

Examining The Triadic Link: Parenting Styles, Test Anxiety, and Emotional Regulation Among Psychology Students

Leandra George¹, Vimala M²

¹Student, Department of Psychology, Kristu Jayanti College (Autonomous), Bengaluru

²Assistant Professor, Department of Psychology, Kristu Jayanti College (Autonomous), Bengaluru

Abstract

This study investigates the nuanced dynamics between perceived parenting styles and psychological constructs, namely Test Anxiety and Emotional Regulation, among collegiate psychology students in India. The research explores potential variations in emotional regulation and test anxiety based on perceived parenting styles, namely authoritative, authoritarian, and permissive; and studies the relationship and trend between Test Anxiety and Emotional Regulation. Data were gathered through questionnaires from a sample of 201 undergraduate and postgraduate psychology students aged 17-25 pan-India. The descriptive research design employed the statistical analyses, One Way ANOVA, Pearson Correlation Coefficient, and Simple Linear Regression. The results indicated significant differences in test anxiety among the three perceived parenting styles, with authoritarian parenting exhibiting higher test anxiety levels compared to authoritative parenting with the lowest scores. No significant differences were found in emotional regulation based on perceived parenting styles. The correlation analysis revealed no significant relationship between emotional regulation and test anxiety. The regression analysis further supported this by indicating no significant predictive impact of emotional regulation on test anxiety. The implications extend to educators, mental health professionals, and parents, emphasizing the importance of understanding and addressing these factors to promote the well-being and academic success of collegiate psychology students in the Indian context.

Keywords: Perceived Parenting Styles, Authoritative, Authoritarian, Permissive, Test Anxiety, Emotional Regulation, Collegiate Psychology Students

Introduction

The realm of education encompasses a complex narrative of academic challenges and emotional dynamics that significantly impact the wellness and performance of students. As psychology students endeavor to acquire the knowledge and skills necessary to comprehend the complexities of human behavior, the interplay between parenting styles, test anxiety, and emotional regulation emerges as a compelling arena of investigation. Psychology students are tasked with not only comprehending the nuances of human behavior, but also with navigating the challenges inherent to the academic environment. Within this educational context, a multitude of factors converge to shape students' experiences, including their upbringing, the anxiety they experience when faced with examinations, and their ability to effectively regulate their emotions.

Test Anxiety

Test anxiety, the emotional response to examination situations, has detrimental effects on academic performance and psychological well-being (Zeidner, 1998; Putwain, 2018). It is characterised as the individual's subjective perception of substantial physiological, cognitive, and behavioural symptoms of anxiety preceding or during examinations, which impedes the execution of the tests (Sawka-Miller, 2011). Cognitively, test anxiety is intricately linked to the phenomenon of "cognitive interference." As individuals experiencing test anxiety grapple with worry and fear, cognitive resources that would otherwise be allocated to the task at hand become diverted to anxiety-related thoughts. This diversion hampers information processing, disrupts working memory, and impairs the ability to organize thoughts coherently.

Test anxiety is a prevalent concern within academic environments, exerting significant influence on both scholastic achievement and psychological welfare. At its core, test anxiety encompasses a range of emotional responses, including fear, apprehension, and worry, directly linked to the anticipation of an impending examination. Y et al. (2020) found significant correlations between test anxiety, emotional regulation, psychological resilience, and academic achievement among medical students. A survey of 1266 participants revealed high prevalence (71.4%) of test anxiety, with 33.7% reporting extreme levels. Emotion regulation was strongly correlated with, and predicted test anxiety. On a related front, Morosanova et al. (2019) investigated the link between test anxiety, exam performance, and self-regulation among Russian students. They found an inverse relationship between test anxiety and exam performance, with self-regulation being the primary determinant of higher performance. This underscores the importance of developing self-regulation skills for academic success.

Emotional Regulation

Emotional regulation is the cognitive and affective process through which people control and reconcile their emotional reactions with both internal and external stressors in an adaptive manner. It involves the awareness, understanding, and control of emotions, as well as the implementation of strategies to regulate emotional reactions. Emotion regulation refers to the strategies individuals employ to manoeuvre their behavioural, physiological, and experiential reactions, in addition to their organic emotions, in a conscious or unconscious manner, with the ability to exert effort or lack thereof (Gross and Thompson 2007; Koole 2009).

