

## THE EFFECTS OF EMOTIONAL INTELLIGENCE AND STRESS ON STUDENTS' ACADEMIC ACHIEVEMENT

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### Abstract

The aim of the study is to investigate the effect of emotional intelligence and stress on students' academic achievement. Data was collected through an online survey, and the hypotheses were tested using regression analysis. The sample consists of 254 students from various faculties and years of study in Serbia. A significant positive impact of emotional intelligence on students' academic achievement was found through its components: empathy, motivation, and self-regulation. A statistically significant negative impact of emotional intelligence on stress levels was also identified: students with higher levels of self-regulation and motivation manage stress more effectively, while students with higher levels of empathy are exposed to higher levels of stress. Stress has a statistically significant negative effect on students' academic performance and plays a mediating role between emotional intelligence and academic achievement. The theoretical contribution of the study lies in presenting findings on the differentiated impact of emotional intelligence components and stress on students' academic achievement, an area scarcely addressed in domestic literature. The practical value of the research is reflected in its potential to inform higher education management, decision-makers, and curriculum developers, as evidence shows that incorporating emotional intelligence and stress management skills into academic programs can enhance students' academic performance.

**Key words:** emotional intelligence, academic achievement, stress, students, effects.

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## ЕФЕКТИ ЕМОЦИОНАЛНЕ ИНТЕЛИГЕНЦИЈЕ И СТРЕСА НА АКАДЕМСКО ПОСТИГНУЋЕ СТУДЕНАТА

### Апстракт

Циљ студије је да се истражи ефекат емоционалне интелигенције и стреса на академско постигнуће студената. Подаци су прикупљени онлајн анкетом, а хипотезе су тестиране регресионом анализом. Узорак чини 254 студента различитих факултета и година студија у Србији. Откривен је значајан позитиван утицај емоционалне интелигенције на академско постигнуће студената преко њених компоненти: емпатија, мотивација и саморегулација. Откривен је статистички значајан негативан утицај емоционалне интелигенције на ниво стреса: студенти са вишим нивоом саморегулације и мотивације боље управљају стресом, док су студенти са вишим степеном емпатије изложени већем степену стреса. Стрес има статистички значајан негативан утицај на академски успех студената и медијаторску улогу између емоционалне интелигенције и академског постигнућа. Теоријски допринос студије огледа се у представљању налаза о диференцираном утицају елемената емоционалне интелигенције и стреса на академско постигнуће студената, о чему у домаћој литератури скоро да нема радова. Практична вредност истраживања огледа се у његовом потенцијалу да информише руководство високошколских установа, доносиоце одлука и креаторе наставних програма, будући да постоје докази да укључивање емоционалне интелигенције и вештина управљања стресом у наставне планове може побољшати академски успех студената.

**Кључне речи:** емоционална интелигенција, академско постигнуће, стрес, студенти, ефекти.

### INTRODUCTION

Emotional intelligence (EI) contributes to students' achievement (AA) by supporting their learning, motivation, social interactions, and ability to cope with stress during their studies.

During university studies, stress becomes even more pronounced due to numerous challenges such as transitioning into a new life phase, moving away from home, separation from loved ones, heavy academic workload, and pressure related to scholarships and tuition fees (García-Martínez, Pérez-Navío, Pérez-Ferra & Quijano-López, 2021), continuous learning and acquiring a large amount of knowledge in a short period of time (Deng et al., 2022), and financial problems (Fteiha & Awwad, 2020). In recent years the insecurities caused by the COVID-19 pandemic have been added at all levels of education (Di Pietro, 2023; Chang & Tsai, 2022) and the economic crisis and recession, along with all the factors mentioned above (Guo, Wang, Johnson & Diaz, 2011).

The mentioned factors can impair AA, as well as the mental and physical health of students. Therefore, EI and stress are increasingly becoming subjects of research related to AA, educational efficiency, and health preservation, and should be included in university curricula (Quílez-

Robres, Usán, Lozano-Blasco & Salavera, 2023; Deng et al., 2022; Fteiha & Awwad, 2020; Saklofske, Austin, Mastoras, Beaton, & Osborne, 2012).

The subject of this study is the consideration of EI and stress in the context of students' AA. The aim of this paper is to examine the effect of EI on AA and stress, as well as to investigate the effect of stress on students' AA. The introduction presents the importance of the topic and the main hypotheses. The literature review covers theories and research on EI, stress, and their impact on AA. Then, the research methodology is described, followed by the presentation of results with a discussion of key findings and hypotheses. The conclusion summarises the main findings, offers recommendations, highlights limitations, and suggests directions for future research.

