anxiety and PTSD (Douglas et al., 2009). However, a determinant that has been much neglected is the cultural influence, thus variating the perceived impacts of the health crisis.

A substantial portion of clinical research assumes the Western-based criterion for mental health disorders, following the notion of cultural universality whose shortcomings are becoming more and more striking today. The pandemic has increased the threat of mental health disorders, necessitating the need to acknowledge and take into consideration how culture impacts mental health. However, cross-cultural research on psychological health is relatively limited. For example, there are pertinent cross-cultural differences in mental illnesses such as depression.

Depression is a disorder lacking uniform aetiologies. The assumption that it has a consistent pathology transcending cultural barriers is flawed. Across cultural contexts, depression does not only have varying prevalence rates (Bromet et al., 2011) but also varying symptoms. Past research identified that the cohesive support structures of collectivist cultures could potentially mitigate major depression (Chentsova-Dutton et al., 2002). With the increased stress of the pandemic, it is crucial to evaluate the cross-cultural variation in mental illness to ensure the required medical attention is provided to those at risk, specific to their ethnic and socio-cultural backgrounds. Clinicians need to ensure that they do not let the cultural biases of their norms and values affect their treatment and understanding of the patient's disorders.

Furthermore, there is also variability in the symptoms of depression defined by their specific normative and deviant scripts. For example, somatic symptoms such as sleeplessness, chronic fatigue, bodily aches and heartache are seen as signs of depression in the normative scripts of Chinese cultures, though not in an American culture (Lee et al., 2007). While American culture promotes understanding and sharing of internal emotional states (Markus & Kitayama, 1991), Chinese culture lays emphasis on somatic symptoms (Dere, Falk, & Ryder, 2012). Recent literature also shows that low levels of perceived physical health due to depression and anxiety can create threat appraisal that enhances adherence to pandemic guidelines in that cultural context (Galea et al., 2020).

A recent survey in Hong Kong found that 19% of the respondents had depression, 14% had anxiety and 25.4% reported severe deterioration in meatal health since the onset of the pandemic. They noted overwhelming spread of misinformation and social-media exposure as one of the primary causes for this apart from the direct effects of the pandemic (Choi et al., 2020). On the other hand, a study assessing mental health in the United States found that 40.9% of the respondents faced adverse mental health conditions, with 30.9% showing symptoms of major depressive disorder (Czeisler et al., 2020). Another meta-analytical study conducted by the Department of Epidemiology of Columbia University investigated global prevalence rates of depression and anxiety. While significantly high mean rates of depression (24.0%) and anxiety (21.3%) were found, depression prevalence in Asian countries ranged from 15.4% to 19.8%, rising from the general 1.3%-3.4% rates of the pre-COVID-19 era (Castaldelli-Maia et al., 2021). Different studies reported different figures, but what is constant is (a) more prevalent and more intense mental disorders and (b) cultural inequalities in the rates found. While the reasons could not be spotlighted in these studies, it can be reasonable presumed that the four factors mentioned prior have a role in the disparity of prevalence rates. Not only does a collectivist culture support the prevention and intervention of depression and anxiety that leads to lower rates on national scales, but also the stigmas persistent in the society may cause mental disorders to be underreported by participants. Together, both these factors push the measured rates of mental illness way below global rates found.

4. Differences in Coping Mechanisms During the Pandemic

To cope with the aforementioned pandemic-related stresses, implementing certain affect regulation strategies is imperative. A study conducted during the COVID-19 pandemic illustrated the radical decline in subjective well-being and the need to enhance effective coping strategies (Zacher and Rudolph, 2021). However, to understand which coping strategy is optimal, the emotional functioning of humans across cultures must be addressed.

Dampened positive affect levels usually signify depression (Watson et al., 1988; Bylsma et al., 2008); however, this is only true for the Western culture where positive emotions are considered functional and desirable (Tsai et al., 2006). In contrast, East Asian cultural contexts are found to promote a balanced perspective on positive and negative affect (Tsai et al., 2014). As a result, peacefulness, calmness, and attending to others are given more importance in these cultures. Therefore, the golden standard of health-coping mechanisms is reappraisal—reframing negative or stressful events to change

their emotional impact to be more positive and less negative—is used by 97% of Americans (Smith et al., 2020), but is not significantly used by South Asians (Hussein and Cochrane, 2003). Both the transactional model of stress and coping (Lazarus and Folkman, 1984) and the biopsychosocial model of stress (Blaskovish and Mendes, 2010) support reappraisal's effectiveness in coping with negativity, but these are ingrained in Western culture values. Reappraisal prompts individuals to view their stress factors as positively influential, thus avoiding high arousal (Jamieson et al., 2016). Furthermore, reappraisal itself has a rather neglected part that supports the fact that this acclaimed strategy is not always successful and can lead to potentially adverse impacts on several occasions (Ford & Troy, 2019), such as causing optimism bias during the pandemic. Such people are confident that they will not contract the virus. Due to this negligence, people flout the COVID-19 regulation guidelines.

