

# Relationship Of Emotional Intelligence With Undergraduate Students' Test Anxiety: A Case Of Universities Of Balochistan

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## Abstract

In higher education, students with test anxiety (TA) perform significantly worse cognitively and have a lower academic success rate. Emotional intelligence (EI) is a broad concept that includes traits like the capacity to get along with others, handle stressful situations constructively, adjust to new environments, and maintain a reasonable frame of mind. But a social anxiety disorder is the umbrella term for what we commonly call "social phobia" (TA). In new research, we investigate the theory that is more EI is associated with less TA. Differences between the genders were also studied. Two hundred and ninety five university students, selected through stratified random selection completed questionnaires on their demographics, test anxiety, and emotional intelligence (EI) during spring semester 2022. The results showed a correlation between higher scores on EI traits and reduced test anxiety. The female participants reported more outstanding TA scores, but the males reported higher EI ratings. Sexual orientation, coping mechanisms, and plasticity were controlled for. Mood, interpersonal and intrapersonal competence, and talent all played a role in predicting low TA. According to the results, students with high TA may want to work on improving their outlook and their internal and external relationships, social commitment may operate as a roadblock to TA.

**KEYWORDS** Emotional intelligence, test anxiety, university students, Balochistan.

## Introduction

Examinations and tests are crucial components of educational system. People receive rewards based on how well they succeed on examinations and exams. One's fate is determined by the exam results. Exam performance is a significant factor in determining academic success in college. The transfer of knowledge from working memory to long-term storage is essential for learning, as proposed by the cognitive theory (Sternberg & Sternberg, 2009). According to Zollar and Ben-Chain (1990), we are living in the "era of test awareness." Many people's lives are not only impacted by how well they perform on tests and examinations, but also dictated by it. Different

types of tests and exams might result in varying degrees of tension and anxiety. Generally speaking, exam anxiety stands in the way of many people achieving their true academic goals. Some pupils, however, have a knowledge gap that hinders their exam performance. Few students suffer from test anxiety (TA), a subtype of social phobia, which causes them to feel uneasy or anxious before and during tests (Green, Angoff, & Encandela, 2016).

It is clear from the empirical research that a high level of test anxiety is linked to poor academic performance (Rana & Mahmood, 2010). Teachers are similar to planters in the lives of students, who need to fuel their potential in order to develop into virtuosic

adults (Kumari & Chamundeswari, 2013). According to Walberg's theory (1984), there are a number of factors, including student talent, knowledge, responsibility, confidence, teaching approaches, passion, and classroom environment, that contribute to the variation in passionate results among understudies. There are several factors that affect an individual's success in a variety of areas, including exam anxiety, gender differences, confidence, relationships with one's parents and other family members, propensity, and more (Ali, Awan, Batool, & Muhammad, 2013)

The student's dynamic internal environment, which affects performance as a result, cannot be ignored. These considerations include things like a person's test anxiousness. When being tested, such as for a driver's license, it is not unusual to see someone who is extremely skilled perform poorly. The likelihood of receiving incorrect results appears to increase with the subsequent significance of the test in the lives of the subjects. This is because anxiety tends to increase with subsequent significance. The problem seems increasingly important in the light of statements like: The second half of the 20th century has alternately been dubbed the age of stress, age of worry, or more recently, the era of coping (Parker & Endler, 1995).

Two of the areas are "Managing emotions" and "Motivating oneself," therefore pupils who exhibit greater adaptability, tolerance, and optimism are thought to be emotionally intelligent. The ability to monitor one's own and others' feelings, such as tension, worry, wrath, and doubtfulness, as well as the ability to distinguish between these sentiments and use them as a basis for one's own ideas and actions, is known as emotional intelligence (EI).