## *LITERATURE REVIEW*

### *Students' Emotional Intelligence*

EI is observed from two aspects - as an ability and as a trait. According to the first definition, from which most other definitions have evolved (in this direction), EI is "a subset of social intelligence that includes the ability to monitor and distinguish one's own emotions and emotions of others and use that information to guide thinking and action" (Salovey & Mayer, 1990, p. 189). According to another direction of observation - EI as a trait, Petrides, Furnham & Mavroveli (2008), define it as "a set of self-perceptions related to emotions at lower levels of the personality hierarchy." From any aspect to be observed, EI together with cognitive intelligence constitute "predictors of competence and performance in all areas of human activity" (Rabasović, Krivošejev & Stojanović, 2019, p. 370).

According to Goleman (1998), EI consists of the following components: self-awareness, self-regulation, motivation, empathy, and social skills (p. 83). The first three aspects can be seen as personal attributes and the rest as social attributes of EI (Serrat, 2017). Self-awareness makes it easier to focus on a task. In combination with self-regulation, it helps a person to better predict the emotions that will arise when working to achieve a set goal (Saklofske et al., 2012). Individuals who are more self-aware better assess their own potential, have more self-confidence in solving tasks, and more confidently predict and overcome learning problems. Self-regulation, as a key component of EI, supports learning by managing emotions, reducing fear, avoiding procrastination, and directing energy toward goals. Motivation is an internal driving force which enables the use of emotions in setting personal goals and fulfilling personal and academic obligations. Bearing in mind that the influence of extrinsic and intrinsic motivation is inseparable, it is believed that intrinsic motivation has a stronger and more stable positive influence on learning. Empathy, an EI

feature and an element of social awareness, is manifested through understanding other people's emotions and their needs, essential for students' relationships with colleagues and professors and for teamwork in general. Social skills represent an element of EI which is important for communication, leadership, influence, conflict management, cooperation and building relationships (Serrat, 2017, p. 332).

Ever since the time of Ancient Greece, the Greek philosopher Plato (427–347 BC) indicated that “all learning has an emotional basis” (cited in Córdova, Caballero-García, Drobnić, Roche & Noriega, 2023, p. 1). Numerous studies have examined the relationship between EI and AA, by using different methods and instruments, in different cultural contexts (Shengyao, Xuefen & Jenatabadi, 2024; Chang & Tsai, 2022; Halimi et al., 2021), and in educational and professional disciplines (Jahan, Nerali, Parsa & Kabir, 2022; Kuk, Guskowska, & Gala-Kwiatkowska, 2021; Kötter, Brüheim, & Wolter, 2013; Parker, Saklofske, & Collin, 2008).

In a comprehensive meta-analysis of studies that investigated the relationship between EI and AA, from preschool to PhD studies, a group of authors concluded that EI is among the “top three predictors of academic performance, next to intelligence and conscientiousness” (MacCann, Yiang, Brown, Double, Bucich & Minbashian, 2020:150). The same authors also found that the backbone of the relationship between EI and AA consists of “three key mechanisms: regulating academic emotions, building social relationships at college/school, and overlapping academic content with EI” (2020:150). Saklofske et al. (2012) suggest that “individuals with high EI have a marked ability to manage their emotions in stressful situations, avoid thinking about negative consequences, and set goals effectively” (p. 252).

Parker et al. (2008) suggest that while cognitive abilities are more influential in early education, the impact of EI on AA grows at higher levels of education. EI can be developed and improved. Mohzan et al. (2013) point to the results of Jaeger's research that found a higher correlation between EI and AA levels in students who took an EI subject within their curriculum, compared to their peers who did not study this program, leading to the conclusion that EI can be learned and taught (p. 306).

Kuk et al. (2021) reported a notable improvement in EI among students who attended psychological workshops. The greatest progress was observed in the dimension of understanding emotions, and the authors confirmed the effectiveness of the training in improving students' EI. Parker, Saklofske, Wood, Eastabrook & Taylor (2005) examined the pattern of change in EI over time, tracking students' EI development with the Bar-On EK-i Short scale, in undergraduate students during the period over 32 months. The study showed a higher increase in EI than could be explained by the fact that they became three years older (p. 100). These findings indicate that studying at university alone helps students become more emo-

tionally intelligent, independent of special training in EI (Parker et al., 2008) since these were students who did not undergo special training.

Two meta-analyses have shown that the relationship between EI and AA is stronger when EI is measured as an ability rather than through self-report or mixed models (MacCann et al., 2020; Sánchez-Álvarez, Berrios Martos & Extremera, 2020). This is explained by the fact that ability-based tests are more similar to the methods used to assess academic performance (Sánchez-Álvarez et al., 2020).

The creator of one of the most widely used EI research models, Bar-On (2006), analysed research results examining the links between EI and different aspects of AA, conducted using his model. Based on the results, he concluded that students who achieve better AA are more emotionally and socially intelligent. "Abilities to manage one's emotions, understand one's feelings, solve problems of a personal and interpersonal nature are important for academic success" (Bar-On, 2006:19). Based on a meta-analysis of 27 studies which included almost 14,000 respondents, Quílez-Robres et al. (2023) suggested that EI is an important variable for predicting academic performance because it showed a moderately-significant impact.

