

Perceived stress, wellbeing and mental health of college student during COVID-19 pandemic

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ABSTRACT

Background: Education supports young adults in enhancing coping mechanisms, gaining support system, having a good and healthy lifestyle with regular psychological and physical activities example having schedule day, teaching-learning programmes, meeting peers, social contacts as having social interaction which itself reduce the stress of individual and reliefs to have a peaceful mind. **Aim:** To assess the perceived stress, well-being and mental health of college students who are now out of education because of COVID-19 pandemic. **Method:** The study followed a cross-sectional study design and purposive sampling method. The sample includes N = 100 from various colleges of Karnataka state. The socio-demographic schedule, perceived stress, general well-being and suicide behaviour scales were used the data and the data was analysed using SPSS version 25. **Results:** The COVID-19 pandemic impacted negatively on college student's education related plans. They were worried experienced anxiety, stress and also hopelessness, worthlessness and helplessness; the majority of college students were reported of having moderate to high level of stress and use of TV and mobile was reported high during the lockdown and the academic related activities were relatively very less. **Conclusion:** There is a need for mental health service to address the needs of this specific population.


Keywords: COVID-19, stress, mental health, well-being, suicide, college student

INTRODUCTION

The novel coronavirus (COVID-19) is a transmittable disease which infects from one person to another person via droplets or direct contact and become a globally concerned^[1] Substantial spreading growth proportions are detected with the unavailability of specific treatment.^[2] The growing high number of cases every day made a challenge for all the health workers who are involved in the prevention of this pandemic because this is more apprehension with public health.^[3,4] Therefore, few public health measures were implemented to battle the COVID-19 such as wearing the mask and practising healthy hygiene, isolations, social distancing and

quarantine and curfew method to avoid gathering which is to ensure limited people contact.^[5]

Most of the individuals are not able to adjust with the change in the system which happened because of the current ongoing disaster whereas self-isolation and social distancing which itself cut the regular contact from person to person which have a strong influence on individual life which is impacted and affected the psychological wellbeing.^[6] According to Naci and Ioannidis, wellness refers to diverse and interconnected dimensions of physical, mental and social wellbeing that extends beyond the traditional definition of health.^[7,8] Thus, well-being is the

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experience of health, happiness, and prosperity which impression on having good mental health, high life satisfaction, a sense of meaning or purpose and ability to manage stress.^[9, 10]

According to UNESCO 195 countries were postponed the education institutions because of current COVID-19 pandemic said about 90% of registered learners which of 1.5 billion school or university learner population who were affected in their learning curriculum. However, in India, the school and college learner reported of over 32 crores and the evidence form recent Mental Health survey by Charity YoungMinds which was carried out with institutional young adult learners who belongs up to 25 years of age in the UK, it showed 83% of them said because of pandemic their status is worsen. 26% of them are facing issues to access mental health support like social support groups, social interactions and using technology is one more difficult and challenging for some young individual.^[11]

The educational institutions plays important role in shaping individual overall personality which includes theoretical to practical teaching-learning to their life which helps them to shape up. The physical education and sports program benefits students to have physical, social, affective and cognitive developments.^[12] Education supports young adults in enhancing coping mechanisms, gaining support system, having a good and healthy lifestyle with regular psychological and physical activities example having schedule day, teaching-learning programmes, meeting peers, social contacts for support, having social interaction which itself reduce the stress of individual and reliefs to have a peaceful mind, Hence when school and college were closed there is chance to have lost their psychological health and well-being which itself can be the influencing factor for physical, psychosocial issues which can again influence for unstable mental health.^[11] Therefore the current study aim to assess the perceived stress, well-being and mental health of college students who are out of education because of COVID-19 pandemic. This paper attempts to understand and detect possible predictors of psychological impact because of closed education institutions to prompt needful intervention to the college student.

MATERIALS AND METHOD

Study design and study population: A state-level cross-sectional study was conducted during CORONA-19 lockdown in educational institutions through an online questionnaire using social networks like WhatsApp group. Informed consent was obtained from all respondents before they participated in the study and their participation was voluntary without direct benefit. The study obtained institutional ethical clearance and study is conducted based on researcher volunteer interest. Based on the objectives the current study used a self-administered questionnaire which includes four subunits with a total of 55 items. A first unit explored the socio-demographic details of the respondents (age, gender, religion location and education) and in second section sixteen questionnaires which cover issues related to COVID-19 scenario in their bio-psycho-social life aspects.

