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A Study on Moderating Role of Resilience on the Relationship among Emotional Competence, Psychological Well-Being and Academic Performance during COVID-19 among College Students

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Abstract: ***COVID-19 is the worst pandemic of this century. It unleashed worldwide havoc on the lives of people, finance, corporate sectors, education, career, livelihood, lifestyle and mental health. The purpose of the current study is to assess the impact of emotional competence on psychological wellbeing and academic performance with resilience as a moderating factor among college students in Bengaluru, India during COVID-19 3rd wave. It is hypothesized that there is no significant correlation among Emotional Competence, Psychological Wellbeing and Academic Performance, and no covariance variation between Academic Performance and Psychological Well-being. It is also hypothesized that resilience does not play a moderating role. The sampling consisted of 118 urban UG and PG college students from Bangalore city. Through online survey, data were collected. Emotional Competence scale, Academic Performance scale, Ryff's Psychological Well-being scale and the Connor-Davidson Resilience Scale (CD-RISC-25) were used to collect data. Pearson correlation analysis, MANOVA and linear regression analysis were carried out for analysis of data. The results indicated that there were significant Pearson correlation between Emotional Competence and Academic Performance, and Emotional Competence and Psychological well-being. It also indicated that there was a covariance variation between Academic Performance and Psychological Well-being. The Linear regression analysis indicated that Resilience had a strengthening moderating effect on the relationship between Emotional Competence and Academic Performance, and a weakening effect on the relationship between Emotional Competence and Psychological Well-being. The study does not attempt to study the rural population and the impact of COVID-19 on other aspects of the students.***

Keywords: Emotional competence, psychological well-being, academic performance and resilience

1.Introduction

After the outbreak of the pandemic in December 2019 in China, the World Health Organisation in the early 2020 identified SARS-CoV-2 as a new type of coronavirus (https://www.webmd.com/lung/coronavirus). It caused respiratory tract infection and it spread from person to person. SARS-CoV-2 is one of seven types of coronavirus, including the ones that cause severe diseases like Middle East respiratory syndrome (MERS) and sudden acute respiratory syndrome (SARS) ((https://www.webmd.com/lung/coronavirus). And with the third wave, the impact prolonged. The pandemic and subsequent lockdown has had multifaceted global impact on physical health, livelihood, family life, finance, education, mental health and institutions, to mention a few. Mental health is conceptualized as a degree of mental prosperity or absence of dysfunctional behavior. Mentally healthy person is one who is enthusiastic about life, is productive, does what is needed to keep himself healthy and is able to face life's challenges (Kalpana Verma, 2020). In a major study conducted in China immediately after the pandemic outbreak, Wang, C. et al. (2020b) attempted to gauge the psychological impact of COVID-19 on general population. The study revealed that the general population experienced moderate to severe anxiety (28.8%), depression (16.5%), and stress (8.1%). In a study conducted in UK among 3077 adults, Rory C. O'Connor et al. (2020) attempted to measure the level of depression, suicidal ideation, anxiety and defeat across 3 phases of COVID-19 pandemic. The study indicated that suicidal ideation increased over time. Symptoms of anxiety and levels of defeat and entrapment decreased across waves whereas levels of depressive symptoms did not change.

Forced confinement to home for online classes, less than satisfactory peer interaction, hassle with internet connection are the primary factors that contribute to stress and anxiety among students. The study conducted among students in Mexico brought to light the impact of COVID-19 on mental health of students. The confinement caused increasing headaches, stress, anxiety, feeling of futility, sleeplessness, loss of control, and loss of interest in activities among students (Ana Karen Limón-Vázquez, et al., DOI: http://dx.doi.org/10.5772/intechopen.93886). Similar studies were conducted in Italy that showed similar reactions among students (Leonardo Villani, et al, 2021). In one study conducted in India, it was shown that the on-line classes had negative impact on the students. Limited class interaction affected the satisfaction level of students, causing general anxiety and depression (Kunal Chaturvedi et al, 2021; Amar Prashad Chaudhary, et al. DOI: 10.2196/28158). Their studies also revealed that more than 50% of students did not utilize their time properly. In addition, lack of social interaction, physical activities and sleeping habits affected their health. In these distressing circumstances, maintaining mental health became very challenging (de Cates, Stranges, Blake, &

