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A Ray of Hope: Resilience Amidst Uncertainty and Other Psycho-Social Issues during COVID-19 Pandemic

Kanwar Hamza Shuja, Arfa Mubeen and Shazia Tariq

Abstract

The chapter explored the various psycho-social issues that the general masses are still suffering from due to the sudden arrival of COVID-19 pandemic and how the impending uncertainties, regarding almost every aspect of routine life and their own existence, played a major role in moderating the effects of these psycho-social issues. Additionally, amidst all of these uncertainties, how resilience of people whether social, mental or religious helped people in overcoming their different fears and psycho-social issues. The chapter incorporated findings achieved from different samples such as that of students, employees, health workers etc. And the role of resilience throughout the history in helping humankind overcoming such disastrous situations. Moreover, the chapter also tried to incorporate the protective strategies which can be useful in overcoming the prevalent uncertainties that still remain.

Keywords: COVID-19, resilience, uncertainty, psycho-social issues, protective strategies

1. Introduction

Being a survivor of Novel Coronavirus, it can positively be affirmed that the suffering of not being able to breathe is unbearable and knowing that the total death toll is around 3,499,712 [1] it could be insinuated that enduring the ordeal itself is fortunate. During the time of the experience of infection and isolation the thoughts that were most common were those of anxiety, death and despair. However, one thing that supported and motivated the recovery, at least psychologically, was the will to live and survive. As being human one of our particular traits, throughout the extensive history of our existence, is that of resilience and survival. We have witnessed humans surviving many ordeals, similar and far worse during their time on earth such as Influenza pandemic (1918-1919) with 20-40 million deaths; black death/plague (1348-50), incurring around 20-25 million deaths, AIDS pandemic (through 2000) with a death toll of 21.8 million and so on. Nevertheless, against all odds humans have survived and prospered through their persistence and resilience and will so again from the current pandemic.

2. Emergence of Covid-19 and associated difficulties

Coronavirus disease, a national health emergency, was initially reported in Wuhan, China, in the last month of 2019 [2]. Since its emergence, it has burgeoned all over the world disrupting the whole economic system, while claiming the lives of many [3]. Its fundamental features include dry cough, tiredness and fever; with difficulty in breathing, sore throat and body pain [4]. According to a 2020 report presented by the World Health Organization (WHO), around 30% of nations had no plans or preparation for an outbreak like that of COVID-19 [5]. As initially there were no vaccines or medicines available and the number of affected patients kept increasing in hospitals leading to shortage of supplies like ventilators, beds, staff, etc. [6–9].

Due to this rapidly growing burden on the health care industries around the world, lockdowns and quarantines were placed [10, 11]. People were instructed to act upon the guideline of infection prevention and control (IPC), where in some countries these guidelines were even enforced through punishment or fines [12, 13]. As a result, most of the world population was restricted to stay at their homes, thus hindering their routine social lives [14, 15]. During the initial spread, the most vulnerable population was that of more elderly people. As the initial findings suggested more elevated rates of infection in older populations. This fear led to scenarios where the older people were confined to their rooms for the sake of their protection. However, though this might have protected them from contracting the virus the confinement left them isolated leading to psychological issues such as depression and anxiety [16, 17, 19, 25, 40]. Researches have shown heightened depression, adjustment issues and posttraumatic stress in old age people [17–19, 25, 40].

Another vulnerable population was that of the children who were incapable of comprehending the severity of the situation. Other than that, the uncertain situation and financial constraints included increased strains on the families. It resulted in reporting of increased number of cases of child abuse through helpline numbers. The reasons hypothesized for this increase include unemployment, feeble mental health of the family members and frustration of being stayed at home for a long time [17, 19, 25, 40]. Owing to the precautionary measures to restrict spread of COVID-19, the academic institutes were also closed which increased the psychological vulnerability of children at home. Hence it was suggested to train school staff for screening such signs and to deal with such children [20]. IPC instructions include social isolation and maintenance of social distance leading to decreased intimacy [21, 22].

