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Investigating the Relationship between Attachment Styles and Academic Burnout: The Mediating Role of Alexithymia

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ABSTRACT

Objective: The objective of the current investigation is to explore the social cognitive precursors of academic burnout within a causal model mediated by alexithymia.

Methods: The methodology employed in this study consists of correlation and structural equation modeling. The target population comprised all high school students in the 2021 of Firozabad city, with a sample size of 285 individuals selected through multi-stage cluster random sampling. Data collection involved the utilization of Bresso et al.'s academic burnout scale, Bagby et al.'s alexithymia scale, and Collins and Reed's attachment styles scale. The data analysis was conducted using structural equation modeling, with the mediation role being examined through the application of the bootstrap in AMOS.

Results: The results indicated that attachment styles exhibited a direct impact on alexithymia and an indirect influence mediated by alexithymia on academic burnout. Moreover, alexithymia demonstrated a direct association with academic burnout.

Conclusions: Consequently, it is plausible to assert that attachment styles and alexithymia constitute pivotal constructs in elucidating academic burnout.

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Introduction

Academic burnout in school students is characterized by fatigue resulting from the demands of education, apathy towards academic tasks, and feeling incompetent as a low-performing student. Scholars consider educational settings as the workplace of students, where their learning activities can be viewed as work from a psychological perspective, involving tasks to succeed academically (Zhang et al., 2007). While student burnout is not classified as a mental disorder, it can gradually evolve over time and potentially develop into a mental health condition, perpetuating fatigue symptoms (Garrosa et al., 2006).

Individuals experiencing difficulty in expressing emotions exhibit three key traits: challenges in identifying emotions, articulating emotions, and an external focus on intellectual pursuits. Such individuals encounter obstacles in recognizing, expressing, processing, and managing emotions (Kreitler, 2002). The incapacity to convey emotions manifests in various forms, including struggles in understanding emotions, distinguishing between different emotional states, consciously experiencing emotions, or elucidating stress that manifests physically (Nemiah, 2000). Consequently, the inability to recognize, articulate, and convey emotions hinders effective communication of needs and problem-solving, potentially leading to mental exhaustion and academic burnout in educational settings. Previous studies suggest that emotional inadequacy and the inability to express emotions serve as precursors to academic burnout (Alizade et al., 2016).

Although cognitive explanations, in conjunction with biological patterns, have garnered widespread acceptance in elucidating mental disorders and dysfunctions (Bentall, 2006), alternative approaches exist that underscore the significance of evolutionary factors in forecasting harm. These approaches accentuate psychological cognition (Meins et al., 2008). The etiology frameworks of disorders and dysfunctions appear to have gradually transitioned from a sole focus on intra-personal traits to a greater emphasis on the impact of interpersonal variables. Consequently, models detailing the evolution of pathological symptoms have been proposed, wherein variations in attachment styles are posited as the primary causal factor in elucidating these phenomena (Garety et al., 2001). A fundamental tenet of numerous transformative approaches is that early experiences with primary caregivers and significant individuals in one's life furnish not only a foundation for an individual's core self-perceptions but also strategies for coping with adversities and challenges. Various transformations throughout life also exert an influence. From

this vantage point, attachment theory emerges as a pertinent framework for comprehending both adaptive and maladaptive responses to the myriad developmental hurdles encountered in life ([Shaver et al., 2005](#)). This leads to discomfort with caregivers ([Mikulincer & Shaver, 2005](#)), and as per Balbi, and subsequently Hazen and Shaver, attachment can be classified into secure, anxious, and avoidant categories ([Yusof & Carpenter, 2013](#)).

Individuals characterized by a secure attachment demonstrate a comprehensive understanding of their positive and negative attributes. They exhibit boldness and a willingness to take risks in exploration, alongside a capacity to effectively manage environmental stressors and articulate their emotions ([Weisskirch & Delevi, 2013](#)). These traits enable them to navigate emotional scenarios with adept emotional regulation and the cognitive flexibility necessary to tackle challenges. Moreover, those with secure attachment patterns rely on interpersonal support during critical junctures, preventing feelings of isolation in the face of academic and social obstacles, thereby enhancing their problem-solving abilities. Conversely, individuals with insecure avoidant attachment experience internal and psychological conflicts. They oscillate between seeking proximity to attachment figures and shunning such closeness due to perceived vulnerabilities, hindering their ability to seek assistance during significant life challenges and fostering feelings of solitude amidst adversity ([Ryan, 2012](#)). This inner turmoil engenders an inability to effectively manage conflicting emotions, potentially exacerbating difficulties in emotional expression. Furthermore, individuals exhibiting an ambivalent insecure attachment style vacillate between approaching attachment figures and displaying erratic and hostile behaviors upon proximity. This internal discord precipitates emotional and behavioral instability, leading to disjointed and contradictory emotional responses when confronting life's trials. Consequently, this attachment style may further impede emotional expression and amplify difficulties in this domain. Previous research underscores the pivotal role of attachment components as precursors to emotional dysfunction, including challenges in emotional expression and academic burnout ([Alizade et al., 2016](#); [Leiter et al., 2015](#); [Pickar, 2015](#)). Despite the established theoretical and empirical links between these variables, investigations into the causal relationships among them remain scarce. Thus, the present study aims to address the fundamental inquiry regarding the potential mediating role of the inability to express excitement between attachment dimensions and academic burnout.

