Edumania-An International Multidisciplinary Journal

2024, Vol. 02, Issue 04, 101-112
ISSN: 2960-0006
DOI: https: https://doi.org/10.59231/edumania/9076

Psychological impact of physical distancing due to covid 19 pandemic on school and higher education students

Kumar, Sandeep[1]

[1]Professor of Chemistry, and 'by courtesy of psychology', NIILM University Kaithal, Haryana

Simran[2]

[2]Assistant Professor, Department of Commerce & Management, Imperial College Hisar, Haryana

Abstract

MoHFW India, WHO, NHS, and CDC suggested imposing lockdown and closing educational institutions with the spread of covid 19 pandemic to reduce the risk of transmitting the disease. Students faced negative mental health symptoms due to unexpected transition from physical to virtual learning, increased screen time, physical distancing, altered habits, rumors through news, print media, social media, and other means. This study focuses on the psychological impact of covid 19 on school and higher education students due to psychosocial factors like physical distancing. 2140 students, mixed gender, in age from 17 years to 25 years (M = 22.73, SD = 6.12) are selected as sample population for the study. Mixed-method approach is used for data collection that include face to face interactions in clinics, Health Questionnaires & Self-Reports, online counseling to assess the stress & depression, Generalized Anxiety Disorder-7, rating scales for Behavior analysis, Warwick-Edinburgh Mental Well-being Scale to assess perceived stress, depression, anxiety, and mental health & well-being, respectively. Analysis of data shows that 42.7% of school and higher education students have either depression or anxiety. 71.7% of students reported poor health and well-being. 36.7% of students reported fear of getting infected by virus, many students were reported with cognitive dissonance in myths and truths about Covid-19. 37.9% of students spend their time on media & social media, including watching TV or reading Covid-19 related news and information on various platforms. About 56.2% students reported with increased use of social media. There was a minor difference between depression and anxiety, as reported by females and male students, however expression of separation fear was slightly higher in male students than female students. Physical distancing and lack of social interaction caused

@2024 International Council for Education Research and Training 2024, Vol. 02, Issue 04, 101-112
ISSN: 2960-0006 DOI: https: https://doi.org/10.59231/edumania/9076

stress, anxiety (GAD) and depression symptoms in students due to imbalances in hormones & neurotransmitters.

Keywords: social distancing, pandemic, depression, anxiety, stress, covid-19

Introduction:

With emergence of Covid 19, Government of India imposed lockdown countrywide in first wave to ensure social isolation and physical distancing but in the second wave state lockdowns as precaution for containment measures at state level or city level was announced, in both situations, people were not allowed to leave the home and staying at home made them stressful. Due to pandemic, the psychological impact of pandemic was theme in various studies carried out during and after the pandemic. Although the wider impacts of the covid 19 pandemic on the mental health are yet to be studied and uncovered, however as short-term negative impacts, number of people faced negative mental health symptoms like irritability, stress, insomnia or hypersomnia, and anxiety. Various studies shows that the physical distancing as preventive measure during early stage decreased the transmission as it decreased the contact rates between susceptible individuals (Roy et al., 2020). On the recommendations of Home Minister, educational institutions were completely closed and students need to stay at home, physical distancing and misinformation spread by social media, media & other means caused negative mental health symptoms in students and educators. This sudden transformation from the physical classroom to the digital classroom, increased screen time, social isolation, discrimination, disrupted sleep & routines, and altered the habits of students and educators that affected their brain biochemistry. According to World Health Organization (WHO, 2004), mental health is "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and can make a contribution to his or her community". Young school and higher education students experienced more mental health challenges, including academic pressure, and family pressures. This study focuses on the psychological effects, inevitable challenges faced by students and their responses due to psychosocial factors including social distancing that emerged due to Covid-19 pandemic on school and higher education students.

