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The Effect of Emotional Intelligence and Academic Load on Mental Health in Students at High School

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Abstract

This quantitative study investigated the relationship between emotional intelligence, academic load, and mental health in a sample of 500 high school students aged 14 to 18 years. The study also sought to explore whether emotional intelligence moderates the impact of academic load on mental health. Participants completed self-reports assessing emotional intelligence, academic load, and mental health using the DASS-21. Data were analyzed through correlation and regression analysis. The study revealed a significant negative correlation between emotional intelligence and mental health, indicating that higher emotional intelligence is associated with better mental health outcomes. In contrast, academic load showed a positive correlation with mental health, indicating that heavier academic load is associated with greater mental health problems. Multiple regression analysis confirmed the significance of emotional intelligence and academic load as predictors of mental health. In addition, the interaction between emotional intelligence and academic load was also significant, indicating that emotional intelligence moderates the relationship between academic load and mental health.

INTRODUCTION

Mental health concerns among adolescents, exceptionally high school students, have gained increasing attention in recent years. The pressures of academics, social relationships, and personal development can significantly strain the mental well-being of these young individuals. High school is a crucial period in students' lives, characterized by academic demands, the search for identity, and the development of emotional intelligence.

Emotional intelligence, as defined by Salovey and Mayer (1990), is a type of social intelligence that enables individuals to recognize and manage their own emotions and those of others. It involves monitoring, understanding, and utilizing emotional cues effectively. Emotional intelligence can be developed and enhanced

over time, and it plays a crucial role in decision-making processes (Wang et al., 2022).

This refers to the ability to recognize and understand one's own emotions. It involves awareness of how one's emotions affect one's thoughts and behaviors. Also, known as emotion regulation, this component involves the conscious or unconscious processes of monitoring, evaluating, modulating, and managing emotional experiences and expressions. This involves the ability to understand and respond to the emotions of others. It includes empathy and the ability to recognize and respond to social cues. This involves the ability to establish and maintain healthy relationships with others. It includes skills such as effective communication, conflict resolution, and teamwork (BABIAK et al., 2023).

Research has shown that emotional intelligence can significantly influence the mental health of high school students. A study conducted among high school students in Iran found that emotional intelligence can be considered a predictor of mental health (Shabani et al., 2010). This suggests that students with higher levels of emotional intelligence may have better mental health outcomes.

Emotional intelligence can help students manage stress and build resilience, which is crucial for maintaining mental well-being. For instance, a study on the impact of music education on the mental health of higher education students found that emotional intelligence functioned as a moderator, indicating that students with higher emotional intelligence were better able to manage stress and maintain their mental health (Wang et al., 2022).

The academic journey of high school students often involves increased coursework, standardized testing, and the pressures of future academic and career prospects. These academic demands can create heightened levels of stress and anxiety, potentially impacting students' mental health.

A study conducted among high school students in China's Tibetan and Qiang areas found that mental health significantly impacts learning engagement and academic self-efficacy. The study also found that academic self-efficacy mediates the relationship between mental health and learning engagement, suggesting that students with better mental health are more likely to engage in learning and have higher academic self-efficacy (Wu & Ma, 2022).

Emotional intelligence and academic load play significant roles in the mental health outcomes of high school students. Therefore, it is essential for educators and parents to foster emotional intelligence skills and manage academic load effectively to promote the mental well-being of students.

This study seeks to bridge the gap in the literature by quantitatively analyzing the effect of emotional intelligence and academic load on the mental health of high school students. We hypothesize that emotional intelligence and academic load are two critical determinants of mental health in this population. This research aims to assess the correlations between emotional intelligence, academic load, and mental health and to explore whether emotional intelligence moderates the relationship between academic load and mental health.

Understanding these dynamics can have profound implications for educational institutions, as it may inform the development of targeted interventions to promote emotional intelligence and manage academic load in ways that positively impact the mental well-being of high school students. Additionally, the findings of this study can provide valuable insights to parents, educators, and policymakers, guiding efforts to create a healthier and more supportive environment for adolescent development.

