

Self-Efficacy, Emotional Regulation as Correlates of Test Anxiety among College Students

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Self-efficacy and emotional regulation are key psychological resources influencing academic adjustment among college students. Test anxiety continues to be a common issue among college students and can interfere with academic performance as well as emotional functioning. The present study explored how self-efficacy and emotional regulation relate to test anxiety among college students and examined gender differences across these study variables. A sample of 300 students from various colleges in Coimbatore was selected through random sampling. The General Self-Efficacy Scale, the Emotional Regulation Questionnaire and the Westside Test Anxiety Scale were administered. Findings revealed that students with higher self-efficacy had lower levels of test anxiety. Emotional regulation also demonstrated a meaningful negative association with test anxiety. Further, significant gender differences were found across all three study variables. Overall, the results underscore the value of strengthening self-efficacy and emotional regulation to reduce test anxiety among college students.

Keywords: self-efficacy, emotional regulation, test anxiety, college students

Academic life places substantial cognitive and emotional demands on college students, notably during examinations. Among various psychological factors that influence students' academic experiences, self-efficacy, emotional regulation and test anxiety have received considerable attention in research and education. These variables play a crucial role in determining how students perceive academic challenges and manage stress related to evaluation situations.

Self-efficacy refers to an individual's belief in their ability to successfully organize and execute behaviours that are necessary to achieve outcomes in their performance in every aspect of their life (Bandura, 1994). The ability of having control over one's own self and the environment can be achieved through strong self-efficacy that tends to approach academic tasks with confidence, persistence and resilience even when confronted with difficulties. Self-efficacy is a cognitive ability that can be developed

through awareness and practice. According to Bandura (1994), Self-efficacy develops through mastery experiences, vicarious learning, verbal persuasion, and emotional states. Previous research has consistently demonstrated that higher self-efficacy is associated with better academic engagement, motivation and well-being of a person, while lower self-efficacy has been linked to increased anxiety and academic stress (Schwarzer & Jerusalem, 1995). Warshawski (2022) in a study found a positive association in academic Self-efficacy, resilience, and social support among 222 nursing students learning in an online environment during covid-19 pandemic. Self-efficacy thus academically associates students with various psychological factors that improve their performance.

Emotional regulation refers to the processes through which an individual monitors, evaluates and modifies his emotional responses to meet situational

demands (Gross & John, 2003). People use various strategies to face the demands of life, whether healthy or unhealthy. Some of the healthy strategies to overcome emotional instability are proper ventilation, exercise, reading, writing, meditation, therapy, counselling, and proper sleep. Alcohol consumption, drug use, self-injury, isolation, and avoidance are some unhealthy regulations of emotion which may lead to several psychological issues, health issues and even death. So, proper and healthy practice of emotional regulation is essential.

Test anxiety may be defined as an extreme worry or fear which subjectively related to tests, exams, or similar evaluations. Many people experience a little stress before or during exams. Eustress can help in scoring well on an exam. But if it becomes distress than it may lead to test anxiety. Test anxiety is a major problem that leads to poor performance and low scores in examinations. Fear of failure, lack of preparation and poor test history are some common causes of test anxiety. Mental factors like self-doubt also lead to test anxiety. It becomes a vicious cycle after experiencing anxiety during one exam. This may affect the academic future of a student. The problem may be seen in students from kindergarten to college.

Both Self-efficacy and emotional regulation are necessary components for college students who have just crossed their adolescent phase. Success and growth in academics, work, as well as life are necessary for the students. College Students face academic pressure during exams, which leads to Test Anxiety. It is one of the major problems for a student. Higher and Better Self-efficacy and Emotional Regulation may help students in facing Test Anxiety and improving their performance. It is fundamental to enhance the future of the students, both for career growth and overall life development.