@2024 International Council for Education Research and Training 2024, Vol. 02, Issue 04, 101-112
ISSN: 2960-0006 DOI: https: https://doi.org/10.59231/edumania/9076

Depression, traumatic stress, and anxiety causes sleep related disorders. Number of students felt sleep disturbance that is one of the diagnostic symptoms of depression. Sleep and mental health & wellbeing are directly associated (Goldsmith *et al.*, 2006; Horne, 2006; Vandekerckhove & Cluydts, 2010). Albert Ellis (1993, 1999), who developed rational emotive behavior therapy, believed that irrational thinking results emotional disturbance. Hopelessness and helplessness are the prime characteristic of Depression.

Lockdown imposed due to due to covid-19, impacted most of the population and around 40% of the population suffered from the common mental health symptoms (Grover S *et al.*, 2020). Mental health disorders including symptoms like sense of loneliness, stress, anxiety, sleep disturbances, fear, anger, etc., are the symptoms of significant mental health problems including depression caused by isolation & social distancing due to covid-19. Due to closure of schools, school teachers were engaged in online teaching, that was a new way of teaching for most of the teachers as they were not provided any training on virtual teaching. New ways of teaching, salary deductions, lack of digital resources and other psychosocial factors caused negative mental health symptoms in school teachers (Kumar S., 2021). Different individuals were impacted differently by the pandemic due to variation in their cognitive competencies, i.e. knowledge, skills and attitudes (Srivastava & Reddy, 2020). Although lockdown made students to stay at home but it was not easy for students to engage in domestic activities, chores, and studies throughout the day. In educational institutions, students have diversity and social relations including intimate friendship relations. It was hard not only for students but for parents also it was a harassing experience to channelize children energy into productivity at home and all this altered daily routine of parents and children (Verma. S.P, 2020). A survey by Mohit Varshney *et al*. (May, 2020) in India, reported that 33% of participants faced a higher degree of psycho-social impact of covid-19 lockdown in the first wave, and it was more in children and females.

Self-regulation, mindfulness, and compassion is exercised by people for controlling one's own behavior. Cognitive competence helps a person to control the event or his/ her behavior on events that make things uncontrollable. Some studies reported that pandemic changed most loving relationships, there was increased rate of domestic violence (Campbell A.M., 2020). Continuously staying at home changed the behavior pattern most of the population, students in adolescence and early adulthood impacted more due to in the age of growth & hormonal changes. For the impacts

@2024 International Council for Education Research and Training 2024, Vol. 02, Issue 04, 101-112
ISSN: 2960-0006 DOI: https: https://doi.org/10.59231/edumania/9076

of Covid-19 on education, environment, society, and children various researches and literatures are available (Kumari & Shukla, 2020) more researches need to be done long term psychosocial impacts. Studie on university students (Chinna K *et al.,* 2021) showed that more anxiety was experienced by female than male, and most of students out of these used social support and acceptance as a coping strategy. Cognitive competencies of the individual and the life skills play significant role in managing & coping with adversities and its impact on the body. Stress, depression and anxiety symptoms were continued even after reopening of education institutions, the severity of the symptoms was varied in students' due readjustment problems, domestic & financial issues, and academic losses (Ren Z *et al.,* 2021). Students were engaged in online classes and virtual learning. Some students having digital resources at their home were able to engage in learning but other were lacking it. However, AI might have impacted the learning and creativity of students, excess dependency on AI can impact learning and creativity negatively (Kumar, S., 2023). There was some difference in the impact as female students were reported more prone to negative mental health symptoms, there was a difference in the impact on urban & rural students, although there was increase in the awareness level of students (Moghe K *et al.,* 2020). The efforts by educational institutions to ensure the social distancing to mitigate the spread of the virus resulted altered habits & behavior patterns, and this impacted mental health negatively. People who are able to change their cognition can cope the adversity and take it as opportunity, people with high cognitive competence and patience have the ability to transform themselves in the adversities (Kumar, S., 2024).

