International Journal of Collaborative Research on Internal Medicine and Public Health 2022, Vol. 14, Issue 01, 001-003

Mini Review

Spike in Mental Health issues among students due to COVID19 Pandemic

Shubham Goswami*, Saujanya Chakraborty[1] and Sudip Pal[1]

Bankura Sammilani Medical College, West Bengal, India

Corresponding Author*

Shubham Goswami
Bankura Sammilani Medical College, West Bengal.
E-mail: sgoswamieducation@gmail.com

Received: 19-Jan-2022, Manuscript No. IJCRIMPH-22-51855; **Editor assigned:** 21-Jan-2022, PreQC No. IJCRIMPH-22-51855; **Reviewed:** 24-Jan-2022, QC No. IJCRIMPH-22-51855; **Revised:** 25-Jan-2022, Manuscript No. IJCRIMPH-22-51855; **Published:** 28-Jan-2022, **DOI: 10.35248/1840-4529.22.14.341**

Abstract

Background: The outbreak of COVID-19 has led to global public health and economic crisis, especially in developing countries. The COVID-19 pandemic is associated with highly significant levels of psychological distress that, in many cases, would meet the threshold for clinical relevance. While psychological support is being provided to patients and healthcare workers, the general public specifically the young adolescent student's mental health requires significant attention as well. Such widespread outbreaks are associated with adverse mental health consequences. Keeping this in mind, existing literature on the COVID-19 outbreak pertinent to mental health was studied and published articles were classified according to their overall themes and summarized. Preliminary evidence suggests that symptoms of anxiety (18.92% to 71%), depression (9% to 78.7%), symptoms of PTSD (2.7% to 16.3%) and stress (14.46% to 88%) are common psychological conditions associated with the COVID-19 pandemic, and may be associated with disturbed sleep. Several individual and structural variables moderate this risk. This review highlighted the possible causes of mental health issues among the students during the COVID-19 pandemic, the effects of COVID-19 on the psychological outcomes of the students and its associated risk factors. Student mental health in higher education has been an increasing concern. The COVID-19 pandemic situation has brought this vulnerable population into renewed focus.

Methods: A search was conducted on PubMed, Medline, Embase, Scopus and Web of Science with various relevant terms. A manual search on Google Scholar was performed to identify additional relevant studies. The articles were selected on predetermined eligibility criteria.

Results: Relatively high rates of symptoms of anxiety (18.92% to 71%), depression (9% to 78.7%), post-traumatic stress disorder (2.7% to 16.3%) and stress (14.46% to 88%) are reported among the students during the COVID-19 pandemic in China, Italy, US, Turkey, Nepal, Bangladesh, Poland, Slovenia, Czechia, Ukraine, Russia, Germany, Israel, Columbia, UAE, Taiwan, Egypt, Czech Republic, Netherlands, Greece, Saudi Arabia, Jordan. Risk factors associated with distress measures include female gender, presence of chronic/psychiatric illnesses and frequent exposure to social media/news concerning COVID-19.

Conclusions: During the COVID-19 struggle, providing sound mental health services for individuals is very important to maintain mental health. Mitigating the hazardous effects of COVID-19 on mental health is an international public health priority. Due to the COVID pandemic situation and onerous measures such as lockdown the COVID-19 pandemic brings negative impacts on higher education. The findings of our study highlight the urgent requirement to develop interventions and preventive strategies to address the mental health of college students. There is a need for more representative research from other affected countries, particularly in vulnerable populations.

Keywords: COVID-19 • Anxiety • Depression • Stress • Public health • Infection • Pandemic • Coronavirus • Mental health • College student • School Student • PTSD • Post Traumatic Stress Disorder

Introduction

We, humans, are well known to be captive to fear, worry and stress. These are considered to be normal responses perceived to a real threat. So it is normal and understandable that people are experiencing fear in the context of the COVID-19 pandemic [1]. Mental health in this context becomes one of the most important aspects. Mental health is considered an integral part of health. WHO defines health as "Health is a state of complete physical, mental and social well-being and not merely an absence of disease or infirmity". Mental health can be defined as a state of balance between the individual and the surrounding worlds state of harmony between oneself and others, coexistence between the realities of the self and that of other people and that of the environment [2]. The current ongoing Pandemic has forced the countries to go into strict lockdowns. These lockdowns have caused all the educational institutes, be it schools, colleges or other institutes to be closed for a very long duration. In the new realities of working from home, temporary unemployment, home-schooling of children, and lack of physical contact with other family members, friends and colleagues, we must look after our mental, as well as our physical health [3]. Many of us are facing challenges that can be stressful, overwhelming, and cause strong emotions in adults and children [4]. From a psychopathological viewpoint, the current pandemic is a relatively new form of stressor or trauma for mental health professionals [5]. It has been compared with natural disasters, such as earthquakes or tsunamis [6]

