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The Relationship Between Intelligence Profile and Personality Profile with Academic Underachievement and Academic Emotions in Male High School Students in Tehran

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A B S T R A C T

Objective: The present study investigates the relationship between intelligence profile and personality profile with academic underachievement and academic emotions.

Methods and Materials: This descriptive study employs a correlational design. Data collection tools included the new version of the Tehran-Stanford-Binet Intelligence Scale (revised form), the Minnesota Multiphasic Personality Inventory for Adolescents (MMPI-A), the Academic Underachievement Scale by Mousavi (2015), and the Academic Emotions Questionnaire by Pekrun et al. (2002). Data were collected from 180 male high school students from District 17 of Tehran (60 students from the 10th grade, 60 students from the 11th grade, and 60 students from the 12th grade). To examine the relationship between students' intelligence and personality profiles with academic underachievement and academic emotions, descriptive statistical tables were first used to describe the variables related to personality profile, intelligence profile, academic underachievement, and academic emotions. Measures of central tendency, including mode, median, and mean, as well as measures of dispersion, such as range, standard deviation, skewness, and kurtosis, were calculated. Subsequently, inferential statistical analysis using a multiple regression model was employed to test the research hypotheses. Data processing and analysis were conducted using SPSS software, version 26.

Findings: The findings of the multiple regression statistical model indicated a significant relationship between the intelligence profile and both academic underachievement and academic emotions among male high school students in District 17 of Tehran. Similarly, a significant relationship was found between the personality profile and both academic underachievement and academic emotions in the same population.

Conclusion: This study highlights the critical impact of psychological, behavioral, and interpersonal factors on academic performance and emotions, emphasizing the need for targeted interventions to support student well-being and success.

Keywords: *Intelligence profile, Personality profile, Academic underachievement, Academic emotions*

1. Introduction

Some researchers define giftedness in terms of high intelligence quotient (IQ) or the ability for abstract thinking and understanding meanings, while others associate it with the ease and speed of learning music, art, and creativity. There are also gifted children whose behaviors do not reflect their giftedness due to psychological factors, lack of motivation, or inappropriate motivations, as well as environmental influences. Conversely, some gifted children use their abilities in socially unacceptable ways. Despite these differences, their high intelligence levels remain a commonality (Ghoran Savadkuhi et al., 2024; Roghani et al., 2024).

Investigating the psychological and personality characteristics of students with outstanding talent and intelligence is one of the key areas of interest in psychology. Gifted students possess unique emotional, social, and educational needs that require attention to facilitate their growth and flourishing (Sternberg, 2022, 2023; Sternberg & Rodríguez-Fernández, 2023). Giftedness involves quantitative and qualitative differences in thinking, and cognitive intelligence tests alone are insufficient for its assessment. Therefore, the concept of giftedness is linked to potential cognitive, emotional, and social levels, highlighting the importance of non-cognitive factors such as emotional intelligence, which complement or enhance students' cognitive abilities (Bozkurt, 2024; Winner & Martino, 2024).

The predictive impact of personality traits on academic achievement priorities underscores the importance of high-impact approaches. Personality and preferences can serve as indicators of future performance, providing policymakers with the opportunity to support children with negative personality traits or preferences. Personality traits significantly influence academic performance. Among the Big Five personality traits, conscientiousness and emotional stability are particularly critical, while the remaining traits are primarily discussed based on their reflections on academic performance (Rahmani et al., 2024; Soltani et al., 2024).

Academic underachievement is defined as the failure to acquire the expected skills resulting from educational experiences (Mofield & Peters, 2019). Preventing academic failure is a significant challenge, as individuals who experience academic failure often face profound social and economic challenges throughout their lives (Alexopoulou et al., 2019; Royaee et al., 2023). Given that one of the primary goals of education is skill acquisition and professional training, academic underachievement—even if it does not lead to dropout—can result in producing inefficient graduates, which poses risks and harms to society (Veas et al., 2018; White et al., 2018).

Academic engagement is one of the most critical indicators of academic achievement and underachievement, describing the investment and involvement in the learning process (Suharsono, 2024; Wang, 2024). Academic conflicts not only affect the educational process but also influence students' socialization processes (Mou, 2024; Shen, 2024). The growing demand for educational opportunities and the necessity of equitable access underscore the heavy responsibilities of educational system management in improving quality and providing equal opportunities (Li et al., 2024; Liu, 2024).

Changes in life circumstances often require individuals to develop appropriate skills for adaptation. High school students are no exception; the richer their developmental conditions in terms of skills, the better their academic and psychological outcomes will be. This goal should guide educational and training systems in nurturing emotionally and socially healthy individuals capable of adapting to and solving societal challenges (Kabini Moghadam et al., 2020).

Some students struggle with regulating their academic emotions, which can negatively impact teacher-student interactions and hinder the acquisition and retrieval of knowledge, ultimately weakening academic performance (Bates-Krakoff et al., 2016). Students who develop strategies for monitoring, altering, and adjusting emotional responses based on social and academic demands actively participate in the educational process, persevere through challenging tasks, and adapt their behavior to classroom norms (Guignard et al., 2015).

Academic emotions are categorized into two types: activity emotions, related to academic activities, and outcome emotions, associated with the results of academic activities. These emotions are further divided into prospective emotions, such as hope and anxiety about success or failure, and retrospective emotions, like pride or shame about achieved outcomes. They are also classified as positive (e.g., enjoyment, hope, pride) or negative (e.g., anger, anxiety, shame, hopelessness, fatigue) based on their value. Positive emotions enhance active learning, self-regulation, and academic performance, while managing negative emotions significantly influences students' academic performance and life quality (Mattaa et al., 2019).

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Emotion regulation involves two components: emotional meta-knowledge and meta-skills. Emotional meta-knowledge includes recognizing one's own and others' emotions, understanding the antecedents and sequences of emotions, and knowing how emotions are expressed. Emotional meta-skills involve strategies for regulating emotions and their effective and conscious application. Emotional processes, however, are influenced by contextual factors, such as neurophysiological, cognitive, and social processes, which shape emotion regulation (Pekrun, 2006; Pekrun et al., 2007). Many researchers agree that the interplay of physiological, behavioral, and cognitive processes enables individuals to modulate their experiences and expressions of positive and negative emotions (Pekrun et al., 2007).

Education plays a multifaceted role in a country's economic development and growth (Ghasourah et al., 2016). Governments and societies consider education essential for reducing global poverty and achieving equality and sustainable peace. In the global economy, the success of a nation depends on the knowledge, skills, and competitiveness of its people, with higher education levels contributing to greater economic prosperity (Yarmahhmadi et al., 2016).

Universities have the critical task of training efficient and effective human resources. Given that students are invaluable assets in terms of talent, innovation, and resources, their education demands significant attention (Tehrani et al., 2013). For example, research by Tehrani et al. (2013) examined "The Relationship Between Mental Health, Personality Type, and Life Events Among Emergency Services Nurses in Tehran," revealing significant relationships between personality type, life events, and mental health. Nurses with bachelor's degrees had better mental health compared to operating room technicians and anesthesiology staff.

Based on the above, and considering the importance of understanding the relationship between intelligence, personality, academic underachievement, and emotional intelligence, the question arises: Is there a relationship between intelligence and personality profiles with academic underachievement and emotional intelligence?

