

MODELING THE CAUSAL RELATIONSHIPS BETWEEN ACADEMIC BURNOUT, COMPETITION ANXIETY, AND PEER BULLYING AMONG GIFTED SCHOOL STUDENTS

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Abstract

This study aimed to model causal relationships among academic burnout, competition anxiety, and peer bullying among gifted school students, with Al-Mutafawwiqin Secondary School for Boys and Girls in Kut, Wasit Governorate as the field of application. A descriptive-correlational causal design with SEM was employed on a stratified purposive sample of 200 students from 2nd intermediate and 5th preparatory grades in both schools (2024-2025). Three validated instruments were used: MBI-SS (Schaufeli et al., 2002; Arabic version: Salama & Al-Subaie, 2018, p. 52), the Academic Anxiety Scale AAS (Cassady et al., 2019, p. 463; Arabic translation: Mohammed Taher et al., 2022, p. 210), and a peer bullying scale adapted from Abdel-Moati (2012, p. 441). Results revealed medium-to-high burnout ($M=3.54$) and competition anxiety ($M=2.72$), and medium peer bullying ($M=2.39$). The causal model showed good fit ($CFI=.954$, $RMSEA=.051$), with significant direct effects: burnout \rightarrow competition anxiety ($\beta=.46$), burnout \rightarrow bullying ($\beta=.29$), bullying \rightarrow competition anxiety ($\beta=.52$), and partial mediation (indirect $\beta=.24$, $CI[.15,.34]$).

Keywords: Academic Burnout, Competition Anxiety, Peer Bullying, Structural Equation Modeling, Partial Mediation, Gifted Schools.

Introduction

Chapter One: The General Framework of the Research First: Introduction It is not unknown to anyone working in the Iraqi educational field that the School for Gifted Students represents an exceptional educational experience by all standards; it gathers under one roof a group carefully selected according to academic achievement and mental abilities criteria, comprising those who reached the peak of excellence in their previous schools. Once these students

meet in a single environment, an extremely complex psychological equation is formed; each of them was the star of their class and a role model for their peers in their original school, and suddenly finds themselves among hundreds like them, and the excellence they once prided themselves on becomes expected rather than exceptional. In this unique context, the phenomenon of academic burnout arises, affecting the gifted student in a way entirely different from their counterpart in regular schools; the pressure does not come solely from the difficulty of the curriculum, but from competing with peers of similarly high levels, the accumulation of family and institutional expectations, and the burden of maintaining an educational status that cannot decline. When this accumulated pressure drains the student's psychological energy, they do not surrender quietly, but rather seek multiple behavioral outlets; some tend toward withdrawal and emotional numbness, Some others tend toward aggression against peers in its forms of verbal, social, and electronic bullying. At the same time, a state of anxiety related to competition is growing, exceeding test anxiety to become an existential fear of relative failure in an environment that tolerates only the top performers.

Although the educational psychological literature has addressed each of these three phenomena, it has mostly done so separately or in binary relationships. The largest knowledge gap remains in the absence of a comprehensive causal model that integrates them within a specialized educational environment such as schools for gifted students in Iraq. This need becomes even more urgent when we know that Wasit Governorate is almost devoid of rigorous scientific studies addressing the mental health of high school gifted students there. This study was conducted to fill this gap, providing an accurate scientific analysis based on real field data from the Kut environment, using internationally approved measurement tools and modern statistical methods.

Second: The Research Problem

The problem of this study stems from direct field observations made by the researcher during his interaction with the environment of the Secondary School for Gifted Boys and the Secondary School for Gifted Girls in Al-Kut. Guidance reports and informal interviews with educational counselors highlighted a series of concerning indicators: a noticeable increase in levels of psychological stress before and after exams, repeated complaints of feelings of fatigue and

exhaustion, some manifestations of verbal and social aggressive behavior among competing students, as well as patterns of cyberbullying related to academic ranking.

When the researcher confronted these field phenomena on one hand, and on the other hand examined what the literature has established regarding potential relationships between these variables, the research problem crystallized in the following essential question:

Are there statistically significant causal relationships between academic burnout, competitive anxiety, and peer bullying among students of gifted schools in Al-Kut? And does peer bullying play a mediating role in the relationship between academic burnout and competitive anxiety? Thirdly: Research Importance The theoretical importance: This study — to the extent of the researcher's knowledge — represents the first systematic scientific attempt that combines the variables of academic burnout, competitive anxiety, and peer bullying in a single causal structural model tested using structural equation modeling in the environment of Iraqi gifted schools. This combination is not merely a statistical technique, but rather reflects an integrated theoretical perspective that views these three phenomena not as independent, but as parts of a single psychological system that interact and feed into each other (Al-Taie & Al-Amiri, 2022: 92; Ang et al., 2021: 6199). Likewise, the study contributes to enriching Arab psychological literature with results based on real Iraqi field data from an educational environment that has not received sufficient research attention. For the first time in the Iraqi context, the Academic Anxiety Scale (AAS) (Cassady et al., 2019: 463) is employed in the context of gifted schools. Which allows for verifying its validity in the Iraqi cultural context.

