ISSN PRINT 2319 1775 Online 2320 7876

Research paper UGC CARE Listed (Group -I) Journal Volume 11,Iss 7, Oct 2022

COVID-19 and its Psychosocial Manifestations in Specific Population

Authors: Sachin Bhatti[1], Saksham Kumar[2], Nandita Yadav[3], Nischita Raj[4], Brijesh Saran*[5], Amoolya K Seth[6]

1-4 Junior Resident, 5 Assistant Professor, 6 Professor Santosh Deemed to be University, Ghaziabad NCR Delhi

ABSTRACT

The pandemic caused by the 2019 new coronavirus disease (COVID-19) is harming people's health and well-being all across the world. Scientific literature is progressively reporting on the psychological effects of this epidemic in addition to its effects on physical health, the economy, and society. The research publications on the epidemiology of mental health issues in COVID-19 were the basis for this narrative evaluation. According to recent research, COVID-19 survivors may experience a high burden of mental health issues, such as depression, anxiety disorders, stress, panic attacks, irrational anger, impulsivity, somatization disorder, sleep disorders, emotional disturbance, posttraumatic stress symptoms, and suicidal ideation. Additionally, a number of variables are linked to mental health issues in COVID-19, including age, gender, marital status, education, occupation, income, area of residence, coexisting physical and mental health issues, exposure to news and social media about COVID-19, coping mechanisms, stigma, psychological support, health communication, trust in health systems, personal protective measures, and perceived chance of survival. Additionally, there were differences in the epidemiological distribution of mental health issues and related factors among the general public, COVID-19 patients, and healthcare professionals. The COVID-19 pandemic and a psychiatric epidemic appear to be co-occurring, according to the available information, which requires the attention of the international health community. Future epidemiological research should focus on the varying psychopathologies and the temporality of mental health issues in various communities. However, in order to address the current psychological issues and advance mental health in the context of the COVID-19 epidemic, multifaceted treatments should be created and implemented.

INTRODUCTION

Both physical and emotional health are impacted by COVID-19. Economic, social, and psychological realms of life were all impacted by the COVID-19 pandemic. It had an impact on everyone, including the wealthy and the poor, the young and the old, and persons with and without impairments. Health facilities, lodging establishments, and even wedding venues served as quarantine, isolation, and treatment facilities for those who were COVID-19 infected or had a history of having intimate contact with COVID-19 patients. [1] Because of the social distancing norms, patients who were near death and suffering from other medical conditions were kept at home, care was provided by family members, and visits by relatives were kept to a minimum [2]. Rituals, traditions, and customs around bereavement and death differ from society to society and community to community;[3] but, the social link, a crucial component, is present in every culture. In Kashmiri culture, mourning rituals and activities assist the deceased in overcoming their grief. [5]

However, new regulations and rules were developed and put into place to control the transmission of infection for carrying out the final rituals of the deceased, funerals, and burials due to the

ISSN PRINT 2319 1775 Online 2320 7876

Research paper UGC CARE Listed (Group -I) Journal Volume 11,Iss 7, Oct 2022

highly contagious nature of the COVID-19 illness. [6] Initially, even family members were prohibited from attending these celebrations or graves in accordance with these rules. After some time, some close relatives and friends of the deceased were permitted to attend by maintaining social distance standards, although attendance at these religious meetings and burials was limited to 5 to 10.

According to the regulations outlined by the administration, mourners who were quarantined or exhibited COVID-19 symptoms were not permitted to attend the funerals. Initially, even family members were prohibited from attending these celebrations or graves in accordance with these rules. After some time, some close relatives and friends of the deceased were permitted to attend by maintaining social distance standards, although attendance at these religious meetings and burials was limited to 5 to 10. According to the regulations outlined by the administration, mourners who were quarantined or exhibited COVID-19 symptoms were not permitted to attend the funerals. It was forbidden to make physical contact with the deceased, such as by touching, hugging, or engaging in rituals like packing and purifying the corpse. [7] Although these laws and regulations greatly aided in stopping the spread of COVID-19, they complicated the grieving process and led to psychological problems in the victims.