## **2. Review of the related literature**

### **2.1 Emotional Intelligence (EI)**

According to Li (2012), Mayer and Salovey (1993) introduced the concept of emotional intelligence for the first time in 1990 in their engaging article, "Emotional Intelligence,"

when it was still a relatively new concept in the academic community. After characterizing intelligence and emotions alone, they went on to explain what emotional intelligence is. They created the evolutionary model, which had four parts: self-evaluation and expression of feelings, other-evaluation and expression of feelings, control of sentiments, and use of passionate facts to inspire and motivate. The broad concept of emotional intelligence (EI) includes mental talents, skills, and abilities that process and draw on emotions (Salovey & Mayer, 1990; Mayer, Salovey, Caruso, & Sitarenios, 2001). According to dominant theoretical perspectives, these inclinations enable people to effectively analyze, control, and communicate their emotional states as well as observe and evaluate the emotional states of others.

One's capacity to keep track of their own emotions as well as those of others, to distinguish between them, and to utilize that knowledge to inform their decisions and actions is known as emotional intelligence (Bar-On, 2014). The range of emotional intelligence include verbal and nonverbal emotion appraisal and expression, efficient emotion control in oneself and others, and the application of emotional content to problem resolution. There are four branches of emotional intelligence, according to Bar-on and Parker (2000). The first branch entails paying close attention in order to recognize and understand emotional cues The second branch deals with the capacity for using or producing emotions, attentional concentration, emotional expression, and connections to other cognitive processes including thinking, problem-solving, and decision-making. Understanding emotional data and the causes of emotional progression and change is the third branch. The fourth and final branch focuses on controlling and managing our own and other people's emotions. Several researchers have worked to study and use emotional intelligence concepts in academic and other learning contexts (Bronzes & Militia, 2014; Brackett, Rivers, & Salvoes, 2011; Brackett & Katella, 2007). They

discovered that EQ predicts academic success and other cognitive outcomes as well as it mitigates the adverse effects of adverse and negative personality traits.

## 2.2 Test Anxiety

Physical, emotional, cognitive, and behavioral aspects of anxiety make it a psychological and physiological condition. Anxiety is a state of unease that can lead to feelings of fear or worry whether there is psychological stress present or not. Stress can lead to anxiety, which has a poor effect on academic achievement as well as memory and learning abilities. Test anxiety is one of the subgroups into which this phenomenon has been divided by researchers (Singh, Singh, & Singh, 2009). A prevalent type of academic anxiety is test anxiety, which typically has a negative effect on the beliefs and actions that are typical of testing settings (Cassady, 2010). It is basically a type of performance anxiety, a feeling one could experience while under pressure to perform well or when performance really matters. In a nutshell, test anxiety is a sort of worry that can manifest in test-taking circumstances and exhibits signs of general anxiety. These symptoms may include trembling hands, insomnia, anxiety, agitation, an elevated heart rate, and perspiration (Malek, Mumtaz, Ghulam, & Mahwish, 2013). Test takers' focus is diminished by test anxiety, which causes them to make more mistakes. Test anxiety manifests as inappropriate cognitive responses, such as stress insights and test irrelevant reasoning in response to educational pressures (Farnia, et al., 2017). Analysts and psychologists have suggested that there are certain components of exam anxiety, such as worry, emotion, thinking, tension, interference with cognition, and lack of confidence (Unruh & Lowe, 2010).

The predominant relevance of the current study lies in familiarizing the students with these two influencing factors and instructing them on how to regulate their emotional intelligence to lessen their test anxiety in order to do better on a test, stipulated that a connection among the two

factors (EI and Test anxiety) could be found. In a broader sense, examining all of the test subject's internal factors may result in a balanced distribution of time and effort for research in the field of testing on internal and external factors, rather than focusing primarily on external factors, and this is the primary need for the current investigation. The following research questions were posed in order to accomplish the goals of this study:

1. Is there a connection between test anxiety and EI that is meaningful?
2. Which of the EQ subscales is (are) a positive predictor(s) of test anxiety?
3. Does gender have any bearing on how EQ and test anxiety are related?

## 3. Methodology

### 3.1 Procedure and Process

350 university students from the Lasbela University, University of Balochistan, University of Turbat, BUITEMS, University of Loralai, BUIITEK, and MCKRU Sibi in the Balochistan region of Pakistan were asked to complete the pertinent questionnaires. 295 of the 350 students that took the survey completed it and returned it, or around 84% of them. Male students made up 140 of the respondents, while female students made up 155.