Though the mental health and psychological consequences can be evident in any group of people, there are a few groups where these consequences can be significantly evident. These groups can be people who have been directly or indirectly exposed to the virus; people who have certain mental or psychological stressors already present; people directly or indirectly associated with health infrastructure; even people who routinely follow news via different modes are also equally exposed to these consequences.

Methods

A search was conducted on PubMed, Medline, Embase, Scopus and Web of Science. A manual search on Google Scholar was performed to identify additional relevant studies. The search terms that were used were: (COVID-19 OR SARS-CoV-2 OR Severe acute respiratory syndrome coronavirus 2 OR 2019nCoV OR HCoV-19) AND (Mental health OR Psychological health OR Depression OR Anxiety OR PTSD OR Post-traumatic stress disorder) AND (College students OR Students OR School Students). Studies were eligible for inclusion if they: 1) followed cross-sectional study design; 2) assessed the mental health status of the School or College students or both during the COVID-19 pandemic and its associated risk factors; 3) utilised standardised and validated scales for measurement. 4) Were conducted between Nov 2019 to Dec 2020. Studies were excluded if they: 1) were not written in English 2) focused on any other subgroups of the population (e.g., healthcare workers, or pregnant women) or general population 3) were not peer-reviewed 4) did not have full-text availability.

Result

A total of 653 publications were identified. After exclusion for not having a standardized/appropriate measure, being review papers, not being full texts along with a screening of duplicated copies, 22 studies were taken into consideration (as per inclusion criteria). The sample size of the 22 studies ranged from 195 to 8079 participants, with a total of 36647 participants. A majority of study participants were over 18 years old. Female participants (n=21962) made up 59.93% of the total sample (1 study did not mention the

total percent of females, hence excluded from the total sample here). All studies followed a cross-sectional study design. The 22 studies were conducted in eight different countries, including China (n=7), Italy (n=1), US (n=6), Turkey (n=2), Nepal (n=1), Bangladesh (n=3),Poland (n=1), Slovenia (n=1), Czechia (n=1), Ukraine (n=1),Russia (n=1), Germany (n=1), Turkey (n=2), Israel (n=1), Columbia (n=1), UAE (n=1),Taiwan (n=1),Egypt (n=1),Czech (n=1), Netherlands (n=1),Greece (n=1),Saudi Arabia (n=1) and Jordan (n=1). The primary outcomes were chosen in the included studies varied across studies. 18 studies included measures of depressive symptoms while 19 studies included measures of anxiety. Symptoms of PTSD were evaluated in 4 studies. It was also observed that 7 studies contained general measures of stress.

Discussion

Violence against children: The World Health Organization (WHO) (2020) identifies six types of violence against children: 1) physical maltreatment and neglect, 2) bullying, 3) youth violence, 4) intimate partner violence, 5) sexual violence, and 6) emotional and psychological violence. McKay, Metzl, and Piemonte (2020) draw from the United States' Gun Violence Archive and argue that stay-at-home orders have reduced gun violence in public settings or schools (but increased injuries at home) [7]. A study by Jones et al. (2020) analysed interviews with adolescents in Bangladesh, Ethiopia, Jordan and the State of Palestine, and their participants talked about an increase in community violence, as well as an increase in police brutality[8]. A similar study by Parkes et al. (2020) made identical claims regarding adolescents in Uganda[9]. All these studies give us a preliminary idea about the rise in cases of violence among children. UNICEF also stated that the COVID-19 pandemic is having a devastating impact across the world. Even if the efforts to contain the coronavirus are vital to the health of the world's population, they are also exposing children to increased risk of violence including maltreatment, gender-based violence and sexual exploitation. 20% of college students, according to a study said that their mental health has significantly worsened. There is sufficient evidence in the literature that has established this bidirectional nature of mental health issues and domestic violence. Experimental research in non-human animals has documented that stress causes alterations in body and brain measures. In contrast, the requisite evidence for causation in human children is weaker. Hence, we can say to an extent that with the increase in cases of violence against children due to the pandemic situation, there would have been a proportional or at least a significant deterioration in the mental health status of the adolescents and children.