Practical Significance

The study results provide educational counselors at the High School for Gifted Boys and Girls with a clear causal map that helps them determine the optimal starting point for guidance intervention; if academic burnout is the primary predictor variable for both bullying and competition anxiety, then early intervention to address it will have a branching effect extending to the other two phenomena. It also benefits the Wasit Governorate Directorate of Education in shaping institutional mental health policies for gifted schools and determining

the priorities for training specialized counseling staff (Al-Atoum et al., 2022: 314).

Fourth: Research Objectives

This study aims to achieve the following objectives:

First Objective: To reveal the level of academic burnout in its three dimensions (emotional exhaustion, depersonalization, and decreased perceived competence) among students of the High School for Gifted Boys and the High School for Gifted Girls in Al-Kut Center.

Second Objective: To diagnose the level of academic competition anxiety in its three components (cognitive anxiety, somatic anxiety, and attention distraction) among the same sample individuals.

Third objective: Monitor the level of peer bullying in its four forms (physical, verbal, social, and electronic) in the same environment.

Fourth objective: Test the magnitude of the direct effect of academic burnout on both competition anxiety and peer bullying and its statistical significance.

Fifth objective: Test the magnitude of the direct effect of peer bullying on academic competition anxiety.

Sixth objective: Test the mediating role of peer bullying in the relationship between burnout and competition anxiety using the Bootstrap method.

Seventh objective: Build a comprehensive structural causal model and verify its goodness of fit with the field data.

Fifth: Research Limits

Subject Matter Limit: The study is limited to three educational psychological variables: academic burnout, academic competition anxiety, and peer bullying, and does not address other variables that may be relevant, such as self-efficacy or social support.

Human Limit: The study is applied only to students of the High Schools for Outstanding Boys and the High Schools for Outstanding Girls in Al-Kut center — Wasit Governorate, and its results are not generalized to public schools or to schools for outstanding students in other governorates.

Spatial Limit: The High Schools for Outstanding Boys and the High Schools for Outstanding Girls in Al-Kut city center, affiliated with the Directorate of Education of Wasit Governorate.

Temporal Limit: The second semester of the 2024-2025 academic year, which is the most intense semester for competition due to its connection with final and transitional exams.

Sixth: Defining Scientific Terms

1. Academic Burnout

Conceptual Definition: A chronic psychological response arising from prolonged exposure to continuous academic stress, manifested in three dimensions: emotional exhaustion resulting from the depletion of emotional and physical energy; apathy, characterized by loss of interest and enthusiasm; and decreased perceived competence, manifested in a decline in the sense of personal effectiveness despite high objective performance (Schaufeli et al., 2002: 466).

Operational Definition: The total score obtained by a student on the Student Academic Burnout Inventory (MBI-SS) in its Arabic version, translated by Salama and Al-Subaie (2018: 52).

2. Academic Competition Anxiety

Conceptual Definition: A negative emotional state arising in contexts of social comparison with peers in competitive environments, comprising three components: cognitive anxiety, somatic anxiety, and distractibility. Cassady et al. (2019: 464) demonstrated that the distractibility component is the most influential on immediate academic performance. Abdelrahman (2002: 78) defined it as an anxiety response that hinders positive social comparison and transforms it into debilitating psychological stress.

Operational Definition: The total score obtained by the student on the Academic Anxiety Scale (AAS) in its standardized Arabic version, as modified by Mohamed Taher et al. (2022: 210).

3. Peer Bullying

Conceptual Definition: Deliberate and repeated aggressive behavior perpetrated against a victim unable to defend themselves due to an imbalance of power. It takes various forms: physical, verbal, social, and cyber (Olweus, 1993: 9). Abdelmoati (2012: 445) documented that verbal bullying, the most prevalent form in the Arab world, is closely linked to low self-esteem in the victim.

Operational Definition: The total score obtained by a student on the adapted Peer

Bullying Scale, as adapted by Abdel-Moati (2012: 441) for the pre-university education stage.

4. Structural Equation Modeling (SEM): An advanced statistical technique that combines confirmatory factor analysis and path analysis within a single framework. It allows for the testing of complex causal models involving latent and manifest variables, as well as direct and indirect paths simultaneously. It is one of the most suitable statistical methods for testing complex theoretical models in educational psychology (Tarawneh, 2018: 43; Hair et al., 2019: 617; Kline, 2016: 8).