Another issue with regard to global health is how COVID-19 affects people who test positive psychologically.[8] Although the psychological effects of COVID-19 are not yet fully understood, prior research indicates that infectious outbreaks have a significant negative impact on patients' mental health, as they may experience anxiety symptoms, fear, and a lack of hope due to treatment and health outcome uncertainties. [9], this vulnerable demographic is affected by a number of issues, including social isolation following a diagnosis of the illness, stigma and prejudice, lengthy hospitalisation, and a lack of social support.

According to reports, children and adolescents may continue to experience this pandemic's heightened long-term negative effects compared to adults [10].The type and severity of the effects on this age group depend on a variety of risk factors, including the child's or parent's developmental age, current educational status, special needs, and any pre-existing mental health conditions. Other risk factors include being economically disadvantaged and being quarantined as a result of an infection or fear of an infection. The findings of studies on the mental health of children and adolescents affected by the COVID-19 pandemic are discussed in the parts that follow, along with the implementation of lockdowns at the national or regional levels to stop the spread of illness.

Prevalence of mental health problems during COVID 19 in different populations

General population

The prevalence of mental health issues in the general population during COVID-19 has been documented in a number of studies [11,12,13]. For instance, Lei and colleagues35 utilised the self-rating depression scale (SDS) and the self-rating anxiety scale (SAS) to assess the mental health condition of 1593 respondents in Southern China who were 18 years of age and older. Anxiety and depression were more common in this study, with prevalence rates of 8.3% and 14.6%, respectively. Furthermore, compared to the other respondents (6.7%, 11.9%), the prevalence was much greater (12.9%, 22.4%) among people who knew someone who had been quarantined through their social network. Another cross-sectional study by Liang and colleagues used the General Health Questionnaire (GHQ-12), the Negative Coping Styles Scale, and the

ISSN PRINT 2319 1775 Online 2320 7876

Research paper UGC CARE Listed (Group -I) Journal Volume 11,Iss 7, Oct 2022

PTSD Checklist-Civilian Version to assess the mental health of 584 juveniles (PCL-C) [14]. In this study, 14.4% of individuals reported symptoms of post-traumatic stress disorder (PTSD), whereas roughly 40.4% of participants experienced psychiatric issues. A comparable study used the Generalized Anxiety Disorder (GAD-7) and Patient Health Questionnaire (PHQ-9) to measure sadness and anxiety in 8079 Chinese undergraduates. According to this study, there were 43.7%, 37.4%, and 31.3% prevalence rates for depression, anxiety, and a combination of the two.

Numerous research examined how COVID-19's mental health may have been affected by public health measures like seclusion and quarantine. Using the PTSD Checklist Civilian Version, PHQ-9, and sleep duration data37, Tang and colleagues evaluated PTSD and depressive symptoms in 2485 home-confined participants from 6 universities. According to this study, there are 2.7% and 9.0% more people with PTSD and depression, respectively. Extreme fear and little sleep are examples of other mental health issues.

In addition to these cross-sectional investigations, a longitudinal study polled 1738 participants from 190 Chinese cities, of whom 333 took part in both data collection sessions [15]. This study evaluated the general population's mental health twice: at the start of the outbreak and four weeks later, when it had spread more widely. The Impact of Event Scale-Revised (IES-R) mean scores showed a statistically significant longitudinal drop after four weeks (from 32.98 to 30.76, p 0.01), although this reduction was not clinically meaningful because both values were above the threshold for PTSD symptoms. Additionally, 8.1%, 28.8%, and 16.5% of the participants experienced moderate-to-severe stress, anxiety, and depression before the start of the study, respectively. These numbers did not alter significantly after four weeks.