Social Isolation: Various studies have shown that extended periods of loneliness can deteriorate many mental and physical outcomes over time, causing problems like depression, musculoskeletal disorders, and even some chronic diseases. Pandemics and health emergencies, including SARS, Swine Flu, and influenza, have been associated with problematic coping behaviours, anxiety, suicide attempts and mental health disorders, including post-traumatic stress and depressive disorders, with quarantines, social isolation and limitations on freedom as possible contributing factors. According to a study, 38% of all the students said having trouble focussing on studies and/or work. It has also been seen that social isolation can modulate gene expression across various species, from Drosophila to mammals. In Drosophila, adult male flies exposed to social isolation for 4 days show robust changes in the expression of 90 genes mostly related to immune response. It is quite consistent with the finding that social isolation modulates immune response and induce inflammation. Prolonged isolation of postnatal rats resulted in differential miRNAs expression in the anterodorsal bed nucleus of the stria terminalis (adBNS), a region involved in anxiety responses. All these prove that prolonged social isolation caused by the lockdowns in this pandemic situation is quite a concern as this will trigger more cases of anxiety and depression. A study has proved that a significant amount of college-going students had significant levels of anxiety and depression. Approximately 18.9% of the total study subjects suffered from significant anxiety levels whereas 9.20% of the total study subjects suffered from significant depression levels.

Deterioration of economic status: Many studies reported that mental health problems are associated with occupation income and economic condition. Study of Liang and colleagues found that participants working as an employee in a local enterprise had an elevated risk of poor mental health outcomes compared to other occupational groups. Many factories were shut down during the lockdown period so the majority of the workers returned to their hometowns because of uncertainty and a lack of income, which put a lot of pressure on the marginal families. A study stated 48% of college students have experienced a financial setback due to COVID-19. This economic stress in one way or other puts huge stress on the minds of the students too. The National Crime Records Bureau of India informed that a total of 11,716 businesspersons died by suicide in 2020. This amounts to a jump of over 29% of the figure reported for the section in 2019 or the pre-Covid times. During the lockdown, many farmers face enormous socio-economic challenges which lead them to the part of suicide. Suicides by the earning members of the family in fact put tremendous pressure on the female counterparts as well as sons and daughters even if they are a student. There is a sharp decrease in economic activities ranging from a decline in restaurant and hotel bookings, air travel, fuel consumption, the retail sector and even the media industry. Data analysis revealed that the top 15 Economics of the world is badly hit by this covid-19 outbreak. This economic crunch will have an effect on donation programmes of internally displaced people (40.3 million), Refugees (25.9 millions) and Asylum seekers (3.5 millions). These data and information shows that occupational loss, which leads to economic instability leads to mental health issues during Covid-19 period.

Genetic linkage of susceptibility to Anxiety and Depression: Genetic factors have an important role in the susceptibility to depression. A meta-analysis of two studies on the major depressive disorder (MDD) estimated heritability at 37%. In the National Comorbidity Survey Replication, 59% of the subjects with a lifetime diagnosis of MDD also fulfilled the criteria for a lifetime anxiety disorder diagnosis. A genome-wide association study (GWAS) including almost half a million participants from the UK Biobank study revealed the existence of genetic variants associated with loneliness and regular participation in social activities. Interestingly, the expression of 8 genes was linked to susceptibility to loneliness: GPX1, C1QTNF4, C17orf58, MTCH2, BPTF, RP11-159N11.4, CRHR1-IT1, and PLEKHM1. All these studies indicate that there will be a few numbers of students who are comparatively more susceptible compared to other groups. We can say that these individuals have a lesser threshold of developing significant levels of anxiety and depression and hence are more susceptible.