Objective of the Study:

Association between covid 19 and its impact on mental health is studied by many researchers. A substantial increase in domestic violence, stress, depression, loneliness, anxiety and other mental issues is reported in various researches. Students were physically isolated from their peer groups, the peer learning transformed to digital learning with lack of resources, that impacted student mental health & well-being. These inevitable challenges faced by student community, and role of cognitive competence i.e. knowledge, skills and abilities in managing & coping with depression, stress, and other mental health issues needed to be studied further. The current study is carried out with the objective to assess the psychological impact of covid-19 on the mental health of school

@2024 International Council for Education Research and Training 2024, Vol. 02, Issue 04, 101-112
ISSN: 2960-0006 DOI: https: https://doi.org/10.59231/edumania/9076

and higher education students. It aimed to assess the psychological impact of social distancing in lockdown due to Covid-19, in both waves with an objective to assess the prevalence of mental health challenges perceived and its responses due to physical distancing in school and higher education students. Increased screen time due to digital learning, lack of peer support in learning, poor internet connectivity, social distancing, and misinformation by social media & other medias played a positive role in developing psychotic symptoms. The study has correlational & descriptive design to assess the negative effects of the pandemic on the mental health of school and higher education students that impacted their emotional, social, and cognitive growth.

Limitations of the Study:

The sample of the study includes students in adolescence and early adulthood, studying in schools and higher educational institutes. Participants were from different schools in India. Data was collected for one year during the pandemic period through offline/ online modes, so may have time and resource constraints. Self-rater bias may affect the data, as the rating scales are self-rated. Longitudinal data is taken from the clinical records and also procured from the participants, lacking of longitudinal data may be due to lack of systemic assessment.

Participants & Design

A mixed-methods approach is used for data collection having four methods employed. Interviews in clinics and counseling data to assess the stress, minor and major depression as qualitative methods is used. With this GAD-7, PHQ-9 scale, self-reports questionaries, rating scales for behavior analysis, WEMWBS to assess perceived depression, stress, anxiety and mental well-being are also used. The study population sample consisted 2140 male and female students in the age from 17 to 25 years (M = 22.73, SD = 6.12).

Summary:

Regression analysis and descriptive statistics are shown in tables. Isolation, separation distress, academic impairment, sleep disturbances, behavior aspects, nightmares, muscle tension, fatigue, irritability, and inattention are taken as predictors' variables (IV) and anxiety is taken as criterion

@2024 International Council for Education Research and Training 2024, Vol. 02, Issue 04, 101-112
ISSN: 2960-0006 DOI: https: https://doi.org/10.59231/edumania/9076
variable (DV). In the regression analysis, *p-value* indicates a significant correlation of criterion variables to predictor variables.

Graph 1: Socio-demographic profile of Participants

Out of the total population of the sample, 47% were female students and 53% were male students. Students studying in school and undergraduate classes were 60% of the sample size and students studying in post-graduate classes were 40%. In marriage status, 10% were married candidates, 89% students were unmarried, and only 1% of the population was separated.

