Original Research Paper

Social Science

COVID-19 PANDEMIC AND UNIVERSITY RESEARCH STUDENTS : THE ANALYSIS OF STRESS AND COPING STRATEGIES

Dr. Yatindra Mishra	Associate Professor, Department of Social Work, Bundelkhand University, Jhansi,UP
Upmesh Kumar*	PhD Candidate- Social Work, Department of Social Work, Bundelkhand University, Jhansi,UP*Corresponding Author

ABSTRACT The present study has assessed the perceived stress and coping strategies, among the research students amid the Covid-19 lockdown in Bundelkhand University, Jhansi. Objectives: The objectives of the study were to assess perceived stress and coping strategies of the research students of different discipline in Covid-19 lockdown, and to determine the association, if any, of stress and coping with selected demographic variables. Material and Method: This was conducted online from April 2021 to June 2021. Third, 4th & 5th year of PhD research students (N=72) participated, whose perceived stress and coping strategies, due to Covid-19, were assessed through an online questionnaire. The tool used was comprised of three sections- demographic data, as part-A; Perceived Stress Scale, as part-B; and Coping Strategies Scale, as part-C. Results: It highlights perceived stress among the research students who were earlier active in daily routine and overall lifestyle. Mean coping strategies score was measured to 73.18+13.12and perceived stress score was 20.44+6.21 with maladaptive coping strategy being the highest in the participants. Conclusion: Study observed perceived stress in research students during Covid-19 lockdown, who previously showed a hectic daily routine and lifestyle. The mean coping strategies score was measured as 73.18+13.12among the participants and perceived stress score was 20.44+6.21 with maladaptive coping strategy being the highest in the participants. The amplified understanding about Covid-19 may help to diminish its fear and reduce Covid-19 related stress.

Introduction

The first case of a respiratory illness caused by a novel corona virus,2019- nCoV, also known as Covid-19, was reported in Wuhan, China late 2019 (Yang, 2020). The disease has spread outside the Chinese border to other countries and regions. Soon it was declared Covid-19 as a global pandemic danger of the disease to the human health and well-being (WHO, 2020).It has been challenging for students in more ways since in-person classes shifted to in-online and "stay home, stay safe "order followed; many students have faced a distress, and change in their employment status. Present study assesses perceived stress and coping strategies during Covid-19lockdown among research students of Bundelkhand University, Jhansi, Uttar Pradesh. The pandemic has shown negative psychological impact on healthy communities. The sudden appearance, rapid transmission, non-availability of definitive treatment or vaccination and fear of Covid-19haveresultedas psychological consequences of anxiety, stress and other mental disorders (Shigemura , 2020).

It disrupted all economic and social activities in the world including higher education which has been in most horrible state. Higher education is an interactive in nature and such institutions constraint to shut down across the world. The state government announced the closure of all educational institutions from mid of March 2020in Jhansi, Uttar Pradesh after the Union Government declared, stay home, stay safe. The subsequent advisories suspended on-campus academic activities, higher education institutions (HEIs), switched to online mode to continue academic programs. Like elsewhere, most of the HEIs in Uttar Pradesh had less prior experience of delivering programs completely online and therefore, applied varied approaches depending on their size, governance models, and disciplinary differences. The Bundelkhand University Jhansi still continuing their programs online even after a year of pandemic. Students, including research students, have been adapting to this new pattern of education through improvements and innovations in online teaching and learning process over the past one year. The Bundelkhand University successfully completed through offline & online coursework of 5thBatch of research programme where students actively participated, but appeared with stress and fear, for final online coursework examination.

However, weakness of online teaching infrastructure, inexperience of teachers regarding new technologies, information gap, and complex home environment still prevailing. Research students, through Covid-19 induced online education, are facing numerous challenges, such as instructional technological and technical; social and family atmosphere; home confinement; emotional and psychological disturbance. Furthermore, many students do not find a suitable space in their homes for effective learning, and many do not have access to sufficient hardware or internet which further constrains their home teaching or learning (Zhang, 2020).The psychological issues have the mental health of people due to social distancing and home confinement as the lockdown measures observed in many countries worldwide including India.