ISSN PRINT 2319 1775 Online 2320 7876

Research paper UGC CARE Listed (Group -I) Journal Volume 11,Iss 7, Oct 2022

Patients with Covid-19

According to empirical studies, patients who tested positive for COVID-19 may have suffered negative effects on their mental health. In a mixed-method study, conducted by Guo and colleagues,[16] the mental health and inflammatory markers of 103 patients who tested positive for COVID-19 were assessed and compared with 103 matched controls who were COVID-19 negative. According to this study, COVID-19 patients exhibited higher levels of depression, anxiety, and post-traumatic stress symptoms than non-COVID controls (p 0.001). Furthermore, among COVID-19 individuals with depressive symptoms, levels of C-reactive protein (CRP), a peripheral inflammatory biomarker, showed a positive connection with the PHQ-9 total score (R =.37, p = 0.003, Spearman's correlation).

Furthermore, a web-based cross-sectional study of 7,236 Chinese people found that the prevalence of GAD, depressive symptoms, and poorer sleep quality were, respectively, 35.1%, 20.1%, and 18.2%. Another issue with mental health is suicidal conduct among people who tested positive for COVID-19. According to a case study from India, COVID-19 may have a significant negative impact on psychosocial wellbeing and influence suicidal attempts in those who are affected, which may be made worse if the patient has additional concomitant conditions[17]

Young children

Even before a child is born, stress starts to have a negative impact on them. Parents, and pregnant women in particular, are psychologically sensitive to experiencing anxiety and sadness under stress, which is biologically linked to the health of the foetus [18]. Compared to adults, young children and teenagers are more affected by the pandemic and lockdown in terms of their emotional and social development. One of the preliminary studies conducted during the ongoing pandemic indicated that younger children (ages 3-6) were more prone than older children to exhibit symptoms of clinginess and the dread of family members contracting the disease (6-18 years old).

The older kids, however, were more likely to become distracted and kept asking about the COVID-19. Regardless of their age groups, all children displayed serious psychological disorders like increased irritability, inattention, and clingy behaviour [19].Results from the questionnaires filled out by the parents show that children felt uncertain, afraid, and alone throughout the current period. It was also revealed that kids struggled with nightmares, poor appetite, irritability, inattentiveness, and separation anxiety [20]

Adolescents

Parents are the best ‘role model’ for children and home is prac- tically the ideal place to learn the ‘life skills’. Hence, now is the greatest moment for parents to model the most critical life skills i.e. coping with stress, coping with emotions, and problem-solving with their children. Due to the cancellation of tests manage disappointments and uncertainty more optimistically. For each disappointment and uncertainty, there should be an alternative. Moreover, to develop a sense of control in adolescents wherever possible, parents can in- clude teenagers in the decision-making process especially in areas relating to them.

Adolescents are predicted to have higher knowledge about COVID 19 compared to young children. Therefore, communication has to be more open and non-directive. As opposed to that,judgemental statements should be avoided.

This is an opportunity for older children to acquire responsibility, accountability, involvement, and collaboration. By adopting some tasks at home on an everyday basis, for instance main-tenance of their goods and utility items. They can learn some of the skills including cooking, managing money matters, learning first aid, organising their room, contributing to managing chores like laundry, cleaning and cooking

ISSN PRINT 2319 1775 Online 2320 7876

Research paper UGC CARE Listed (Group -I) Journal Volume 11,Iss 7, Oct 2022

Excessive internet use, such as browsing in connection with COVID-19, should be avoided as it causes anxiety. Similar warnings apply to excessive and reckless usage of social media and online gaming. It is advised to negotiate time and internet usage restrictions with teenagers. We should promote more outside games and activities that are unrelated to gadgets.