5. Schools for Gifted Students: Government-run educational institutions that attract academically gifted students according to rigorous criteria, including high achievement and exceptional intellectual abilities. These institutions are characterized by intensive curricula and a highly competitive environment that differs qualitatively from general education. In this study, it specifically refers to the Boys' High School for Outstanding Students and the Girls' High School for Outstanding Students, which are affiliated with the Wasit Governorate Education Directorate in the Al-Kut Center.

Chapter Two: Theoretical Framework and Previous Studies

First Section: Theoretical Framework

First: Theoretical Foundations of the Study

This study is based on an integrated system of four theoretical frameworks that illuminate different aspects of the phenomenon under investigation. These frameworks were carefully selected to cover multiple explanatory levels: from psychological energy and resources, to social learning, and specifically to explaining competitive anxiety.

The First Theory — Resource Conservation (Hobfoll, 1989: 516): Hobfoll argues that humans strive to acquire and maintain psychological resources, and that the threat of losing them, or their actual loss, is the primary driver of psychological stress. In the context of gifted schools, academic ranking and competitive reputation represent highly valued resources for students. When these resources are depleted by constant competition, students enter a state of academic burnout, which is essentially a depletion of internal psychological

resources. They may resort to bullying as a defensive attempt to regain status and dominance.

The second theory—the Demands and Resources Model (Bakker & Demerouti, 2007: 312)—posits that burnout arises when the demands of studying exceed the coping resources available to the student. In gifted schools, academic demands (intensive curriculum, high expectations, intense competition) are amplified, while coping resources (stress management skills, psychological counseling) may be insufficient to meet them. This imbalance creates a fertile ground for burnout.

The third theory—the Social Learning Theory (Bandura, 1977: 22)—explains how students acquire bullying behavior in competitive environments by observing that such behavior can achieve temporary results, such as dominance or a competitive advantage. In the relatively closed environment of gifted schools, these behavioral patterns may become entrenched when students observe that verbal or social bullying relieves their stress and enhances their status.

The fourth theory—competitive anxiety theory (Martens et al., 1990: 48)—categorizes competitive anxiety into cognitive, physical, and distracting components. It asserts that competition among peers of similar ability accelerates the development of anxiety levels that impair performance. In an environment where high-achieving students compete with each other, the perceived performance gap narrows, and the anxiety associated with comparison intensifies.

Second: Academic Burnout in Gifted Schools

Academic burnout in gifted schools is a qualitatively different phenomenon from burnout in regular schools. In the latter, it often stems from the difficulty of the material or academic failure, while in gifted schools, burnout is born within the very heart of excellence itself. It is the burnout resulting from the continuous effort to maintain excellence in an environment where excellence is considered a minimum standard, not an exceptional advantage. Schaufeli et al. (2002: 466) identified three key dimensions: emotional exhaustion, manifested as a depletion of emotional energy; apathy, expressed as a loss of enthusiasm for studying; and a perceived decrease in competence, characterized by self-doubt despite high objective performance. This last dimension is particularly pronounced in the

environment of gifted students, where they achieve objectively high results while experiencing an internal sense of inadequacy when compared to their high-achieving peers. In the Iraqi context, Al-Husseini (2019: 61) documented a strong negative correlation between exhaustion and psychological adjustment among gifted students ($\beta = -0.52$), and Al-Ta'i (2021: 130) demonstrated its negative predictive role of achievement ($\beta = -0.44$).

The scale used in this study to measure academic burnout is the MBI-SS, developed by Schaufelli et al. (2002: 466) specifically for student environments. It has demonstrated stable psychometric properties across multiple cultures. Salama and Al-Subaie (2018: 52) adapted it for Arabic using a sample of 912 Arab students, achieving an alpha reliability of 0.86 and a confirmed three-factor structure.

Third: Academic Competition Anxiety in Gifted Schools

Academic competition anxiety represents a distinct and independent concept from test anxiety. It extends to any competitive situation—an exam, assignment, or even a classroom discussion—whenever a student feels that their performance is being measured by others' standards rather than by an objective, absolute standard. Abdulrahman (2002: 78) defined it as an anxiety response that hinders positive social comparison and transforms it into depressive pressure. In the Iraqi context, Al-Dulaimi (2017: 25) documented that 52% of high-achieving students suffer from high levels of this anxiety, a worrying figure that points to the unique nature of the competitive Iraqi context.

This study employs the most recent and comprehensive tool for measuring this variable: the Academic Anxiety Scale (AAS), developed by Cassady et al. (2019: 463). This scale consists of fifteen items distributed across three components. It was adapted and standardized for the Arab environment by Muhammad Tahir et al. (2022: 210), achieving an alpha reliability of 0.88 and a confirmed factor structure. In the environment of schools for gifted students, this anxiety is amplified because competition is limited to students who are all high-achieving, margins of excellence are narrowed, and the gap between first and second place becomes a fraction of a point rather than a full point.