The descriptive studies on anxiety worry and perceived stress in the world due to the Covid-19 pandemic was conducted in 41 countries. Its results revealed significant higher scores of perceived stress among women, youth, students, and among those who expressed concern and those who perceived increased susceptibility to the Covid-19 (Limacaoco et. al. 2020), fear of Covid-19, daily stress, and technological stress associated with resilience and coping strategies (Francisco Manuel Morales-Rodríguez,2021). In our study, we identified an inverse relationship between the students' fear of Covid-19and the use of the cognitive restructuring coping strategy, while we identified a direct positive correlation between the variable resilience-personal competence and acceptance of oneself and life and the problem solving coping strategy.

Stress and coping mechanism has indicated a moderate level of perceived stress with mean perceived stress score of 21.88 (+4.30) and the mean coping strategies score 74.38 (+12.30) in undergraduate nursing students. The 4th year nursing students have the highest stress score with a mean of 22.56 ± 4.207. Hence there is the need for authorities to take measures to reduce stress among the students (Sheroun et.al, 2020).Another explorative research reports a significant adverse impact on the mental health among college students. Major coping strategy adopted by the students is problem-focused coping by seeking social support from their friends, family members and university (Malisa Falasifah et.al, 2020).

Methodology: Material and Method

Present study was cross sectional and descriptive where 72 participants were included with purposive sampling for data collection. It aims to assess the perceived stress and coping strategies among research students during lockdown due Covid-19pandemic, Bundelkhand University, a public university in Jhansi, Uttar Pradesh.

The main objectives were to understand the socio-demographic variables of participants, to assess the perceived stress of the research scholars and to assess the coping strategies adopted by the research scholars. The following inclusion criteria used: only research students University were included, should be 23 to 42 years of both sex, having knowledge of online survey and frequent user of internet facility either in their smart phone, laptop or in desktop computer. Similarly,

Exclusion criteria were: participants residing or belong to other cities than Jhansi were excluded.

We have used operational definition as: Bundelkhand University Students, students undergoing research program in various discipline in the University. Lockdown, restrictions imposed on the general public to remain indoors and maintain social distancing with each other in the outbreak of pandemic. The perceived stress feelings or thoughts which the research students have about how much stress they are since being under lockdown in the past month. The Coping strategies refer to the specific efforts, both behavioral and psychological strategies of students that tolerate, reduce, or minimize stressful events duringCovid-19 lockdown.

Data collection tools used were-online questionnaire consisting into three parts- semi structured socio-demographic data sheet; perceived stress scale (PSS) (Cohen,1983) and a brief coping strategies scale(Carver,1997).

The socio-demographic data include detail respondents i.e. gender, age, batch, marital status, religion, type of family, discipline etc. The perceived stress scale (PSS) is the most widely used psychological instrument for measuring the perception of stress. The scale also includes a number of direct queries about current levels of experienced stress. The items are easy to understand, and the response alternatives are simple to grasp (Cohen1983). Moreover, the questions are of a general nature and hence are relatively free of content specific to any subpopulation group. The questions in the PSS ask about feelings and thoughts during the last month. In each case, respondents are asked how often they felt a certain way. Stress among nursing students was measured using a previously validated (Cronbach'sα coefficient of internal consistency 0.85) perceived stress scale (PSS). The scale yielded a single score, with high scores indicating higher levels of stress and lower levels indicating lower levels of stress (Cohen, 1983).

Brief Cope Strategy Scale, a 28 item self-reported questionnaire designed to measure effective and ineffective ways to cope with a stressful life event. The "Coping" is defined broadly as an effort used to minimized tress associated with negative life experiences. The scale can determine someone's primary coping styles such as emotion focused coping, problem focused coping, adaptive coping and mal adaptive coping. Validity: The Brief-Cope was developed as a short version of the original 60-itemCOPE scale (Carver et al., 1989), which was theoretically derived based on various models of coping. The Brief-Cope was initially validated on a 168 participant community sample that had been impacted by a hurricane (Carver, 1997), and shown to have adequate factor structure.

Data Collection
Data were gathered from the participants, meeting inclusion criteria, were included by purposive sampling. Further the online informed consent obtained from each participant. The information and self-administered questionnaire; consisted of socio-demographic datasheet, perceived stress scale and brief coping strategies scale; were circulated among participants through goggle form. An authentic email was provided to the participants for their comments. The Participants who were unwilling to complete the questionnaire due to personal reasons were allowed to with draw from the study.

Results
Table-1: Demographics variables of research students (N=72) of Bundelkhand University.