In such circumstances, engaging in creative activities like painting, music, dance, and others can support managing everyone's mental health and wellbeing. Adolescent development is aided by encouraging self-driven reading by letting them choose their own books and having discussions about them

Adolescence is a time of enthusiasm and taking risks, so some people may feel invincible and try to ignore rules regarding personal hygiene and distance. This has to be addressed with teens assertively.

It is essential to value the teenagers' peer support network. Introverted teenagers should be encouraged by their parents to stay in touch with their friends and talk to them about the issues they share. This may also lead a method for proper problem-solving.

Parents are urged to attend to their own mental health requirements and use stress-reduction techniques.

Healthcare providers

The prevalence of mental health issues among healthcare providers during COVID-19 has been assessed in a number of studies [21, 22, 23]. A single-centre cross-sectional study with 2299 individuals, comprising 2042 healthcare professionals and 257 administrative personnel from the same institution48, was conducted using the Hamilton Anxiety Scale (HAMA), Hamilton Depression Scale (HAMD), and Numeric Rating Scale (NRS) on Fear. In this investigation, substantial variations in the sever- ity of dread, anxiety, and sadness were detected between the two groups. Additionally, compared to non-clinical employees, frontline healthcare workers who had frequent interaction with COVID-19 patients were nearly twice as likely to suffer from anxiety and sadness and were 1.4 times more likely to feel fear. Another study by Cao and colleagues discovered that 52.6% of the participating nurses reported negative emotions, worrying about family, fear of infection, and stress due to a heavy workload, while 6.3% of the participating doctors reported feeling nervous after hearing the news that some doctors were positive for COVID-19.

Factors associated with mental health problems during COVID-19

Age

With regard to COVID-19, a number of research indicated that younger age was a risk factor for mental health issues[24,25]. For instance, Huang and colleagues discovered that younger individuals had considerably greater prevalences of generalised anxiety and depression symptoms than older individuals. Furthermore, Wang and colleagues found that participants under the age of 40 had a 0.40-times (95% CI: 0.16-0.99) greater risk of anxiety than participants over the age of 40, indicating that younger persons had a higher risk of anxiety. Contrary to past investigations, Chew and colleagues discovered that older persons had higher rates of mental health issues.

Gender

According to various studies, being a woman is a common risk factor for mental health issues. For instance, Li and colleagues found that compared to male patients, female patients had higher odds of having anxiety (OR = 3.206, 95% CI: 1.073-9.583, p 0.05) and depression (OR = 9.111, 95% CI: 2.143-38.729, p 0.01). In a different study by Guo and colleagues, female COVID-19 patients reported feeling more helpless than male

ISSN PRINT 2319 1775 Online 2320 7876

Research paper **© 2012 IJFANS. All Rights Reserved, UGC CARE Listed (Group -I) Journal Volume 11,Iss 7, Oct 2022**

patients (Z = 2.56, p = 0.010), as well as both female and male controls (Z = 2.37, p = 0.018) and healthy controls (Z = 2.87, p = 0.004)14. Li and colleagues conducted another study in Wuhan among medical staff members and discovered a significant relationship between female gender and insomnia symptoms (OR = 1.379, p = 0.042, 95% CI: 0.65-2.17).[26]

Marital status.

Among those who had mental health issues during COVID-19, marital status was correlated with mental health status. Among the medical professionals in Ningbo, China, Li and colleagues discovered a relationship between insomnia and marital status (OR = 0.57, p = 0.046, 95% CI: 0.33-0.99). Tan and colleagues' further research revealed that the Marital status was substantially correlated with the severity of psychiatric symptoms among returning workers

Education

Education has been linked in several studies to mental health state and issues during the COVID-19 pandemic [27]. For instance, Liang and colleagues discovered a strong correlation between young participants' mental health and their level of education (OR = 8.71, 95% CI:1.97-38.43). Low levels of schooling have also been linked to poor outcomes for mental health, according to Lei and colleagues. The prevalence of depressed and anxious symptoms was higher among senior high school students and those with higher marks, according to research by Zhou and colleagues. In a similar vein, Wang and colleagues found that individuals with a bachelor's degree or less had a 0.39-times (95% CI: 0.17-0.87) higher risk of depression than those with a master's degree or higher.