Weich, 2015). Students' wellbeing in times of COVID-19 was studied by N. Cools et al. at Tilburg University (2020). In this study students reported that the online education, lack of social contact with fellow students and teachers, and home environment had an impact on both their physical and psychological well-being. The study carried out in China by Jialin Fan et al. (2020) on students well-being during COVID-19 showed that perceptions of COVID-19 information overload and feeling panic due to COVID-19 had negative impact.

Studies showed how resilience could be a protective measure against stress (Serafini et al., 2020). While generally resilience refers to stable traits, many view its expression as a dynamic process that evolves during the span of one's life (Auburn G, 2016). Studies also showed evidence for the role of resilience in mental health (Barzilay et al. (2020). Further studies provided evidence for resilience as one of the best coping mechanisms among psychiatric patients and health care sectors during the pandemic situation (Christiaan H. Vinkers MDPhD, et al., 2020). Similar studies were conducted among medical students to examine how resilience could act as a buffer against stress and anxiety during pandemic situation. (J. Shivananda Manohar, et al., DOI: http://dx.doi.org/10.5772/intechopen.99001). A study was carried out in Malaysia to explore the relationship between perceived stress and resilience among undergraduate university students (Barbara Ruran Abai, et al., https://doi.org/10.33736/jcshd.3636.2021).

2.Present Study

The present study is undertaken (1) to assess the impact of emotional coping during COVID-19 3rd wave on psychological well-being and academic performance, (2) to examine the covariance variation between academic performance and psychological well-being and (3) to assess the moderating role of resilience on the relationship between emotional coping and psychological well-being on one hand and academic performance on the other. Emotional competence refers to the level the students regulated their emotions of stress, anxiety and depression during the pandemic situation. The college students between the age of 18 and 23 from Bangalore city will participate in the study.

3.Review of Literature

In a major longitudinal study conducted in China by Wang, C. et al. immediately after the outbreak of the virus, 1738 people from 190 Chinese cities participated in the study through online survey. Psychological impact and mental health status were assessed by the impact of Event Scale-Revised (IES-R) and the Depression, Anxiety and Stress Scale (DASS-21), respectively. During the initial evaluation, moderate-to-severe stress, anxiety and depression were noted and there were no significant longitudinal changes in stress, anxiety and depression levels. Prolonged lockdown had several adverse impacts on mental health, especially among the second-survey respondents aged 12-21·4 years who demonstrated a higher psychological impact of COVID-19. (Wang, C., et al.2020b).

Kshipra Moghe and others conducted a study in 2021 in Pune. The sampling population consisted of 351 students of age group 16 to 25. An online survey was conducted. The purpose of the study was to assess social impact, personal impact and psychological impact of COVID-19 on mental health of the students. With regard to psychological impact, the study evidenced that female students were more concerned about health and future, and were more prone to psychological issues like feelings of uncertainty, helplessness and outbursts than male students. Among male students, the need for withdrawal, solitude and self-harm was observed (Kshipra M., et al.2021).

Kalpana Verma from Kasturba Medical College, Mangalore, India conducted a cross-sectional survey in 2020 on 131 college students in Mangalore in the age group of 20 to 30 years of age. The study was conducted to assess the mental health status of college students resulting from pandemic situation. The study indicated that anxiety symptoms were more present among females than among males. The study also indicated that 68.7% of the participants had mild anxiety, 61% mild depression, 21.3% moderate anxiety, 25.9% moderate depression, 9% moderate to severe anxiety and depression. The study concluded that majority of them had at least mild anxiety and depression (Kalpana Verma, 2020).