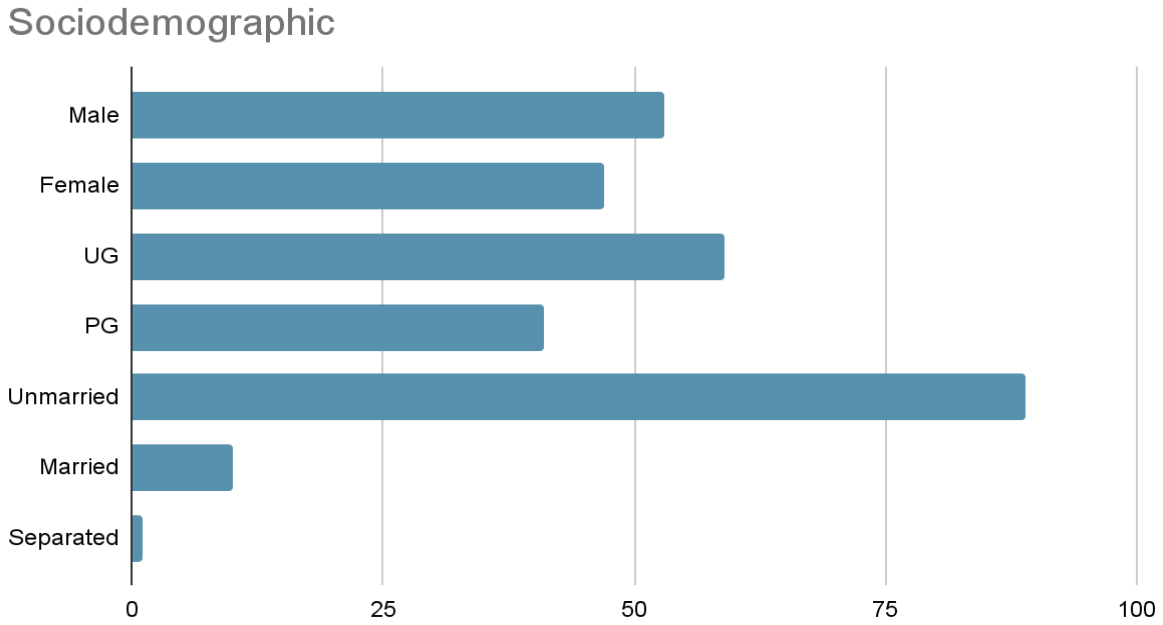


Table 1: Descriptive Statistics Based on DSM-5, for Predictor Variables and Correlations to Criterion Variable Anxiety

Predictor Variable	**M**	**SD**	**SE**	**φ**	***p***
Distress due to separation	4.20	0.91	0.19	0.67	.047
Reluctance of being alone	4.12	0.87	0.17	0.71	.048
Impairment in academics	6.13	1.17	0.26	0.97	.037
Nightmares of separation	4.79	0.94	0.20	0.60	.032
Clinging behavior	5.12	1.09	0.24	0.94	.042
Fatigues & Restlessness	3.97	0.81	0.13	0.67	.049

@2024 International Council for Education Research and Training 2024, Vol. 02, Issue 04, 101-112
ISSN: 2960-0006 DOI: https: https://doi.org/10.59231/edumania/9076

Muscle tension	3.88	0.79	0.12	0.59	.073
Sleep disturbances	5.98	1.13	0.24	0.96	.039
Inattention & Irritability	4.93	1.06	0.16	0.97	.037

Data collected from the participants is analyzed on 7-point rating scale. Predictor variable-wise average score and *p-value* is given in the table above. Diagnostic criteria are adopted from DSM-5, diagnostic features as predictor variables specify the degree of anxiety faced by the students. The data analysis shows a marginalized difference between anxiety faced by male and female students; however, fear of separation is faced more by male students than female students. GAD-7 scores, clinical record, and reports reflect that 18.9% of male students reported anxiety issues, whereas 20.3% of female students reported extreme to mild anxiety prevalence 2 to 5 months. Out of the total participants, 15.8 % of students faced severe anxiety related issues, whereas 23.3% of students faced mild anxiety. 39.3 % students faced anxiety and stress varying from mild to severe. *P*-value and phi coefficient values of the data show a positive correlation between CV (Criterion Variable) and PV (Predictor Variable).

Table 2: Descriptive Statistics, Based on DSM-5, for Predictor Variables and Correlations to Criterion Variable Depression

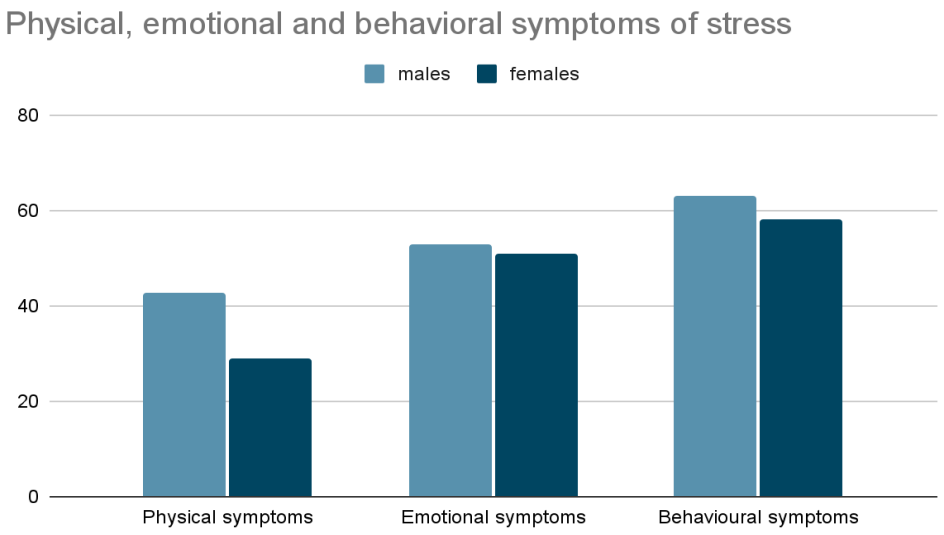
Predictor Variable	**M**	**SD**	**SE**	**φ**	***p***
Frequent temper outbursts	5.42	0.94	0.21	0.94	.052
Depressed mood	5.18	0.93	0.20	0.96	.057
Diminished Interest	5.17	0.92	0.20	0.95	.038
Weight loss	4.09	1.17	0.23	0.93	.053
Weight gain	4.77	1.18	0.23	0.94	.049
Feelings of worthlessness	5.78	0.95	0.19	0.98	.039
Insomnia	5.05	0.91	0.21	0.94	.051
Hypersomnia	4.93	1.04	0.22	0.91	.048