In the landscape of human experiences, emotions play a pivotal role, responding to various stimuli encountered in daily life. Extending beyond individual interventions, research also explores how external factors, such as caregivers or environmental settings, influence emotion regulation. Chronic difficulties in regulating emotions can significantly disrupt psychological well-being and contribute to various forms of psychopathology (Kring & Werner, 2004). Koole (2009) provided a comprehensive examination of emotion regulation, emphasizing its impact on cognition and emotion. A fundamental aspect of a person's capacity to manage the rigours of academic life is their emotional regulation. Liu et al. (2021) highlighted the importance of psychological resilience and emotional regulation in understanding exam anxiety among medical students. Effective emotional regulation allows students to manage stress, anxiety, and other emotional responses, fostering resilience and adaptability.

Parenting Styles

Parenting comprises all behaviours and practises involved in the upbringing of children. Parenting

styles, as conceptualized by Baumrind (1967), encompass authoritative, authoritarian, permissive, and neglectful approaches. Authoritative parenting involves high levels of responsiveness and demand, fostering a supportive environment. In contrast, authoritarian parenting emphasizes excessive demands with little receptivity, creating a rigid atmosphere. Permissive parenting is characterized by high responsiveness but low demandingness, often resulting in leniency. Neglectful parenting exhibits diminished levels of both responsiveness and demandingness, leading to an emotionally detached caregiving approach. A child's perception of their parents' or caregivers' attitudes, behaviors, and parenting techniques is referred to as their "perceived parenting style." Parenting styles play a crucial role in shaping individuals' emotional development and coping mechanisms (Cheung et al., 2016). Studies have shown that different parenting styles can have lasting effects on how children regulate their emotions, particularly in stressful situations like test-taking (Brackett et al., 2011). For instance, Ebrahimi et al. (2015) found that authoritative parenting is positively associated with emotional regulation, while authoritarian parenting is inversely correlated.

Certain literary sources also allude to a psychodynamic interpretation, specifically in regards to family dynamics. According to this view, a child's desire for parental approval is channelled through academic performance, with test grades serving as a significant metric (Sarason et al., 1960). Early familial experiences and the need for parental approval may have played a role in the formation of test anxiety as a stable personality trait, according to this explanation. Furthermore, studies have explored the relationship between parenting styles and specific psychological constructs like test anxiety (Xu et al., 2017) and emotional regulation (Manzeske & Stright, 2009). However, the interplay between these variables, particularly among psychology students facing academic pressure, remains relatively unexplored.

Significance of the Study

This study aims to address a notable gap in our understanding of the correlation between parenting styles, test anxiety, and emotional regulation among young adults, particularly collegiate Psychology students in India. Understanding how parenting styles impact test anxiety and emotional regulation can provide valuable insights for enhancing coping mechanisms and stress management skills. Additionally, this study offers a foundation for self-assessment, enabling development of self-awareness and better navigation of exam anxiety. Given the limited research in the Indian context, especially among Psychology students, this study fills a critical void and the findings can ultimately inform interventions to support students in managing stress and promoting emotional well-being.

Methodology

Statement of the Problem

Research has suggested there exists an impact of parenting styles on emotional self-regulation and an association between emotional regulation and test anxiety amidst varied populations, primarily school going children in foreign contexts. This research aims -

1. To assess the relationship among test anxiety and emotional regulation.
2. To assess the difference in test anxiety based on perceived parenting styles.
3. To assess the difference in emotional regulation based on perceived parenting styles.
4. To assess the impact of emotional regulation on test anxiety.

Hypotheses

H₀ 1 - There is no significant relationship between test anxiety and emotional regulation

H₀ 2 - There is no significant difference in test anxiety based on perceived parenting styles

H₀ 3 - There is no significant difference in emotional regulation based on perceived parenting styles

H₀ 4 - There is no significant influence of emotional regulation on test anxiety

Research Design

The objectives of the study are examined through the utilisation of a descriptive research design. The data collection was carried out through non-probability sampling and conducted through the online mode. The scales were compiled in a Google form and shared with the participants through online platforms. Consent had been obtained as a prerequisite prior to engaging in the survey. They were apprised of the study's objectives, their rights regarding voluntary participation and withdrawal, and the confidentiality of their data. Care was taken to not harm the participants. To ensure data quality, respondents were instructed to answer all questions accurately, and data was checked for completeness and consistency.