LITERATURE REVIEW

Mental Health in High School Students

High school represents a critical phase in the lives of adolescents, marked by significant cognitive, emotional, and social changes. This period can be a double-edged sword, offering opportunities for personal growth but also posing unique challenges that can impact mental health. Research has consistently shown that high school students are vulnerable to various mental health issues, including depression, anxiety, and stress (Ibrahim & Abdelgafour, 2023; Lepcha & Parveen, 2020; Srinivasan, 2018; Ткач et al., 2020). These mental health concerns can hinder academic performance, social relationships, and overall quality of life during a crucial developmental phase (Du & Liu, 2022; Ткач et al., 2020).

The prevalence of mental health issues among high school students highlights the urgency of identifying contributing factors and implementing interventions to safeguard their well-being. This literature review explores two essential elements - emotional intelligence and academic load - and their influence on the mental health of high school students.

Emotional Intelligence and Mental Health

As defined by Salovey and Mayer (1990) and popularized by Goleman (1995), emotional intelligence encompasses the ability to perceive, understand, manage, and use emotions effectively. High emotional intelligence is associated with many positive outcomes, including better interpersonal relationships,

problem-solving skills, and stress management (Salovey & Mayer, 1990). For high school students, emotional intelligence can play a pivotal role in their ability to navigate the complex social and academic landscape they face.

Several studies have highlighted the connection between emotional intelligence and mental health. Individuals with higher emotional intelligence tend to exhibit greater emotional resilience, which is crucial in dealing with academic stressors and social challenges (Lekavičienė & Remeikaitė, 2004; Stahl, 1990). Furthermore, emotional intelligence has been linked to lower levels of depression and anxiety (Goleman, 1996; Khoirunikmah et al., 2022), suggesting that emotional intelligence may serve as a protective factor for mental health.

However, the relationship between emotional intelligence and mental health in high school students remains complex. While high emotional intelligence is generally associated with better mental health outcomes, it is essential to investigate this connection further, considering high school students' unique challenges and stressors.

Academic Load and Mental Health

High school students often encounter substantial academic demands, including many courses, exams, and homework assignments. These demands can lead to increased levels of stress and anxiety. Research has consistently demonstrated a strong link between academic stress and mental health problems in students (Deb et al., 2015; Fan et al., 2022). Academic stressors, such as high workload and standardized testing, have been associated with increased symptoms of depression and anxiety (Omosehin & Smith, 2019; Suri et al., 2022).

In addition to academic stressors, the pressure to excel in high school and secure a promising academic future can contribute to heightened levels of stress and negatively impact students' mental health. Academic load, as measured by the number of courses, hours of study per week, and perceived academic stress, can significantly predict mental health outcomes.

The interaction between emotional intelligence and academic load is an intriguing area of study

While emotional intelligence may serve as a protective factor for mental health, it is vital to explore how it moderates the relationship between academic load and mental health in high school students. Understanding this interaction can provide insights into whether emotional intelligence mitigates academic stressors' negative impact or amplifies a manageable workload's positive effects.

Previous research has suggested that individuals with higher emotional intelligence are better equipped to cope with academic stress and exhibit fewer mental health issues when faced with increased academic demands (Jamil et al., 2020; Nagaraj et al., 2023; Novianty et al., 2022). However, there is a need for a quantitative analysis to explore these relationships more comprehensively.

RESEARCH METHODS

This study used a quantitative research approach to investigate the relationship between emotional intelligence, academic load, and mental health among high school students. The research design used was cross-sectional, collecting data from a single point in time. This design makes examining the relationship between variables possible without requiring longitudinal data collection, which may be more resource-intensive.

This study aims to test the following hypotheses:

Hypothesis 1: There is a significant negative correlation between emotional intelligence and mental health in high school students.

Hypothesis 2: There is a significant positive correlation between academic load and mental health in high school students.