2. Methods and Materials

2.1. Study Design and Participants

The present study aimed to investigate the relationship between intelligence and personality profiles with academic underachievement and academic emotions in male high school students in District 17 of Tehran during the 2023-2024 academic year. Since it is not possible to manipulate the independent variables in descriptive research, this study utilized a descriptive correlational research design.

The statistical population comprised all male high school students in District 17 of Tehran during the 2023-2024 academic year. Given that access to all members of the population was possible and a list of the population could be prepared, the statistical population falls within the category of finite populations.

To determine the sample size, maximum precision was required to ensure that the sample size accurately reflected the population. In descriptive research, a sample size exceeding 120 is typically deemed sufficient. Accordingly, 180 students were selected as the sample size using a multistage cluster sampling method. The sample included 60 students each from the 10th, 11th, and 12th grades.

2.2. Measures

2.2.1. Stanford-Binet Intelligence Scale (5th Edition)

The internal consistency reliability of the Tehran-Stanford-Binet intelligence test ranged from 0.84 to 0.92 for its subtests, from 0.89 to 0.95 for the composite intelligence score, and 0.89 for the five major indices. Inter-rater and test-retest reliability coefficients exceeded 0.75, indicating strong consistency. Using the split-half method with Spearman-Brown correction, the reliability coefficients were 0.95 for the non-verbal scale, 0.96 for the verbal scale, and 0.91 for the overall composite score. These results confirm the test's psychometric robustness, with reliability coefficients above 0.90 reflecting excellent internal consistency. The test was standardized in Iran by Kamkari and Afrooz (2009), demonstrating its validity for measuring constructs such as fluid reasoning, knowledge, quantitative reasoning, visual-spatial processing, and working memory (Fattahi Andebil et al., 2018).

2.2.2. Academic Underachievement

This researcher-made questionnaire includes 20 items aimed at evaluating the causes of academic underachievement (individual, family, and school-related factors). Scoring is based on a 5-point Likert scale.

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2.2.3. *Academic Engagement*

This scale is designed and created by Pekrun et al., (2002) and contains 75 items with 5-point Likert scoring scale. It include two subscales measuring positive (1 to 22) and negative emotions (23-75) within academic context. The validity of this scale was confirmed by subject matter experts in a study by Mousavi Panah (2013). Its reliability was established with a Cronbach's alpha of 0.85 (Kabini Moghadam et al., 2020).

2.2.4. *Personality Traits*

The NEO Personality Inventory-Revised (NEO-PI-R) consists of 240 items, measuring five major personality traits (Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness), each with six sub-facets. Responses are rated on a five-point Likert scale (from strongly disagree to strongly agree). The shorter version, NEO-FFI, includes 60 items and assesses only the broad five factors. Studies in Iran have confirmed its validity and reliability, with Cronbach's alpha coefficients ranging from 0.74 to 0.89 for the five main dimensions, demonstrating strong internal consistency. Test-retest reliability over a three-month period showed coefficients above 0.75, indicating stability. The NEO-PI-R has been widely used in Iranian psychological research, proving effective in assessing personality traits linked to academic emotions, motivation, and behavioral tendencies in students (Tehrani et al., 2013).

2.3. *Data analysis*

Descriptive statistical indices such as measures of central tendency (mode, median, mean), measures of dispersion (range, variance, standard deviation), and distribution indices (standard error, skewness, kurtosis) were used to evaluate the normality of the variable distributions.

To examine the relationships between intelligence and personality profiles with academic underachievement and academic emotions, a multiple regression statistical model was employed. Data collected from the questionnaires were entered into SPSS software version 26 for analysis.

3. Findings and Results

The variables show mean values ranging from 2.59 to 3.59 and standard deviations between 0.49 and 0.65, reflecting moderate variability.

Table 1

Descriptive Findings

Variable	Mean	SD
Academic Underachievement	3.26	0.54
Negative Academic Emotions	2.93	0.65
Positive Academic Emotions	3.59	0.49
Illness	2.79	0.52
Gastrointestinal Complaints	2.68	0.57
Headache Complaints	2.93	0.59
Neurological Complaints	2.59	0.50
Cognitive Complaints	2.90	0.51
Death-Suicide Ideation	3.26	0.57
Helplessness-Hopelessness	2.89	0.58
Self-Doubt	2.79	0.51
Inefficiency	2.95	0.55
Psychological Stress-Worry	2.80	0.50
Anxiety	3.13	0.52
Anger Propensity	2.69	0.51
Behavior-Limiting Fears	3.09	0.58
Specific Multiple Fears	2.89	0.52
Aggression	2.79	0.51
Psychosis	2.60	0.49
Irresponsibility	3.13	0.52
Neuroticism	3.27	0.54
Introversion	2.98	0.59
Substance Abuse	3.10	0.57
Literary-Aesthetic Interests	2.85	0.51
Mechanical-Physical Interests	2.90	0.50

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Inferential statistics involve estimating and testing hypotheses regarding population parameters based on sample data. After collecting demographic information about the sample and their opinions on the variables under investigation, inferential statistical methods were used to examine the study's hypotheses. The results were then utilized to either accept or reject the hypotheses. In this inferential section, the correlations between variables were reported, and the relationships between dependent and independent variables were analyzed using multiple regression.

3.1. Identifying the Relationship Between the Three Types of Intelligence Quotient (Non-verbal, Verbal, and Total) and Academic Underachievement and Academic Emotions in Male High School Students

Multiple regression analysis was used to examine the relationships between the three types of intelligence quotient (non-verbal, verbal, and total) and academic underachievement and academic emotions in male high school students. The results, along with Pearson correlation coefficients, are presented below. The findings indicate a significant negative correlation between verbal, non-verbal, and total intelligence with academic underachievement and negative academic emotions. Additionally, a significant positive correlation was observed between these forms of intelligence and positive academic emotions. The results suggest that the correlation between verbal intelligence and academic underachievement and emotions is stronger than that of non-verbal intelligence.

Table 2

Correlation Matrix for Intelligence Quotients (Non-verbal, Verbal, Total) and Academic Underachievement and Academic Emotions

Variable	Academic Underachievement	Negative Academic Emotions	Positive Academic Emotions
Non-verbal	-0.515**	-0.537**	0.522**
Verbal	-0.540**	-0.539**	0.536**
Total	-0.597**	-0.613**	0.601**

*p<0.05, **p<0.01

Based on the results, the F-statistic for all three models was significant at an alpha level of less than 0.01, indicating that verbal and non-verbal intelligence can effectively explain variations in academic underachievement and both negative and positive academic emotions. Verbal and non-verbal intelligence accounted for 37% of the variance in academic underachievement, 38% of the variance in negative academic emotions, and 36.5% of the variance in positive academic emotions. The Durbin-Watson statistic for all three models ranged between 1.5 and 2.5, confirming that the assumption of residual independence was met.