Data Collection and Analysis

Questionnaires were compiled and presented in a Google form, utilized as the primary data collection tool. To assess the difference between test anxiety and emotional regulation based on the parenting styles, One Way ANOVA (Analysis of Variance) was done. To assess the relationship between test anxiety and emotional regulation, correlation analysis was done using the Pearson Correlation Coefficient. A simple Linear Regression Analysis was conducted to further establish the predictive value of the variables on each other. Data analysis was conducted using Statistical Package for the Social Sciences.

Sample and Techniques

The sample would consist of 200- 215 students pursuing an undergraduate/postgraduate course in a university/college in India, with Psychology as a discipline, between the ages of 17 to 25 years. The sample would be selected using convenience sampling, provided the participants satisfied the -Inclusion criteria: residential Indian, fluent in reading and understanding English. Exclusion criteria: a history of mental illness or cognitive impairments that could affect their ability to complete the questionnaires, not fluent in English, who have filled any of the three questionnaires used in this research in the past 3 months and not studying Psychology in college/university.

Instrumentation

The Parenting Style variable is assessed using the Perceived Parenting Style Scale (PPSS), a tool developed by Divya and Manikandan in 2013, comprising 30 items. The scale assesses three distinct parenting styles: Authoritative, Authoritarian, and Permissive. To evaluate the reliability of the scale, Cronbach Alpha coefficients yielded values of 0.79 for Authoritative, 0.81 for Authoritarian, and 0.86 for Permissive. Additionally, the authors assert that the scale possesses face validity.

The purpose of the Emotion Regulation Questionnaire is to evaluate variations among individuals regarding their consistent implementation of emotional regulation strategies. In a study conducted on three Australian populations (Gross & John, 2003), confirmatory factor analyses revealed the ERQ

cognitive reappraisal ($\alpha = .89-.90$) and expressive suppression ($\alpha = .76-.80$) scores exhibited satisfactory to exceptional levels of internal consistency reliability across all samples. The questionnaire demonstrates robust psychometric properties, and the research conducted by Melka et al. (2011) validates its initial iteration across all demographic cohorts, attesting to its exceptional fit and applicability.

Driscoll (2007) developed the Westside Test Anxiety Scale for the purpose of evaluating anxiety related impairments. The Westside Scale has been demonstrated to be a reliable predictor of anxiety impairment. The validity of the scale was assessed by a study which conducted interventions with anxious students across different academic levels and assessed the impact on test scores and anxiety levels in 2004. The study revealed a strong correlation ($r = .49$) between anxiety reduction and test score gains. Scale validity was confirmed ($r = .44$), suggesting that changes in anxiety levels, as measured by the Westside scale, accounted for approximately 20% of the observed test performance changes across these samples.

Results

Table 1 Showing the Analysis of Variance for Perceived Parenting Styles (authoritative, authoritarian, permissive), Emotional Regulation and Test Anxiety

Variables	Parenting Style	M	SD	F	P
Test Anxiety	Authoritative	26.99	9.06	10.58	0.000*
	Authoritarian	32.58	8.17		
	Permissive	32.19	6.45		
Emotional Regulation	Authoritative	46.24	9.03	1.124	0.327
	Authoritarian	44.86	8.90		
	Permissive	43.26	11.34		

Note: * $p < 0.05$

Table 1 shows the mean scores (M) and standard deviations (SD) of Test Anxiety and Emotional Regulation for the three parenting styles, Authoritative Authoritarian and Permissive. For Test Anxiety, there was a significant difference among Authoritative parenting style (M = 26.99, SD= 9.06), Authoritarian parenting style (M= 32.58, SD= 8.17), Permissive parenting style (M= 27.12, SD= 6.45), as indicated by the significant F value (10.58, $p = 0.000$). Authoritarian parenting style had significantly higher scores in Test anxiety as compared to Authoritative parenting style. This means that there is a substantial difference in Test Anxiety, contrary to the null hypothesis (H_2).