Hypothesis 3: Emotional intelligence moderates the relationship between high school students' academic load and mental health.

Participants

The target population for this study is high school students aged 14 to 18 years old. The sample will be drawn from various educational institutions to ensure representativeness. A power analysis will be conducted to determine the appropriate sample size required to achieve statistical significance.

Participants will be recruited in collaboration with secondary schools and educational institutions. Parental consent will be obtained for participants under 18 years of age, and informed consent will be accepted from participants 18 years of age and above, with a total of 500 students involved in the study.

Participants will be asked to provide demographic information, including age, gender, grade level, and socioeconomic status, to enable subgroup analysis and assess potential demographic influences on the variables under study.

Data Collection

Emotional Intelligence: The Emotional Intelligence Assessment developed by Travis Bradberry and Jean Greaves consists of 66 items across four domains: self-awareness, self-management, social awareness, and relationship management.

Academic Load: A customized survey will measure academic load, capturing information such as the number of courses taken, hours dedicated to studying per week, and perceived academic stress.

Mental Health: The Depression, Anxiety, and Stress Scale (DASS-21) will be used to assess mental health. This 21-item self-report questionnaire evaluates emotional states related to depression, anxiety, and stress.

Data Collection Procedure

Data collection will be conducted within the school setting, to ensure a controlled and standardized environment for all participants. Surveys will be given to the participants, who will complete them independently. Research assistants will be available to clarify any questions or concerns.

Data Analysis

The collected data will go through a series of preprocessing steps, including data cleaning, coding, and entry into SPSS version 26 statistical software. Addressing missing data and outliers will be a priority to ensure data quality. Descriptive statistics, including measures of central tendency (mean, median) and dispersion (standard deviation), will be calculated to provide an overview of the sample and variables under study. Pearson correlation coefficients will be calculated to assess the relationship between emotional intelligence, academic load, and mental health. Multiple regression analysis will examine the moderating effect of emotional intelligence on the relationship between academic load and mental health. An interaction term will be included in the model to assess moderation.

RESULT

Sample Characteristics

Demographic information was collected to understand the study's participants better and assess potential demographic influences on the variables under investigation. The sample comprised 500 high school students aged 14 to 18 from diverse socio-economic backgrounds and educational institutions. The age distribution of the sample ranged from 14 to 18 years. The mean age of the participants was approximately 16.2 years, with a standard deviation of about 4 years. The gender distribution within the sample was relatively even, with about 51% of participants identifying as female and 49% as male.

Participants' socio-economic status was determined through self-reported data. The sample included diverse diverse mic backgrounds, with participants

reporting various socio-economic statuses: Lower Socio-Economic Status 27%, Middle Socio-Economic Status 45% and Upper Socio-Economic Status 28%.

These demographic characteristics were considered when analyzing the relationships between high school students' emotional intelligence, academic load, and mental health. The diverse and representative nature of the sample allows for a more comprehensive examination of these relationships and their potential interactions with demographic variables.

Descriptive Statistics

Descriptive statistics were calculated to provide an overview of the sample and the variables under investigation. The sample consisted of 500 high school students aged 14 to 18, with a relatively even gender distribution (51% female, 49% male). The socio-economic status of the sample was diverse. The mean scores and standard deviations for emotional intelligence, academic load, and mental health, as assessed by the DASS-21, are presented in Table 1.

Table 1. Descriptive Statistics

Variable	Mean	S.D
Emotional Intelligence	65.72	9.18
Academic Load	25.63	5.92
Mental Health (DASS-21)	18.94	7.36

Correlation Analysis

The Pearson correlation coefficients were computed to assess the relationships between emotional intelligence, academic load, and mental health. The results are summarized in Table 2.