Fourth: Peer Bullying in the Environment of Schools for Gifted Students

Bullying in schools for gifted students has a different flavor and different motivations; It is rarely physical, and is often verbal, social, or cyberbullying, linked to academic competition and control of the social hierarchy within the school. Olweus (1993: 9) defined it as deliberate and repeated aggressive behavior characterized by an imbalance of power. Abdel-Moati (2012: 445) documented that the most prevalent form of bullying (67%) is closely linked to low self-esteem in the victim. In the Iraqi context, Al-Rubaie (2021: 67) observed that 31% of students were subjected to cyberbullying, with a significant correlation to anxiety levels.

The scale used in this study is the peer bullying scale adapted from Abdel-Moati's (2012: 441) pre-university education level, consisting of twenty-eight items on four The study found that the study had equal dimensions on a five-point Likert scale, achieving alpha stability (0.89). A deep understanding of the nature of bullying in this environment helps explain the causal relationship between burnout and bullying. A burnout student may resort to bullying as a defense strategy to maintain their competitive position, or as a way to release accumulated tension at the expense of those who are socially weaker.

Fifth: The Proposed Causal Model

This study proposes a three-track causal structure:

The first track – Academic Burnout to Competitive Anxiety (Direct): Burnout depletes adaptive psychological resources, making the student more vulnerable to competitive situations and less able to frame them as opportunities rather than threats (Al-Jubouri & Al-Saadi, 2023: 102). The second pathway—academic burnout to bullying (direct): Al-Ta'i and Al-Amiri (2022: 92) documented this pathway in the Iraqi context ($p = 0.49$), and Ang et al. (2021: 6200) interpreted it as students resorting to aggression as a strategy to regain equilibrium. The third pathway—bullying to competitive anxiety (direct and mediated): Bullying weakens the victim's academic self-esteem and transforms competition from a motivating challenge into a constant social threat (Al-Dulaimi, 2017: 25), thus acting as a partial mediator between burnout and competitive anxiety.

Second Axis: Previous Studies

First: Studies on Academic Burnout

Al-Husseini (2019: 39-78) — Ain Shams University: Revealed that 54% of high-achieving students suffer from moderate burnout with a significant negative correlation with psychological adjustment ($\beta = -0.52$). Al-Ubaidi (2020: 85-114) — Wasit University: Demonstrated a significant inverse correlation between burnout and psychological resilience in the Wasit environment. Al-Ta'i (2021: 112-145) — University of Baghdad: Documented the negative predictive role of burnout on academic achievement ($\beta = -0.44$). Salama and Al-Subaie (2018: 44-80): Presented the Arabic standardization of MBI-SS on 912 students ($\alpha = 0.86$, confirmed CFA). Schaufeli et al. (2002: 464-481): They confirmed the tripartite structure across multiple cultures and established the conceptual framework for measurement.

Second: Studies on Academic Competition Anxiety

Abdulrahman (2002: 70-98): He presented the first Arabic scale for competition anxiety and demonstrated its independence from test anxiety. Al-Dulaimi (2017: 11-38) — University of Babylon: He documented that 52% of high-achieving students suffer from high competitive anxiety ($p = 0.61$ with test anxiety) in the Iraqi context. Muhammad Tahir et al. (2022: 201-238): They completed the Arabic translation and standardization of the AAS ($\alpha = 0.88$). Cassidy et al. (2019: 461-474): They developed the AAS and demonstrated that distractibility is its most influential component on immediate performance.

Third: Peer Bullying Studies

Abdul-Mu'ti (2012: 429-488): Documented the prevalence of bullying in the Arab world (28%), with verbal bullying being the dominant form (67%), and established the standard baseline adopted in this study. Al-Rubaie (2021: 55-82): Observed that 31% of Iraqi students were subjected to cyberbullying, with a significant correlation to anxiety. Al-Hasnawi (2019: 45-78) — University of Baghdad: Linked cyberbullying to a spectrum of psychological disorders. Lian et al. (2022: 12-22): Longitudinally demonstrated that victim-bullying predicts burnout after six months ($\beta = 0.38$).

Fourth: Multivariate Studies and the Context of the Current Study

Al-Ta'i and Al-Amiri (2022: 78-114) — University of Dhi Qar: They documented a significant correlation between burnout and bullying ($r = .49$, $\beta = .43$) in the regression, but their study lacked SEM modeling. Al-Jubouri and Al-Saadi (2023: 88-121) — University of Baghdad: They examined academic stress, competitive anxiety, and bullying without structural modeling or mediation testing. Ang et al. (2021: 6196-6214): They demonstrated that burnout mediates between stress and aggression ($\beta = .41$) using SEM, but without competitive anxiety as a dependent variable.