In contrast, for Emotional Regulation, there was no significant difference among Authoritative parenting style (M = 46.24, SD= 9.03), Authoritarian parenting style (M= 44.86, SD= 8.90), Permissive parenting style (M= 43.26, SD= 11.34), as indicated by the non - significant F value (1.124, $p = 0.327$). As a result, we accept the null hypothesis (H_3) that parenting methods do not significantly affect children's ability to self-regulate their emotions.

Table 2 Showing the Pearson Product Moment Correlation between Emotional Regulation and Test Anxiety among collegiate psychology students (N=201)

Variables	N	M	SD	r
Test Anxiety	201	29.70	8.885	
Emotional Regulation	201	45.39	9.252	-.020

Note: $p > .05$

The Pearson Product Moment Correlation between Test Anxiety and Emotional Regulation is displayed in Table 2. The correlation coefficient of $-.020$ ($p = .775$) between Test Anxiety and Emotional Regulation suggests that the two variables do not have a statistically significant relationship. Consequently, the null hypothesis (H_1) is accepted, positing that there is no correlation between Emotional Regulation and Test Anxiety.

Table 3 Showing the Simple Linear Regression between Test Anxiety and Emotional Regulation

Variable	Unstandardized coefficients		Standardized coefficients	Model summary
	B	Std. Error	Beta	
Emotional Regulation	-.019	.068	-.020	F = .082
				t = -.286
				Sig = .775
				R = .020
				R square = .000

Dependant variable: Test Anxiety

Table 3 is showing the simple linear regression calculated to predict test anxiety based on emotional regulation. A statistically non-significant regression equation was found ($F(1,199) = 0.082$, $p > .05$), with an R^2 of 0.000. There is no significant impact of emotional regulation on test anxiety as per the model and therefore the null hypothesis (H_4) is accepted.

Discussion

The objective of this research is to examine the correlation between the constructs Test Anxiety and Emotional Regulation, assess the influence of one construct on the other, and analyse the distinctions between the two constructs as they pertain to the three perceived styles of parenting—Permissive, Authoritative, and Authoritarian.

Table 1 displays significant differences in test anxiety among perceived parenting styles—Authoritative, Authoritarian, and Permissive. Test anxiety was highest among individuals with Authoritarian and Permissive parenting styles, and lowest among those with Authoritative parenting styles. Thergaonkar and Wadkar (2007) found a negative association between test anxiety and parents' democratic attitudes, suggesting that democratic parenting styles may alleviate test anxiety. However, emotional regulation did not significantly differ among the perceived parental styles in this study. This contrasts with findings from Saldana and Forthun (2020), who emphasized the significant impact of parenting styles on emotional self-regulation and identity development in emerging adults. Jabeen et al. (2013) also found mixed results regarding parenting styles and emotion regulation in adolescents. While authoritative parenting positively influenced emotion regulation, permissive parenting had a detrimental effect. However, findings regarding authoritarian parenting were inconclusive.

Table 2 reveals no significant correlation between Test Anxiety and Emotional Regulation in this study. The weak, non-significant negative correlation suggests that changes in Test Anxiety do not correspond to changes in Emotional Regulation among the sample. This finding contrasts with studies like Hassan (2020), which found a negative relationship between Test Anxiety and adaptive cognitive emotion

regulation among university students in Saudi Arabia. Similarly, Thomas et al. (2017) found no significant correlation between cognitive test anxiety and emotional intelligence or emotion-focused coping techniques, despite past research suggesting a link between emotional intelligence and coping with exam anxiety.

Table 3 depicts the regression analysis between Test Anxiety and Emotional Regulation, revealing a non-significant relationship. The R-value of 0.161 and R^2 of 0.025 indicate that emotional regulation does not significantly predict test anxiety. The unstandardized coefficient (B value) suggests a small negative association, albeit non-significant, implying that higher levels of Emotional Regulation may be associated with slightly lower levels of Test Anxiety. However, caution is warranted in interpreting these findings, as the lack of statistical significance suggests that the observed correlation may be due to random variation. This contrasts with Liu et al. (2021), who found a significant inverse correlation between Test Anxiety and Emotional Regulation among medical students, suggesting that effective emotional regulation strategies may mitigate test-related apprehension. The existence of inconsistencies in results underscores the need for further research to clarify the relationship between emotional regulation and test anxiety, as well as the diversity of findings observed across studies.