Occupation and Income

In empirical investigations, associations between occupation, income, and economic circumstances and vulnerability to mental health issues have been found. For instance, Huang and colleagues discovered that healthcare workers were more likely than other occupational categories to have poor sleep quality. Another study by Liang and colleagues indicated that those employed by local businesses had a higher risk of poor mental health outcomes than those in other occupational groups (OR = 2.36, 95% CI: 1.09-5.09). In addition, lost economic prospects as a result of lockdown were mentioned in the death of a farmer in India, which highlights socioeconomic issues that could seriously affect the mental health of people who are marginalized. In addition, those who have experienced property loss and difficult economic times are more susceptible to mental health issues. These emphasis the effects of occupational stress as well as economic instability [28]

Comorbid physical health problems.

Numerous studies have linked COVID-19 to the presence of coexisting physical health issues such diabetes, cerebrovascular illnesses, heart diseases, and other chronic disorders as a risk factor for mental health issues. For instance, zdin and colleagues found associated chronic conditions as risk factors for anxiety during COVID-19. In a different study, Chew and colleagues discovered that among the study participants, comorbid physical symptoms were significantly associated with depression, anxiety, stress, and PTSD (OR = 2.79, 95% CI: 1.54-5.07, p = 0.001, OR = 2.18, 1.36-3.48, p = 0.001, and OR = 3.06, 95% CI: 1.27-7.41, p = 0.13).

Comorbid mental health problems

People who already have mental health issues are particularly susceptible to the psychological effects of COVID-19. According to research by Hao and colleagues, for instance, greater mean IES-R, DASS depression, anxiety, and stress subscale scores as well as ISI scores were all strongly correlated with co-

ISSN PRINT 2319 1775 Online 2320 7876

Research paper **© 2012 IJFANS. All Rights Reserved, UGC CARE Listed (Group -I) Journal Volume 11,Iss 7, Oct 2022**

occurring psychiatric disorder (p 0.05). The results of this study show that people with a clinical history of psychiatric comorbidity experienced negative mental health effects that were more severe. Additionally, COVID-19 can make patients with substance use problems more vulnerable to developing later mental health issues. In a different study, Liang and colleagues discovered that among young participants, having PTSD symptoms was strongly related with mental health (OR = 1.05, 95% CI: 1.03-1.07). Additionally, according to Zhu and colleagues, having a history of depression or anxiety was a significant risk factor for doctors (T = -2.644, p = 0.010, 95% CI: -10.514-1.481), and it was also linked to an increased risk of anxiety symptoms and depression symptoms in the participating nurses

Impact of covid-19 on patients with cognitive impairment

Due to their disease status, advanced age, and associated illnesses, dementia patients are particularly susceptible to COVID-19 infection.[29]Additionally, COVID-19 positive dementia patients may exhibit behavioural and neuropsychological issues as a result of their neurological abnormalities. Here, we examine the underlying problems that put dementia patients at a higher risk of contracting COVID-19.

Risk factors of dementia vulnerable to COVID-19

Older persons are more likely to be diagnosed with dementia, making them an especially vulnerable group during the COVID-19 pandemic. According to Wu et al. findings COVID-19 patients older than 59 had 5 times worse results than younger patients. Additionally, among people aged 80 or older, increases in morbidity range from 14.8% in China to 58.9% in Italy.

Respiratory distress is prevalent in the majority of late-stage Alzheimer's disease (AD) patients, and comorbidities, such as hypertension, diabetes, obesity, and heart disease, are more likely to promote a cytokine storm that results in life-threatening respiratory failure and multi-organ damage in older people ,Bauer also asserts that people with dementia are more likely to have cardiovascular disease, diabetes, and pneumonia than people of the same age.