Tools used were: The perceived stress scale by Sheldon Cohen^[13] which assesses stress and helps to understand how different situations affect our feelings and our perceived stress. It assesses feelings and thought from the past month the items indicated through how often you felt or thought a certain way. The scale includes a total of 10 items which ranges from 0 to 40, whereas higher scores indicate higher perceived stress. The classification further explained as 0-13 measured low stress, 14-26 measured moderate stress and 27-40 measured to be higher perceived stress and PGI General Well-being (PGIGWB) by Verma and Verma^[14] which includes 20 items score range is 0 - 20 and scale can be administered with all educational categories and orally to illiterates and reporting takes about 5-8 minutes. The scoring was achieved by counting the number of affirmative scores with scores ranging from 0 to 20. This was classified further as 0 to 6.5 is poor well-being, 6.6 to 13 is moderate wellbeing and 13.1 to 20 is good wellbeing. Suicide behaviour Questionnaire by Osman^[15] which has 4 items and each item tap a different dimension of suicidality and the first item assess lifetime suicide ideation and/or attempt, the second item assesses the level frequency of ideation of suicide over the past one year, the third item assess the threat of suicide attempt and the last item assess the likelihood of suicidal behaviour in the future. The cut-off score for the general population is ≥ 7 .

Procedure: The researcher has reviewed the available literature on COVID-19 and identifies the study area followed by this prepared self-administered question on COVID-19 and cross-checked its content validity from experts. Followed by this prepared Google sheet with all tools and forwarded in social network and explained about the need for this study and ethics which involved in this study. The study recruited 100 samples from those who were students and out of education because of COVID-19 outbreak were included in the study. The study obtained institutional ethical clearance.

Statistical analysis: Data was analysed using SPSS version 25 used descriptive analyses for all the variables and cross-tabulation was used to see interactional evidence between two categorical variables and Correlation coefficient was used to check the relationship between variables. ANOVA was used to understand the significant associational difference between variables.

RESULTS

Table 1 Socio-demographic details

Variable	Category	N=100	%
Sex	Female	57	57
	Male	42	42
	Transgender	1	1
Religion	Hindu	76	76
	Muslim	12	12
	Christian	6	6
	Other	6	6
Education	Graduation	43	43
	Post-graduation	57	57
Location	Rural	51	51
	Urban	49	49

Table1; demonstrates the distribution of socio-demographic details of the respondents. Majority of (57%) the respondents were females, 42% were males and 1% were transgender. Religion shows that 76% belong to Hindu, 12% were Muslim, 6% were Christian and 6% belongs to other religion. Education shows that the majority (57%) were pursuing Post-graduation and 43% were pursuing graduation, however, 51% were from a rural area, 49% were from urban.

Table 2 Covid-19 pandemic

Variables	Categories	%
Worried	Not at all	12
	Somewhat	32
	Considerably	35
	Severely	21
Negatively affected daily routine	Not at all	12
	Somewhat	28
	Considerably	31
	Severely	29
Effect on academic study	Not at all	15
	Somewhat	18
	Considerably	25
	Severely	42
Worried about academic	Not at all	17
	Somewhat	15
	Considerably	34
	Severely	34
Negative effect on education-related plans	Yes	66
	No	34
Stressed from pandemic	Not at all	16
	Somewhat	29
	Considerably	39
	Severely	16
Unsure about the academic future	Yes	80
	No	20
Effect in sleep pattern	Yes	55
	No	45
Effect in appetite	Yes	45
	No	55
Hopelessness, worthlessness and helplessness	Yes	46
	No	54

Table 2: Illustrate the change patterns because of COVID-19 pandemic among college students (N=100). More than one-third (35%) were considerably worried about COVID-19 pandemic reports followed by 32% somewhat worried and 21% were severely worried. Daily routine affected negatively from COVID-19 pandemic reported were somewhat (28%), considerably (31%) and severely (29%) worried. Effect on the academic study was reported as - somewhat (25%), considerably (25%) and severely (24%). Worried about the academic study was reported as -somewhat (15%), considerably (34%) and severely (34%). Educations related plans negatively affected by COVID-19 on 66% of students. Feeling stressed reported as -somewhat (29%), considerably (39%) and severely (16%). Unsure about the academic future were 80% Sleep distribution on 55%. Hopelessness, worthlessness and helplessness from last two weeks among 46%.