### 3.2 Data Collection Tools

#### Test Anxiety

Along with a demographic form asking questions about the participants' age, gender, and major, the Sarason Test Anxiety questionnaire" was utilized to gather information on test anxiety among students. With yes or false options, the survey probes pupils' test anxiety. The Sarason questionnaire, according to Tryon (1980), it is the most well-known study on test anxiety. The items are made so that test anxiety symptoms like response, tension, intrusive thoughts, and bodily symptoms can be studied. Cronbach's

alpha of the questionnaire for this study was 0.87.

### Emotional Intelligence

Bar-On created a 133-item self-report emotional intelligence scale to assess people's emotional intelligence. The Bar-On EI test, often known as the emotional quotient inventory (EQ-I), measures emotional intelligence using a five-point Likert scale with responses ranging from "Never" to "Always." It includes five major scales and fifteen subscales. Cronbach's alpha provided an assessment of the questionnaire's overall reliability of 0.84.

### Results and Findings

The first step was to use t-tests to evaluate the differences in TA and EI scores among male and female participants. Second, we ran a battery of correlations to measure the strength of the link between TA and EI traits. Third, TA

was predicted using EI traits and gender by forwarding and backward multiple regression analysis. We utilized SPSS® 21.0 on an Apple Mac® computer for the statistical analysis.

### Results

#### Gender's effect on EI and TA

Table 1 displays the comparative TA and EI scores of the participants by gender, as determined by the descriptive and inferential statistical analyses. The EI scores of the male students and female students who took the test did not differ much, but there was a significant difference between the genders.

Tabulated in Table 1 below are descriptive statistics and relationships between various aspects of emotional intelligence and test-taking nerves.

Table 1			
	Females patients	Males patients	Statistics
N	155	140	
EIT mean (SD)			
cognitive abilities	24.81 (1.85)	24.67 (2.10)	t(197) =0.71, d=0.10 [S]
Social abilities	23.35 (1.94)	24.05 (2.57)	t(197) =0.23, d=0.02[S]
anxiety management	23.86 (2.23)	23.46 (2.34)	t(197) =0.50, d=0.07 [S]
Versatility	22.93 (2.33)	24.02 (2.49)	t(197) =1.32, d=0.10 [S]
Natural behavior	22.92 (2.06)	23.85 (2.57)	t(197) =0.85, d=0.06 [S]
Test anxiety	33.77 (4.27)	30.90 (7.32)	t(197) =2.44,* d=0.45 [M]

Point to be notice: \*P,0.05.

M denotes a moderate ES, S a SES, and SD a large one.

The relationships between emotional intelligence qualities and test anxiety are shown in Table 2, along with descriptive data and a breakdown by gender.

	samples	Females respondents	Males respondents
N	295	155	140
	TA	TA	TA
EIT	r	R	R
Cognitive abilities	0.63	0.63	0.67
Social abilities	0.60	0.53	0.72
anxiety management	0.54	0.53	0.56
Versatility	0.55	0.50	0.60
Natural behaviour	0.60	0.55	0.67

**Note:** \*\*\*P,0.001.

It was revealed that there was statistical difference between the TA scores of the genders.

### Comparing TA with EIT

Tabulated detailed data are presented in the report (T 2). Across all genders, had a negative relationship between EI characteristics and TA.

### EI-based modeling for forecasting TA

Various retrogression with sidewise turned around analysis was performed to make TA predictions as a function of EI. Total TA was the dependent variable, with gender (1 for males and 2 for females) and EI features serving as predictors or independent variables.  $R = -0.68$ ,  $R^2 = -0.365$ , Durbin-Watson coefficient = -1.43; cognitive abilities: -0.13,  $t = -3.51$ ,  $P = 0.002$ ; social abilities: -0.23,  $t = -3.01$ ,  $P = 0.002$ ; and overall disposition: -0.10,  $t = -1.36$ ,  $P = 0.04$ ; all other terms were significant. Therefore, an individual's general disposition, as well as their cognitive and social skills, were major predictors of TA. By removing these factors from the model, we find that anxiety management (0.03,  $t = 0.12$ ,  $P = 0.34$ ), adaptability (0.09,  $t = 0.97$ ,  $P = 0.23$ ), and gender orientation (0.11,  $t = 1.76$ ,  $P = 0.10$ ) become significantly less significant.