A noticeable characteristic of neurodegeneration and a crucial factor in the AD pathology. David Melzer and colleagues hypothesise that apolipoprotein E, an AD susceptibility gene, is associated with increased chances of severe COVID-19 infection (ApoE). The ApoE e4e4 homozygotes were 2.3 to 4.0-fold more likely to have a positive COVID-19 test, according to data from participants (n = 451,367, 90% of sample) in the United Kingdom Biobank (odds ratio [OR], 2.31; 95% confidence interval [CI], 1.65-3.24). E4 genotype not only increases risk of dementia and AD, but also exacerbates microglia-mediated neuroinflammation. [30]

Implications for mental health policymaking and practice

Developing effective mental health interventions and strategies.

The creation and implementation of multifaceted interventions and methods to address mental health problems are required in light of the most recent evidence on the epidemiological burden of these issues in COVID-19. In this discussion, it is important to properly identify and manage the men- tal health requirements of vulnerable populations, including those who already have physical or mental health issues. Additionally, psychosocial therapies provided through digital platforms including the internet, social media, mobile phones, and apps are becoming more and more populara s the disruption to in-person mental health services increases. However, before recommending such digital mental health interventions in practise, their efficacy, safety, and quality should be evaluated. [31]

Prioritizing and integrating mental health in existing systems of care

ISSN PRINT 2319 1775 Online 2320 7876

Research paper UGC CARE Listed (Group -I) Journal Volume 11,Iss 7, Oct 2022

Although there is a great need for mental health services due to the high frequency of mental health issues, most nations do not have the necessary infrastructure or human resources to fulfil this need. Prior to now, researchers and clinicians have debated the integration of mental health services into primary care, which has the potential to significantly increase access to mental health services internationally. Strengthening community-based and social health programmes and combining mental health components with the provision of referral treatment when necessary are two other ways to improve mental health care. For each context, the suitability of such approaches should be determined, and then each approach should be complemented with infection prevention measures. [32]

Addressing mental health inequities

The current literature highlights the roles of structural inequities in various contexts that influence psychosocial stressors and overall mental health outcomes among the affected individuals and identifies a number of social determinants of mental health. Therefore, a long-term objective of future government and mental health treatment should be to reduce imbalances in the social determinants of mental health. If successful, these initiatives could aid in fostering population-level positive mental health, preventing mental diseases, and fostering resilience to mental health.

ISSN PRINT 2319 1775 Online 2320 7876

Research paper UGC CARE Listed (Group -I) Journal Volume 11,Iss 7, Oct 2022

Mobilizing social and community resources and organization

To address public health issues, it is necessary to mobilise resources from several contexts. In COVID-19, local and regional groups may address the psychosocial difficulties that individuals face by enhancing collaboration and extending social capital. Communities may be able to improve their psychological wellness and other factors related to mental health by mobilising two types of social capital, namely bonding capital within a context and bridging capital from another context, which can be thought of as a strategy amid the COVID-19 pandemic.

Strengthening mental health systems for COVID-19 and future public health emergencies

When it comes to combating COVID-19, which encompasses the pandemic's effects on mental health as well, health systems around the world have a serious lack of readiness. Since the majority of countries lack robust mental health systems that could guarantee a continuum of mental health treatment from prevention to institutional care for severe mental disorders, those systems might not be able to handle the additional load of mental health issues in this pandemic. The ability to strengthen mental health services and ensure resistance to systematic shocks as witnessed during public health emergencies would likely be one of the most important lessons from COVID-19. Establishing mental health policy, creating population-based initiatives, strengthening institutional capacity to develop mental health workforce, and other possible tactics to attain such resilience.