According to Gopalan and Misra [23] socio-economic implications due to the onset of the coronavirus badly affected the mental health of people. Moreover, diverse effects on mental wellbeing of family members have also been highlighted by Cosic et al., [21]. However, it was also found that it was also affecting the social identity of people all around the world along with the impact on mental health [24, 25]. Global health care system has also been impacted by social and economic conditions due to COVID-19 [23]. A number of factors leading to psychological problems like fear, isolation and loneliness [6, 26], unavailability of recreational activities [11, 27, 28], lack of intimacy and social isolation [29] social and economic factors [30], social and physical distancing [31, 32], fake news and misinformation [14] and socio-economic cost of safety equipment [33] have been highlighted in studies. It was reported in studies that situations got worse when rumors were full of unverified pieces of information [34].

Lovari [35] and Tapia [36] stated that fake news augmented the situations as people used to be fearful of being infected. But it resulted in more consciousness of

people about the coronavirus which was beneficial [13]. However, negative impact of fake news was also noted as people suffered from psychological and social issues due to them [37] but concerns for health were also noted [38]. Pennycook et al. [39] stated that social media was a source of information for most of the people which had an impact on psychosocial lives of individuals as people suffer from tension, stress, anxiety, fear of infection and distress, etc. [40]. Pandemic is a continuous source of stress associated with the death of loved one, friends and colleagues [41]. Along with these health issues, financial problems, depression and threat of economic crisis have also been observed. Pandemic resulted in the closing of many educational institutes and workplaces.

There was an increase in travel restrictions, self-isolation and consumption of medical products and decrease in employees in the economic sectors [42, 43]. The attitude of people towards social distancing and vaccination played a great role in spreading of infection. Coping ability of people towards risk of infection and dread or grief of losing dear ones were also few of those factors which may increase psychological issues. Moreover, such situations worsen the condition of those people who already had psychological issues before the advent of COVID-19 [19]. Wang et al. [44] conducted a cross-sectional study to investigate levels of anxiety, stress and depression in the initial period of the outbreak of COVID-19 and found that severe psychological effects of the pandemic were noticed in 53.8% of the sample. Pandemic and lockdown impacted adolescent and young children socially and emotionally more as compared to those who are grown up. Increased clinging behavior, inattention and irritability were observed in them of different age groups [45].

It was also reported by parents that children suffer from inattention, separation anxiety, poor appetite, disturbed sleep, agitation, nightmares, fearfulness and uncertainty during that period [46]. Lee [47] stated that closing of educational institutes negatively affected around 91% of students all over the world. Moreover, youth and older adolescents were also found tensed on cancelation of academic events, exchange facilities and examinations. Some studies have also argued that isolation through closing of educational institutes can prevent 2 to 4 percent additional deaths which is less when compared to usage of other precautionary measures. So it was suggested to policy makers to implement other strategies in educational institutes which are less disrupting [45, 47, 48]. Instinctual survival behavior has also been indicated through panic buying during times of distress [49]. Moreover, hoarding behavior has also been observed in adolescents [50]. Due to closure of special education institutions, special children lack access to opportunities of learning and skills development which resulted in relapse of their condition [47]. Similarly, gap in speech therapy also resulted in delay in next milestone as online learning is difficult [51]. It also became difficult for parents to engage children with Attention Deficit Hyperactivity Disorder in meaningful activities [52].

Obsessions and repeated behaviors due to infection contamination and hoarding also increased during that period [53]. Pre-existing social inequalities deteriorated due to the economic turn down. Deprivation of protection and nutrition was observed in underprivileged children, due to imposed lockdown. It may have a negative effect on the development of such children [54, 55]. Even presence at home was a threat of abuse and violence to some children [56, 57]. A study showed that as compared to boys, girls have less access to electronic devices, which affect their learning through online platforms especially in underprivileged families [58]. It was also concluded that due to this prevailing inequality, there are chances of increased dropouts of female students from schools once they are opened again after the pandemic [59].

3. Resilience amidst pandemic

Grounds for resilience and optimism have been researched by scientists extensively during the pandemic. As it has helped people struggling in the past to overcome their challenges, thus becoming stronger than ever. It happened after the incident of 9/11 when 35% of people in New York City showed resilience and 23% recovered from symptoms of post-traumatic stress in the next month after the incident [60]. It was also researched that teamwork, spirituality, kindness, love, leadership, hope and gratitude increased after that event [61].