Material and Methods

The ongoing study constitutes fundamental research both in terms of its objectives and methodological approach, being categorized as a subset of descriptive research involving correlation and structural equations analysis. The target population for this investigation consisted of all high school students enrolled schools in Firozabad city, during the academic year 2021. As the minimum sample size requirement for the structural equation model stands at 200 individuals, a total of 285 students were chosen for participation using a multi-stage cluster random sampling technique. Specifically, four schools (comprising 2 boys' schools and 2 girls' schools) were randomly selected, along with 2 classes from each school, resulting in 137 (47%) male students and 148 (52%) female students. Inclusion criteria for the study encompassed school and class attendance, while the exclusion criterion was incomplete questionnaire responses. Participants were duly informed that their input would solely be utilized for research purposes, ensuring anonymity and confidentiality.

The research employed the following instruments for data collection:

Academic Burnout Questionnaire: This scale was Developed by [Bresó et al. \(2007\)](#), this self-report questionnaire consists of 15 items designed to assess three dimensions of academic burnout, including academic fatigue (5 items), academic apathy (4 items), and academic ineffectiveness (6 items). Responses are rated on a 5-point Likert scale (1=strongly disagree to 5=strongly agree), yielding a total score ranging from 15 to 75. [Enayati and Rastegar Tabar \(2017\)](#) confirmed the content and construct validity of this tool, reporting a reliability coefficient of 0.80 using Cronbach's alpha. In the present study, the questionnaire's reliability was assessed through the Cronbach's alpha method, yielding a coefficient of 0.83.

Bagby et al.'s alexithymia scale: This sale was developed by [Bagby et al. \(1986\)](#) and translated into Farsi by Bashart (2007), consists of 20 items rated on a 5-point Likert scale (1=completely disagree, 5=completely agree) measuring difficulty in identifying feelings, describing feelings, and external intellectual orientation. Besharat (2007) assessed the questionnaire's reliability using Cronbach's alpha, yielding coefficients of 0.82, 0.75, 0.72, and 0.85 for the different components. Test-retest reliability was confirmed with a sample of 67 participants over four weeks, showing correlations ranging from 0.80 to 0.87. Ghorbani (2002) further validated the questionnaire on Iranian and American samples, reporting Cronbach's alpha coefficients of 0.50, 0.74, 0.61 for

Iranian and 0.60, 0.82, 0.77 for American samples. In this study, the questionnaire's reliability was assessed using Cronbach's alpha, yielding a coefficient of 0.86 for the total score.

The Collins and Reed Revised Attachment Questionnaire (RAAS): This scale developed in 2000 based on Hazen and Shaver's attachment style questionnaire, comprises 18 questions measuring closeness (C), dependence (D), and anxiety (A) with 6 questions each on a 5-point Likert scale. Pakdaman (2003) tested the questionnaire's content validity on 100 high school students, reporting correlation coefficients of 0.45, 0.71, and 0.57 for dependence, anxiety, and closeness, respectively, with a reliability of 0.80. In the current study, the questionnaire's reliability was assessed using Cronbach's alpha, resulting in coefficients ranging from 0.73 to 0.79.

Data collection involved providing participants with instructions on the scales, research purpose, and completion procedures before distributing the scales for completion. Descriptive statistics, correlation analysis, and structural equation modeling using AMOS-21 were employed to test the research hypotheses.

Results

Descriptive statistics including mean and standard deviation and correlation coefficients are presented in table 1.

Table 1. Descriptive findings and correlation matrix of research variables

Variable	Mean	SD	Exhaustion	Uninterested	Inefficacy	Academic burnout
1. Closeness	12.42	3.58	0.44**	0.32**	0.46**	0.48**
2. Anxiety	10.87	3.91	0.47**	0.31**	0.41**	0.47**
3. Dependenc	23.77	3.60	-0.47**	-0.27**	-0.37**	-0.43**
4. Alexithymia	42.66	13.41	0.28**	0.25**	0.27**	0.31**
5. Academic burnout	33.88	8.71	0.73**	0.65**	0.68**	1

**p < 0.01

The results of Table 1 show that the dimensions and the total score of academic burnout have a negative and significant relationship with dependence and a positive and significant relationship with closeness and anxiety. Also, they have a positive and significant relationship with alexithymia. Considering the existence of significant relationships between the components and the total score of academic burnout with all the variables, the present research continues to address the research question. Structural equation analysis was used to examine the research question that

"does alexithymia have a mediating role between attachment dimensions and academic burnout" and the results show that most of the paths are significant. The final model between research variables is shown in Figure 2. Also, Table 2 shows the fit indices of the final model.