Table 3

ANOVA and Model Fit Statistics for Intelligence Quotients and Academic Variables

Dependent Variable	F-statistic	p-value	R^2	Durbin-Watson
Academic Underachievement	51.968	0.000	0.370	1.890
Negative Academic Emotions	55.300	0.000	0.378	1.759
Positive Academic Emotions	52.428	0.000	0.365	1.800

The multiple regression results indicate a significant negative relationship between verbal and non-verbal intelligence and both academic underachievement and negative academic emotions. As verbal and non-verbal intelligence increase, academic underachievement and negative emotions decrease. Additionally, a significant positive relationship was found between verbal and non-verbal intelligence and positive academic emotions, indicating that higher intelligence levels are associated with greater positive emotions.

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Table 4

Regression Coefficients for Intelligence Quotients and Academic Variables

Dependent Variable	Independent Variable	Coefficient (B)	Beta	t-value	p-value
Academic Underachievement	Constant	181.615		14.497	0.000
	Non-verbal	-0.393	-0.326	-4.705	0.000
	Verbal	-0.782	-0.375	-5.412	0.000
Negative Academic Emotions	Constant	179.980		14.402	0.000
	Non-verbal	-0.432	-0.355	-5.191	0.000
	Verbal	-0.758	-0.359	-5.255	0.000
Positive Academic Emotions	Constant	-123.822		-4.300	0.000
	Non-verbal	0.935	0.337	4.872	0.000
	Verbal	1.759	0.366	5.295	0.000

3.2. Identifying the Relationship Between Intelligence Components and Academic Underachievement and Academic Emotions

The results indicate that visual-spatial processing has the strongest negative correlation with academic underachievement and negative academic emotions among the intelligence components. Additionally, quantitative reasoning exhibits the strongest positive correlation with positive academic emotions.

Table 5

Correlation Matrix for Intelligence Components and Academic Variables

Variable	Academic Underachievement	Negative Academic Emotions	Positive Academic Emotions
Fluid Reasoning	-0.626**	-0.570**	0.556**
Knowledge	-0.617**	-0.571**	0.491**
Quantitative Reasoning	-0.518**	-0.517**	0.585**
Visual-Spatial Processing	-0.632**	-0.621**	0.455**
Working Memory	-0.519**	-0.566**	0.563**

*p<0.05, **p<0.01

The F-statistics for all three models were significant at an alpha level of less than 0.01, indicating that the intelligence components can effectively explain variations in academic underachievement and both negative and positive academic emotions. Visual-spatial processing and fluid reasoning accounted for 56% of the variance in academic underachievement, 52% in negative emotions, and 46.4% in positive emotions.

Table 6

ANOVA and Model Fit Statistics for Intelligence Components and Academic Variables

Dependent Variable	F-statistic	p-value	R^2	Durbin-Watson
Academic Underachievement	47.160	0.000	0.563	1.874
Negative Academic Emotions	39.804	0.000	0.520	1.798
Positive Academic Emotions	32.008	0.000	0.464	1.596

Multiple regression results indicate significant negative relationships between fluid reasoning, knowledge, and visual-spatial processing with academic underachievement. As these components increase, academic underachievement decreases. Negative academic emotions were negatively and significantly correlated with fluid reasoning, knowledge, visual-spatial processing, and working memory, suggesting a reduction in negative emotions as these components increase. Positive academic emotions showed significant positive correlations with fluid reasoning, quantitative reasoning, and working memory, indicating that higher

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levels of these components are associated with increased positive emotions.

Table 7

Regression Coefficients for Intelligence Components and Academic Variables

Dependent Variable	Independent Variable	Coefficient (B)	Beta	t-value	p-value
Academic Underachievement	Constant	216.622		20.680	0.000
	Fluid Reasoning	-0.440	-0.291	-4.420	0.000
	Knowledge	-0.429	-0.222	-3.339	0.001
	Quantitative Reasoning	-0.131	-0.080	-1.223	0.223
	Visual-Spatial Processing	-0.489	-0.296	-4.394	0.000
	Working Memory	-0.089	-0.054	-0.814	0.417
Negative Academic Emotions	Constant	210.706		19.013	0.000
	Fluid Reasoning	-0.311	-0.204	-2.951	0.004
	Knowledge	-0.331	-0.169	-2.430	0.016
	Quantitative Reasoning	-0.159	-0.096	-1.402	0.163
	Visual-Spatial Processing	-0.474	-0.284	-4.030	0.000
	Working Memory	-0.280	-0.167	-2.406	0.017
Positive Academic Emotions	Constant	-174.745		-6.542	0.000
	Fluid Reasoning	0.727	0.209	2.865	0.005
	Knowledge	0.533	0.119	1.625	0.106
	Quantitative Reasoning	1.031	0.271	3.761	0.000
	Visual-Spatial Processing	0.064	0.017	0.225	0.822
	Working Memory	0.931	0.244	3.322	0.001

3.3. Identifying the Relationship Between the Triple Deficiencies and Academic Underachievement and Academic Emotions in Male High School Students

To explore the relationship between the triple deficiencies and academic underachievement and academic emotions in male high school students, multiple regression analysis was conducted. The findings, along with Pearson correlation coefficients, are presented below. The results indicate significant positive correlations between the triple deficiencies and both academic underachievement and negative academic emotions, while significant negative correlations were observed with positive academic emotions. Behavioral deficiencies exhibited the strongest correlation with academic underachievement and negative academic emotions, whereas emotional deficiencies had the strongest correlation with positive academic emotions.

Table 8

Correlation Matrix for Triple Deficiencies and Academic Underachievement and Academic Emotions

Variable	Academic Underachievement	Negative Academic Emotions	Positive Academic Emotions
Emotional Deficiency	0.458**	0.448**	-0.640**
Cognitive Deficiency	0.397**	0.428**	-0.639**
Behavioral Deficiency	0.505**	0.482**	-0.585**

*p<0.05, **p<0.01

The regression model demonstrates that the triple deficiencies can effectively explain variations in academic underachievement and both negative and positive academic emotions. Specifically, 30% of the variance in academic underachievement, 29% in negative academic emotions, and 54% in positive academic emotions are accounted for by the triple deficiencies. The Durbin-Watson statistic for all three models ranged between 1.5 and 2.5, confirming that the assumption of residual independence was satisfied.

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Table 9

ANOVA and Model Fit Statistics for Triple Deficiencies and Academic Variables

Dependent Variable	F-statistic	p-value	R^2	Durbin-Watson
Academic Underachievement	25.751	0.000	0.305	1.886
Negative Academic Emotions	24.186	0.000	0.292	1.753
Positive Academic Emotions	69.483	0.000	0.542	1.679

The regression analysis revealed significant positive relationships between emotional and behavioral deficiencies with academic underachievement and negative academic emotions. As these deficiencies increase, both academic underachievement and negative academic emotions also increase. Conversely, significant negative relationships were observed between emotional, cognitive, and behavioral deficiencies with positive academic emotions, indicating that as these deficiencies increase, positive academic emotions decrease.