Such research can help researchers get guidance in designing studies to investigate the factors helpful in resilience and coping for COVID-19. It was also found that such people manage well psychologically who found meaning in aligning their personal values with the incidents. Heightened self-esteem and sense of self control have been achieved by many individuals after the event, just by providing others with practical and emotional support, thus evaluating their actions as positive contributions. Rumination and self-recrimination was least in such individuals and they were confident in their actions [62]. In short, people survived after such a tragedy and they move on. Same will be the case with COVID-19. Although social distancing is one of the main characteristics of COVID-19 which distinguishes it from other tragic events of history; however, value-based behavior can help build the ruptured social bonds. Modern technology can also be helpful in this regard for reaching people not dependent on face to face engagements. It can be achieved through expressing empathy, considerate behavior and active listening.

All such strategies can help people cope with frustration and fear of the global pandemic. Isolated people can also participate in self-care activities, even in threatening situations, just to make their life best to live. It may include a number of activities such as learning a new language, listening to relaxing music, puzzle solving, singing, reading, instrument playing, television watching, playing computer games and having insight on life after the pandemic. These engagements can help people increase psychological health and decrease symptoms of post-traumatic stress [63]. These behavioral activations also known as coping activities are sources of mind diversion and build positive emotions. They also help in returning back from negative experiences [64], minimizing the psychological troubles due to persistent stress, adjusting to different daily demands and not to consider the psychological concerns restricting the contentment in daily life [65]. Same patterns are followed in showing resistance and coping in management of affective responses during natural disasters.

A model called 3 Cs has also been developed by stress researchers [66] which focus on connectedness, control and coherence. Personal beliefs reflect goals which assume that in pursuit of value goals, personal resources can also be accessed. Goals can be short or long term. Short-term goals in situations like pandemics can be achieved by considering many means. Few examples may include, by getting enough sleep, considering the factual information, laughter time, need based exposure to news, setting laughter time, store enough food to meet the needs, checking on dear ones and spending each day with planning, etc. As studies have shown physical and psychological benefits can be achieved through disclosure of emotions and expressive writing, similarly, keeping a diary of life lessons, goals and daily events encountered by adversity may prove helpful [67]. Long term goals counterbalance anxiety and fear with pondering and preparation for future goals (i.e.) thinking about life after the pandemic. It is assumed that difficulty will be faced by survivors while re-entering back to normal life after the end of the coronavirus. Difficulties may be faced in a few of the domains like implementing and following educational plans, activities of ordinary life, attending life remembering events and

interaction with friends, etc. Anticipating and planning related to such domains may provide links of present to future and ideas about unfolding the unpredicted.

The second “C” of the model, that is coherence, is evident in human needs for making sense of the world. Establishing an account for the past and future to live fully is although challenging but it is rewarding too. Acceptance based coping is another engaging point. Acceptance based coping assumes change of relatedness of the individuals ranging from responses to source of stress to outcomes by non-judgmental concerns of internal states for acceptance [68]. Relating it to pandemic, the stance is that fear should not be dominating even though coronavirus is fatal. Rather, focus should be on accepting realistically, observing reactions and adapting reasonable responses. Acceptance based coping can be facilitated by posing realistic questions. The answers may reveal motivation of the individuals, their interests and their goals during the dark time [69] and long-term resilience outcome. The principles of mindfulness and acceptance-based coping are somehow the same. Practice of mindfulness can be observed in eating routine and meditation exercises, etc. It can be beneficial for minimizing anxiety and post-traumatic symptoms [70]. Moreover, it can act as a facilitator for awareness of sensations, feelings, emotions and thoughts which can help targeting the coping techniques, thus pointing out the issues to be addressed. It also reduces the effect of negative feelings thus releasing cognitive and emotional resources to make meaning, reflect and appreciate the difficult event and to establish value-based goals [71].

The third “C” of the model refers to the desire for human support and contact, which has been one of the main factors for resilience in natural disasters [72]. New bonds built through contact through social media or telephone etc. not only help in alleviating sadness, stress and anxiety but also establish empathy and pro-social behavior [73]. It is helpful in coping and recovery. It provides a sense of oneness and togetherness by showing that we all are in the same situation. Meditation practice helps turn positive emotions to oneself and to love one. It is associated with psychological health and social interaction [74]. Thus, it is useful in COVID-19 era as it facilitates resilience and social interactions. Resilience is also based on projective and risk factors linked with individual differences, family environment and other social characteristics. The outcome can be influenced by extent of exposure, but other factors also facilitate resilience. These factors include personality and social environment.