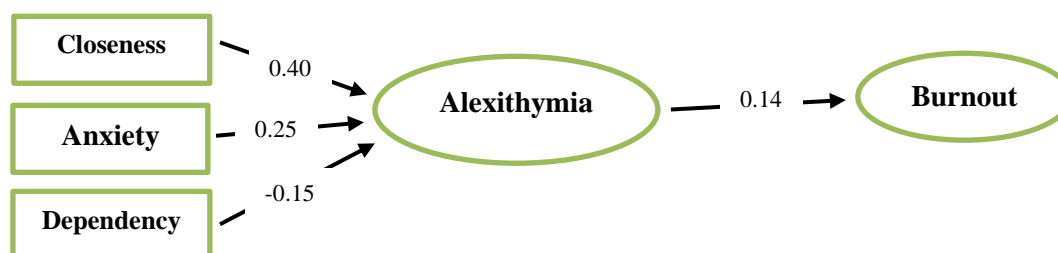


Figure 1. The final research model

Table 2. Model fit indices

Model	X ² /DF	P	GFI	AGFI	IFI	TLI	RATIO	PCFI	RMSEA
Initial model	5.29	0.001	0.83	0.75	0.81	0.81	0.12	0.001	0.11
Modified model	1.11	0.07	0.97	0.94	0.92	0.93	0.04	0.13	0.06

According to Table 2, the indicators before the modification show that the model did not have a good fit at the beginning, that by removing the non-significant proposed paths and also by performing the corrections suggested by AMOS, the model reached a good fit, and the indicators after the modification, it indicates the optimal fit of the model. Table 3 shows the direct, indirect and total standard paths and coefficients in the final model of the research.

Table 3. Estimation of direct, indirect and total research coefficients

Path	Direct effect	Indirect effect	Total effect
Closeness to alexithymia	0.40**	-	0.40**
Closeness to academic burnout through alexithymia	-	0.05*	0.05*
Anxiety to alexithymia	0.25**	-	0.25**
Anxiety to academic burnout through alexithymia	-	0.03*	0.03*
Dependency to alexithymia	-0.15*	-	-0.15**
Dependency to academic burnout through alexithymia	-0.42**	-0.02	-0.44**
Alexithymia to academic burnout	0.14*	-	0.14*

* p < 0.05, ** p < 0.01

According to the results of Figure 1 and Table 2, closeness has a positive and significant direct effect on the alexithymia ($\beta=0.40$ and Sig=0.001) and an indirect effect on academic burnout ($\beta=0.05$). and Sig=0.02). Anxiety has a positive and significant direct effect on alexithymia

($\beta=0.25$ and $\text{Sig}=0.003$) and an indirect effect on academic burnout ($\beta=0.03$ and $\text{Sig}=0.02$). Dependency has a significant and negative direct effect on alexithymia ($\beta=-0.15$ and $\text{Sig}=0.02$) and academic burnout ($\beta=-0.42$ and $\text{Sig}=0.001$). Alexithymia is also a positive and significant direct effect on academic burnout ($\beta=0.14$ and $\text{Sig}=0.02$).

Discussion

The objective of the current research was to explore the mediating function of alexithymia amidst the aspects of attachment and academic exhaustion. The outcomes of the examination indicated a positive correlation between the elements of proximity and unease, while the element of reliance exhibited a negative correlation with alexithymia. Furthermore, alexithymia displayed a positive association with academic burnout. Additionally, the results revealed a significant mediating role of alexithymia between attachment dimensions and academic burnout. These findings align with the studies conducted by [Pickar \(2015\)](#), [Leiter et al. \(2015\)](#), and [Alizade et al. \(2016\)](#)

When interpreting the results of this hypothesis, it can be argued that the reliance element, synonymous with secure attachment style, reflects individuals who exhibit affection, closeness, self-awareness of their strengths and weaknesses, and a propensity for exploration and risk-taking. Moreover, they adeptly manage environmental stressors, possess emotional expressiveness, and effectively articulate their feelings during challenging emotional circumstances ([Weisskirch & Delevi, 2013](#)). This attribute enables them to recognize and articulate their emotions clearly in times of emotional distress. Additionally, individuals with a secure attachment style rely on external support during critical junctures ([Ryan, 2012](#)), enabling them to express their emotions effectively with this backing, thereby reducing emotional inadequacy. This diminished alexithymia aids in their perception of effectively handling social and psychological challenges in diverse settings, including academia, resulting in lower levels of academic exhaustion. Furthermore, attachment-based reliance fosters a sense of psychological and social backing in students, linked to enhanced efficacy and capability, and decreased academic burnout. Hence, the notable association between dependency, alexithymia, and academic burnout appears rational and justifiable.