Shankey Verma and Aditi Mishra (2020) conducted a survey in India. A total of 354 participants between 18 to 50 years of age participated in the survey. The participants belonged to different parts of the country. The purpose of the study was to estimate the prevalence of the impact of pandemic situation on mental health of population in terms of depression, anxiety and stress. The online survey form was used to collect the data. Depression Anxiety Stress Scale (DASS-21) was used to assess the mental health status. This study found that 25.1% and 28% of the participants were moderately to extremely depressed and anxious, respectively.

Usama Rehman, et al. conducted a cross sectional survey in 2020 in India and used online survey form to collect the data. A total of 403 participants from different states in India completed the survey. Of the total participants, 110 were males, 291 were females. From the sample, 139 were students, 51 were teachers, 31 were researchers, 34 were mental health professionals, 33 were health professionals (Doctors and Nurses), and 35 were in a corporate job while the remaining 80 were others (e. g., homemakers, not employed, retired, businessman, etc.). The 21-item DASS version was used to assess depression, anxiety, and stress. Compared to other groups, the students group experienced mild level of stress, moderate level of anxiety and moderate level of depression (Usama Rehman, et al.2021).

To understand the impact of COVID-19 on social life and education of students, Kunal Chaturvedi and others (2021) conducted a study in Delhi, India. A total of 1182

individuals of different age groups from various educational institutes in Delhi participated in the study. The aim was to understand the impact of COVID-19 on lifestyle, education and health of students. A self-prepared questionnaire was administered. Kruskal Wallis test was used to assess the time spent on learning hours for online classes and self-study, duration of sleep, and the time spent on fitness and sleep. JMP Version 15.2.1 from SAS was used for analysis. According to the assessment of satisfaction level among students 38.3% of students had negative response towards online classes (2.6% poor and 35.7% very poor), 33.4% considered it average while 28.4% gave a positive review. Also, the students who were not socially well connected did not utilise their time well and it had negative impact on their health.

Ran Barzilay et al. conducted a study in Italy in 2020 to examine the mediating role of resilience of stress, anxiety and depression among the population during COVID-19. Totally 3042 participants in the age group of 18 to 79, mostly female, participated in the online survey. They completed stress, anxiety and depression survey along with resilience scale. The study showed that higher resilience scores were associated with lower COVID-19 related worries, reduced rate of anxiety (65%) and depression (69%) (Ran Barzilay et al.2020).

The study conducted by Parvaneh Haddadi et al in Tehran in 2010 investigated the association of resilience with psychological distress, depression, and anxiety and mental health in a sample of 214 college students (97 boys, 114 girls). All the participants completed Connor-Davidson Resilience Scale (CD-RISC), Mental Health Inventory (MHI), Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI), and General Health Questionnaire (GHQ). Resilience was positively associated with psychological well-being and negatively associated with psychological distress, depression and anxiety. It was found that different levels of resilience through self-esteem, personal competence and tenacity exerted its impact on psychological well-being (Parvaneh H., et al.2010).

Seydi Ahmet Satici et al. conducted a study in Turkey in 2020 to investigate relationship among resilience, hope and subjective happiness, using fear of COVID-19 as a mediating factor. A cross-sectional survey was conducted among a convenience sample of 971 Turkish individuals (aged 18 to 74 years) from 75 of 81 cities in Turkey. The Subjective Happiness Scale, Fear of COVID-19 Scale, Brief Resilience Scale, and the Dispositional Hope Scale were used to collect data. The analysis demonstrated that both resilience and hope had direct and indirect effect on subjective happiness via mediating role of fear of COVID-19.

Michelle D. Keye, Aileen M. Pidgeon (2013) conducted a study among university students to investigate the relationship between mindfulness, academic self-efficacy and resilience.141 students completed The Freiburg Mindfulness Inventory, The Beliefs in Educational Success Test, and The Connor Davidson Resilience Scale. The findings from regression analysis showed that mindfulness and academic self-efficacy were predictors of resilience.