Overall these suggestions highlight the power of resilience and how it can help the affected population overcome this pandemic. As in present it may seem like an immense task, however, instances from past suggests that humans have always overcame such difficult times and current pandemic is no different. With the right help and mindset people will definitely overcome this pandemic and be prepared for other similar issues to come in the future.

4. Conclusions

By reviewing the extensive literature, it can be said without a doubt that human beings are resilient and have gone through major changes since their inception on earth to this day. And though right now the things might seem bleak with no end to the ongoing sufferings of people around the world due to the current pandemic. It can be hoped that the humans together will fight against all the odds and will overcome this pandemic as well. With new innovations in medicines and researches it is not far that a proper cure would be found and the world will leave behind the traces of this pandemic in the books of history as a reminder of human resilience, for future generations to come.

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Conflict of interest

The authors declare no conflict of interest.

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References

- [1] Worldometer. Coronavirus Cases. Worldometer [Internet]. 2020 [cited 2020 May 3];164:1-22. Available from: <https://www.worldometers.info/coronavirus/coronavirus-cases/#daily-cases>
- [2] Nilima N, Kaushik S, Tiwary B, Pandey PK. Psycho-social factors associated with the nationwide lockdown in India during COVID- 19 pandemic. *Clin Epidemiol Glob Heal*. 2021;9:47-52.
- [3] Hutt R. The economic effects of COVID-19 around the world. *World Econ Forum* [Internet]. 2020 [cited 2020 May 18];12(March):1-8. Available from: <https://www.weforum.org/agenda/2020/02/coronavirus-economic-effects-global-economy-trade-travel/>
- [4] Syed A. Coronavirus: A mini-review. *Int J Curr Res Med Sci*. 2020;6(1): 8-10.
- [5] Barua S. Understanding Coronanomics: The economic implications of the coronavirus (COVID-19) pandemic. *SSRN Electron J*. 2020;
- [6] Banerjee D, Rai M. Social Isolation in Covid-19: The Impact of Loneliness. Vol. 66, *International Journal of Social Psychiatry*. SAGE Publications SAGE UK: London, England; 2020. p. 525-527.
- [7] Ghosh R, Dubey MJ, Chatterjee S, Dubey S. Impact of COVID-19 on children: Special focus on the psychosocial aspect. *Minerva Pediatr*. 2020;72(3):226-235.
- [8] Mukhtar S. Mental Health and psychosocial aspects of coronavirus outbreak in Pakistan: Psychological intervention for public Mental Health crisis. *Asian J Psychiatr*. 2020;51.
- [9] Swerdlow DL, Finelli L, Lipsitch M. Epidemiology of Covid-19. *Reply*. *N Engl J Med*. 2020;382.
- [10] Lipsitch M, Swerdlow DL, Finelli L. Defining the epidemiology of Covid-19 — Studies needed. *N Engl J Med*. 2020;382(13):1194-1196.
- [11] Mansfield L. Leisure and health—critical commentary. *Ann Leis Res*. 2020;1-12.
- [12] Freedman L. Strategy for a pandemic: The UK and COVID-19. *Survival (Lond)*. 2020;62(3):25-76.
- [13] Shoaib M, Abdullah F. Risk reduction of COVID-19 pandemic in Pakistan. *Soc Work Public Health*. 2020;35(7):557-568.
- [14] Brennen JS, Simon F, Howard PN, Nielsen RK. Types, sources, and claims of COVID-19 misinformation. *Reuters Inst*. 2020;7:1-3.
- [15] Dong E, Du H, Gardner L. An interactive web-based dashboard to track COVID-19 in real time. *Lancet Infect Dis*. 2020;20(5):533-534.
- [16] Shoib S, Shuja KH, Aqeel M, Abbas J. Mental health repercussions and challenges in covid-19 pandemic: experiences amidst conflicting states. *Psychiatr Danub*. 2020;Accepted M.
- [17] Shuja KH, Shahidullah, Aqeel M, Khan EA, Abbas J. Letter to highlight the effects of isolation on elderly during COVID-19 outbreak. *Int J Geriatr Psychiatry* [Internet]. 2020 Sep 8;gps.5423. Available from: <https://onlinelibrary.wiley.com/doi/10.1002/gps.5423>
- [18] Banerjee D. 'Age and ageism in COVID-19': Elderly mental health-care vulnerabilities and needs. *Asian J Psychiatr*. 2020;51:102154.