### Discussion

Researchers found that reduced TA was linked to higher EI among a population of university students of Balochistan who served as the study's sample. More precisely, it was discovered that enhanced interpersonal and intrapersonal abilities and natural behavior were predictive of TA, although AM, flexibility, and gender was not.

The data supported our prediction of an inverse correlation between TA and EI. Our research lends credence to the theory that difficulties with emotional regulation go hand in hand with diminished TA. Furthermore, as is evident from Table 2, there was no significant difference in the overall data pattern between the genders. Next, we hypothesized that female students would perform better than male students on the TA, which was the case, confirmed. This pattern of findings is in line with what has been seen in younger and older students in schools and universities. It was a marginally noticeable change, though (medium effect size).

Results from a multiple regression analysis demonstrate the link between "basic" emotional regulation and TA, while other cognitive methods, such as anxiety management and adaptation, are unrelated. This is a crucial discovery. The statistical results back up this interpretation. The most vital takeaway is the possibility of reducing TA through the application of refreshment approach such as autogenic training, breathing control, or mindfulness-based stress reduction. Thus, we hypothesise that this pattern of results explains why a test-taking technique course, viewed as a

cognitive method for coping with TA, largely failed to diminish TA. This makes logical, as this pattern of outcomes explains why a course (Vøllestad, Nielsen, & Nielsen, 2012). Although the data quality does not permit for a more in-depth understanding of the bottom-line psychological procedures, we speculate that theories by Eysenck, Derakshan, Santos, and Calvo, (2007), Eysenck and Byrne (1992), and Eysenck and Calvo (1992) may be able to explain why cognitive performance dramatically decreases with TA.

This is also consistent with the findings of studies on anxiety and resilience (Maddi & Kobasa, 1984), which found that commitment, which can be defined as the experience of being related to and responsible for those who are close to oneself, is among the most critical factors in both preventing stresses and coping with them once they have occurred. From our vantage point, this is also consistent with the findings of studies on anxiety and resilience (Maddi & Kobasa, 1984).

Despite the exciting results, the following caveats should be considered before generalizing. Due to the small sample size and the cutthroat nature of medical school admissions, prospective students may feel extra pressure to do well. Second, participation in the study was voluntary and limited to those students who met both criteria. Third, we could only rely on self-reports from individuals, while expert judgments could have shed lighter on the presence of psychiatric disorders and comorbidities. Fourth, other latent variables that have not been analyzed may have influenced the existing pattern of results by biasing two or more dimensions in the same direction. It hasn't been investigated if this is a real option. Fifth, all test takers completed an anonymous questionnaire before the exams began. This prevented any correlation between the current EI and TA data and exam results (pass/fail; marks). Future research should contrast objective performance with the EI and TA dimensions.

## Conclusion

In this particular investigation of university students of Balochistan, we found a correlation between having a lower TA and a greater EI and that this correlation remained true across gender lines. The results show that reducing TA might be achieved by helping students develop their cognitive and social abilities

## References:

1. Ali, M. S., Awan, A. S., Batool, S., & Muhammad, N. (2013). Secondary school students' test anxiety and achievement in english. *International Journal of English and Literature*, 3(1), 131-138.
2. Bar-On, R., & Parker, D. A. (2000). *Emotional intelligence theory, development assessment, and application at home, school and in the workplace*. San Francisco: Jossey-Bass.
3. Bar-On, R. (2014). *Emotional intelligence: An integral part of positive psychology*. *African Journal of Psychology*, 40, 54-62.
4. Brackett, M. A., Rivers, S. A., & Salvoes, P. (2011). *Emotional intelligence: Implications for personal, social, academic and workplace success*. *Social and Personality Psychology*, 10, 88-103.
5. Brackett, M., & Katella, N. (2007). *Emotional intelligence in the classroom. Skill based training for teachers and students*. *Journal of Emotional Intelligence*, 8(2), 1-28.
6. Bronzes, A., & Militia, P. (2014). *Association between emotional intelligence, socioemotional adjustment and academic achievement in childhood: The influence of age*. *Canadian Journal of School Psychology*, 29(2), 83-99.
7. Cassady, J. C. (2010). *Anxiety in Schools: The Causes, Consequences, and Solutions for Academic Anxieties*.