Table 3 Perceived Stress

Categories	%
Low Perceived Stress	8
Moderate Perceived Stress	86
High perceived Stress	6

Table 3: Indicates the perceived stress of college students among all 8% of them were reported low perceive stress, 86% moderate perceived stress and 6% high perceived stress.

Table 4: General wellbeing

Categories	%
Poor Well-being	47
Moderate Well-being	41
Good Well-being	12

Table 4: Explore the general well-being of college student among total 47% of respondents reported poor well-being, 41% moderate well-being and 12% good well-being respectively.

Table 6 Correlations

Variable 1	Variable 2	Correlation	df	P
Location	Covid-19 affected your current academic study	.257**	100	.010
Negatively affected on daily routine		.280**	100	.005
Gender	academic Studies related worries	.198*	100	.048
Negatively affected on daily routine?		.276**	100	.005
Affected your current academic study?		.624**	100	.000
Negatively affected your daily routine?	Covid-19 pandemic negative affected on education-related plans	-.250*	100	.012
Affected your current academic study?		-.233*	100	.020
Academic Studies worries		-.353**	100	.000
Negatively affected your daily routine?	Feeling more stressed/tensed?	.336**	100	.001
Feeling more stressed?	Negative experience during lockdown	.254*	100	.011
Feeling unsure about the future	Affect your sleep pattern	.201*	100	.045
Have you feeling unsure about the future because of Covid-19 change?	Affect on appetite	.251*	100	.012
Affect your sleep pattern		.535**	100	.000
Negatively affected on daily routine	Feeling of hopelessness, worthlessness and helplessness	-.313**	100	.002
Affected current academic study		-.197*	100	.049
Feeling unsure about the future		-.298**	100	.003
Negative effect on education plans		.223*	100	.026
Feeling more stressed		-.207*	100	.039
Pandemic effect on appetite	Spent more time watching TV	.270*	100	.007
Feeling hopelessness, worthlessness and helplessness		.248*	100	.013
Feeling hopelessness, worthlessness and helplessness	Excessive use of Mobile Phone	.204*	100	.042
Feeling hopelessness, worthlessness and helplessness	Thought about or attempted to kill yourself	-.228*	100	.022
Feeling unsure about the future		Thought about killing yourself in the past year	-.210*	100
Feeling hopelessness, worthlessness and helplessness	Thought about or attempted to kill themselves	-.227*	100	.023
Thought about or attempted to kill themselves		.602**	100	.000
Feeling unsure about the future		Told someone that you were going to commit suicide, or that you might do it	-.306**	100
Feeling hopelessness, worthlessness and helplessness	How likely is it that you will attempt suicide someday	-.312**	100	.002
Affect your sleep pattern		-.209**	100	.037
Feeling more stressed	Perceived Stress	.315**	100	.001
feeling unsure about the future		-.241*	100	.016
Effect on appetite		-.210*	100	.036
Feeling hopelessness, worthlessness and helplessness		-.211*	200	.036
Education		General Well-being	-.297**	100
Negative affected on education plans	General Well-being	.215*	100	.032
Perceived Stress		.325**	100	.001

NS=Not significant, *Significant at 0.05 level, ***Significant at 0.001 level

Table 5: Describe the suicidal behaviour of college student 62% of reported they never thought about or attempted to kill themselves and for 38% it was just a brief passing thought. The majority 22% of reported they rarely (1 time) thought about killing themselves in the past year, 7% sometimes (2 times) and 5% very Often (5 or more times) respectively. However in another side 34% of reported they said to someone that they are going to commit suicide at one time but did not want to die/wanted to die. Likely attempt to suicide someday was reported majority No (69%), No chance at all (16%), Rather unlikely (4%), Unlikely (4%), Likely (4%).

Table 5 Suicide Behaviours Questionnaire

Variables	Categories	%
Have you ever thought about or attempted to kill yourself?	Never	62
	It was just a brief passing thought	38
How often have you thought about killing yourself in the past year?	Never	63
	Rarely	22
	Sometimes	7
	Often	3
	Very Often	5
Have you ever told someone that you were going to commit suicide, or that you might do it?	No	66
	Yes at one time but did not want to die/wanted to die	34
How likely is it that you will attempt suicide someday?	Never	69
	No chance at all	16
	Rather unlikely	4
	Unlikely	4
	Likely	4
	Rather likely	2
	Very likely	1

DISCUSSION

The present study aim was to assess and understand the level of perceived Stress, Well-being and Mental Health condition of a College student during COVID-19 Pandemic because as results of this world disaster the education institutions have been closed and the country was in lockdown, hence the effects are still ongoing. The study socio-demographic details showed the majority (57%) of the respondents were females and the study mean age was 23.52 (SD = 4.79) the similar results reported from.^[16] The majority of students belong to (76%) Hindu religion and (57%)

were pursuing post-graduation and (43%) were pursuing graduation, however, among them, the majority were reported from rural (51%) than urban (49%).