Meng-Yao L et al. conducted a cross sectional study between 2013 and 2014 to investigate the effect of social support, hope and resilience on the quality of life among Chinese bladder cancer patients.365 patients completed Perceived Social Support Scale, Adult Hope Scale, and Resilience Scale. Regression analyses indicated that social support, hope and resilience as a whole accounted for 30.3 % variance of quality of life among the patients (Meng-Yao L et al.2016).

Rachel R. Slaymaker in her doctoral research (2020) wanted to find out whether Resilience mediates the Relationship between Socio-Cognitive Mindfulness and Perceived Stress in Academic Middle Managers in Higher Education. The sample consisted of 163 respondents. Langer Mindfulness Scale and the 16-item Predictive 6-Factor Resilience Scale were used. Perceived stress was measured by the 10-item Perceived Stress Scale. The findings showed that both mindfulness and resilience had been positively related to mental health.

Nadhila Safitri and Sumedi P. Nugraha conducted a study in Indonesia in 2021 to investigate the relationship between online Learning Readiness, Academic Resilience, and Subjective Well-Being during COVID-19 pandemic.200 students of Junior High School answered scale of positive and negative experience, academic resilience scale and scale of student's e-learning readiness questionnaire. The results indicated that online learning readiness and academic resilience were positively related to the subjective well-being of students (Nadhila Safitri et al.2021).

In the study conducted in Philipines, Violeta C. Valladolid attempted to investigate the relationship between resilience and well-being among college students during the pandemic.243 students completed the Warwick-Edinburgh Mental Well-being Scale and Connor-Davidson Resilience Scale (CD-RISC-10). The results indicated on the contribution of resilience in maintaining the well-being of college students. Though it did not establish the moderating role of coping strategy in the relationship, it positively linked resilience and well-being (Violeta C. V.2021).

The aim of the study conducted in Slovakia by Gaja Zager Kocjan in 2021 was to investigate the relationship between personality traits and psychological well-being. A sample of 2, 722 Slovene adults, aged from 18 to 82 years filled in Big Five Inventory, the Connor-Davidson Resilience Scale, the Perceived Stress Scale, and the Mental Health Continuum. The results showed that resilience mediated the relationship between the Big Five personality dimensions and well-being.

Rationale

Few studies have been carried out on the impact of COVID-19 on mental health, well-being and academic performance among students in India. Studies also have

been carried out to assess the mediating role of resilience in relation to well-being and mental health. However, hardly any study has been carried out that throws light on the moderating role of resilience on the relationship between emotional competence, academic performance and psychological well-being; and hardly any such study done in Bangalore. The present study attempts to fill in this gap. The study will also throw light on the need for developing techniques for enhancing the resilience skill, which would become an effective tool for counsellors, teachers, and mental health workers in the helping profession. The Government could incorporate the outcome of these research findings while formulating policies to address any similar situation.

Operational definitions

Resilience

Luthans (2002) postulated resilience as "the capacity to rebound or bounce back from adversity, conflict, failure, or even positive events, progress and increased responsibility" (p.702).

Psychological well-being

Carol Ryff conceptualised psychological well-being as consisting of 6 dimensions: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life and self-acceptance (Ryff, C. D., & Keyes, C. L. M.1995).

Emotional intelligence

It refers to an ability to recognize the meanings of emotion and their relationships, and to reason and problem-solve on their basis. Emotional intelligence is involved in the capacity to perceive emotions, assimilate emotion-related feelings, understand the information of those emotions, and manage them (Mayer, Caruso & Salovey, 1999, p.267).

Objectives

(1) To study the impact of Emotional Competence on Psychological Well-being and Academic Performance of college students during COVID-19 3rd wave. (2) To assess the covariance variation between psychological well-being and academic performance. (3) To analyse the moderating role of Resilience in the relationship between Emotional Competence and Academic Performance and Psychological Well-being.