Table 10

Regression Coefficients for Triple Deficiencies and Academic Variables

Dependent Variable	Independent Variable	Coefficient (B)	Beta	t-value	p-value
Academic Underachievement	Constant	19.229		3.647	0.000
	Emotional Deficiency	0.281	0.239	2.869	0.005
	Cognitive Deficiency	0.078	0.054	0.639	0.523
	Behavioral Deficiency	0.527	0.345	4.329	0.000
Negative Academic Emotions	Constant	15.744		2.931	0.004
	Emotional Deficiency	0.247	0.208	2.474	0.014
	Cognitive Deficiency	0.192	0.133	1.550	0.123
	Behavioral Deficiency	0.453	0.295	3.657	0.000
Positive Academic Emotions	Constant	284.491		28.874	0.000
	Emotional Deficiency	-0.883	-0.326	-4.827	0.000
	Cognitive Deficiency	-1.003	-0.305	-4.417	0.000
	Behavioral Deficiency	-0.830	-0.237	-3.653	0.000

3.4. Identifying the Relationship Between Clinical Scales and Academic Variables

To investigate the relationship between clinical scales and academic underachievement and academic emotions in male high school students, multiple regression analysis was conducted. The results, including Pearson correlation coefficients, are provided below. Clinical scales exhibited significant positive correlations with academic underachievement and negative academic emotions, and significant negative correlations with positive academic emotions. Low positive emotions showed the strongest correlation with academic underachievement and negative academic emotions, while strange experiences had the strongest correlation with positive academic emotions.

Table 11

Correlation Matrix for Clinical Scales and Academic Variables

Variable	Academic Underachievement	Negative Academic Emotions	Positive Academic Emotions
Low Spirit	0.586**	0.588**	-0.505**
Somatic Complaints	0.533**	0.451**	-0.555**
Low Positive Emotions	0.617**	0.665**	-0.463**
Pessimism	0.604**	0.593**	-0.537**
Antisocial Behavior	0.529**	0.513**	-0.566**
Persecutory Beliefs	0.563**	0.599**	-0.515**
Disruptive Negative Emotions	0.516**	0.485**	-0.596**

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Strange Experiences	0.501**	0.520**	-0.601**
Hypomanic Activity	0.535**	0.514**	-0.542**

*p<0.05, **p<0.01

Clinical scales explained 58.8% of the variance in academic underachievement, 61% in negative academic emotions, and 55.9% in positive academic emotions. The Durbin-Watson statistic for all three models was between 1.5 and 2.5, confirming the assumption of residual independence.

Table 12

ANOVA and Model Fit Statistics for Clinical Scales and Academic Variables

Dependent Variable	F-statistic	p-value	R^2	Durbin-Watson
Academic Underachievement	26.917	0.000	0.588	1.906
Negative Academic Emotions	30.089	0.000	0.614	1.817
Positive Academic Emotions	23.912	0.000	0.559	1.854

The regression analysis demonstrated significant positive relationships between clinical scales such as low spirit, low positive emotions, pessimism, and persecutory beliefs with both academic underachievement and negative academic emotions. Conversely, significant negative relationships were found between clinical scales such as somatic complaints, disruptive negative emotions, and strange experiences with positive academic emotions.

Table 13

Regression Coefficients for Clinical Scales and Academic Variables

Dependent Variable	Independent Variable	Coefficient (B)	Beta	t-value	p-value
Academic Underachievement	Constant	-7.893		-1.484	0.140
	Low Spirit	0.192	0.152	2.278	0.024
	Somatic Complaints	0.164	0.115	1.786	0.076
	Low Positive Emotions	0.261	0.245	3.629	0.000
	Pessimism	0.240	0.171	2.512	0.013
	Antisocial Behavior	0.053	0.032	0.452	0.652
	Persecutory Beliefs	0.212	0.162	2.400	0.017
	Disruptive Negative Emotions	0.070	0.052	0.767	0.444
	Strange Experiences	0.020	0.015	0.215	0.830
	Hypomanic Activity	0.083	0.076	1.125	0.262
Negative Academic Emotions	Constant	-9.966		-1.919	0.057
	Low Spirit	0.183	0.144	2.234	0.027
	Somatic Complaints	-0.016	-0.011	-0.183	0.855
	Low Positive Emotions	0.368	0.342	5.241	0.000
	Pessimism	0.236	0.166	2.528	0.012
	Antisocial Behavior	0.030	0.018	0.258	0.797
	Persecutory Beliefs	0.324	0.245	3.745	0.000
	Disruptive Negative Emotions	0.019	0.014	0.216	0.829
	Strange Experiences	0.064	0.047	0.693	0.489
	Hypomanic Activity	0.048	0.043	0.665	0.507
Positive Academic Emotions	Constant	321.062		25.340	0.000
	Low Spirit	-0.352	-0.121	-1.755	0.081
	Somatic Complaints	-0.508	-0.155	-2.322	0.021
	Low Positive Emotions	0.077	0.031	0.450	0.654
	Pessimism	-0.386	-0.119	-1.693	0.092
	Antisocial Behavior	-0.334	-0.086	-1.188	0.236
	Persecutory Beliefs	-0.110	-0.036	-0.521	0.603
	Disruptive Negative Emotions	-0.559	-0.180	-2.570	0.011
	Strange Experiences	-0.745	-0.239	-3.302	0.001
	Hypomanic Activity	-0.204	-0.081	-1.163	0.246

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3.5. *Identifying the Relationship Between Physical/Cognitive Scales, Internalization, and Academic Underachievement and Academic Emotions in Male High School Students*

To explore the relationship between physical/cognitive scales, internalization, academic underachievement, and academic emotions in male high school students, multiple regression analysis was conducted. The findings, along with Pearson correlation coefficients, are presented below. The results indicate significant positive correlations between physical/cognitive scales, internalization, academic underachievement, and negative academic emotions. Significant negative correlations were observed between these scales and positive academic emotions. Among the scales, death-suicide ideation showed the strongest correlation with academic underachievement and negative academic emotions, while specific multiple fears exhibited the strongest correlation with positive academic emotions.

Table 14

Correlation Matrix for Physical/Cognitive Scales, Internalization, and Academic Variables

Variable	Academic Underachievement	Negative Academic Emotions	Positive Academic Emotions
Illness	0.547**	0.533**	-0.550**
Gastrointestinal Complaints	0.584**	0.561**	-0.517**
Headache Complaints	0.546**	0.486**	-0.521**
Neurological Complaints	0.497**	0.510**	-0.501**
Cognitive Complaints	0.549**	0.559**	-0.572**
Death-Suicide Ideation	0.614**	0.592**	-0.517**
Helplessness-Hopelessness	0.564**	0.566**	-0.537**
Self-Doubt	0.551**	0.519**	-0.487**
Inefficiency	0.547**	0.546**	-0.554**
Psychological Stress-Worry	0.479**	0.499**	-0.551**
Anxiety	0.538**	0.585**	-0.592**
Anger Propensity	0.496**	0.476**	-0.601**
Behavior-Limiting Fears	0.562**	0.549**	-0.533**
Specific Multiple Fears	0.466**	0.446**	-0.684**

*p<0.05, **p<0.01

The regression model demonstrates that physical/cognitive scales and internalization effectively explain variations in academic underachievement and both negative and positive academic emotions. Specifically, 58.4% of the variance in academic underachievement, 56.8% in negative academic emotions, and 64.4% in positive academic emotions were accounted for by these scales. The Durbin-Watson statistic for all three models ranged between 1.5 and 2.5, confirming the assumption of residual independence.