Conclusion

The examination of test anxiety, emotional regulation, and perceived parenting styles among collegiate psychology students in India yielded several key findings. Significant differences in test anxiety were observed among authoritative, authoritarian, and permissive parenting styles, with authoritarian parenting associated with higher levels of test anxiety and authoritative parenting linked to lower levels. Emotional regulation, however, did not vary significantly across different parenting styles. Additionally, the correlation between test anxiety and emotional regulation was found to be weak and non-significant, suggesting no meaningful relationship between the two variables. Regression analysis further supported this, indicating that emotional regulation does not predict test anxiety. Ultimately, while the null hypotheses regarding parenting styles and emotional regulation were accepted, the hypothesis regarding test anxiety and parenting styles was rejected in favor of the alternative hypothesis. These findings underscore the complex interplay of factors influencing psychological outcomes among psychology students and highlight the need for further research to elucidate these dynamics.

Implications for Future Research

This research carries implications for educational practitioners, psychologists, and parents, highlighting the potential of authoritative parenting in mitigating test anxiety and advocating for supportive parenting styles. However, the non-significant impact of parenting styles on emotional regulation challenges assumptions, urging a nuanced understanding of emotional regulation dynamics among psychology students. Further, the unexpected findings regarding the relationship between emotional regulation and test anxiety prompt a reevaluation of existing frameworks, emphasizing the need for context-specific investigations into students' emotional well-being. As educators navigate student well-being complexities, insights into parenting styles, emotional regulation, and test anxiety within collegiate psychology education in India are crucial.

Limitations

Despite providing valuable insights, this research is subject to several limitations. Self-report measures

may introduce social desirability bias and response distortions, raising concerns about data accuracy and reliability. Moreover, reliance on convenience sampling from a specific age group and limited to psychology students in India may limit generalizability. The exclusive focus on parenting styles without considering moderating variables and the use of online data collection methods could introduce errors and confounding effects. Additionally, the scales used for measurement are self-report instruments, relying on subjective perceptions. Future research should employ diverse methodologies, consider broader populations and cultural contexts, and account for potential moderating variables to enhance the robustness of findings.

Suggestions for Research and Practice

Moving forward, future research should comprehensively explore contextual factors influencing emotional regulation among psychology students, including cultural backgrounds and socioeconomic status. Larger sample sizes with adequate representation and exploration of other familial and environmental factors beyond parenting styles could enrich comprehension. Investigating specific emotional regulation strategies during test-taking situations and conducting comparative studies across diverse cultural contexts could enhance generalizability. Additionally, exploring interventions to alleviate test anxiety and longitudinal studies tracking students' developmental trajectories could provide practical insights and a dynamic understanding of these relationships over time. Integrating a longitudinal perspective into future research could uncover critical periods impacting emotional regulation and test anxiety, shedding light on cumulative effects and developmental nuances.

References

1. Cheung, C. S., Pomerantz, E. M., Wang, M., & Qu, Y. (2016, June 18). Controlling and Autonomy-Supportive Parenting in the United States and China: Beyond Children's Reports. *Child Development*, 87(6), 1992–2007. <https://doi.org/10.1111/cdev.12567>
2. Divya, T. V., & Manikandan, K. (2013). Perceived Parenting Style Scale. Department of Psychology, University of Calicut, Kerala, India.
3. Driscoll, R. (2007). Westside Test anxiety scale validation.
4. Ebrahimi, M., Kharbou, A., Ahadi, H., & Hatami, H.R. (2015). THE COMPARISON OF EMOTIONAL SELF-REGULATION OF STUDENTS IN DIFFERENT PARENTING STYLES.
5. Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85(2), 348–362. <https://doi.org/10.1037/0022-3514.85.2.348>
6. Gross, J. J., & Thompson, R. A. (2007). Emotion regulation: Conceptual foundations. In J. J. Gross (Ed.), *Handbook of emotion regulation* (pp. 3–24). New York: Guilford.
7. Hassan, H. (2020). Cognitive regulation strategies as mediation in anxiety and academic adjustment in university students. *Artificial Intelligence*, 9, 111-118. <https://doi.org/10.34069/ai/2020.30.06.11>.
8. Jabeen, F., Anis-Ul-Haque, M., & Riaz, M. N. (2013). Parenting styles as predictors of emotion regulation among adolescents. *Pakistan Journal of Psychological Research*, 28(1), 85–105. <https://www.pjprnip.edu.pk/index.php/pjpr/article/view/495>
9. Jiménez, Á. P., Sánchez-Queija, I., Del Carmen García Mendoza, M., Coimbra, S., Oliveira, J. E., & López, M. D. (2019). Perceived Parenting Styles and Adjustment during Emerging Adulthood: A