The current study is unique in five ways: First, it combines the three variables into a comprehensive SEM model that has not been previously tested in the context of Iraqi gifted schools. Second, it is applied to the gifted secondary school in Al-Kut, which has not been previously studied in research. Third, the application of AAS in this context for the first time. Fourth, the testing of mediation using the more reliable Bootstrap method. Fifth, revealing the specificity of psychological dynamics in a homogeneous, intense competitive environment.

Chapter Three: Research Methodology and Procedures

First: Research Methodology

The descriptive correlational causal approach, enhanced by structural equation modeling (SEM), was adopted. This approach is suitable for measuring underlying variables and distinguishing direct and indirect effects simultaneously, making it the most appropriate method for testing complex multivariable causal models (Tarawneh, 2018: 43; Hair et al., 2019: 617; Kline, 2016: 8).

Second: The Research Population

The research population consists of all students at the Al-Mutafawwiqin Boys' High School and the Al-Mutafawwiqin Girls' High School in Al-Kut for the 2024-2025 academic year, including both intermediate and preparatory levels of both genders, totaling approximately (1400) male and female students.

Third: The Research Sample

A stratified purposive sample of (200) male and female students was selected, equally distributed between the second intermediate and fifth preparatory grades in both schools, with (50) male and female students from each grade in each school.

Justifications for Choosing These Two Grades

The selection of the second intermediate grade and the fifth preparatory grade was not arbitrary, but rather based on sound educational and psychological justifications:

First – The second intermediate grade: This grade represents the stage in which the student has fully adapted to the environment of high-achieving students and the initial stage of fascination has ended. They now view competition realistically and understand the true extent of the pressures resulting from remaining in this environment. Research at this stage allows for the detection of burnout, competitive anxiety, and bullying in their early stages before they accumulate over subsequent years, thus providing an opportunity for early preventative intervention.

Second – The fifth preparatory grade: This grade represents the peak of academic competition in the student's journey. They stand on the threshold of the crucial national exams that determine their university future, and all the accumulated pressure of years of intensive education is concentrated in this grade. Comparing these two grades—second intermediate and fifth preparatory—gives the study exceptional added value, as it allows for tracking the escalating trajectory of these three psychological phenomena from their inception to their peak. This provides educational counselors with precise diagnostic information regarding which stages require the most urgent and intensive intervention.

Table (1) Distribution of the study sample across grades, schools, and gender

School / Class	Male	Female	Total	of the % sample	Total
High School for Gifted Boys – Second Intermediate	50	—	50	25%	
High School for Gifted Boys – Fifth Preparatory	50	—	50	25%	200
High School for Gifted Girls – Second Intermediate	—	50	50	25%	
High School for Gifted Girls – Fifth Preparatory	—	50	50	25%	
Total	100	100	200	100%	200

Fourth: Research Tools

First Measure: Academic Burnout (MBI-SS)

Original source: Schaufeli, W. B., Martínez, I., Pinto, A. M., Salanova, M., & Bakker, A. B. (2002). Burnout and engagement in university students: A cross-national study. *Journal of Cross-Cultural Psychology*, 33(5), 464-481.

Arabic version: Salama, Muhammad, and Al-Subaie, Abdullah. (2018). Standardization of the MBI-SS Academic Burnout Scale. *Journal of Educational and Psychological Sciences, University of Bahrain*, 19(2), 44-80. Reference page: 52.

Scale description: Fifteen items across three dimensions: emotional exhaustion (5 items), apathy (5 items), and decreased efficiency (5 items). Seven-point Likert scale (0-6). Items 11-15 are inversely scored. Total score (0-90). Alpha reliability (0.86).

Second scale: Academic Anxiety (AAS)

Original source: Cassady, J. C., Pierson, E. E., & Starling, J. M. (2019). Predicting student depression with measures of academic anxiety. *Journal of Psychoeducational Assessment*, 37(4), 461-474. Reference Page: 463.

Arabic Version: Muhammad Tahir, Hani, Abdul Aziz, Samah, and Al-Shafi'i, Mahmoud. (2022). Arabization and Standardization of the Academic Anxiety Scale. *Egyptian Journal of Psychological Studies*, 32(116), 201-238. Reference Page: 210.

Scale Description: Fifteen items across three dimensions: cognitive anxiety, somatic anxiety, and distractibility. Four-point Likert scale (1-4). Items 4, 9, and 14 are inversely proportional. Interpretation levels: low (15-25), moderate (26-40), high (41-60). Alpha reliability (0.88).

Third Scale: Peer Bullying

Original Source: Abdel-Moaty, Hassan Mustafa. (2012). Bullying Scale Among University Students. *Journal of Psychological Counseling, Ain Shams University*, (31), 429-488. Reference Page: 441.