The above table reflects the data collected from participants, and score from HDRS (HDS-SIV, Ham-D) on the 7-point scale is used for mean & standard deviation. Diagnostic criterion is adopted from the DSM-5. Diagnostic features are taken as PV (predictor variables), and reflects the

@2024 International Council for Education Research and Training 2024, Vol. 02, Issue 04, 101-112
ISSN: 2960-0006 DOI: https: https://doi.org/10.59231/edumania/9076

depression faced by participants. PV and CV correlation is represented by Phi coefficient value and *p*-value, higher values for PV are positively correlated with the extremeness of CV. Clinical data, and PHQ-9 data reflects 11.8% students faced depression. 9.7 % students faced anger, frustration and chronic irritability in behavior more frequently within a week. 12.7 % students reported hopelessness, depressed mood with subjective feelings like emptiness, sadness, etc., with loss of pleasure almost in all day-to-day activities or pleasant activities as per hobbies. 7.7% students reported weight loss, 24.6% students reported weight gain, 4.6 % students reported feelings of worthlessness occasionally during the pandemic. A number of students felt sleep disorders, 8.3% students reported insomnia and 33.8% students reported hypersomnia.

Graph 2: Psychological, Physiological, and Social, Symptoms of Stress



Participants are categorized in three groups, emotional, physical, and behavioral symptoms to find the average number of students who felt stress and poor mental health & well-being, WEMWBS and other behavior rating scales data is represented in the form of score. 42.8 % male students and 28.7 % female students, and 76.6% total students felt moderate to higher levels of stress.

Discussion & Findings:

The study is carried out with the purpose to analyze the impact of pandemic due to covid 19, on the mental health of school and higher education students. The data analysis of this research support and evidences that school and higher education students adversely impacted by the

@2024 International Council for Education Research and Training 2024, Vol. 02, Issue 04, 101-112
ISSN: 2960-0006 DOI: https: https://doi.org/10.59231/edumania/9076
physical distancing due to pandemic lockdown imposed by the government. The key findings of the study are:

1. Out of the total number of participants, 42.8% students reported either depression or anxiety; however, a greater number of students reported anxiety rather than depressive symptoms. Male and female students reported a marginalized difference between depressive symptoms and anxiety; however, fear of separation was more in male students than female students.
2. 24.8% students reported with weight gain, 7.6% students reported with weight loss, and 4.8 % students reported the feelings of worthlessness periodically during the lockdown period.
3. 71.8% students reported poor mental health and well-being, mostly students reported altered sleep habits, 8.3% students felt insomnia and 33.8% students felt hypersomnia.
4. 36.8% students felt fear of getting infected by virus, a major number of students felt cognitive dissonance regarding the myths and truths of pandemic due to covid-19.
5. 37.8% students spent their time on media including watching TV or reading pandemic due to covid-19 news and related information on social media and other platforms.
6. 56.3% students reported increased used of social media from slight to a marked increase.