- [19] Shuja KH, Saluan J, Mubeen A, Zahoor T. Association between unemployment and suicide during COVID-19. *Found Univ J Psychol* [Internet]. 2020;4(2):25-7. Available from: <http://fui.edu.pk/fjs/index.php/fujp/article/view/161/93>
- [20] Fried E. Mental Health and Social Contact During the COVID-19 Pandemic: An Ecological Momentary Assessment Study. 2020;
- [21] Ćosić K, Popović S, Šarlija M, Kesedžić I. Impact of human disasters and Covid-19 pandemic on mental health: Potential of digital psychiatry. *Psychiatr Danub*. 2020;32(1):25-31.
- [22] Van Lancker W, Parolin Z. COVID-19, school closures, and child poverty: A social crisis in the making. *Lancet Public Heal*. 2020;5(5):e243–e244.
- [23] Gopalan HS, Misra A. COVID-19 pandemic and challenges for socio-economic issues, healthcare and National Health Programs in India. *Diabetes Metab Syndr Clin Res Rev*. 2020;14(5):757-759.
- [24] Godinic D, Obrenovic B, Khudaykulov A. Effects of economic uncertainty on Mental Health in the COVID-19 pandemic context: Social identity disturbance, job uncertainty and psychological well-being model. *Int J Innov Econ Dev*. 2020;6(1):61-74.
- [25] Shuja KH, Aqeel M, Jaffar A, Ahmed A. Covid-19 pandemic and impending global mental health implications. *Psychiatr Danub* [Internet]. 2020 Apr 15;32(1):32-35. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/32303027>
- [26] Shoaib M, Abdullah F. COVID-19 backlash: Psycho-social impacts of outbreak in Pakistan. *Health Educ*. 2021;121(3):265-274.
- [27] Begović M. Effects of COVID-19 on society and sport a national response. *Manag Sport Leis*. 2020;1-6.
- [28] Brouder P, Teoh S, Salazar NB, Mostafanezhad M, Pung JM, Lapointe D, et al. Reflections and discussions: Tourism matters in the new normal post COVID-19. *Tour Geogr*. 2020;22(3):735-746.
- [29] Mucci F, Mucci N, Diolaiuti F. Lockdown and isolation: Psychological aspects of covid-19 pandemic in the general population. *Clin Neuropsychiatry*. 2020;17(2):63-64.
- [30] Alradhawi M, Shubber N, Sheppard J, Ali Y. Effects of the COVID-19 pandemic on mental well-being amongst individuals in society- a letter to the editor on “the socio-economic implications of the coronavirus and COVID-19 pandemic: A review”. *Int J Surg*. 2020;78:147-148.
- [31] Chatterjee S. Choosing physical distancing over social distancing in the era of technology: Minimizing risk for older people. *J Gerontol Soc Work*. 2020;63(6-7):677-8.
- [32] Özdin S, Bayrak Özdin Ş. Levels and predictors of anxiety, depression and health anxiety during COVID-19 pandemic in Turkish society: The importance of gender. *Int J Soc Psychiatry*. 2020;66(5):504-511.
- [33] Buheji M, da Costa Cunha K, Beka G, Mavrić B, Leandro do Carmo de Souza Y, Souza da Costa Silva S, et al. the extent of COVID-19 pandemic socio-economic impact on global poverty. A global integrative multidisciplinary review. *Am J Econ*. 2020;10(4):213-224.
- [34] Rodrigues UM, Xu J. Regulation of COVID-19 fake news infodemic in China and India. *Media Int Aust*. 2020;177(1):125-131.