S. No	Variable	Values	72 N (%)
1.	Age Mean &SD 30.01+2.71	23-27	10(13.8)
		28-32	52(72.2)
		33-37	8(11.1)
		38-42	2(2.8)
2.	Sex	Male	43 (59.7)
		Female	29 (40.3)
3	Religion	Hindu	59(81.9)
		Muslims	8(11.1)
		Christian	03(4.2)
		Others	02(2.8)
4	Marital Status	Un-Married	60(83.3)
		Married	12(16.7)
5	Type of Family	Joint	14(18.4)
		Nuclear	41(56.9)
		Extended	17(23.6)
6	Batch	Third Batch	5(6.9)
		Fourth Batch	14(19.4)
		Fifth Batch	53(73.6)
7	Subjective Discipline	Sociology	10(13.9)
		Social Work	3(4.2)
		Micro Biology	7(9.7)
		Economics	6(8.3)
		Botany	7(9.7)
		Geography	6(8.3)
		Environmental Science	4(5.6)
		Hindi	5(6.9)
		Math	4(5.6)
		Political Science	6(8.3)
		Education	5(6.9)
		Mass Com	3(4.2)
		Sanskrit	6(7.2)

Demographic Characteristics
The demographic variables of the participants are presented in Table-1. Most of the participants were of age group 28-32 years (72.2%). Out 72 participants, 43(59.7%) were male and 29(40.3%) were female. The maximum number of respondents were from the fifth batch 53(73.6%) and the majority of subject discipline was of Sociology 10(13.9%) out of 72.The Hindu were 59 and was the most followed religion (81.0%). Almost all of the scholars were belongs to nuclear family 41(56.9%). Out 72 Scholars 60(83.3%) were unmarried and including 12 (16.7%) were married.

Coping Strategies Score and Perceived Stress Score of research students

72 research students responded to our online survey. The study was carried out through online survey after the questionnaires were prepared on Google form and passed on to the participants through email and WatsupApp messages. The main findings of the study indicate that the mean of coping strategies score was 73.18 (+13.12) and the mean perceived stress score among the participants was 20.44 (+6.21) (Table- 2).

Table 2: Coping strategies Score and perceived stress score of research students.

Coping Strategies Score by Research Scholars in Lockdown		
Coping Score	No of Research Scholars	Cumulative Percent (%)
28-56 (Low)	4	5.6%
57-84 (Moderate)	65	90.8%
85-112 (High)	3	4.2%
Total	72	100
Mean +SD	73.18+13.12	

Perceived Stress Score by Research Scholars in Lockdown		
Perceived Stress Score	No of Research Scholars (N)	Cumulative Percent (%)
0-13 (Low)	6	8.3%
14-25 (Moderate)	62	86.1%
27-40 (High)	4	5.6%
Total	72	100
Mean +SD	20.44+6.21	

Perceived Stress Score (PSS) of research students
The high PSS score was measured as 86.1% which is belong to 14-25 Moderate group while only 5.6% belongs to high range (27-40). No significant association of PSS was indicated with the socio demographic variables.

Coping Strategies adopted by the research students
The maximum number of respondents scored in moderate coping

strategies level 65 (95.8%) while 3 (4.2%) belong to high coping strategies. The domain wise measurements are given in Table-3. The Maladaptive coping belong to higher mean value 42.34(+9.23) and least belong AC 10.52 (+3.65) which is given in Table-3.

Table- 3: Coping Strategies Score Domain wise by research students in Lockdown

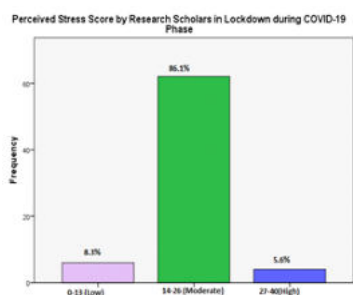| Domain	Minimum	Maximum	Mean & SD N+SD
Problem-Focused Coping(PFC)	8	26	18.59+8.36
Emotion-Focused Coping(EFC)	8	26	18.51+8.23
Avoidant Coping (AC)	6	18	10.52+3.65
Mal Adaptive Coping.	16	54	42.34+9.23

Figure 1: Perceived Stress Score by Research Students in Lockdown.