As a coping mechanism, Asians primarily employ collective coping, which, as the name suggests, is derived from the collectivist orientations of certain cultures (Kuo, 2013). Although no unifying definition prevails for collective coping, it can be contextualised as the multifaceted stress responses shaped by culturally congruent ways, grounded in the strategies that consider well-being of others as well, include the values of forbearance and familism, rely on social group interdependence, and the behaviours stemming from religious and cultural beliefs and practises (Fischer et al., 2010; Moore and Constantine, 2005; Heppner et al., 2006). A study conducted during another critical period of stress, the 9/11 attack, on the coping behaviours of Asian American in response to the World Trade Centre bombings revealed the use of collective coping strategies like enhanced interaction and reliance on family and friends, intracultural coping and indigenous healing (Yeh et al., 2006). The COVID-19 pandemic is a different situation, but the coping mechanisms during times of stress are predisposed, and collective coping is institutionalised and socialised at an early age amongst East Asians (Neill and Proeve, 2000). However, social isolation makes the use of collective coping strategies hard or improbable, unlike the individualistic strategies of Western cultures like reappraisal. Thus, collectivist coping during the pandemic may be harder due to external limitations, but inadequate research conducted during the pandemic on cross-cultural coping mechanisms makes it harder to predict or generalise.

A. Religion as a Coping Mechanism

Another aspect integral to coping and emotion regulation is the influence of religion. Religiosity and mental health are a positively correlated to each other (Johnstone and Yoon, 2009). Spirituality (and/or religion) and family support are two of the main coping mechanisms used by South Asian women (Hussein and Cochrane, 2003). A study reported that 98% of the participants in a collectivist culture, Indonesia, said that religion was an important part of their life, whereas only 16% of the participants from a relatively individualistic culture, Sweden, agreed to that (Diener et al., 2011). They also found that

Muslims, Christians, Buddhists and Hindus had a higher satisfaction with life as compared to atheists. These findings correspond to those of collectivism, since Buddhism, Hinduism, Jainism and Confucianism, the main religions practised in Asia, are inbuilt with the values of the self-belonging to a larger group and purpose that are the epistemic basis for the collectivism mandate (Strawbridge et al., 2001). The social support of religious settings such as churches may reduce the number of stressors an individual experiences (Strawbridge et al., 2001). A study found that believing in a God promoted health and was an extremely effective coping mechanism by reducing perception of stress (Clements and Ermakova, 2012). Even in extremely stressful times such as the ongoing pandemic, the religious beliefs that a benevolent God will help one through the adversities to find peace may help subdue negative emotions and neutralise stress (Masters, 2008). All this data supports the positive correlation between believing in a higher power and attending religious rituals, and experiencing higher well-being.

5. Proposed Study

It is critical to assess how people from varying cultures differentially respond to and cope with the threat of the pandemic to better treat mental illnesses. However, there has been no study conducted to analyze these cross-cultural variations during the pandemic. For these reasons, the current article proposes a survey-based experiment to be conducted where participants in North American and South Asian cultures self-report on their social distancing practices, as well adherence to other pandemic guidelines, and psychological health and well-being. The present study proposes to investigate how the effects of the social restrictions during the COVID-19 pandemic differentially affect psychological health and well-being across South Asian and North American cultures.

A. Participants

To address this open question, we could sample participants from North American (specifically the United States) and South Asia (specifically India) sample. Based on previous extensive research in the US, we chose to focus on USA to have an anchor population to compare to. On the contrary, less research has been conducted in India, so we felt it was important to explore a new culture. Volunteer and opportunity sampling methods could be employed. For example, Participants would be recruited via paid advertisements on the social media.