- [35] Lovari A. Spreading (dis)trust: Covid-19 misinformation and government intervention in Italy. *Media Commun.* 2020;8(2):458-461.
- [36] Tapia L. COVID-19 and fake news in the Dominican Republic. *Am J Trop Med Hyg.* 2020;102(6):1172-1174.
- [37] Greene CM, Murphy G. Individual differences in susceptibility to false memories for COVID-19 fake news. *Cogn Res Princ Implic.* 2020;5(1):1-8.
- [38] Calvillo DP, Ross BJ, Garcia RJB, Smelter TJ, Rutchick AM. Political ideology predicts perceptions of the threat of COVID-19 (and susceptibility to fake news about it). *Soc Psychol Personal Sci.* 2020;11(8):1119-1128.
- [39] Pennycook G, McPhetres J, Zhang Y, Lu JG, Rand DG. Fighting COVID-19 misinformation on social media: Experimental evidence for a scalable accuracy-nudge intervention. *Psychol Sci.* 2020;31(7):770-780.
- [40] Shuja KH, Shafqat Z, Amjad D, Tariq S, Ubi P. Principal ethical issues for research with vulnerable population during the COVID-19 endemic. *Found Univ J Psychol [Internet].* 2020;4(2):28-32. Available from: <http://fui.edu.pk/fjs/index.php/fujp/article/view/163/94>
- [41] World Health Organization. Coronavirus disease (COVID-19) technical guidance: Infection prevention and control / WASH. Tech Guid [Internet]. 2020;2019-21. Available from: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/infection-prevention-and-control>
- [42] Vabret N, Britton GJ, Gruber C, Hegde S, Kim J, Kuksin M, et al. Immunology of COVID-19: Current State of the Science. *Immunity [Internet].* 2020 Jun;52(6):910-41. Available from: <https://linkinghub.elsevier.com/retrieve/pii/S1074761320301837>
- [43] Ma X, Wang Y, Gao T, He Q, He Y, Yue R, et al. Challenges and strategies to research ethics in conducting COVID-19 research. *J Evid Based Med [Internet].* 2020 May 1;13(2):173-177. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/32445288>
- [44] Wang C, Liu L, Hao X, Guo H, Wang Q, Huang J, et al. Evolving Epidemiology and Impact of Non-pharmaceutical Interventions on the Outbreak of Coronavirus Disease 2019 in Wuhan, China. *medRxiv.* 2020;2020.03.03.20030593.
- [45] Viner RM, Russell SJ, Croker H, Packer J, Ward J, Stansfield C, et al. School closure and management practices during coronavirus outbreaks including COVID-19: A rapid systematic review. *Lancet Child Adolesc Heal.* 2020;4(5):397-404.
- [46] Jiao WY, Wang LN, Liu J, Fang SF, Jiao FY, Pettoello-Mantovani M, et al. Behavioral and emotional disorders in children during the COVID-19 epidemic. *J Pediatr.* 2020;221:264-266.e1.
- [47] Lee J. Mental health effects of school closures during COVID-19. *Lancet Child Adolesc Heal.* 2020;
- [48] Sahu P. Closure of universities due to coronavirus disease 2019 (COVID-19): Impact on Education and Mental Health of students and academic staff. *Cureus.* 2020;12(4).
- [49] Arafat SMY, Kar SK, Marthoenis M, Sharma P, Apu EH, Kabir R. Psychological underpinning of panic buying during pandemic (COVID-19). *Psychiatry Res.* 2020;
- [50] Oosterhoff B, Palmer CA, Wilson J, Shook N. Adolescents' Motivations to engage in social distancing during the

COVID-19 pandemic: Associations with Mental and social Health. *J Adolesc Heal*. 2020;67(2):179-185.

[51] UNICEF. Children with autism and COVID-19. [Internet]. 2020 [cited 2021 Jun 18]. Available from: <https://www.unicef.org/serbia/en/children-autism-and-covid-19>

[52] Cortese S, Asherson P, Sonuga-Barke E, Banaschewski T, Brandeis D, Buitelaar J, et al. ADHD management during the COVID-19 pandemic: Guidance from the European ADHD guidelines group. *Lancet Child Adolesc Heal*. 2020;4(6):412-414.

[53] Singh R, Adhikari R. Age-structured impact of social distancing on the COVID-19 epidemic in India. *arXiv Prepr arXiv200312055*. 2020;

[54] Dalton L, Rapa E, Stein A. Protecting the psychological health of children through effective communication about COVID-19. *Lancet Child Adolesc Heal*. 2020;4(5):346-347.

[55] Rosenthal DM, Ucci M, Heys M, Hayward A, Lakhanpaul M. Impacts of COVID-19 on vulnerable children in temporary accommodation in the UK. *Lancet Public Heal*. 2020;5(5):e241-e242.

[56] United Nations Human Rights. The impact of COVID-19 on children. UN new York, NY, USA. 2020;

[57] Fore H. Don't let children be the hidden victims of COVID-19 pandemic (April 9, 2020) [Internet]. Unicef. 2020. Available from: <https://www.unicef.org/press-releases/dont-let-children-be-hidden-victims-covid-19-pandemic>

[58] McQuillan H, Neill BO. Gender differences in Children's internet use: Key findings from Europe. *J Child media*. 2009;3(4):366-378.