Discussion

The spread of Covid-19 affected closure of universities for on-campus class room teaching and learning forced academic institutions to conduct the online teaching. It is observed that the moderate level 62 (86.1%) of stress among research scholars revealed while they reported having used positive, approaching coping strategies during the outbreak. The Lockdown and social distancing were undertaken throughout the country in order to prevent the spread of infection and due to the devastating effect on health due to increasing mortality and morbidity as seen in many other countries (Baud, 2020).The present study revealed that 90.8% of the participants had moderate coping strategies, while as 4.2% had high coping strategies and only 5.6 % had low coping strategies. Maximum of the participants' utilized maladaptive coping as compared to the other types of emotion focused, problem focused and adaptive coping. The coping strategies in the lockdown have been utilized by indifferent ways along with the mentioned coping styles; the behavioural coping includes – washing or disinfecting their hands more often than usual , avoiding public places/events , avoiding public, transport (subway, tram, bus, train), avoiding contact with risk groups (old people, people with previous illnesses) etc. were used (Gerhol,2020)

Conclusion

This study highlights the perceived stress by research scholars who previously showed a hectic daily routine and lifestyle. The mean coping strategies score was measured as 73.18+13.12among the participants and perceived stress score was 20.44+6.21 with maladaptive coping strategy being the highest in the participants. The stress was not affected by any of the socio demographic variables. We can say that the amplified understanding about Covid-19may help to diminish the fear of it and thus reduce Covid-19 related stress.

REFERENCES:
1. Baud D, Qi X, Nielsen-Saines K, Musso D, Pomar L, Favre G. Real estimates of mortality following COVID-19 infection. Lancet Infect Dis. 2020; 7https://doi.org/10.1016/S1473-3099(20)30195-X
2. Carver C. Brief Coping Scale. Available from Internet.[https://local.psy.miami.edu/faculty/ccarver/sclBrCOPE.phtml]
3. Cohen S. (1983). Perceived stress Scale. Available from Internet[http://www.mindgarden.com]
4. Deepika Sheroun et.al. A study to assess the perceived stress and coping strategies among B.Sc. nursing students of selected colleges in Pune during COVID-19 pandemic lockdown, International Journal of Science and Healthcare Research (www.ijshr.com) Vol.5; 2; April-June 2020.
5. Falasifah, Malisa & Fitria, Denda& Hakim, Farahdiba. (2020). Coping Strategies Among College Students During Covid-19 Pandemic. Khazanah: Jurnal Mahasiswa. 12. 10.20885/khazanah.vol12.iss2.art46.
6. Francisco Manuel Morales-Rodrígue, (2021).Fear, Stress, Resilience and Coping Strategies during COVID-19 in Spanish University Students, Department of Educational and Developmental Psychology, Faculty of Psychology, University of Granada, Campus Universitario de Cartuja, 18071 Granada, Spain.
7. Gerhol L. (2020). COVID-19: Risk perception and Coping strategies. Results from a survey in Germany. Freie Universität Berlin. 2020
8. Limcaoco G S R , Mateos M E , Fernández M J , Roncero C. Anxiety, worry and perceived stress in the world due to the COVID-19 pandemic, March 2020. Preliminary results. Biomedical Research Institute of Salamanca. Doihttps://doi.org/10.1101/2020.04.03.2004 3992
9. Shigemura J, Ursano RJ, Morganstein JC, Kurosawa M, Benedek DM. Public responses to the novel 2019 coronavirus (2019-nCoV) in Japan: mental health consequences and target populations. Psychiatry ClinNeurosci. 2020;74(4):281–282. doi:10.1111/pcn.12988
10. WHO (2020). WHO director-general's opening remarks at the mission briefing on COVID-19– 26 February 2020. Available from: https://www.who.int/dg/speeches/detail/who-director-general-s-openingremarks-at-the-mission-briefing-on-covid-19---26-february-2020. Accessed May, 10, 2020.
11. Yang X, Yu Y, Xu J, et al. Clinical course and outcomes of critically ill patients with SARS-CoV-2 pneumonia in Wuhan, China: a single-centered, retrospective, observational study. Lancet Respir Med. 2020;8(5):475–481. doi:10.1016/S2213-2600(20)30079-.
12. Zhang W, Wang Y, Yang L, Wang C (2020) Suspending classes without stopping learning: China's education emergency management policy in the Covid-19 outbreak. J Risk Finance Manage 13(3):55.