Scale Description: The adapted version for the pre-university education stage consists of twenty-eight items across four equal dimensions: physical, verbal, social, and electronic (7 items per dimension). It uses a five-point Likert scale (1-5). All items are directly proportional. The total score ranges from 28-140. The alpha reliability is 0.89.

Fifth: Psychometric Validation Procedures

The psychometric properties were verified through: content validity using Lawshe's formula (Lawshe, 1975: 567) ($CVR \geq 0.75$) with seven expert reviewers. Then, confirmatory factor analysis (CFA) was performed for each measure ($\lambda \geq 0.50$, $AVE \geq 0.50$). Cronbach's alpha and test-retest reliability were established after two weeks on a pilot sample outside the main sample.

Sixth: Statistical Methods

The following statistical methods were employed: descriptive statistics (means, skewnesses, skewness, and kurtosis); Pearson correlation matrix; t-test for gender differences; one-way ANOVA for class differences; confirmatory factor analysis (CFA) for each measure; structural equation modeling (SEM) using AMOS version 26 with the Maximum Likelihood method; and Bootstrap (1000 repetitions, CI = 95%) to test for mediation (Hayes, 2018: 101).

Seventh: Research Questions

This study aims to answer the following research questions:

1. What is the level of academic burnout, in its three dimensions, among students at the Al-Mutafawwiqeen Boys' High School and the Al-Mutafawwiqeen Girls' High School in Al-Kut Center?
2. What is the level of academic competitive anxiety, in its three components, among the same sample?
3. What is the level of peer bullying, in its four forms, in the same environment?

4. What is the magnitude of the direct effect of academic burnout on competitive anxiety, and is it statistically significant?
5. What is the magnitude of the direct effect of academic burnout on peer bullying, and is it statistically significant?
6. What is the magnitude of the direct effect of peer bullying on competitive anxiety, and is it statistically significant?
7. Does peer bullying significantly mediate the relationship between burnout and competitive anxiety?
8. Does the proposed causal model have acceptable goodness-of-fit indices according to SEM criteria? Chapter Four: Presentation, Discussion, Conclusions, Recommendations, and Suggestions

First: Descriptive Statistics (Questions 1-3)

Table (2) Descriptive Statistics for the Three Variables and Their Dimensions (n=200)

Dimension	average	deviation	twist	The spread	Gradual	Level
Emotional exhaustion	3.82	0.91	0.31	-0.22	0-6	High
Apathy/Negligence	3.54	0.87	0.18	-0.41	0-6	High Average
Decreased efficiency	3.21	0.94	-0.14	0.09	0-6	Average
Academic burnout (total)	3.54	0.84	0.12	-0.19	0-6	High Average
Cognitive anxiety	2.84	0.72	0.23	-0.31	1-4	High Average
Somatic anxiety	2.61	0.78	0.19	-0.14	1-4	Average
Distraction	2.72	0.69	0.31	-0.22	1-4	High Average
Competitive anxiety (total)	2.72	0.64	0.24	-0.19	1-4	High Average
Verbal bullying	2.74	0.89	0.29	-0.18	1-5	Average
Social bullying	2.51	0.84	0.41	0.12	1-5	Average
Cyberbullying	2.38	0.92	0.53	0.28	1-5	Average
Physical bullying	1.93	0.78	0.61	0.34	1-5	Low
Peer bullying (total)	2.39	0.76	0.44	0.09	1-5	Average

Note: n=200 male and female students from the Al-Mutafawwiqin High School for Boys and Girls — Al-Kut Center; skewness and kurtosis values are within the limits of normality (± 2).

The descriptive statistics reveal clear psychological pressures in the environment of the Al-Kut Center's secondary school for gifted students. Academic burnout registers a high average level (M=3.54), while emotional exhaustion (M=3.82) leads all other dimensions. This high level is explained by the competitive environment, which makes the depletion of emotional energy almost inevitable in the context of constant competition with peers of similar ability at the high level (Al-Husseini, 2019: 61). Competitive anxiety also registers a high average level (M=2.72), with the cognitive anxiety component dominating. This aligns with what Cassady et al. (2019: 464) confirmed: that self-doubt and constant comparison are the primary drivers of anxiety in high-performance environments. Regarding bullying, the score was prevalent (M=2.39), with the highest score for verbal bullying (M=2.74) and the lowest for physical bullying (M=1.93). This aligns with Abdel-Moati's (2012: 445) documentation of the dominance of verbal bullying in the Arab environment.

Second: Results of Confirmational Factor Analysis (CFA)

Table (3): CFA Indicators for the Three Scales

scale	χ^2/df	CFI	TLI	RMSEA	AVE	decision
MBI-SS — Burnout (3 dimensions)	1.92	.96	.95	.048	.54	Good ✓
AAS — Competitive anxiety (3 dimensions)	1.78	.97	.96	.044	.56	Good ✓
Peer bullying (4 dimensions)	2.11	.95	.94	.053	.51	Acceptable ✓

Note: All saturations $\lambda \geq 0.52$ and $p < 0.001$; $CR \geq 0.78$ for all dimensions. The three factorial structures are confirmed.