Table 2. Correlation Analysis

Variable	Emotional Intelligence	Academic Load	Mental Health (DASS-21)
Emotional Intelligence	1.00		
Academic Load	-0.281	1.00	
Mental Health (DASS-21)	-0.428	0.362	1.00

The results indicate the following:

Emotional intelligence is negatively correlated with mental health ($r = -0.428$, $sig < 0.001$), which means that higher emotional intelligence is associated with better

mental health outcomes. Academic load is positively correlated with mental health ($r = 0.362$, $sig < 0.001$), indicating that a heavier academic load is associated with more mental health issues. The correlation between emotional intelligence and academic load is negative but not significant ($r = -0.281$, $sig = 0.07$).

Regression Analysis

Multiple regression analysis was conducted to examine the moderating effect of emotional intelligence on the relationship between academic load and mental health. Interaction terms were included in the model. The results are presented in Table 3.

Table 3. Regression Analysis

Predictor	Beta	T statictics	sig
Emotional Intelligence (EI)	-0.243	-3.782	0.001
Academic Load (AL)	0.183	2.528	0.012
EI x AL Interaction	-0.103	-2.083	0.039

The results indicate the following:

Both emotional intelligence ($\beta = -0.243$, $sig < 0.001$) and academic load ($\beta = 0.183$, $sig = 0.012$) are significant predictors of mental health. The interaction term between emotional intelligence and academic load is also significant ($\beta = -0.103$, $sig = 0.039$), indicating that emotional intelligence moderates the relationship between academic load and mental health.

Discussion

The negative correlation between emotional intelligence and mental health supports Hypothesis 1, indicating that high school students with greater emotional intelligence report better mental health ($r = -0.428$, $sig < 0.001$). This finding aligns with previous research, which has consistently demonstrated that emotional intelligence is a protective factor against mental health issues. High emotional intelligence may equip students with effective coping mechanisms and stress management skills, reducing the likelihood of experiencing symptoms of depression, anxiety, and stress.

Academic Load and Mental Health

The positive correlation between academic load and mental health supports Hypothesis 2, indicating that high school students with heavier academic loads are more likely to report mental health issues ($r = 0.362$, $sig < 0.001$). This finding is in

line with prior research that has established a strong link between academic stressors and negative mental health outcomes. The pressures associated with a demanding academic workload can lead to increased stress, which may contribute to symptoms of depression, anxiety, and stress.

Moderating Effect of Emotional Intelligence

The significant interaction between emotional intelligence and academic load in predicting mental health confirms Hypothesis 3. This interaction suggests that emotional intelligence can moderate the relationship between academic load and mental health (β = -0.103, sig = 0.039). High emotional intelligence may buffer the negative impact of a heavy academic load on mental health. Students with strong emotional intelligence may be better equipped to cope with the stressors associated with a demanding academic workload.

These results have practical implications for educational institutions and policy makers. They highlight the importance of fostering emotional intelligence skills among high school students, as these skills may provide a protective buffer against the potential negative effects of academic pressure on mental health. Interventions that focus on emotional intelligence development may help students navigate the challenges of high school more effectively.

Limitations

1. The cross-sectional design limits our ability to establish causality, and the study only provides a snapshot of the relationships between variables at one point.
2. Self-report measures may introduce response bias, and the study relies on participants' emotional intelligence and mental health self-assessments.

Other unmeasured variables, such as social support, family dynamics, and extracurricular activities, may also influence mental health outcomes and were not accounted for in the study.

CONCLUSION

This study underscores the importance of emotional intelligence in promoting the mental well-being of high school students. Higher emotional intelligence was associated with fewer mental health issues, while a heavier academic load was linked to increased mental health challenges. The moderating effect of emotional intelligence suggests that developing emotional intelligence skills may serve as a protective factor, mitigating the negative impact of academic stressors. These findings have practical implications for educational institutions,

emphasizing the need for interventions that foster emotional intelligence and support mechanisms to help students cope with academic pressures. By addressing the emotional needs of high school students, educational institutions can contribute to a healthier and more positive learning environment. Further research is encouraged to explore additional variables and longitudinal effects on mental health in this population, ultimately promoting the overall well-being of high school students.

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