A study among 2204 secondary education students revealed a self-determined behavioural pattern characterized by high scores in emotional regulation, Self-efficacy, and academic performance. Self-efficacy significantly mediated emotional regulation and student academic performance (Supervia and Robres, 2021), thus highlighting its need in an academic context. Another study with a sample of thousand two hundred and sixty-six students highlighted the mediating role of psychological resilience between emotional regulation and test anxiety, where test anxiety showed a significant association with emotional regulation and psychological resilience (Liu, Pan, Yang, Wang, Rao, Zhang, and Pan, 2021). Bytamer, Sead and Khakpoor (2020) in a study among 250 participants confirmed that difficulties in emotional regulation and academic procrastination are associated with each other. Emotional regulation thus has an influence on academic progress in students. Female students need special promotion programs based on self-efficacy and test anxiety levels (Asayesh, Hosseini, Sharififard and Kharamah, 2016).

In light of the existing research, it is evident that these variables play a crucial role in shaping students' academic experiences. Although prior studies have examined these variables independently and in various combinations, limited attention has been given to their interrelationships among college students in the Indian Context, particularly with gender differences. An empirical investigation addressing these variables may contribute to a clearer understanding of their interrelationships and academic relevance.

Objectives

1. To determine the levels of self-efficacy, emotional regulation and test anxiety among college students.

2. To examine the association among self-efficacy, emotional regulation and test anxiety.
3. To identify gender related variations in self-efficacy, emotional regulation and test anxiety among college students.

Hypotheses

1. There is no significant relationship between Self-efficacy and Emotional Regulation; Self-efficacy and Test Anxiety; Emotional Regulation and Test Anxiety among college students.
2. There is no significant difference in Self-efficacy, Emotional Regulation and Test Anxiety between male and female college students.

Method

Sample

The samples were selected from prominent colleges in Coimbatore District using the Random Sampling Technique. Three hundred college students (Female = 200, Male = 100) were selected for the study from different majors.

Tools

The General Self-efficacy 10-item Scale was developed by Schwarzer and Jerusalem. The Scale consists of four options: "Not at all true", "Hardly true", "Moderately true" and "Exactly true". Cronbach's alphas lie between 0.76 and 0.90, establishing good internal reliability. General Self-efficacy is related to emotion, optimism and satisfaction. Validity strongly shows negative correlation for depression, stress, health complaints, burnout and anxiety.

Emotional Regulation Questionnaire consists of 10 items developed by Gross and John with a Likert scale (Seven-point) from "Strongly disagree" to "Strongly agree". The Cronbach's alpha of ERQ (0.73~0.82) indicates reliability of internal consistency.

Validity of EQR is good ($r=0.17\sim 0.14$, all $ps < 0.01$)

Westside Test Anxiety Scale, developed by Driscoll, with 10 items. The reliability for this test was 0.88. It is a five-point scale consisting of "extremely or always true", "highly or usually true", "moderately or sometimes true", "slightly or seldom true", and "not at all or never true". The validation of this scale has a correlation average of 0.44.

Analysis of Data

Analysis of data was done using SPSS version 25. Descriptive Statistics, Pearson's Correlation and Independent t-test were done for all three variables.

Results

Table 1. Distribution of Self-efficacy, Emotional Regulation and Test Anxiety among College Students (N=60)

Variables	Low (%)	Moderate (%)	High (%)
Self-efficacy	09	36	55
Test Anxiety	30	30	40
Emotional Regulation	25	33	42

Percentages are rounded off

Note: The Westside Test Anxiety Scale originally provides six interpretive categories. For ease of comparison, these categories were reclassified into low, moderate and high.

Table 1 shows each variable classified in different levels among college students where Majority of the participants had average (36%) and high (55%) Self-efficacy, only 9% had low Self-efficacy. Considering Indian population 9% is very high. The Government needs to do make mandatory to enhance the Self-efficacy by training the college students. Most of the college students (70%) had High and Moderate levels

of test anxiety which indicates that college students need attention towards this problem. Emotional Regulation is high in 42% students whereas moderate in 33% of them and 25% has low emotional regulation. Nearly half of the participants need training to regulate emotions in an appropriate manner.