Conclusions:

Human brain is wired to connect and likes social interactions, lack of social interaction significantly impact brain health by causing depression, stress, anxiety (GAD) and related mental health symptoms in students and having intimate partner relations at institutional level, academic worries, self-expectations and family expectations somewhere boosted negative mental health issues. A major number of students faced imbalances in hormones and neurotransmitters i.e. brain biochemistry. This study provides support to the theoretical and practical findings of various psychosocial theories; however, the generality of the research results must be established by future researches. This study reveals that the mental health of school and higher education students is negatively impacted by the lockdown due to covid-19 pandemic, and a majority of students faced inevitable psychological challenges and responses to deal with such adversity.

Suggestions:

- Mental health education, counseling and guidance services at educational institutions must be strengthened.

@2024 International Council for Education Research and Training 2024, Vol. 02, Issue 04, 101-112
ISSN: 2960-0006 DOI: https: https://doi.org/10.59231/edumania/9076

- Adolescence period is the most critical stage in the life, so there is a need to nurture resilience and cognitive flexibility from childhood. The co-curricular in schools and higher educational institutes should be designed to enhance resilience, cognitive competence and develop the life skills.
- Students from childhood to early adulthood should be trained to cope with feelings of self-burnout and self-helplessness.
- Parents and educators must be sensitized on nurturing a higher level of managing behavior that is must for high self-esteem.
- Student empowerment at the ground level must be studied further.

References:

1. Campbell, A. M. (2020). An increasing risk of family violence during the Covid-19 pandemic: Strengthening community collaborations to save lives. *Forensic Science International. Reports*, *2*, 100089. https://doi.org/10.1016/j.fsir.2020.100089

2. Casola, P. G., Goldsmith, R., & Daiter, J. (2006). Assessment and treatment of sleep problems. *Psychiatric Annals*, *36*(12), 862–868. https://doi.org/10.3928/00485713-20061201-02

3. Chinna, K., Sundarasen, S., Khoshaim, H. B., Kamaludin, K., Nurunnabi, M., Baloch, G. M., Hossain, S. F. A., Sukayt, A., Dalina, N., Rajagopalan, U., Kumar, R., & Memon, Z. (2021). Psychological impact of COVID-19 and lock down measures: An online cross-sectional multicounty study on Asian university students. *PLOS ONE*, *16*(8), e0253059. https://doi.org/10.1371/journal.pone.0253059

4. Ellis, A. (1993). Reflections on rational-emotive therapy. *Journal of Consulting and Clinical Psychology*, *61*(2), 199–201. https://doi.org/10.1037/0022-006X.61.2.199

5. Ellis, A. (1999). Why rational-emotive therapy to rational emotive behavior therapy? *Psychotherapy: Theory, Research, Practice, Training*, *36*(2), 154–159. https://doi.org/10.1037/h0087680

6. Grover, S., Sahoo, S., Mehra, A., Avasthi, A., Tripathi, A., Subramanyan, A., Pattojoshi, A., Rao, G. P., Saha, G., Mishra, K. K., Chakraborty, K., Rao, N. P., Vaishnav, M., Singh, O. P., Dalal, P. K., Chadda, R. K., Gupta, R., Gautam, S., Sarkar, S., . . . Janardran Reddy, Y. C. (2020).

@2024 International Council for Education Research and Training 2024, Vol. 02, Issue 04, 101-112
ISSN: 2960-0006 DOI: https: https://doi.org/10.59231/edumania/9076

Psychological impact of COVID-19 lockdown: An online survey from India. *Indian Journal of Psychiatry*, *62*(4), 354–362. https://doi.org/10.4103/psychiatry.IndianJPsychiatry_427_20

7. Horne, J. (2006). *Sleepfaring: A journey through the science of sleep*. Oxford University Press.

8. Kumar, S. (2021). Physical distancing and Psychological Impacts of COVID-19 on college and university Students: Challenges and its responses (1st ed., Vol. 1) [English]. Digambarrao Bindu ACS College. https://dbcbhokar.edu.in/file/book%20publications/Edited%20Book-CCSD-2021.pdf