B. Procedure

This would be a correlational study using surveys to assess how participants are responding to the pandemic. After providing informed consent, participants would respond to a series of questionnaires that measure the topics addressed in this article, as well as demographic information about their age, sex, city/country they have lived in throughout the pandemic, city/country they have lived in for most of their lifetime, civil state, date the questionnaire was taken and presence of any chronic illnesses. People with chronic diseases would be excluded from participating in the study since research shows

that they are more susceptible to COVID-19 ("COVID-19 and Your Health", 2020), and this could be a plausible factor in increasing stress levels among those individuals. The survey would consist of the following scales to measure cross-cultural variables and pandemic-induced impacts on psychological health:

1. *Individualism and Collectivism Scale (IND-COL):* IND-COL is a 27 item scale developed by Traindis and Gelfand (Triandis et al., 1998), measuring the bipolar constructs of individualistic and collectivistic tendencies among people of a particular culture. It is a modified version of the original INDCOL scale (Singelic et al., 1995). Six items measure the degree of vertical collectivism that means recognising oneself as part of a collective, but accepting the presence of hierarchy and inequalities. Eight items measured horizontal collectivism that implies recognising oneself as part of a collective, and perceiving all individuals of that culture as equal. Eight items measured vertical individualism that means recognising oneself as autonomous, and accepting within culture inequalities. Five items measured horizontal individualism that implies recognising oneself as autonomous, and believing in the notions of complete equality. For example, "It is important to me that I respect the decisions made by my groups" was one of the items evaluating vertical collectivism. The answers are in the form of a nine point scale, ranging from 1 (never or definitely no) to 9 (always or definitely yes). They also tested whether the scale's reliability held in non-Western contexts such as Korea, which was supported as true. However, they reported the factor loadings for only 16 of the 27 items mentioned in the statistics table, and future researchers have also used just those 16 (Cozma, 2011).

2. *Family Adaption and Cohesion Evaluation Scale (FACES) IV:* FACES along with measuring the size and structure of family (nuclear, joint of dyadic family) can help assess family dynamics and their relation with mental health. In accordance with the Circumplex Model of Marital and Family Systems evaluating cohesion, flexibility and communication, Olson developed the FACES scale (Olson et al., 1989), a self-report instrument consisting of six valid scales (rigidly balanced, balanced, midrange, flexibly unbalanced, chaotically disengaged, unbalanced) to measure family dimensions, relationship flexibility and determine the clinical necessity of family therapy (Olson, 2011). Due to their curvilinear relationship, the extremes represent dysfunction while the central dimensions are appropriate. The scale consists of 42 items, which participants rate from 1(totally disagree) to 5 (totally agree). For example, one of the items on this scale is "We feel too connected to each other." The original American scale portrays high content validity and sufficient internal consistency. Previous data has confirmed the cross-culture applicability of FACES IV alongside high factorial and construct validity (Baiocco et al., 2012), supporting its suitability for this particular research.

3. *Pandemic Adherence Scale (PAS):* Being a novel situation, no scale has been designed and tested for validity and reliability to measure adherence to pandemic guidelines. While research has been conducted to measure adherence in several countries, for example, Uganda (Amodan et al., 2020), no uniform instrument has been developed considering the continual alterations in guidelines in the first few months as research was still being conducted. However, for the purpose of this study, a Likert scale can be generated for adherence and satisfaction outcome variables, measuring the regularity and satisfaction of six preventive measures: handwashing, wearing face masks, frequent sanitization, social distancing, quarantine norms while traveling and lockdown rules, as recommended by the Centre for Disease Control and Prevention (CDC) and the WHO ("COVID-19 Guidance Documents", 2021; "Coronavirus", 2021). A five-point scale with 1 indicating very rare following of protocol and 5 indicating very frequent following of these guidelines could be used. Similarly, for satisfaction with these measures, 1 would indicate very low or absolutely no satisfaction whereas 5 would indicate very high or complete satisfaction. Since CDC and WHO are both international Organizations, it ensures that these guidelines remain common across countries, thus the only variable involved in differences across nations would be their cultures.

