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Utilizing Inhibition and Cognitive Appraisal Strategies to Model Academic Achievement: The Mediating Role of Practical, Behavioral, Cognitive, and Emotional Academic Engagement among Adolescents

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Extended Abstract

Aim

Academic achievement and learning are influenced by a multitude of conditions and variables, which can be broadly classified into two classifications: environmental and individual. 70% of the variance in academic achievement can be attributed to personality and cognitive variables (individual factors), according to research in this field (Bas, 2022). The remaining 30% can be attributed to environmental, social, and situational variables. Given the contemporary global landscape and the critical period of adolescence, it is particularly imperative to identify and examine the factors and variables that influence academic achievement. It is worth mentioning that there is a scarcity of research investigating the correlation between emotion regulation during adolescence and academic achievement. Hence, an area of inquiry that has garnered significant attention and investigation is emotion regulation within the realm of education. Academic achievement among adolescents is intended to be explained by a model that incorporates inhibition strategies and cognitive appraisal, with adolescent practical, behavioral, cognitive, and affective academic involvement serving as a mediator.

Methodology

The research method was descriptive correlation. The statistical sample comprised Shiraz's first-year secondary school students during the 2018-2019 academic year. Random cluster sampling was used to select 389 eighth and ninth graders (197 boys and 232 girls) who completed the Gross Emotion Regulation Questionnaire (ERQ) and the Academic Engagement Rio (AES). Cluster sampling was performed at random. Consequently, districts one and two were selected at random from the four educational districts; subsequently, two schools catering to boys and two schools catering to girls were chosen from each district; and finally, one of the eighth or ninth grades was selected from each school. Non-developmental disabilities and absence of a medical history of neuropsychiatric disorders, including attention deficit hyperactivity disorder and autism spectrum disorder, were prerequisites for participation. Repetition of an academic course, use of anti-anxiety medications, or refusal to participate in the study are all exclusion criteria. Following the participant selection process and questionnaire preparation, the researcher proceeded to attend the designated courses by arranging the requisite logistics. The students were informed that their involvement in the investigation is not mandatory. Nevertheless, every effort was undertaken to promote cooperation among the students, and a plan was devised to ensure that the questionnaires were filled out meticulously and truthfully. Furthermore, full disclosures were made with respect to the confidentiality of the findings. The path analysis method and Amos24 software were employed to analyze the data. The data collected were subjected to two levels of descriptive and inferential statistical analysis in the present study. Inferential statistics were utilized through path analysis, which incorporated model fit analysis, while descriptive statistics were applied at the level of the mean and standard deviation.

Findings

The males that took part in the current investigation had an average age of 14.48 years, with a standard deviation of 0.50 years. The mean age of the female participants was 14.52 years, with a standard deviation of 0.50. The inhibition had a negative and statistically significant relationship with practical engagement, but no significant relationship with other engagement components or academic achievement, according to the findings. A positive and statistically significant correlation was observed between cognitive re-evaluation and the constituents of engagement and academic achievement. Academic achievement was found to have a positive and statistically significant correlation with the components of engagement. The findings revealed that academic achievement is influenced both directly and indirectly by cognitive reassessment's emotion regulation strategy via emotional and behavioral engagement. Positive and statistically significant, the inhibitory emotion regulation strategy predicted practical engagement (ß = -0.18, $p < 0.01$). Furthermore, academic achievement was positively and significantly predicted by cognitive appraisal strategy in addition to behavioral achievement ($p < 0.01$, ß = 0.18), cognitive achievement ($p < 0.01$, ß = 0.15), and emotional achievement ($p < 0.01$, ß = 0.15).

Conclusion

By placing emphasis on the cognitive reassessment strategy in emotion management training for adolescents, it is possible to implement effective measures that foster academic engagement in the realm of behavior and emotions, and ultimately improve the academic performance of adolescents. Students who demonstrate enhanced abilities to regulate their emotions foster more favorable rapport with their educators and exhibit more effective learning and conduct by utilizing positive cognitive reassessment. Indeed, it can be argued that students who employ the cognitive reassessment approach amidst challenging learning circumstances are capable of cultivating more positive relationships with instructors and peers, as well as advancing their academic standing and learning through the utilization of a supportive interactive setting and assistance-seeking.

Keywords: Academic Achievement, Academic Engagement, Adolescent, Cognitive Appraisal, Inhibition.

Ethical Considerations:

This article is inspired by the master's thesis in educational psychology from the University of Persian Gulf. Before the sessions commenced, participants completed a consent form for participation in the research, and ethical considerations were also observed.

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Conflict of Interest

The authors declare that there is no conflict of interest regarding the findings of the present study.

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