Table 15

ANOVA and Model Fit Statistics for Physical/Cognitive Scales, Internalization, and Academic Variables

Dependent Variable	F-statistic	p-value	R^2	Durbin-Watson
Academic Underachievement	16.574	0.000	0.584	1.919
Negative Academic Emotions	15.473	0.000	0.568	1.706
Positive Academic Emotions	21.324	0.000	0.644	1.761

The regression analysis revealed significant positive relationships between death-suicide ideation, anxiety, and helplessness-hopelessness with academic underachievement and negative academic emotions. As these scales increase, academic underachievement and negative emotions also increase. Conversely, significant negative relationships were observed between psychological stress-worry, anger propensity, and specific multiple fears with positive academic emotions, indicating that as these factors increase, positive academic emotions decrease.

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Table 16

Regression Coefficients for Physical/Cognitive Scales, Internalization, and Academic Variables

Dependent Variable	Independent Variable	Coefficient (B)	Beta	t-value	p-value
Academic Underachievement	Constant	-24.376		-3.128	0.002
	Illness	0.098	0.081	1.166	0.245
	Gastrointestinal Complaints	0.227	0.138	1.854	0.066
	Headache Complaints	0.176	0.132	1.977	0.050
	Neurological Complaints	0.031	0.026	0.388	0.699
	Cognitive Complaints	0.074	0.063	0.847	0.398
	Death-Suicide Ideation	0.505	0.223	3.055	0.003
	Helplessness-Hopelessness	0.225	0.100	1.431	0.154
	Self-Doubt	0.263	0.139	1.901	0.059
	Inefficiency	0.099	0.076	1.047	0.297
	Psychological Stress-Worry	-0.021	-0.012	-0.157	0.876
	Anxiety	0.117	0.051	0.677	0.499
	Anger Propensity	-0.011	-0.005	-0.072	0.943
	Behavior-Limiting Fears	0.099	0.074	1.007	0.316
	Specific Multiple Fears	-0.119	-0.069	-0.977	0.330
Negative Academic Emotions	Constant	-27.736		-3.457	0.001
	Illness	0.113	0.093	1.311	0.192
	Gastrointestinal Complaints	0.184	0.111	1.459	0.146
	Headache Complaints	0.050	0.038	0.552	0.582
	Neurological Complaints	0.079	0.066	0.956	0.341
	Cognitive Complaints	0.155	0.131	1.724	0.087
	Death-Suicide Ideation	0.415	0.181	2.437	0.016
	Helplessness-Hopelessness	0.294	0.129	1.818	0.071
	Self-Doubt	0.140	0.073	0.979	0.329
	Inefficiency	0.072	0.055	0.745	0.458
	Psychological Stress-Worry	0.067	0.036	0.486	0.628
	Anxiety	0.398	0.171	2.238	0.027
	Anger Propensity	-0.096	-0.045	-0.607	0.545
	Behavior-Limiting Fears	0.083	0.061	0.821	0.413
	Specific Multiple Fears	-0.189	-0.108	-1.506	0.134
Positive Academic Emotions	Constant	353.888		21.311	0.000
	Illness	-0.337	-0.122	-1.893	0.060
	Gastrointestinal Complaints	0.240	0.063	0.920	0.359
	Headache Complaints	-0.332	-0.108	-1.753	0.081
	Neurological Complaints	0.084	0.031	0.488	0.626
	Cognitive Complaints	-0.111	-0.041	-0.596	0.552
	Death-Suicide Ideation	0.141	0.027	0.401	0.689
	Helplessness-Hopelessness	-0.317	-0.061	-0.947	0.345
	Self-Doubt	0.364	0.083	1.233	0.219
	Inefficiency	-0.132	-0.044	-0.658	0.512
	Psychological Stress-Worry	-0.618	-0.148	-2.176	0.031
	Anxiety	-0.588	-0.110	-1.596	0.112
	Anger Propensity	-0.759	-0.154	-2.307	0.022
	Behavior-Limiting Fears	-0.312	-0.101	-1.491	0.138
	Specific Multiple Fears	-1.451	-0.365	-5.597	0.000

3.6. Identifying the Relationship Between Externalizing, Interpersonal, Interests, and Academic Variables in Male High School Students

The results indicate that behavioral problems during adolescence showed the strongest correlation with positive academic emotions, emotional reactivity with academic underachievement, and social avoidance with negative academic emotions among externalizing, interpersonal, and interest scales.

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Table 17

Correlation Matrix for Externalizing, Interpersonal, Interests Scales, and Academic Variables

Variable	Academic Underachievement	Negative Academic Emotions	Positive Academic Emotions
Behavioral Problems in Adolescence	0.471**	0.457**	-0.615**
Substance Abuse	0.569**	0.561**	-0.537**
Aggression	0.551**	0.506**	-0.529**
Emotional Reactivity	0.578**	0.563**	-0.496**
Family Problems	0.574**	0.557**	-0.482**
Passive Interpersonal Style	0.509**	0.504**	-0.545**
Social Avoidance	0.566**	0.617**	-0.512**
Shyness	0.452**	0.481**	-0.575**
Non-attachment	-0.081	-0.135	0.036
Literary-Aesthetic Interests	-0.565**	-0.587**	0.530**
Mechanical-Physical Interests	0.047	0.024	0.103

*p<0.05, **p<0.01

Externalizing, interpersonal, and interest scales accounted for 57.8% of the variance in academic underachievement, 57.7% in negative academic emotions, and 54.7% in positive academic emotions. The Durbin-Watson statistic for all three models ranged between 1.5 and 2.5, confirming that the assumption of residual independence was satisfied.

Table 18

ANOVA and Model Fit Statistics for Externalizing, Interpersonal, Interests Scales, and Academic Variables

Dependent Variable	F-statistic	p-value	R^2	Durbin-Watson
Academic Underachievement	20.895	0.000	0.578	1.721
Negative Academic Emotions	20.815	0.000	0.577	1.517
Positive Academic Emotions	18.415	0.000	0.547	1.792

The regression analysis revealed significant positive relationships between substance abuse, aggression, emotional reactivity, and family problems with academic underachievement. A significant negative relationship was observed between literary-aesthetic interests and academic underachievement. For negative academic emotions, significant positive relationships were found with substance abuse, emotional reactivity, and social avoidance, while literary-aesthetic interests exhibited a significant negative relationship. Positive academic emotions showed a significant negative relationship with behavioral problems during adolescence, indicating that as behavioral problems increase, positive academic emotions decrease.