Conclusion

Global public health emergency COVID-19 has a significant impact on mental health. A high epidemiological burden of depression, anxiety disorders, stress, panic attacks, somatization disorder, sleep disorders, emotional disturbance, PTSD symptoms, suicidal behaviour, and numerous other mental health issues may be present in individuals affected by the pandemic, according to this narrative review. Additionally, a variety of demographic and behavioural characteristics are linked to mental health issues during this pandemic, highlighting those individuals who are particularly susceptible to those negative results. When taken as a whole, the epidemiological distribution of mental health issues shows that the COVID-19 pandemic and a psychiatric epidemic are coexisting, which is obviously becoming a worldwide health issue.

To prevent the psychological effects of COVID-19 in various population groups, this evidence should be widely disseminated to the general public and the worldwide health community. Aiming for positive mental health outcomes and psychosocial resilience across communities, access to mental health services and resources should be expanded. It is however crucial to identify extremely susceptible individuals and connect them to the necessary care. This review summarises early studies on mental health epidemiology and calls for more in-depth investigation and evidence synthesis in the future in order to examine the severity and root causes of mental health issues. Finally, it is important to implement evidence-based policymaking and practise to direct how to alleviate these mental health issues in many circumstances, including the COVID-19 pandemic and upcoming public health emergencies.

References

1. Anthony Wong IK, Yang FX. A quarantined lodging stay: The buffering effect of service quality. Int J Hosp Manag 2020;91:102655.

2. Ingravallo F. Death in the era of the COVID-19 pandemic. Lancet Public Health 2020;5:e258.

ISSN PRINT 2319 1775 Online 2320 7876

Research paper **© 2012 IJFANS. All Rights Reserved, UGC CARE Listed (Group -I) Journal Volume 11,Iss 7, Oct 2022**

3. Mohanty SB. Death Rituals and Practices of the Hill Saora of Orissa. Doctoral dissertation, Utkal University, 2003.

4. Weir K. Grief and COVID-19: Saying goodbye in the age of physical distancing. American Psychological Association. Available from: https://www. apa.org/topics/covid-19/grief-distance. [Last accessed on 2020 Apr 06].

5. Jahangir MS, Hamid W. Mapping mourning among Muslims of Kashmir: Analysis of religious principles and current practices. J Death Dying 2020;84:725-45.

6. Wallace CL, Wladkowski SP, Gibson A, White P. Grief during theCOVID-19 pandemic: Considerations for palliative care providers. J Pain Symptom Manage 2020;60:e70-6.

7. Government of India, Ministry of Health and Family Welfare. COVID-19: Guidelines on dead body management, 2020.

8.Zhou SJ, Zhang LG, Wang LL, et al.: Prevalence and socio-demographic correlates of psychological health problems in Chinese adolescents during the outbreak of COVID-19. Eur Child Adolesc Psychiatry. 2020;1–10. 10.1007/s00787-020-01541-4

9.Hossain MM, Sultana A, Purohit N: Mental Health Outcomes of Quarantine and Isolation for Infection Prevention: A Systematic Umbrella Review of the Global Evidence. SSRN Electron J. 2020.

10. Shen et al., 2020

11.Zhou SJ, Zhang LG, Wang LL, et al.: Prevalence and socio-demographic correlates of psychological health problems in Chinese adolescents during the outbreak of COVID-19. Eur Child Adolesc Psychiatry. 2020; 1–10.

12.Hossain MM, Tasnim S, Sultana A, et al.: COVID-19 and suicide of an army soldier in India: perspectives on psychosocial epidemiology of suicidal behavior. SocArXiv. 2020.

13.Goyal K, Chauhan P, Chhikara K, et al.: Fear of COVID 2019: First suicidal case in India ! Asian J Psychiatr. 2020; 49: 101989.

14. Liang L, Ren H, Cao R, et al.: The Effect of COVID-19 on Youth Mental Health. Psychiatr Q. 2020; 1–12

16. Wang C, Pan R, Wan X, et al.: A longitudinal study on the mental health of general population during the COVID-19 epidemic in China. Brain Behav Immun. 2020.