4. *Depression, Anxiety and Stress Scale (DASS-21)* is a reliable instrument to measure the symptomatology associated with the constructs of depression, anxiety and stress (Lovibond, 1995). It comprises 21 Likert-type items that can converge and discriminate between the three factors it measures. A study by the American Psychiatric Association replicated and certified the findings through non-clinical volunteers and patients that the DASS-21can adequately distinguish between depression, anxiety, psychological tension, stress and hyperarousal (*Diagnostic and statistical manual of mental disorders*, 2013), a scientific feat considering the comorbidity of depression and anxiety. The consistency of these findings support the reliable categorization through factorial analysis of depression (diagnosed through items 3, 5, 10, 13, 16, 17 and 21), evaluating low positive affect and low self-esteem, anxiety (diagnosed through items 2, 4, 7, 9, 15, 19 and 20), evaluating arousal levels and musculoskeletal symptoms, and stress (diagnosed through items 1, 6, 8, 11, 12, 14 and 18), measuring agitation, tension and negative affect, by testing symptoms unique to each of the disorders as well as shared symptoms (Antony et al., 1998). The answers range from 0 (did not apply to me at all) to 3 (applied to me very much or most of the

time). Previous research also supported DASS-21's cross-cultural applicability apart from high construct validity (González-Rivera et al., 2020), making it apt for this research.

5. *Cope Inventory Scale (COPE):*

COPE is multidimensional coping instrument assessing different responses to stress. Scales of different coping aspects have four items each. Five scales measure problem focused coping that involves active coping, planning, suppression of competing activities, restraint coping and seeking of instrumental social support. Another five scales measure emotional focused coping that involves seeking emotional social support, positive reinterpretation or reappraisal, acceptance, denial and turning to religion. The final three scales measures the responses that are usually less useful such as venting emotions, behavioural disengagement and mental disengagement. Answers of the participants range from 1 (never) to 4 (very often).

C. Hypotheses and Predictions

Experimental hypothesis: Culture affects the impact of the pandemic on mental health.

Null hypothesis: Culture does not affect the impact of the pandemic on mental health.

Prediction 1: Participants from North America will score higher than those from South Asia on the DASS-21.

Prediction 2: Participants from North America will score lower than those from South Asia on the IND-COL.

Prediction 3: Participants from North America will score lower than those from South Asia on the FACES-IV.

Prediction 4: The relationship between the DASS-21 and culture will be mediated by IND-COL and FACES-IV.

Available data cannot suffice to predict the outcomes of the PAS and COPE. Nonetheless, taking into account the positive benefits of collectivist cultures and larger families along with healthier family dynamics on mental health, participants from North America may exhibit more physically noticeable symptoms than those from South Asia.

6. Discussion

Cultural similarities do exist and the etic approaches of universalism stances carry justifiable reason; however, a myriad of compelling evidence suggests that cultural relativism supersedes cultural universalism. Culture universalism is the perspective that the fundamental processes underlying psychopathology are common across cultures, and aberrant behaviour patterns are minimal (Murphy, 1976; Murphy, 1982). However, this approach is heavily criticised by the well substantiated assertion of psychological functions being shaped by cultural systems (Lewis et al., 2010; Murphy-Berman, 2003). Cultural universalism leads to category fallacy whereby cultural variations are omitted through the oversimplification of mental illness categories (Kleinman, 1991). As a result, it becomes increasingly imperative that we also apply these findings to augment the availability of culturally competent

services for enhanced treatment of mental health in all cultures, especially now when psychological health challenges have drastically risen amongst all cultures, primarily due to the social isolations measures. In broader terms, cultural competency refers to developing and adopting culturally sensitive therapy and counselling. It has been defined as a system that acknowledges cross-cultural variations and incorporates the dynamics that have arisen through expansion of cultural knowledge and adaption of treatment techniques and measures to sufficiently meet culturally unique needs (Whaley and Davis, 2007). A culturally competent counsellor is aware to the extent that he or she is sensitive to his or her personal values and biases and aims to minimise their influence on the client's treatment, is well-acquainted with client's culture, beliefs and expectations, and is skilled enough to intervene in a culturally sensitive, relevant and helpful manner (Sue et al., 1992).

This particular research proposal would further justify the absolute need of attaining these goals of cultural competency, as the acquired data can be used in the medical and psychiatric fields in providing specific treatment to ethnic minorities and people of different socio-cultural backgrounds and not a universal clinical method. What is normal and is pathological in inextricably tied to the culture. Normality is not a static construct. With rising mental health disorders such as depression, psychological associations must assume greater responsibility of adopting treatment measures that can satisfactorily meet the different needs of multicultural populations. From narrow interventions like providing treatment in the client's native language to specially developed treatments such as *cuento* therapy for Puerto Ricans, there are several initiatives that can be adapted (Sue et al., 2009).