Table 19

Regression Coefficients for Externalizing, Interpersonal, Interests Scales, and Academic Variables

Dependent Variable	Independent Variable	Coefficient (B)	Beta	t-value	p-value
Academic Underachievement	Constant	7.373		0.534	0.594
	Behavioral Problems	-0.054	-0.042	-0.612	0.541
	Substance Abuse	0.265	0.177	2.523	0.013
	Aggression	0.232	0.173	2.475	0.014
	Emotional Reactivity	0.325	0.253	3.892	0.000
	Family Problems	0.167	0.147	2.101	0.037
	Passive Interpersonal Style	0.079	0.062	0.912	0.363
	Social Avoidance	0.263	0.125	1.743	0.083
	Shyness	-0.080	-0.068	-0.964	0.337
	Non-attachment	-0.012	-0.009	-0.183	0.855
	Literary-Aesthetic Interests	-0.193	-0.169	-2.350	0.020

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	Mechanical-Physical Interests	0.139	0.058	1.118	0.265
Negative Academic Emotions	Constant	9.124		0.653	0.514
	Behavioral Problems	-0.089	-0.068	-0.985	0.326
	Substance Abuse	0.221	0.146	2.076	0.039
	Aggression	0.140	0.103	1.473	0.143
	Emotional Reactivity	0.298	0.230	3.533	0.001
	Family Problems	0.136	0.118	1.693	0.092
	Passive Interpersonal Style	0.052	0.041	0.597	0.551
	Social Avoidance	0.470	0.221	3.087	0.002
	Shyness	0.004	0.004	0.050	0.960
	Non-attachment	-0.087	-0.066	-1.278	0.203
	Literary-Aesthetic Interests	-0.215	-0.187	-2.590	0.010
	Mechanical-Physical Interests	0.104	0.043	0.827	0.409
Positive Academic Emotions	Constant	255.379		7.747	0.000
	Behavioral Problems	-0.747	-0.252	-3.523	0.001
	Substance Abuse	-0.252	-0.073	-1.003	0.317
	Aggression	-0.321	-0.104	-1.433	0.154
	Emotional Reactivity	-0.313	-0.106	-1.571	0.118
	Family Problems	-0.081	-0.031	-0.424	0.672
	Passive Interpersonal Style	-0.392	-0.133	-1.891	0.060
	Social Avoidance	-0.259	-0.053	-0.719	0.473
	Shyness	-0.359	-0.133	-1.813	0.072
	Non-attachment	-0.085	-0.028	-0.526	0.599
	Literary-Aesthetic Interests	0.238	0.090	1.210	0.228
	Mechanical-Physical Interests	0.390	0.071	1.313	0.191

3.7. Identifying the Relationship Between the Five Cognitive-Psychological Disorders and Academic Variables

The results indicate that behavioral problems during adolescence showed the strongest correlation with positive academic emotions, irresponsibility with both positive and negative academic emotions, and introversion with academic underachievement.

Table 20

Correlation Matrix for Five Cognitive-Psychological Disorders and Academic Variables

Variable	Academic Underachievement	Negative Academic Emotions	Positive Academic Emotions
Aggression	0.386**	0.328**	-0.519**
Psychosis	0.196**	0.253**	-0.399**
Irresponsibility	0.398**	0.444**	-0.572**
Neuroticism	0.333**	0.345**	-0.497**
Introversion	0.420**	0.364**	-0.289**

*p<0.05, **p<0.01

The five cognitive-psychological disorders explained 30% of the variance in academic underachievement, 27.8% in negative academic emotions, and 46.4% in positive academic emotions.

Table 21

ANOVA and Model Fit Statistics for Five Cognitive-Psychological Disorders and Academic Variables

Dependent Variable	F-statistic	p-value	R^2	Durbin-Watson
Academic Underachievement	15.069	0.000	0.302	2.068
Negative Academic Emotions	13.377	0.000	0.278	1.864
Positive Academic Emotions	30.105	0.000	0.464	1.887

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The regression analysis showed significant positive relationships between aggression, neuroticism, and introversion with academic underachievement. Irresponsibility and introversion exhibited significant positive relationships with negative academic emotions. Positive academic emotions demonstrated significant negative relationships with aggression, irresponsibility, and neuroticism, indicating a reduction in positive emotions as these disorders increase.

Table 22

Regression Coefficients for Five Cognitive-Psychological Disorders and Academic Variables

Dependent Variable	Independent Variable	Coefficient (B)	Beta	t-value	p-value
Academic Underachievement	Constant	2.329		0.292	0.771
	Aggression	0.330	0.176	2.438	0.016
	Psychosis	-0.025	-0.019	-0.212	0.832
	Irresponsibility	0.206	0.146	1.550	0.123
	Neuroticism	0.261	0.173	2.122	0.035
	Introversion	0.464	0.291	4.025	0.000
Negative Academic Emotions	Constant	2.762		0.337	0.736
	Aggression	0.198	0.105	1.423	0.156
	Psychosis	0.013	0.009	0.104	0.917
	Irresponsibility	0.336	0.235	2.457	0.015
	Neuroticism	0.232	0.152	1.834	0.068
	Introversion	0.372	0.231	3.142	0.002
Positive Academic Emotions	Constant	317.640		19.724	0.000
	Aggression	-1.320	-0.307	-4.836	0.000
	Psychosis	-0.199	-0.063	-0.824	0.411
	Irresponsibility	-0.920	-0.282	-3.424	0.001
	Neuroticism	-0.691	-0.199	-2.783	0.006
	Introversion	-0.244	-0.067	-1.050	0.295

4. Discussion and Conclusion

The findings of this study provide meaningful insights into the relationships between physical/cognitive scales, internalization, externalizing behaviors, interpersonal characteristics, interests, cognitive-psychological disorders, and academic variables among male high school students. This discussion elaborates on the results in light of previous studies, supports the interpretations with existing literature, and highlights the implications of the findings.

The results demonstrated that physical/cognitive scales, particularly death-suicide ideation, cognitive complaints, and anxiety, were significant predictors of academic underachievement and negative academic emotions. The strong positive association between death-suicide ideation and academic underachievement aligns with studies that emphasize the detrimental impact of psychological distress on students' academic performance (Haseli Songhori & Salamti, 2024; Li et al., 2024; Mahvash et al., 2024; Piskorz-Ryń & Chikwe, 2024; Tomaszewski et al., 2024). Pekrun (2006) explained that emotional and cognitive disturbances hinder learning processes and affect motivation, further supporting the findings related to cognitive complaints and anxiety.

Interestingly, anxiety showed a dual role, being positively associated with negative emotions and negatively linked to positive academic emotions. This is consistent with findings by Pekrun et al. (2007), who emphasized the role of anxiety in reducing students' self-efficacy and positive engagement in educational settings (Pekrun et al., 2007). The findings also align with Mofield's (2019) exploration of emotional challenges among gifted students, which highlight the intricate balance between cognitive capabilities and emotional stability (Mofield, 2019).

The study found that externalizing behaviors such as substance abuse, aggression, and emotional reactivity significantly contributed to academic underachievement and negative academic emotions. These findings align with the work of Peterson (2009), which identified behavioral issues as a barrier to academic success. Emotional reactivity, in particular, was strongly correlated with both negative outcomes, supporting Soutter, Bates, and Mõttus's (2020) observations about the role of emotional dysregulation in academic settings (Soutter et al., 2020).

Literary-aesthetic interests, on the other hand, demonstrated a protective factor, showing a negative correlation with both academic underachievement and

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negative academic emotions. This aligns with Guignard, Kermarrec, and Tordjman (2015), who emphasized the importance of creative and intellectual engagement in fostering academic resilience (Guignard et al., 2015). These results suggest that nurturing students' interests, particularly in non-technical domains, could play a pivotal role in mitigating academic difficulties.