9. Kumar, S. (2021). Psychosocial impact of Covid-19 Pandemic on school educators' mental health and role of cognitive competence in coping with such adversities. *International Journal of Biological Innovations*, *03*(2), 323–330. https://doi.org/10.46505/IJBI.2021.3212

10. Kumar, S. (2023). Artificial intelligence learning and creativity. *Eduphoria-An International Multidisciplinary Magazine*, *01*(2), 13–14. https://doi.org/10.59231/eduphoria/230402

11. Kumar, S. (2024). The Relationship between Cognitive Behavior therapy (CBT) and Depression Treatment Outcomes: A review of literature. *Eduphoria-An International Multidisciplinary Magazine*, *02*(3), 20–26. https://doi.org/10.59231/EDUPHORIA/230410

12. Kumar, S. (2024). Patience catalyst for personal transformation. *Eduphoria-An International Multidisciplinary Magazine*, *02*(2), 77–80. https://doi.org/10.59231/eduphoria/230408

13. Kumari, T., & Shukla, V. (2020). COVID-19: Towards confronting an unprecedented pandemic. *International Journal of Biological Innovations*, *02*(1), 1–10. https://doi.org/10.46505/IJBI.2020.2101

14. Moghe, K., Kotecha, D., & Patil, M. (2020). *COVID-19 and mental health: A study of its impact on students in Maharashtra, India*. *medRxiv* 2020.08.05.20160499. https://doi.org/10.1101/2020.08.05.20160499

15. Ren, Z., Xin, Y., Ge, J., Zhao, Z., Liu, D., Ho, R. C. M., & Ho, C. S. H. (2021). Psychological impact of COVID-19 on college students after school reopening: A cross-sectional study based on machine learning. *Frontiers in Psychology*, *12*, 641806. https://doi.org/10.3389/fpsyg.2021.641806

@2024 International Council for Education Research and Training 2024, Vol. 02, Issue 04, 101-112
ISSN: 2960-0006 DOI: https: https://doi.org/10.59231/edumania/9076

16. Roy, N., Pal, A., & Chaube, R. (2020). COVID 19: A systematic approach to combat the deadly virus. *International Journal of Biological Innovations*, *02*(2), 88–94. https://doi.org/10.46505/IJBI.2020.2202

17. Srivastava, B., & Reddy, P. B. (2020). Assessment of KAP (knowledge, attitude and practice) of university students towards prevention of COVID-19. *International Journal of Biological Innovations*, *02*(2), 117–125. https://doi.org/10.46505/IJBI.2020.2206

18. Vandekerckhove, M., & Cluydts, R. (2010). The emotional brain and sleep: An intimate relationship. *Sleep Medicine Reviews*, *14*(4), 219–226. https://doi.org/10.1016/j.smrv.2010.01.002

19. Varshney, M., Parel, J. T., Raizada, N., & Sarin, S. K. (2020). Initial psychological impact of COVID-19 and its correlates in Indian Community: An online (FEEL-COVID) survey. *PLOS ONE*, *15*(5), e0233874. https://doi.org/10.1371/journal.pone.0233874

20. Verma, S. P. (2020). Lifestyle changes due to COVID-19 & its impact on health during the lockdown. *International Journal of Indian Psychology*, *8*(2), 193–198.

21. World Health Organization. (2004). *Promoting mental health: Concepts, emerging evidence, practice. World Health Organization (summary report).*

22. Addo, D. E., Efut, E. N., Akpo, D. M., & Egor, O. W. (2023). Innovative instructional design packages for promoting inclusive and participatory interactive learning experience in Nigeria. *Shodh Sari-An International Multidisciplinary Journal*, 70–87. https://doi.org/10.59231/sari7575

23. Agarwal, R. (2023). Use of technology by higher education students. *Shodh Sari-An International Multidisciplinary Journal*, *02*(04), 152–161. https://doi.org/10.59231/sari7631

24. Fatima, I. (2023). Role of Teachers To impart quality education for equitable learning. *Shodh Sari-An International Multidisciplinary Journal*, *02*(03), 462–471. https://doi.org/10.59231/sari7619

Received on Dec 16, 2023

Accepted on May 20, 2024

Published on Oct 01, 2024