Hypothesis

Ho1: There is no significant relationship between Emotional Competence and Psychological Well-being among college students during COVID-19.

Ho2: There is no significant relationship between Emotional Competence and Academic Performance among college students during COVID-19.

Ho3: There is no significant covariance variation between Psychological Wellbeing and Academic Performance during COVID-19.

Ho4: There is no significant moderating effect of Resilience on the relationship between Emotional Competence and Psychological Well-being, and Emotional Competence and Academic Performance.

Method

It is a non-experimental quantitative research design.

Sampling

Due to pandemic situation, the online questionnaire with random sampling technique will be used to collect the data. The sampling population will be 118 urban college students between the age group of 18 and 23, both boys and girls, from different colleges in Bangalore city.

Tools

1. Emotional competence, and (2) academic performance

The author intended to use the above two tools grounded in the pandemic situation. Hence, the tools were self-developed after being contexualised during 3rd wave of COVID-19 between January and February 2022. Each tool was comprised of 13 items each, which were based on review of literature, and were sent to three experts for content validity. Incorporating their feedback, the tools were fine-tuned. Each item was rated on a 5-point Likert scale ranging from 1 to 5; from not at all, to very little, somewhat, much and very much. The total possible scores ranged from 13 to 65, 65 being very positive. Subsequently a pilot study was conducted on 40 college students of age between 18 and 23. The participants answered the online questionnaires on Emotional competence and Academic performance. The data were subjected to Cronbach's Alpha test. The reliability for academic performance was 0.767.

Table 1: Reliability Statistics

Cronbach's Alpha	N of Items
.767	13

The reliability for emotional competence was 694.

Table 2: Reliability Statistics

Cronbach's Alpha	N of Items
.694	13

3. Resilience scale:

CD-RISC-25: The Connor-Davidson Resilience Scale (CD-RISC-25) 2003 is a self-administered scale containing 25 items that exhibit good psychometric properties. Cronbach's Alpha for the full scale was 0.89. The CD-RISC consists of 25 items, which are evaluated

on a five-point Likert scale. The Connor Davidson Resilience Scale measures several components of resilience: the ability to adapt to change, the ability to deal with what comes along, the ability to cope with stress, the ability to stay focused and think clearly, the ability to not get discouraged in the face of failure and the ability to handle unpleasant feelings such as anger, pain or sadness (K. M. Connor and J. R. T. Davidson, 2003).

4. Psychological wellbeing scale (1989):

The 42 items are to be scored on a degree of agreement (using a score ranging from 1-6) from strongly disagree to strongly agree. The Scale measures six aspects of well-being and happiness: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance (Ryff et al., 2007; adapted from Ryff, 1989). The test re-test reliability was 0.82.

Research design

SPSS version 14 will be used to analyse the data. Pearson Correlation analysis will be used to study the correlation between emotional competence and psychological well-being and academic performance. MANOVA will be used to analyse the covariance variation between Psychological Well-being and Academic Performance and, Linear regression analysis will be used to examine the moderating role on the relationship among Emotional Competence and Psychological Wellbeing and Academic Performance.

4.Results

For the study the online questionnaire mapped in Google form was sent out to different colleges in urban Bangalore, and sample was collected through random selection.118 college students of age between 18 and 23 participated in the study. 65.3% were female students and 34.7% were male students. 85.6% of students were of UG level and 14.4% of students were of PG level.

On an average, 27.1% of students reported that the online education contributed to motivation to study very little, 22% somewhat and 20% much. In terms of critical thinking, 40.7% answered it contributed very little and 33.1% somewhat. 32.2% of students said it contributed very little in comprehending classroom instructions,, 28.8% somewhat. In terms of to what extent online education helped to recall the information, 34.7% said very little, 33.1% said somewhat. Only a marginal section of students said that the online education contributed much or very much in above dimensions. About 25% to 35% of students reported that they managed depression, anxiety and stress somewhat. 17% to 20% of the students said they managed the emotional impact very little.