Other factors: Research shows that people who follow COVID-19 news the most, experience more anxiety. Most of the news relating to COVID-19 is generally either related to the number of infections, number of deaths or other distressing information. This kind of news is associated with a rise in anxiety levels, especially when someone is constantly exposed to them. On the other hand, Misinformation and fabricated reports about COVID-19 can exacerbate depressive symptoms in the general population. Another study shows that people who spent too much time thinking about the COVID-19 outbreak (≥ 3 hours) were more likely to develop anxiety symptoms. On the other hand, the latest and most accurate information, such as the number of people who have improved and the progress of medications and vaccines, can reduce anxiety levels. It shows too much spent on COVID-19 related news and social media affects mental health. The results of epidemiological studies show that women are at a higher risk of depression. Women are more vulnerable to stress and post-traumatic stress disorder than men. In recent studies, the prevalence of anxiety depression and stress during the COVID-19 pandemic is shown to be higher in women than in men. According to recent studies, during the COVID-19 pandemic, there is an association between education levels, and anxiety and depression levels. During the COVID-19 pandemic, people with higher levels of education were found to have greater levels of anxiety, depression, and stress. According to a study which was conducted in China, the higher prevalence of mental symptoms among people with higher levels of education is probably due to this group's high self-awareness in relation to their own health.

Solution: Mental health professionals recommend promoting healthy behaviours, avoiding exposure to negative news, and using alternative communication methods such as social networks and digital communication platforms to prevent social isolation. Government and Health officials should routinely provide accurate information and provide updates against myths and misinformation. Optimistic thoughts and attitudes toward the COVID-19 spread are considered to be protective factors against depression and anxiety. According to active minds, 55% of college students do not know where to go for help for their mental health. So, authorities should take care of this and should consider opening a hotline for such students. In these hard times, where pandemics are having such disastrous effects over every aspect of the society with their multiple waves approaching humans. It is high time that we, along with the programs for mass vaccine administration and other steps to stop the virus from causing damage, need to think about the mental aspects caused by such long term isolation too. And take appropriate steps to avoid the possible 4th wave which, as stated by Dr. Victor Tseng will consist of issues like psychological trauma, mental illness economic injury and others.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

Funding

The author(s) received no financial support for the research, authorship, and or publication of this article.

Author's Contributions

• Shubham Goswami contributed to the overall design, article selection, review, and editing and manuscript preparation.

• Soujanya Chakraborty article selection, abstract preparation.
• Sudip Pal: contributed to review, editing, and article selection.

Limitations

Certain limitations apply to this review. A significant degree of heterogeneity was noted across studies. The description of the study findings was qualitative and narrative. All included studies followed a cross-sectional study design and, as such, causal inferences could not be made. In addition, all the studies were conducted via online questionnaires independently by the study participants, which raises a few concerns, firstly, individual responses in self-assessment vary in objectivity when supervision from a professional psychiatrist/ interviewer is absent, and secondly, people with poor internet accessibility were likely not included in the study, creating a selection bias in the population studied. Another concern is the over-representation of females in most studies.

References

1.https://www.who.int/teams/mental-health-and-substance-use/mental-health-and-covid-19 (Last date of accession- 30 Dec 2021)

2.Andreasen, Nancy C., et al. "Symptoms of schizophrenia: Methods, meanings, and mechanisms." Arch Gen Psychiatry 52.5 (1995): 341-351.

3.https://www.who.int/teams/mental-health-and-substance-use/mental-health-and-covid-19 (Last date of accession- 30 Dec 2021)

4.https://www.cdc.gov/mentalhealth/stress-coping/cope-with-stress/index.html (Last date of accession- 31 Dec 2021)

5.Kang, Lijun, et al. "The mental health of medical workers in Wuhan, China dealing with the 2019 novel coronavirus." Lancet Psychiatry (2020).

6.Morganstein, et al. "Ecological disasters and mental health: causes, consequences, and interventions." Front. psychiatry 11 (2020): 1.

7.Morganstein, et al. "Ecological disasters and mental health: causes, consequences, and interventions." Frontiers in psychiatry 11 (2020): 1

8.Jones, Nicola, et al. "I have nothing to feed my family." Covid-19 risks pathways for adolescent girls in low-and middle-income countries (2020).

9.Parkes, Jenny, et al. "Young people, inequality and violence during the COVID-19 lockdown in Uganda." (2020): 1-43.

10.Sagar, Rajesh, and Gagan Hans. "Domestic violence and mental health." J. Ment Health Hum Behav. 23.1 (2018): 2

Cite this article: Goswami S**.** Spike in Mental Health issues among students due to COVID19 Pandemic. Int. J. Collab. Res. Intern. Med. Public Health. 2022, 14 (01), 001-003