The five cognitive-psychological disorders—aggression, psychosis, irresponsibility, neuroticism, and introversion—were significant predictors of academic underachievement and emotions. The strongest predictor, introversion, highlights the internal barriers faced by students, consistent with findings by Petrides et al. (2006), which connected personality traits to scholastic performance. Neuroticism and irresponsibility showed strong associations with negative academic emotions (Petrides et al., 2006), reflecting findings from Akadorova, Lazarides, and Raufelder (2020), who noted the role of personality in shaping academic engagement (Akadorova et al., 2020).

Aggression and irresponsibility were negatively associated with positive academic emotions, supporting Cheon, Reeve, and Vansteenkiste's (2020) observation of the detrimental effect of externalized behavior on classroom dynamics (Cheon et al., 2020). These results emphasize the interplay between behavioral regulation, emotional states, and academic outcomes.

The study's findings underscore the multifaceted nature of academic challenges, where psychological, behavioral, and interpersonal factors collectively influence students' academic performance and emotional well-being. The alignment of these findings with previous research validates the robustness of the results. For instance, the strong correlation between neuroticism and academic emotions is consistent with Rafoth's (2004) work on the psychological predictors of academic failure (Rafoth, 2004). Similarly, the protective role of literary-aesthetic interests supports the emphasis on integrating arts into the curriculum (Bates-Krakoff et al., 2016).

The significant influence of social avoidance on negative academic emotions aligns with the research by Pinyopornpanish, Boonyanaruthee, and Maneetorn (2014), which highlighted the impact of interpersonal difficulties on students' emotional regulation (Pinyopornpanish et al., 2014). The present study extends this understanding by demonstrating how social avoidance intersects with other cognitive and emotional factors to predict academic outcomes.

5. Limitations & Suggestions

This study has several limitations. First, the cross-sectional design limits the ability to infer causation between the variables. While significant associations were identified, longitudinal studies are needed to determine the directionality of these relationships. Second, the reliance on self-reported data introduces the possibility of social desirability bias, which may have influenced the accuracy of responses. Third, the sample was limited to male high school students in a specific geographic region, which may restrict the generalizability of the findings to other populations, including female students and those from diverse cultural backgrounds. Finally, some measures, particularly those assessing psychological scales, could benefit from additional validity checks to ensure accuracy and reliability.

Future studies should consider longitudinal designs to explore the temporal relationships between psychological, behavioral, and academic variables. Expanding the sample to include diverse populations across different age groups, genders, and cultural contexts would enhance the generalizability of the findings. Additionally, employing mixed-method approaches, including qualitative interviews, could provide a deeper understanding of the underlying mechanisms driving these relationships. Researchers should also explore the role of interventions targeting specific predictors, such as anxiety reduction programs and interest-based engagement strategies, to assess their effectiveness in improving academic outcomes.

Educational practitioners should focus on early identification and support for students displaying signs of psychological distress, such as anxiety and emotional reactivity, to prevent academic underachievement. Integrating arts and literary programs into the curriculum could serve as a protective factor, fostering positive academic emotions and engagement. Teachers should be trained to recognize and address behavioral issues, including aggression and social avoidance, through classroom management strategies and individualized support plans. Schools should also prioritize fostering interpersonal skills and resilience among students, providing them with tools to navigate social and academic challenges effectively.

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Declaration of Interest

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The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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References

Akadorova, O., Lazarides, R., & Raufelder, D. (2020). Effects of social and individual school self-concepts on school engagement during adolescence. *European Journal of Psychology of Education*, *35*(1), 73-79. https://doi.org/10.1007/s10212-019-00423-x

Alexopoulou, A., Batsou, A., & Drigas, A. (2019). Resilience and Academic Underachievement in Gifted Students: Causes, Consequences and Strategic Methods of Prevention and Intervention. *International Journal of Online and Biomedical Engineering (Ijoe)*, *15*(14), 78. https://doi.org/10.3991/ijoe.v15i14.11251

Bates-Krakoff, J., McGrath, R. E., Graves, K., & Ochs, L. (2016). Beyond a deficit model of strengths training in schools Teaching targeted strength use to gifted students. *Gifted Education International*, 1-16. https://doi.org/10.1177/0261429416646210

Bozkurt, A. (2024). The Relationship Between Giftedness and Sex and Children's Theory of Mind Skills and Social Behavior. *Children*, *11*(2), 253. https://doi.org/10.3390/children11020253

Cheon, S. H., Reeve, J., & Vansteenkiste, M. (2020). When teachers learn how to provide classroom structure in an autonomy- supportive way: Benefits to teachers and their students. *Teaching and Teacher Education*, *90*. https://doi.org/10.1016/j.tate.2019.103004

Fattahi Andebil, A., Saberi, H., & kazemi kavaki, a. (2018). Effectiveness of Cognitive behavioral group Play therapy and Transcranial Direct Current Stimulation on Executive Function of Working Memory And Response Inhibition of Children with Attention Deficit- Hyperactivity Disorder. *Neuropsychology*, *4*(14), 73-90. https://doi.org/10.30473/clpsy.2019.42393.1369

Ghasourah, M., Hesami, H., & Ghasourah, A. (2016). Comparison of personality traits and math anxiety in female high school students.

Ghoran Savadkuhi, L., Kamiyabi, M., Saadati Shamir, A., & Andishmand, V. (2024). The effectiveness of metacognitive skills training on increasing fluid intelligence in first-year middle school students. *Sociology of Education*, *9*(1), 424-440. https://www.iase-jrn.ir/article_713252.html?lang=en

Guignard, J. H., Kermarrec, S., & Tordjman, S. (2015). Relationships between intelligence and creativity in gifted and non-gifted children. *In Press, Corrected Proof Note to users*. https://doi.org/10.1016/j.lindif.2015.07.006

Haseli Songhori, M., & Salamti, K. (2024). The Linkage Between University Students' Academic Engagement and Academic Support: The Mediating Role of Psychological Capital [Research Article]. *Iranian Journal of Educational Sociology*, *7*(2), 72-84. https://doi.org/10.61838/kman.ijes.7.2.10

Kabini Moghadam, S., Entesare Foumani, G., Hejazi, M., & Asadzadeh, H. (2020). Comparison of the Effect of Instruction of Self-regulated Learning and Help-seeking Strategies Training to Increase Educational Engagement and Buoyancy of Procrastinating Students. *Biquarterly Journal of Cognitive Strategies in Learning*. https://asj.basu.ac.ir/m/article_3207.html?lang=en

Li, X., Mao, Z., Zhao, J., Wang, Y., & Wang, Y. (2024). Relationships among locus of control, academic engagement, and achievement motivation in Chinese adolescents. *Social Behavior and Personality: an international journal*, *52*(5), 12640E-12655E. https://www.ingentaconnect.com/content/sbp/sbp/2024/00000052/00000005/art00001

Liu, X. (2024). Effect of Teacher–student Relationship on Academic Engagement: The Mediating Roles of Perceived Social Support and Academic Pressure. *Frontiers in psychology*, *15*. https://doi.org/10.3389/fpsyg.2024.1331667

Mahvash, M., Yamini, M., & Mahdian, H. (2024). Comparing the Effectiveness of Instructional Mental Imagery and Tolerance of Ambiguity Training on Students' Academic Procrastination [Research Article]. *Iranian Journal of Educational Sociology*, *7*(1), 10-20. https://doi.org/10.61838/kman.ijes.7.1.2