[59] Press Trust of India. Govt helpline receives 92,000 calls on abuse and violence in 11 days - The Economic Times [Internet]. The Economic Times. 2020 [cited 2021 Jun 18]. Available from: https://economictimes.indiatimes.com/news/politics-and-nation/govt-helpline-receives-92000-calls-on-abuse-and-violence-in-11-days/articleshow/75044722.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst.

[60] Bonanno GA, Rennicke C, Dekel S. Self-enhancement among high-exposure survivors of the september 11th terrorist attack: Resilience or social maladjustment? *J Pers Soc Psychol*. 2005;88(6):984-998.

[61] Peterson C, Seligman MEP. Character strengths before and after September 11. *Psychol Sci*. 2003;14(4):381-384.

[62] Eakman AM, Schelly C, Henry KL. Protective and vulnerability factors contributing to resilience in post-9/11 veterans with service-related injuries in postsecondary education. *Am J Occup Ther*. 2016;70(1):7001260010p1-10.

[63] Dekel S, Hankin IT, Pratt JA, Hackler DR, Lanman ON. Posttraumatic growth in trauma recollections of 9/11 survivors: A narrative approach. *J Loss Trauma*. 2016;21(4):315-324.

[64] Fredrickson BL, Tugade MM, Waugh CE, Larkin GR. What good are positive emotions in crises? A prospective study of resilience and emotions following the terrorist attacks on the United States on September 11th, 2001. *J Pers Soc Psychol*. 2003;84(2):365-376.

[65] Bonanno GA, Brewin CR, Kaniasty K, La Greca AM. Weighing the costs of disaster: Consequences, risks, and resilience in individuals, families, and communities. *Psychol Sci Public Interes Suppl*. 2010;11(1):1-49.

- [66] Reich JW. Three psychological principles of resilience in natural disasters. *Disaster Prev Manag An Int J*. 2006;
- [67] Pennebaker JW, Seagal JD. Forming a story: The health benefits of narrative. *J Clin Psychol*. 1999;55(10): 1243-1254.
- [68] Linehan MM, Comtois KA, Murray AM, Brown MZ, Gallop RJ, Heard HL, et al. Two-year randomized controlled trial and follow-up of dialectical behavior therapy vs therapy by experts for suicidal behaviors and borderline personality disorder. *Arch Gen Psychiatry*. 2006;63(7):757-766.
- [69] Hayes SC, Strosahl KD, Wilson KG. *Creating a Context for Change BT - Acceptance and Commitment Therapy: The process and practice of mindful change* [Internet]. *Acceptance and Commitment Therapy: The process and practice of mindful change*. Guilford Press; 2011. 162 p. Available from: http://books.google.com/books?hl=en&lr=&id=5_xAm0VF4X8C&oi=fnd&pg=PR1&dq=Chapter+6+Hayes+wilson+strosahl&ots=mncJaTPBey&sig=nEWkWr1lXKXl2xlz7q6NFnBjMY%0Apapers2://publication/uuid/C9D2C9EE-9027-4A11-AABA-B0E34F010B97%0Ahttp://books.google.com/books?hl=en
- [70] Khoury B, Lecomte T, Fortin G, Masse M, Therien P, Bouchard V, et al. Mindfulness-based therapy: A comprehensive meta-analysis. *Clin Psychol Rev*. 2013;33(6):763-771.
- [71] Coffey KA, Hartman M. Mechanisms of action in the inverse relationship between mindfulness and psychological distress. *Complement Health Pract Rev*. 2008;13(2):79-91.
- [72] Rodriguez-Llanes JM, Vos F, Guha-Sapir D. Measuring psychological resilience to disasters: Are evidence-based indicators an achievable goal? *Environ heal a glob access Sci Source*. 2013;12(1):1-10.
- [73] Alloway T, Runac R, Qureshi M, Kemp G. Is Facebook linked to selfishness? Investigating the relationships among social media use, empathy, and narcissism. *Soc Netw*. 2014;03(03):150-158.
- [74] Galante J, Galante I, Bekkers MJ, Gallacher J. Effect of kindness-based meditation on health and well-being: A systematic review and meta-analysis. *J Consult Clin Psychol*. 2014;82(6):1101-1114.