The study discusses the changes which had happened because of ongoing COVID-19 pandemic in college students concerning their psychological health. Much research evidence reported that when public health-related disaster happens that makes a serious impact concerning their psychosocial and psychological health in terms of increased in worries and anxiety^[17] and later when lack of social interaction building take place along with disturbed or gab interpersonal communication and social support then the mental health-related disorder more likely be observed.^[18] In the current research, it was reported that the college students were considerably and severely worried about the COVID-19 changes and one-third of respondents were reported of worries for the COVID-19 and very concerned about being exposures towards the virus in a similar study.^[19] However, these changes were considerably and severely made its negative effects on college student’s daily routine which includes self-care activities and disturbed in biological factors, such as appetite and sleep. Students were suffering from the stress they were not able to have sound sleep and good appetite later which can lead to unfavourable effects on the learning and psychological health and this changes caused a remarkable level of stress among college students.^[20,21]

The most of students were reported of concern and worries about their academic studies and future academic plans as they said they were having plans but their final year exam evaluation was in trouble and final part of their education assessment was postponed because of this currently they were unsure about their graduation award or degree award. Therefore student expressed that COVID-19 pandemic change has been negatively affected their education-related plans which triggered for feelings of anxiety, stress and worries along with these economic difficulties and feelings of hopelessness, worthlessness and helplessness.

In the current survey researcher able to understand that because of this COVID-

19pandemic majority of students were reported of having moderate to high level of stress and cross-tabulation showed that the majority 50% of female students were experienced a moderate level of perceived stress and male were reported about 35%. The majority 33% of them who experienced lockdown in a positive and negative way were reported of moderate level of perceived stress among them majority were females and negative experience from the lockdown was similar concerning male and female students respectively. Consequently, the present study highlights perceived stress which showed a positive correlation with feeling more stressed about COVID-19 changes, negative correlation with feelings of unsure about future, loss of appetite and feeling of hopelessness, worthlessness and helplessness. However, another study reported both male and female students similarly experienced stress and negative emotions from the pandemic.^[18,21]Hence in the other side most of the stress was related to their academic study and worries about their future academic-related plans. However,the TV and mobile usage was reported high during COVID-19 period and academic-related activities were relatively very less.

The general well-being of college student which showed of having a poor and moderate level of general well-being in the cross-tabulation reported that who reported a poor and moderate level of well-being were also reported of worried about COVID-19 pandemic changes, worried about future academic study, unsure about their future studies, disturbed in sleep and appetite pattern, negative experience from lockdown and moderate to high level of perceived stress and also suicidal thought which was a just a brief passing thought and rarely thought about killing themselves at least 1 time. Other studies reported having somatic symptoms and major depressive disorder from the outbreak of COVID-19.^[23,24] The correlation showed well-being was negatively correlated with education and positively correlated with education-related plans and perceived stress correspondingly.

The one-way ANOVA results revealed that there was a statistically significant difference between general well-being and education and between Perceived stress and general well-

being. Hence the general well-being of student was associated with education. Education institution helps to have or build more social interaction/relationships which influence students to grow and enhance their coping and other skills. The lack of social interaction leads to psychological issues as studies report that about 40.4% of the youths were in risk to get psychological problems which are significantly related to mental health.^[25,26]Correlation coefficient results reports that the location and effects in daily routine showed its positive correlation which means the majority respondents belongs to a rural area where they have found difficulties in finding resources which were required for their online studies which are like, proper network, internet connectivity, computer centres or data centres etc. Most of the worries about academic studies were positively correlated with gender, daily routine and current academic study-related concerns. However, this depicts that because of worries daily routine was affected and this indirectly or directly impacting on their studies where they are not able to maintain proper concentration. The effect in education-related plans which showed its negative correlation with daily routine current academic study and worried about the academic study because students were unsure about the academic year and unsure about their further education-related plans as students were unaware about reopening in educational institutions, the effects on daily life routine and delays in academic activities were positively correlated with anxiety symptoms that were again influenced to stress evidence from the study.^[18,27]