Table 3: Correlations

		Emotional Competence	Academic performance
Emotional Competence	Pearson Correlation	1	.679 (**)
	Sig. (2-tailed)		.000
	N	118	118
Academic performance	Pearson Correlation	.679 (**)	1
	Sig. (2-tailed)	.000	
	N	118	118

** Correlation is significant at the 0.01 level (2-tailed).

Table 4: Correlations

		Emotional Competence	Academic performance	Psychological wellbeing
Emotional Competence	Pearson Correlation	1	.679 (**)	.462 (**)
	Sig. (2-tailed)		.000	.000
	N	118	118	118
Academic performance	Pearson Correlation	.679 (**)	1	.448 (**)
	Sig. (2-tailed)	.000		.000
	N	118	118	118
Psy Psywellbeing	Pearson Correlation	.462 (**)	.448 (**)	1
	Sig. (2-tailed)	.000	.000	
	N	118	118	118

** Correlation is significant at the 0.01 level (2-tailed)

MANOVA analysis

Table 5: Levene's Test of Equality of Error Variances (a)

	F	df1	df2	Sig.
Academic performance	3.274	32	85	.000
Psy Psywellbeing	1.905	32	85	.010

Tests the null hypothesis that the error variance of the dependent variable is equal across groups

a Design: Intercept+EC

Table 6: Multivariate Tests (c)

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.993	5756.494 (a)	2.000	84.000	.000	.993
	Wilks' Lambda	.007	5756.494 (a)	2.000	84.000	.000	.993
	Hotelling's Trace	137.059	5756.494 (a)	2.000	84.000	.000	.993
	Roy's Largest Root	137.059	5756.494 (a)	2.000	84.000	.000	.993
EC	Pillai's Trace	.981	2.556	64.000	170.000	.000	.490
	Wilks' Lambda	.204	3.191 (a)	64.000	168.000	.000	.549
	Hotelling's Trace	3.004	3.896	64.000	166.000	.000	.600
	Roy's Largest Root	2.664	7.076 (b)	32.000	85.000	.000	.727

a Exact statistic
b The statistic is an upper bound on F that yields a lower bound on the significance level.
c Design: Intercept+EC

Moderator analysis

Regression 1

Table 7: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
E	118	12.08	60.38	40.1069	8.13048
R	118	.00	96.16	63.7492	15.50351
Valid N (listwise)	118				

Table 8: Variables Entered/Removed (b)

Model	Variables Entered	Variables Removed	Method
1	interaction_term, E, R (a)	.	Enter

a All requested variables entered.
b Dependent Variable: A

Table 9: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.681 (a)	.463	.449	5.27539

a Predictors: (Constant), interaction_term, E, R

Table 10: ANOVA (b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2736.524	3	912.175	32.777	.000 (a)
	Residual	3172.589	114	27.830		
	Total	5909.113	117			

a Predictors: (Constant), interaction_term, E, R
b Dependent Variable: A

Table 11: Coefficients (a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.000	2.742		4.376	.000
	E	.603	.067	.690	8.981	.000
	R	-.009	.036	-.019	-.240	.811
	interaction_term	.055	.290	.013	.189	.851

a Dependent Variable: A

Regression 2

Table 12: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
P	118	127.02	231.14	190.7819	20.18882
E	118	12.08	60.38	40.1069	8.13048
Valid N (listwise)	118				

Table 13: Variables Entered/Removed (b)