Mattaa, M., Grittia, E. S., & Lang, M. (2019). Personality assessment of intellectually gifted adults: A dimensional trait Approach. *Learning and Individual Differences*, *80*. https://doi.org/10.1016/j.paid.2018.05.009

Mofield, E. (2019). Understanding underachievement: mindset, perfectionism, and achieves attitudes among gifted students. *Journal for the Education of the Gifted*, *42*(2), 107-134. https://doi.org/10.1177/0162353219836737

Mofield, E., & Peters, M. P. (2019). Understanding Underachievement: Mindset, Perfectionism, and Achievement Attitudes Among Gifted Students. *Journal for the Education of the Gifted*, *42*(2), 107-134. https://doi.org/10.1177/0162353219836737

Mou, Q. (2024). Social Media Addiction and Academic Engagement as Serial Mediators Between Social Anxiety and Academic Performance Among College Students. *BMC psychology*, *12*(1). https://doi.org/10.1186/s40359-024-01635-7

Pekrun, R. (2006). The control -value theory of achievement emotions: Assumptions, corollaries, and implications for educational research and practice. *Educational psychology review*, *18*(4), 315-341. https://doi.org/10.1007/s10648-006-9029-9

Pekrun, R., Goatz, T., Titz, W., & Perry, R. P. (2007). Academic emotions in student selfregulated learning and achievement program at qualitative and quantitative research Educational

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Psychologist. *37*, 91-105. https://doi.org/10.1207/S15326985EP3702_4

Petrides, K. V., Chamoro-Premuzic, T., Frederickson, N., & Furnham, A. (2006). Explaining individual differences in scholastic behavior and achievement. *British Journal of Educational Psychology*, *75*, 239-255. https://doi.org/10.1348/000709904X24735

Pinyopornpanish, M., Boonyanaruthee, V., & Maneetorn, N. (2014). Factors Affecting Low Academic Achievement Of Medical Students In The Faculty Of Medicine, Chiang Mai University. *Chiang Mai Med Bull*, *43*(1), 15-23. https://www.researchgate.net/publication/238669711

Piskorz-Ryń, O., & Chikwe, C. (2024). Parental Involvement and Its Influence on Academic Achievement [Research Article]. *Iranian Journal of Educational Sociology*, *7*(2), 50-56. https://doi.org/10.61838/kman.ijes.7.2.7

Rafoth, M. A. (2004). Academic failure, prevention of. In (Vol. 1). Boston, MA: Academic Press.

Rahmani, M., Namvar, H., & Hashemi Razini, H. (2024). The Effectiveness of Rational Emotive Behavior Therapy on Executive Functions and Academic Procrastination of Children with Sluggish Cognitive Tempo. *Journal of Psychological Dynamics in Mood Disorders (PDMD)*, *2*(4), 82-90. https://doi.org/10.22034/pdmd.2024.434756.1038

Roghani, F., Saadati Shamir, A., Abdollahpour, A., & Hashemi, N. (2024). The Effectiveness of the Skilled Fluid Intelligence Psychological-Educational Intervention Package on Cognitive-Emotional Regulation in Children with Attention Deficit Hyperactivity Disorder. *Psychological Dynamics in Mood Disorders*, *3*(2), 189-202. https://doi.org/10.61838/kman.pdmd.3.2.16

Royaee, Z., Hassanabadi, H., Kadivar, P., & keramati, h. (2023). The Game of Revolving Wheel of Academic Motivation and Engagement with the Heart of Students with Low Academic Achievement: Increasing Compatible Cognitions and Behaviors and Reducing Incompatible Ones. *Biquarterly Journal of Cognitive Strategies in Learning*, *11*(20), 67-91. https://doi.org/10.22084/j.psychogy.2023.27265.2542

Shen, S. (2024). Teacher Emotional Support Facilitates Academic Engagement Through Positive Academic Emotions and Mastery-Approach Goals Among College Students. *Sage Open*, *14*(2). https://doi.org/10.1177/21582440241245369

Soltani, M., Kamyabi, M., Bahrainizadeh, A., & Andishmand, V. (2024). Design and Presentation of a Model for the Relationship Between the Five Dimensions of Personality and Problem-Solving Skills and Academic Help-Seeking in Female Students. *Journal of Psychological Dynamics in Mood Disorders (PDMD)*, *3*(1), 175-186. https://doi.org/10.22034/pdmd.2024.449713.1066

Soutter, A. R. B., Bates, T. C., & Mõttus, R. (2020). Big Five and HEXACO personality traits, proenvironmental attitudes, and behaviors: a meta-analysis. https://doi.org/10.31234/osf.io/qxz7m

Sternberg, R. J. (2022). The vexing problem of dark giftedness. *Gifted Education International*. https://doi.org/10.1177/02614294221110459

Sternberg, R. J. (2023). Toxic giftedness. *Roeper Review*, *45*(1), 61-73. https://doi.org/10.1080/02783193.2022.2148311

Sternberg, R. J., & Rodríguez-Fernández, M. I. (2023). Humanitarian Giftedness. *Gifted Education International*, *40*(1), 92-115. https://doi.org/10.1177/02614294231167749

Suharsono, Y. (2024). Growth Mindset in Higher Education: Exploring Academic Buoyancy's Mediating Effect on Students' Academic Engagement and Psychological Well-Being. *Kne Social Sciences*. https://doi.org/10.18502/kss.v9i5.15189

Tehrani, H., Shojaeizadeh, D., Hosseini, S. M., & Alizadegan, S. (2013). The relationship between mental health with personality type and life events of nurses working in Tehran emergency services. *Journal of Tehran University of Medical Sciences Nursing Care Research Center (Iranian Journal of Nursing)*, *55*(95). https://www.sid.ir/paper/114164/fa

Tomaszewski, W., Xiang, N., & Huang, Y. (2024). School climate, student engagement and academic achievement across school sectors in Australia. *Australian Educational Researcher*, *51*, 667-695. https://doi.org/10.1007/s13384-023-00618-8

Veas, A., Costa, J. L. C., O'Reilly, C., & Ziegler, A. (2018). Mediation Analysis of the Relationship Between Educational Capital, Learning Capital, and Underachievement Among Gifted Secondary School Students. *Journal for the Education of the Gifted*, *41*(4), 369-385. https://doi.org/10.1177/0162353218799436

Wang, Y. (2024). Correlation Between Students Perceived Parental Expectations and Students Academic Engagement: The Intermediary Effect of Academic Self-Efficacy. *Journal of Pedagogical Research*. https://doi.org/10.33902/jpr.202427683

White, S. L. J., Graham, L. J., & Blaas, S. (2018). Why do we know so little about the factors associated with gifted underachievement? A systematic literature review. *Educational Research Review*, *24*, 55-66. https://doi.org/10.1016/j.edurev.2018.03.001

Winner, E., & Martino, G. (2024). *Artistic Giftedness Handbook of Gifted Education*.

Yarmahhmadi, Z., Arabzadeh, M., & Kadivar, P. (2016). The role of successful intelligence, wisdom and creativity in Mina Boroujerdi and academic achievement of gifted and ordinary students. *Scientific-Research Quarterly Journal of Educational Research*, *48*(1), 151-166. https://journals.iau.ir/article_528893.html

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