The Diagnostic and Statistical Manual of Mental Disorders (DSM-V) is the taxonomic and diagnostic tool published by the American Psychiatric Association but used internationally almost as a de facto psychiatric classification. Thus, the DSM-V was published to incorporate cultural sensitivity (Kupfer et al., 2013) by changes such as modifying the term 'dependence' to 'addiction', removing the 'committing illegal acts' criterion and adding a 'craving' criterion for substance use disorders, thus increasing its applicability to ethnic populations and cross-cultural societies (O'Brien, 2011). The definition of culture has also been modified to suit a more dynamic approach. However, nowhere in sections II and III where the DSM disorders' criteria are mentioned is the account for cultural relations to specific disorders, contrasting the revised definition of culture as 'open, dynamic systems that undergo changes' (Bredström, 2017). DSM-V has drawn ethnic divides categorising culture-specific symptoms and interpretations as 'other', which reduces the notion of inclusion to marking separate identities (Bredström, 2017). While the efforts are much appreciated, the movement towards inclusion must be continued forwards, especially now when the COVID-19 pandemic has increased the necessity and reliance on such tools.

7. Conclusion

In summary, as supported by a plethora of previous studies, it can be anticipated that culture influences the impact of the

COVID-19 pandemic on psychological health and well-being. Social distancing norms, amongst several others, are causes of substantial stress to individuals. Predictors like individualistic and collectivistic tendencies among cultures, family dynamics and adherence to pandemic guidelines will determine the extent of meant health deterioration a person faces. Depression and anxiety disorders, which are usually comorbid, are the most common issues faces. However, they have different symptoms across cultures, and require different treatment measures. The proposed study would identify the degree to which the impacts of the deadly virus vary and the cross-cultural factors involved. As a result, the cumulative proliferation of mental health disorders should entail the understanding of cultural barriers and cultural competency as integral to mitigating the psychosocial effects of the current pandemic.

8. Limitations

A. *Limitations in Review*

An extraneous variable that could potentially impact the findings of this research is political influence. The literature on compliance with government highlights the relevance of political beliefs (Levi and Stoker, 2000). If these data remain valid in the case of COVID-19, the implications for more democratic governments encouraging public health measures may be challenging. In the US, those identifying themselves as more right on a 11-point ideological scale are more likely to break protocol and meet friends or relatives, putting themselves and others at greater risk of contracting COVID-19 as compared to less politically gridlocked countries such as New Zealand (Becher et al., 2020). Lesser compliance in the US could be attributed to political ambivalence (Margraf et al., 2020) alongside individualist orientations. The ban of cultural events and closure of non-essential businesses led to public protests in such countries (Kowalevski, 2020), a significant factor of rising stress and mental disturbance. The confounding variable of US political situations is predicted to affect psychological well-being during the pandemic.

On the contrary, the extraneous variable responsible to a certain degree for increasing stress and deteriorating mental health in developing countries like India is the economic condition. The Ebola outbreak, a past pandemic-like situation shows tremendous rise in parenting stress and violence against children that can scar them mentally for decades longer during such crisis in Third World Countries ("Ebola: Beyond the Health Emergency", 2015). Unemployment, closure of non-essential services, economic uncertainty and reduced household incomes would cause inordinate stress, especially among the working class of developing nations.

B. *Limitations in Research Proposal*

The current sample is proposed to spread across two demographics: A South Asian country (India) and one North American nation (USA). By expanding the cultural reach through the inclusion of West and East European, Australian, and African samplings, cross-cultural impacts can be better understood, as well as the specifics of some of the most important global cultures. The knowledge acquired through multi-country surveys could be extremely beneficial in studying all the major cultures together and identifying most of the possible variables and the methods that could be developed to achieve cultural competency.

This study proposal is a correlational survey. However, transforming it into a longitudinal study, following-up with the participants after five years to question their mental health status, along with details regarding the psychological treatment they received if they did, would help certify that the mental health fluctuations were caused solely by the pandemic while being influenced by cross-cultural factors. Furthermore, it could support the importance and benefit of cultural competency when the methods of therapy, counselling or any treatment received are noted along with their success rates, and it could be hypothesised that culturally competent psychiatrists could improve mental health conditions of their patients more efficiently.

This study is a correlational quasi-experiment; however, by converting it into a lab experiment to study physiological and neurological aspects employing brain scanning techniques to verify it, a greater depth of research could be achieved in arguing for the significantly influential role of cross-cultural variables.

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