Model	Variables Entered	Variables Removed	Method
1	interaction_term, E, R (a)	.	Enter

a All requested variables entered.
b Dependent Variable: P

Table 14: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.569 (a)	.323	.306	16.82308

a. Predictors: (Constant), interaction_term, E, R

Table 15: ANOVA (b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15424.042	3	5141.347	18.166	.000 (a)
	Residual	32263.814	114	283.016		
	Total	47687.856	117			

a Predictors: (Constant), interaction_term, E, R
b Dependent Variable: P

Table 16: Coefficients (a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	131.356	8.744		15.022	.000
	E	.688	.214	.277	3.212	.002
	R	.500	.116	.384	4.328	.000
	interaction_term	-.140	.924	-.012	-.152	.880

a Dependent Variable: P

5.Discussion

Pearson Product correlation of Emotional competence and Academic performance is found to be moderately positive, high and statistically significant at 0.01 level (r =.679 p < 001). Thus, it rejects the null hypothesis that there is no significant correlation between Emotional competence and Academic performance.

Correlation between Emotional competence and Psychological well-being was found to be positive and low, and statistically significant at 0.01 level (r =.462 p < 001). Thus, it rejects the null hypothesis that there is no significant correlation between Emotional competence and Psychological well-being.

Figure 1: Manova

Wilks' Lambda	Value	F	Hypothesis df	Error df	Sig.
	.204	3.191	64.000	168.000	.000

MANOVA was conducted to investigate if there was a covariance variation between academic performance and psychological well-being. The test was done to examine the null hypothesis, namely that there is no covariance variation between academic performance and psychological well-being. The results of the MANOVA yielded that there was a statistically significant covariance variation between the two groups: academic performance and psychological well-being Wilks' value=.204 at p<.001. Based on these results and degree of freedom, evidence was sufficient to reject the null hypothesis and conclude that there was covariance variation between students' psychological well-being and academic performance.

Table 17: Linear Regression Analysis 1

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.000	2.742		4.376	.000
	E	.603	.067	.690	8.981	.000
	R	-.009	.036	-.019	-.240	.811
	interaction_term	.055	.290	.013	.189	.851

H1: Resilience moderates the relationship between Emotional competence and Academic performance.

The test results indicate that the Emotional competence is significantly and positively related to Academic Performance as in figure 2 (B=.603; t=8.981; p<.001). Resilience has a negative though significant relationship with Academic Performance (B=-.009; t=-.240; p<.001). The results indicate that Resilience combined with Emotional competence has a moderating effect on

Academic Performance; that is, Resilience has a moderating effect on the relationship between Emotional Competence and Academic Performance (B=.055; t=.189; p<.001).

Table 18: Linear Regression Analysis 2

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	131.356	8.744		15.022	.000
	E	.688	.214	.277	3.212	.002
	R	.500	.116	.384	4.328	.000
	interaction term	-.140	.924	-.012	-.152	.880

H2: Resilience moderates the relationship between Emotional Competence and Psychological well-being. The test results indicate that Emotional Competence is significantly and positively related to Psychological well-being (figure 4) (B=.688; t=3.212; p<.001). The test also shows that Resilience is positively related to Psychological well-being (B=.500; t=4.328; p<.001). However, Resilience has a negative moderating effect on the relationship between Emotional Competence and Psychological Well-being (B=-.140; t=-.152; p<.001).

In general while Resilience has a strengthening moderating effect on the relationship between Emotional competence and Academic performance, it has a weakening moderating effect on the relationship between Emotional competence and Psychological well-being.

6.Limitations

Medical students, nursing students, and teachers are the population in Bangalore on whom further research could be done to explore the impact of COVID-19. Further studies could also be done on other aspects of students such as personality traits, spiritual intelligence and family support in so far as how they contribute to coping mechanisms.

7.Conclusion

The COVID-19 pandemic unleashed global impact on the lives of people in areas of mental health, career, livelihood, life, and finance. The student population was one of the worst hit segments in terms of education, psychological well-being and social interaction. Though studies have been done on the mediating role of resilience in mental health, its moderating role in academic performance and psychological well-being remained unexplored. The results of the present study have thrown light on the covariance variation and the moderating role of resilience. This signifies the importance of developing resilience-centred interventions and techniques to cope with negative impact of an event.

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