On the contrary, individuals exhibiting characteristics of anxiety, akin to those with an insecure avoidant attachment style, often exhibit antagonistic reactions towards stressful situations, particularly towards the attachment figure or their substitute. The hostile behaviors displayed by individuals with an avoidant insecure attachment style encompass two key elements. The initial element involves creating a rift or emotional distance, causing the individual's attachment system to inhibit defensive mechanisms and deter any confrontation with the attachment figure. Essentially, in this element, an individual strives to detach themselves from the attachment figure despite their innate longing (Ryan, 2012). This dichotomy, where the individual yearns for closeness yet seeks distance from the attachment figure, gives rise to conflicting emotions. These conflicting emotions result in a lack of clarity in recognizing, articulating, and expressing emotions, ultimately leading to emotional deficiency. Consequently, the individual struggles to decipher their emotions accurately and convey them effectively (Gross et al., 2000). The inability to comprehend and communicate emotions effectively instills a sense of incapacity to form meaningful connections with others, consequently leading to psychological inefficacy and emotional exhaustion. Moreover, persisting along this trajectory gradually diminishes the individual's enthusiasm and engagement with challenges and tasks, particularly academic pursuits (Bresó et al., 2007), culminating in academic fatigue. The second facet of hostile responses from individuals with an avoidant insecure attachment style involves impulsive reactions aimed at fostering a facade of self-assurance. However, this feigned independence not only proves futile but also hampers genuine emotional expression and intimacy, ultimately repressing the need for attachment. The pressure to reject independence and control (Ryan, 2012). This internal conflict and ambivalence experienced by individuals lead to emotional interference, emotional blunting, and a lack of transparency in emotional expression and communication. A deficiency in imagination, reduced inclination to contemplate emotions, indicative of emotional dysfunction (Gross, 2013), and a hallmark of avoidant insecure attachment style, ultimately contribute to fatigue and heightened burnout, particularly within academic realms. Thus, the pivotal role played by alexithymia in mediating between attachment anxiety and academic burnout appears logical and well-founded. In the context of the mediating function of alexithymia in the association between the proximity element, akin to ambivalent insecure attachment style, and academic exhaustion, it can be posited that individuals exhibiting an ambivalent insecure attachment style

endeavor to reduce the gap with the attachment figure to the utmost degree ([Kobak & Sceery, 1988](#)). Consequently, they exhibit veiled animosity. They seek to gain affection from others by embracing intense nurturing responses and regulating reactions. They harbor feelings of animosity and possessiveness towards the individual in close proximity in their lives, demonstrating excessive vigilance. They experience apprehension about abandonment and struggle to detach from their attachment figure in the event of relationship setbacks and disillusionment. These attributes engender dual, contradictory, and discordant emotions in an individual. Such conflicting emotions result in an inability to discern emotional sentiments, articulate emotional encounters verbally, and ultimately diminish the inclination to contemplate emotions ([Gross, 2013](#)). This sequence of events subsequently leads to perplexity and cognitive weariness, rendering an individual ineffective in resolving social and academic challenges ([Bresó et al., 2007](#)), culminating in academic fatigue. Given the aforementioned, the substantial mediating function of alexithymia between attachment proximity and academic burnout appears logical and justifiable.

In general, it can be argued that the elements of anxiety and insecure attachment styles, leading to emotional failure through the creation of duality and conflicts, while the secure attachment style fosters a sense of security, psychological harmony, and unity, thus reducing emotional failure. Alexithymia results in fatigue and reduced psychological efficiency due to compromised emotional clarity, challenges in emotional expression, culminating in academic burnout. Therefore, the mediating role of alexithymia in the association between attachment elements and academic burnout appears reasonable and plausible. While efforts were made to address prior research limitations, the present study carries its own constraints, notably focusing on high school students, caution must be exercised when extending findings to other cohorts. Furthermore, given the use of structural equation modeling to assess the proposed framework, prudence is required in drawing causal inferences. The study's outcomes suggest the following recommendations. Future studies should consider demographic variables like gender and socioeconomic status, which impact academic burnout, alongside validating the current model across different educational strata. Utilizing the present research's findings as a benchmark, further investigations across varied age brackets can facilitate a comparative analysis of academic burnout mechanisms, thus enriching our understanding of this phenomenon in distinct age cohorts.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

The studies involving human participants were reviewed and approved by the ethics committee of the Islamic Azad University. The patients/participants provided their written informed consent to participate in this study.

Author contributions

All authors contributed to the study conception and design, material preparation, data collection, and analysis. All authors contributed to the article and approved the submitted version.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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