- Cross-National Perspective. *International Journal of Environmental Research and Public Health*, 16(15), 2757. <https://doi.org/10.3390/ijerph16152757>
10. Koole, S. L. (2009). The psychology of emotion regulation: An integrative review. *Cognition and Emotion*, 23(1), 4–41. <https://doi.org/10.1080/02699930802619031>
 11. Kring, A. M., & Werner, K. H. (2004). Emotion Regulation and Psychopathology. In P. Philippot & R. S. Feldman (Eds.), *The regulation of emotion* (pp. 359–385). Lawrence Erlbaum Associates Publishers.
 12. Liu, Y., Pan, H., Yang, R., Wang, X., Rao, J., Zhang, X., & Pan, C. (2021). The relationship between test anxiety and emotion regulation: the mediating effect of psychological resilience. *Annals of General Psychiatry*, 20. <https://doi.org/10.1186/s12991-021-00360-4>.
 13. Manikandan, K. (2020). Parenting Style Scale.
 14. Manzeske, D. P., & Stright, A. D. (2009, April 18). Parenting Styles and Emotion Regulation: The Role of Behavioral and Psychological Control During Young Adulthood. *Journal of Adult Development*, 16(4), 223–229. <https://doi.org/10.1007/s10804-009-9068-9>
 15. Melka, S. E., Lancaster, S. L., Bryant, A. R., & Rodriguez, B. F. (2011). Confirmatory factor and measurement invariance analyses of the emotion regulation questionnaire. *Journal of Clinical Psychology*, 67(12), 1283–1293. <https://doi.org/10.1002/jclp.20836>
 16. Morosanova, V. I., Fomina, T., & Filippova, E. (2019). The Relationship between the Conscious Self-Regulation of Schoolchildren’s Learning Activity, Their Test Anxiety Level, and the Final Exam Result in Mathematics. *Behavioral Sciences*, 10(1), 16. <https://doi.org/10.3390/bs10010016>
 17. Putwain, D. (2018, January 15). Editorial. *Educational Psychology*, 38(2), 117–119. <https://doi.org/10.1080/01443410.2018.1426058>
 18. Saldana, M.F., & Forthun, L.F. (2020). The Effects of Parenting Style on Emerging Adulthood Emotional Self-Regulation and Identity Development.
 19. Sawka-Miller, K. D. (2011). Test Anxiety. *Encyclopedia of Child Behavior and Development*, 1478–1479. https://doi.org/10.1007/978-0-387-79061-9_2890
 20. Thergaonkar, N. R., & Wadkar, A. (2007). Relationship between Test Anxiety and Parenting Style. *Journal of Indian Association for Child and Adolescent Mental Health - ISSN 0973-1342*, 3(1), 10–12. <http://files.eric.ed.gov/fulltext/EJ896856.pdf>
 21. Thomas, C. L., Cassady, J. C., & Heller, M. L. (2017). The influence of emotional intelligence, cognitive test anxiety, and coping strategies on undergraduate academic performance. *Learning and Individual Differences*, 55, 40–48. <https://doi.org/10.1016/j.lindif.2017.03.001>
 22. Xu, X., Lou, L., Wang, L., & Pang, W. (2017, October 3). Adolescents’ perceived parental psychological control and test anxiety: Mediating role of academic self-efficacy. *Social Behavior and Personality: An International Journal*, 45(9), 1573–1583. <https://doi.org/10.2224/sbp.6754>
 23. Y, L., Pan, H., Yang, R., Wang, X., J, R., Zhang, X., & Chi, P. (2020). Test anxiety and emotion regulation among undergraduate medical students in China: the mediating role of psychological resilience. *Research Square (Research Square)*. <https://doi.org/10.21203/rs.3.rs-29594/v1>
 24. Zeidner, M. (1998). *Test Anxiety: The State of the Art*. New York: Plenum Press.