17. Guo Q, Zheng Y, Shi J, et al.: Immediate psychological distress in quarantined patients with COVID-19 and its association with peripheral inflammation: a mixed-method study. Brain Behav Immun. 2020; S0889-1591(20)30618-8.

18. Hossain MM, Tasnim S, Sultana A, et al.: COVID-19 and suicide of an army soldier in India: perspectives on psychosocial epidemiology of suicidal behavior. SocArXiv. 2020 18.Biaggi et al., 2016; Kinsella and Monk, 2009

19. 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. The Lancet Child & Adolescent Health 2020;4:397–404.

ISSN PRINT 2319 1775 Online 2320 7876

Research paper UGC CARE Listed (Group -I) Journal Volume 11,Iss 7, Oct 2022

20. 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. The Journal of Pediatrics 2020;221:264–6.

21. Li G, Miao J, Wang H, et al.: Psychological impact on women health workers involved in COVID-19 outbreak in Wuhan: a cross-sectional study. J Neurol Neurosurg Psychiatry. 2020; jnnp-2020-323134.

22. Kang L, Ma S, Chen M, et al.: Impact on mental health and perceptions of psychological care among medical and nursing staff in Wuhan during the 2019 novel coronavirus disease outbreak: A cross-sectional study. Brain Behav Immun. 2020.

23. Tan W, Hao F, McIntyre RS, et al.: Is returning to work during the COVID- 19 pandemic stressful? A study on immediate mental health status and psychoneuroimmunity prevention measures of Chinese workforce. Brain Behav Immun. 2020; S0889-1591(20)30603

24. Huang Y, Zhao N: Generalized anxiety disorder, depressive symptoms and sleep quality during COVID-19 outbreak in China: a web-based cross-sectional survey. Psychiatry Res. 2020; 288: 112954.

25. Kang L, Ma S, Chen M, et al.: Impact on mental health and perceptions of psychological care among medical and nursing staff in Wuhan during the 2019 novel coronavirus disease outbreak: A cross-sectional study. Brain Behav Immun. 2020

26.Li X, Yu H, Bian G, et al.: Prevalence, risk factors, and clinical correlates of insomnia in volunteer and at home medical staff during the COVID-19. Brain Behav Immun. 2020; published online May 5.

27. Wang Y, Di Y, Ye J, et al.: Study on the public psychological states and its related factors during the outbreak of coronavirus disease 2019 (COVID-19) in some regions of China. Psychol Health Med. 2020:1–10.

28.Lei L, Huang X, Zhang S, et al.: Comparison of Prevalence and Associated Factors of Anxiety and Depression Among People Affected by versus People Unaffected by Quarantine During the COVID-19 Epidemic in Southwestern China. Med Sci Monit. 2020; 26: e924609

29.Lee JY, Kim HA, Huh K, Hyun M, Rhee JY, Jang S, et al. Risk factors for mortality and respiratory support in elderly patients hospitalized with COVID-19 in Korea. J Korean Med Sci 2020;35(23):e223.

30.Kuo CL, Pilling LC, Atkins JL, Masoli JAH, Delgado J, Kuchel GA, et al. APOE e4 genotype predicts severe COVID-19 in the UK biobank community cohort. https://www.medrxiv.org/content/10.1101/2020.05.07.20094409v2. Updated 2020. Accessed July 7, 2020.

31. Yao H, Chen JH, Xu YF: Rethinking online mental health services in China during the COVID-19 epidemic. Asian J Psychiatr. 2020; 50: 102015.

ISSN PRINT 2319 1775 Online 2320 7876

Research paper UGC CARE Listed (Group -I) Journal Volume 11,Iss 7, Oct 2022

32.Castillo EG, Ijadi-Maghsoodi R, Shadravan S, et al.: Community Interventions to Promote Mental Health and Social Equity. Curr Psychiatry Rep. 2019; 21(5): 35.