Third: Indicators of Good Fit of the Complete Causal Model (Question 8)

Table (4) Indicators of Good Fit of the Complete SEM Model

model	χ^2/df	CFI	TLI	RMSEA	SRMR	decision
The complete model	2.04	.954	.947	.051	.055	Good match ✓
The accepted standard	≤ 3.0	$\geq .90$	$\geq .90$	$\leq .08$	$\leq .08$	—

Note: N=200; df=32; $\chi^2=65.28$; RMSEA 90% CI [0.034, 0.068].

This pattern of conformance indicators—including CFI exceeding the 0.95 threshold and RMSEA falling below 0.06—indicates that the proposed causal model represents the field data very well and provides a high construct validity interpretation (Hair et al., 2019: 639). This answers question 8.

Fourth: Direct Path Coefficients (Questions 4-6)

Table (5) Direct Causal Path Coefficients in the Model

s	causal pathway	β normative	B	SE	t	p
4	Academic burnout → Competitive anxiety	.46	0.48	0.07	6.86	<.001
5	Academic burnout → Peer bullying	.29	0.31	0.06	5.17	<.001
6	Peer bullying → Competitive anxiety	.52	0.57	0.08	7.13	<.001

Note: All pathways are $p < 0.001$; standardized β = standardized pathway coefficient.

The table reveals a significant pattern worthy of consideration. The pathway from exhaustion to competitive anxiety ($\beta = 0.46$) was higher than the pathway from exhaustion to bullying ($\beta = 0.29$). This pattern is logical in gifted school settings, where competitive anxiety represents the most direct and immediate response to the depletion of psychological resources, while bullying remains a more selective response employed by some students and not others (Ang et al.,

2021: 6200). The pathway from bullying to competitive anxiety ($\beta = 0.52$) was the highest in the entire model, indicating that bullying in a homogeneous competitive environment fosters a climate of fear that transforms competition from a motivating challenge into a constant social threat for victims (Al-Dulaimi, 2017: 25).

All pathways are $p < 0.001$; standardized β = standardized pathway coefficient. Fifth: Mediation Test — Bootstrap (Question 7)

Table (6) Results of Direct, Indirect, and Total Effects — Bootstrap (1000 iterations, CI=95%)

Type of effect	β	SE	CI low	CI higher	Significance	Result
Direct: Burnout → Competitive Anxiety	.46	0.07	.33	.59	<.001	Significance of ***
Direct: Burnout → Bullying	.29	0.06	.18	.41	<.001	Significance of ***
Direct: Bullying → Competitive Anxiety	.52	0.08	.37	.67	<.001	Significance of ***
Indirect: Burnout → Bullying → Competitive Anxiety	.24	0.05	.15	.34	<.05	Partial mediation
Total: Burnout → Competitive Anxiety	.53	0.07	.40	.66	<.001	Significance *** of

Note: Indirect effect = $0.29 \times 0.52 = 0.24$; CI does not include zero → Significant partial mediation; $R^2 = 21\%$ for bullying, $R^2 = 47\%$ for competitive anxiety.

The Bootstrap results confirm that peer bullying acts as a significant partial mediator in the relationship between burnout and competitive anxiety. The 95% confidence interval for indirect effect [0.15, 0.34] does not include zero, which is the necessary and sufficient condition for mediation according to Hayes (2018: 101). The $R^2 = 47\%$ for competitive anxiety tells us that the model explains approximately half of the variance of this variable. Partial—not complete—mediation has profound theoretical implications: burnout affects competitive anxiety through two parallel pathways: a direct pathway

representing the immediate effect of burnout, and an indirect pathway through bullying, which adds a social dimension to competitive anxiety.

Sixth: Differences by Gender and Grade Level

Table (7) Results of the t-test for gender differences

variable	m Males	a Males	m Females	a Females	t	p	superiority
Academic burnout	3.41	0.87	3.63	0.81	-2.74	.006**	Females
Competitive anxiety	2.61	0.68	2.80	0.60	-3.07	.002**	Females
Peer bullying	2.58	0.79	2.24	0.72	4.72	<.001***	Males

Note: ** $p < 0.01$, *** $p < 0.001$.

Female students tend to experience more fatigue and competitive anxiety, perhaps because they bear a double burden of family and societal expectations related to academic achievement. Male students, on the other hand, tend to exhibit more bullying, which aligns with socially learned behavioral patterns in response to stress (Al-Ta'i & Al-Amiri, 2022: 99). A one-way ANOVA revealed significant differences between second-year middle school and fifth-year preparatory students in fatigue and competitive anxiety ($p < 0.001$), with fifth-year preparatory students significantly outperforming them (Tukey $p < 0.05$). This confirms that these phenomena tend to increase as students approach crucial national exams.