- New York: Peter Lang Publishing Group.
8. Eysenck, M. W., & Byrne, A. (1992). Anxiety and susceptibility to distraction. *Personality and Individual Differences*, 13(7), 793–798.
  9. Eysenck, M. W., & Calvo, M. G. (1992). Anxiety and performance: the processing efficiency theory. *Cognet Emotions*, 6(6), 409–434.
  10. Eysenck, M. W., Derakshan, N., Santos, R., & Calvo, M. G. (2007). Anxiety and cognitive performance: attentional control theory. *Emotions*, 7(2), 336–353.
  11. Farnia, V., Mousavi, S. A., Parsamehr, A., Alikhani, M., Golshani, S., Nooripour, R., & Moradi, M. (2017). The mediating role of emotional intelligence in coping strategies and test anxiety in students of kermanshah university of medical sciences, kermanshah, iran in 2013 - 2014. *Iranian journal of psychiatry and behavioral sciences*, 11(4), 1-6.
  12. Green, M., Angoff, N., & Encandela, J. (2016). Test anxiety and United States Medical Licensing Examination scores. *The Clinical Teacher*, 13(2), 142-146.
  13. Kumari, A., & Chamundeswari, S. (2013). Self-concept and academic achievement of students at the higher secondary level. *Journal of Sociological Research*, 2(4), 105-113.
  14. Li, R. (2012). *A study of relationship between emotional intelligence and leaders in the chinese context*. Dublin: National College of Ireland.
  15. Maddi, S. R., & Kobasa, S. C. (1984). *The Hardy Executive: Health Under Stress*. Homewood, IL: Dow Jones-Irwin.
  16. Malek, M., Mumtaz, A., Ghulam, F., & Mahwish, S. (2013). Emotional Intelligence and Test Anxiety: A Case Study of Unique School System. *Journal of Elementary Education*, 23(2), 49-56.
  17. Mayer, J. D., & Salovey, P. (1993). The Intelligence of Emotional Intelligence. *Intelligence*, 17, 433-442.
  18. Mayer, J. D., Salovey, P., Caruso, D. R., & Sitarenios, G. (2001). Emotional intelligence as a standard intelligence. *Emotion*, 1(3), 232-242.
  19. Parker, J., & Endler, N. S. (1995). Coping and Defense: A Historical Overview. In M. Zeidner, & N. S. Endler (Eds.), *Handbook of Coping: Theory, Research, Applications* (pp. 3-22). New York: John Willey & Sons.
  20. Rana, R., & Mahmood, N. (2010). The Relationship between Test Anxiety and Academic Achievement. *Bulletin of Education and Research*, 32(2), 63-74.
  21. Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition and Personality*, 9(3), 185-211.
  22. Singh, B., Singh, M., & Singh, K. (2009). The influence of test anxiety and learning style on students' academic achievement. *Journal of Nursing Research*, 18(2), 136-143.
  23. Sternberg, R. J., & Sternberg, K. (2009). *Cognitive Psychology* (6th ed.). Belmont, CA: Wadsworth.
  24. Tryon, G. S. (1980). The Measurement and Treatment of Test Anxiety. *Review of Educational Research*, 50(2), 343-372.
  25. Unruh, S. M., & Lowe, P. A. (2010). The development and validation of a spanish language version of the test anxiety inventory for children and adolescents. *Hispanic Journal of Behavioral Sciences*, 32(1), 164-183.
  26. Vøllestad, J., Nielsen, M. B., & Nielsen, G. H. (2012). Mindfulness- and acceptance-based interventions for anxiety disorders: a systematic review and meta-analysis. *British Journal of Clinical Psychology*, 51(3), 239–260.

27. Walberg, H. J., & Tsai, S. I. (1984). Reading achievement and diminishing returns to time. *Journal of Educational Psychology*(76), 442–451.
28. Zoller, U., & Ben-Chain, D. (1990). Gender differences in examination type, test anxiety, and academic achievement in college science: a case study. *Science Education*, 74(6), 597-608.