Negative experience from the lockdown was negatively correlated with feeling more stressed it evidenced that when negative feeling occurs individuals would be seen with stressed. The effect in sleep pattern positively correlated with feeling unsure about the future and effect in appetite also showed its positive correlations with feeling unsure about the future and sleep pattern, the feeling of hopelessness, worthlessness and helplessness from the past two weeks was negatively correlated with daily routine, current academic study, feeling unsure about future hence, study understand that the biological functions of students were not adequate and they are

insecure about their future life and plans this would be a sign of emerging mental illnesses. Therefore they need immediate help from the mental health professional to avoid the risk of mental illness as they are vulnerable to mental illnesses like depression, PTSD or Somatic Concerns. The activities like watching TV and using mobile become more than high during COVID-19 lockdown and this showed a positive correlation with loss of appetite and feelings of hopelessness, worthlessness and helplessness this evidence that the majority of students spent their time with TV and Mobile excluding online classes and most of them were not concern about their regular appetite.^[34-38]

The suicidal thoughts and risk during COVID-19 outbreak in the current study showed that the majority of college students were reported they never thought about or attempted to kill themselves but for about 38% of respondents it was just a brief passing thought which is very serious issues during an ongoing disaster, thus there is a high risk as it was negatively correlated with stress and feelings of hopelessness, worthlessness and helplessness. The survey also reports that the majority of students who said they thought about killing themselves rarely (1 time) which means there is a high risk which needs to be paid special attention to solve and help them to get out of it. Consequently, cross-tabulation results revealed that most students marked for moderate to high level of stress and poor to moderate level of general well-being along with this they are more proven to get a psychological problem which was also reported in other studies.^[31,25] However, in another side, 34% of respondents said to someone that they are going to commit suicide at one time but did not want to die/wanted to die was negatively correlated with worries from COVID-19 changes and feeling of hopelessness, worthlessness and helplessness. Likely to attempt to suicide someday was reported (4%) and cross-tabulation exposed that this was reported because of secondary feelings regards to worries related to academic studies and future related plans which impacted from COVID-19 change. however, India was reported of first suicide case in college student because of COVID-19 impact on education as many students were not able to access the online classes due to lack of

resource as economic is a big lacking resource in the country and the technology stanching along with stigma related to mental health.^[1,29,30,37]

Attempted to kill, negatively correlated with felt hopelessness, worthlessness and helplessness. It means when a person feeling hopelessness, worthless and helplessness then there is a risk for suicide. Thought about killing self in the past year negatively correlated with feeling unsure about the future and feelings of hopelessness, worthlessness and helplessness in the other side its positive correlation reported with a thought about attempted to kill. Going to suicide or might do it negatively correlated with feeling unsure about the future and feelings of hopelessness, worthlessness and helplessness. Attempt to suicide someday negatively correlated with sleep pattern. When a person gets disturbed in biological functions then that will make a negative impact on a person's thoughts and these were significant highlights from the current survey.^[34,36,38]

There was a study which reported the need of research in the area of long term mental health effects from the COVID-19 outbreak on young population,^[11,28] as the current study highlighted the results which showed as evidence to conduct further research and to develop psychosocial and psychological interventions which could help all young population to reduce the risk of getting mental illnesses. They need more attention and mental health services which should propose them to base on their affordability along with awareness and knowledge regarding the importance and need for mental health for their sound mind. The college/school counsellor can be appointed to provide minimal care for their mental health.

CONCLUSION

COVID-19 pandemic globally widespread and creates excruciating problems impacted a lot throughout of the worldwide on all age group of lives. Especially in college students, it caused serious effect and negative impact on their education studies. Many students faced food and housing insecurity before the pandemic and now they faced disruption in their mental health and education. The significant effect had happened to them who were looking forward to entering college or

taking up jobs etc. Students experienced major teaching interruptions in the final part of their studies, experienced major interruptions in their assessments, where they were been likely to graduate at the beginning of a major recession of their career. The spread of COVID-19 infection has a significant impact on social life and learning. College students were more stressed-out than ever before. The inconvenient situation impacted to have more stress about academic and current study results suggested that the consequences of this could be serious. Concerning consequently negatively on the general wellbeing of the college students and stress aspects, It would have been helpful for college students to provide support for the implementation of some educational interventions for stress, mental health and well-being in college students.

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