Table 2. Descriptive Statistics, Skewness and Kurtosis for Self-efficacy, Emotional Regulation and Test Anxiety among College Students. (N=300)

Variable	Mean	S. D.	Skewness	Kurtosis
Self-efficacy	28.95	6.34	-0.61	-0.10
Test Anxiety	31.45	9.59	-0.21	-0.88
Emotional Regulation	42.87	15.16	-0.48	-0.94

Table 3. Correlation among Self-efficacy, Emotional Regulation and Test Anxiety

		Self-efficacy	Emotional Regulation	Test Anxiety
Self-efficacy	Pearson Correlation	1	0.50**	-0.48**
	Sig. (2-tailed)		0.00	0.00
	N	300		
Emotional Regulation	Pearson Correlation	-0.50**	1	-0.45**
	Sig. (2-tailed)	0.00		0.00
	N	300		
Test Anxiety	Pearson Correlation	0.48**	-0.45**	1
	Sig. (2-tailed)	0.00	0.00	
	N	300		

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

Table 2 presents the mean and standard deviation scores among the participants. The obtained skewness and kurtosis values fall within the recommended limits of ± 2 , suggesting that the data are approximately normally distributed (George & Mallery, 2010).

Table 3 presents the correlation analysis among self-efficacy, emotional regulation and test anxiety. The results indicated that Self-efficacy was significantly and negatively associated with test anxiety (-0.48**) while showing a significant and positive relationship with emotional regulation (0.50**). In addition, test anxiety demonstrates a significant negative correlation with emotional regulation (-

0.45**). Based on these results, Hypothesis 1, "There is no significant relationship between Self-efficacy and Test Anxiety; Emotional Regulation and Test Anxiety; Self-efficacy and Emotional Regulation among college students" is rejected.

Table 4. Mean, Standard Deviation and t value in Self-efficacy, Emotional Regulation and Test Anxiety among Male and Female College Students

Variables	Gender	Mean	Standard Deviation	T
Self-efficacy	Male	26.28	6.62	5.41**
	Female	30.29	5.76	
Test Anxiety	Male	37.66	15.47	4.34**

Emotional Regulation	Female	45.48	14.34	5.71**
	Male	35.70	8.64	
	Female	29.32	9.35	

** = Significant at 0.01 level

Table 4 indicates the mean score, standard deviation and t-values for Self-efficacy, Test Anxiety and Emotional Regulation among both male and female college students. The obtained t-value clearly indicates a significant difference between male and female college students across all three variables. It could be due to the kind of rearing by the parents, relatives and society. Hence, Null Hypothesis 2, "There is no significant difference between male and female college students in Self-efficacy, Emotional Regulation and Test Anxiety among college students" is rejected.

Discussion

Correlation analysis indicated that the negative association between self-efficacy and test anxiety was significant, indicating that increased perceived competence leads to decreased levels of anxiety during examinations in some students. Self-efficacy was positively associated with emotional regulation, indicating that confident students are more capable of managing their emotional responses, whereas emotional regulation was negatively associated with test anxiety, suggesting need for training in managing emotions during exams. These results are related with previous studies highlighting the protective role of both self-efficacy and emotional regulation in academic contexts (Asayesh et al., 2016; Supervia & Robres, 2021). Gender differences observed in the study variables may reflect differences in socialization and coping patterns among male and female students.

Conclusion

The findings of the present study emphasize the role of self-efficacy and

emotional regulation in alleviating test anxiety among college students. The observed gender-based differences suggest the need for targeted attention, particularly for female students. Intervention programs focused on enhancing and strengthening emotional regulation skills and self-belief may contribute to better and improved academic outcomes and promote overall psychological well-being.

Limitations

There may be other variables included with Self-efficacy, test anxiety and emotional regulation. The sample size is too small and is restricted only to college students in the Coimbatore area. School students can also be included in the study.

Recommendation for future research

Self-efficacy and Emotional Regulation can be developed through training and guidance. Further research can focus on therapies to enhance Self-efficacy and emotional regulation among college students. Results indicated that Test Anxiety had become a major problem among college students. Hence, test anxiety can be studied in detail, and methods can be suggested to reduce anxiety levels in students, especially during exams. New schemes and policies can be brought in education system to support and enhance the students academically.

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