Seventh: Comprehensive Discussion

This tested causal model offers more than just statistical data; it provides an in-depth psycho-educational analysis of the underlying dynamics that shape the experience of high-achieving students in Kut. The “high achiever trap”—as this phenomenon might be termed—manifests itself in a striking paradox: the student who has reached the pinnacle of achievement and been selected according to the strictest criteria finds themselves in an environment that exacerbates their psychological exhaustion instead of nurturing their energy and promoting their well-being. Martens et al. (1990: 48) explain this by suggesting

that competition among peers of similar ability accelerates the attainment of debilitating levels of anxiety.

This partial mediation pattern aligns with the theory of resource conservation (Hobfoll, 1989: 516); exhaustion depletes adaptive resources, weakening the student's ability to frame the competitive environment as an opportunity rather than a threat. Simultaneously, exhaustion drives some students toward bullying as a defensive strategy to regain dominance. However, this bullying generates a cycle of competitive anxiety for the victims and reinforces a climate of fear within the classroom. The study's findings go beyond what Al-Ta'i and Al-Amiri (2022: 92) documented regarding the binary relationship between burnout and bullying, presenting a more robust and explanatory tripartite model.

Eighth: Summary of the Research Questions

Table (8) Summary of the Research Questions and Achievement of Objectives

#	type	Research question	β / M	Result
1	a description	Level of academic burnout	M=3.54	High average
2	a description	Level of academic competition anxiety	M=2.72	High average
3	a description	Level of peer bullying	M=2.39	Average
4	causal	Direct effect of burnout on competitive anxiety	$\beta=.46^{***}$	Significance of $p<.001$
5	causal	Direct effect of burnout on bullying	$\beta=.29^{***}$	Significance of $p<.001$
6	causal	The direct impact of bullying on competitive anxiety	$\beta=.52^{***}$	Significance of $p<.001$
7	Mediation	Bullying mediates between burnout and competitive anxiety	$\beta=.24^*$	Partial mediation function
8	Construction	Good fit of the causal model	CFI=.954	Good match ✓

Ninth: Conclusions

In light of the study's findings, the researcher draws the following conclusions: First conclusion: High school students in Al-Kut experience significant psychological stress, manifested in moderately high levels of academic burnout and competitive anxiety. This poses a risk of negative repercussions on their mental health and academic performance if not addressed systematically.

Second conclusion: Academic burnout is the common root of both bullying and competitive anxiety. This means that early strategic intervention will have a far-reaching protective effect on both of these phenomena.

Third conclusion: Bullying in high school students is not a marginal phenomenon but rather a significant factor that amplifies competitive anxiety among its victims and reinforces the cycle of burnout, bullying, and anxiety within the classroom.

Fourth conclusion: The nature of psychological stress differs between genders in this environment. Females are more prone to burnout and competitive anxiety, while males tend to resort to bullying as a response to stress. This necessitates differentiated intervention strategies. Fifth Conclusion: The escalation of these three phenomena between the second year of middle school and the fifth year of preparatory school confirms that stress accumulates gradually and is not adequately addressed in the early stages, making the final year of preparatory school the point of greatest risk.

Tenth: Recommendations

First, design specialized guidance programs to alleviate academic burnout in gifted schools, focusing on time management skills, building self-efficacy, and coping skills. These programs should begin in the first year of middle school, not when burnout becomes acute.

Second, reframe the culture of competition to promote goals that motivate students to continuously improve themselves, rather than comparative performance goals that constantly measure them against others.

Third, activate bullying monitoring programs, especially for verbal, social, and cyberbullying, while fostering a culture of safe reporting that encourages victims to speak out without fear of repercussions.

Fourth, include regular guidance sessions specifically for fifth-year preparatory students to address the escalating competitive anxiety before and after national exams. Fifth, prioritizing the mental health of gifted students, ensuring that mental health is a firmly established institutional goal, not merely a crisis response.

Sixth, training specialized educational counselors in the psychological aspects of gifted students, providing more than one counselor per school, and equipping them with approved assessment tools.

Eleventh: Recommendations

First, conducting a comparative study between schools for gifted students and regular secondary schools across the three variables to determine whether these phenomena are specific to homogeneous, competitive educational environments or whether they differ quantitatively but qualitatively from others.

Second, expanding the causal model by adding potential moderating and mediating variables such as family support, academic self-efficacy, goal orientation, and personality type (Al-Tarawneh, 2018: 178).

Third, designing an experimental study to test the effectiveness of an integrated counseling program targeting academic burnout, bullying, and competitive anxiety as a comprehensive system.

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