### *Stress Among Students*

Stress represents a feeling of threat caused by external or internal pressures, while academic stress occurs when students perceive academic demands as exceeding their ability to cope.

Barbayannis et al. (2022) found a significant link between stress levels and students' mental well-being. A 2021 survey by the American College Health Association showed that nearly  $\frac{3}{4}$  of students experienced moderate to severe psychological distress (Abrams, 2022), with insufficient sleep and high stress affecting academic performance; 45% reported above-average stress, while only 9% experienced little or no stress (The American Institute of Stress, 2024).

Academic stressors which students are exposed to are very numerous: reaching enrollment thresholds, new majors and courses, financial dependence on parents, increased job demands (García-Martínez et al., 2021), time pressure/deadlines and fear of failure (Kumaraswamy, 2013) and others. González-Cabanach et al. grouped academic stressors into assessment aspects, activity overload, and teaching process aspects (methodology and teacher-student relationships) (cited in García-Martínez et al., 2021:2)

Gobena (2024) confirms that stress negatively affects AA and self-confidence, increases the risk of dropping out, lowers graduation rates, increases risky behaviors, and has a negative impact on motivation, health, and future employment (p. 126).

Chronic stress increases glucocorticosteroid levels, which can damage the hippocampus — the part of the brain responsible for memory —

thereby impairing the ability to learn and remember (Issa et al., 1990, cited in Yaribeygi, Panahi, Sahraei, Johnston & Sahebkar, 2017:1059). It is believed that “mild stress facilitates cognitive functions, especially implicit memory or simpler tasks when the cognitive load is not excessive” (Sandi, 2013:245), because a certain level of arousal is necessary for interest and motivation to learn. Chronic educational stress negatively affects “students’ learning capacities, academic performance, education and employment, sleep quality and quantity, physical health, mental health, and substance use outcomes” (Pascoe, Hetrick & Parker, 2019:109).

The impact of stress on cognitive abilities depends on several factors related to the nature of stress: its origin (internal or external), its intensity (strength) and duration (chronic/acute) (Sandi, 2013:245). Kötter et al. argue that “stress and poor academic performance can become part of a vicious cycle” (2017, par. 1). A study of 456 German medical students found a correlation of higher perceived academic stress with poor AA. The number of stressors has shown a stronger correlation with academic performance than the severity of stressors with academic performance in other studies (Kötter et al., 2017), which supports the evidence of the harmful effects of chronic stress. Academic and family stress, apart from having negative effect on learning outcomes and academic performance, can also result in depression in students (Deng et al., 2022:1). Students with a higher degree of EI are less prone to emotional exhaustion and burnout (Jahan et al., 2022) and to a more effective style of coping with stress (Fteiha & Awad, 2020).

Short-term moderate stress promotes learning and memory, while intense and chronic stress disrupts cognitive functions and negatively affects academic achievement.

It has been proven that overcoming stress, which according to Lazarus and Folkman can be either problem-focused or emotion-focused (in Panić, Radojković & Hadži-Pešić, 2013), requires knowledge of techniques for recognising stressors and ways to overcome the simplest ones (talking with friends, resting, exercising, time management (Gobena, 2024) to the use of platforms based on AI conversations and mental health applications (Sturgill, Martinasek, Schmidt & Goyal, 2021).

Based on the arguments stated above, the following research hypotheses are derived:

*H1: Students’ EI has a statistically significant negative impact on stress.*

*H2: Students’ EI has a statistically significant positive impact on academic achievement.*

*H3: Stress has a statistically significant negative impact on the academic achievement of students.*

The research model was constructed based on the previously defined hypotheses (Figure 1):

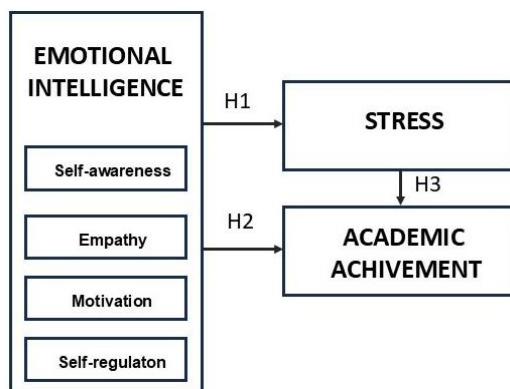


Figure 1. Research model

Source: Authors

The research framework observes the effects of EI through its individual elements – self-awareness, self-regulation, motivation and empathy on the stress level and AA of students. The assumption is that EI has a direct effect on AA, as well as an indirect effect through the estimated stress level of students.

### METHODOLOGY

For the purpose of collecting primary data, the survey method was applied, using an online questionnaire and a combination of convenience and snowball sampling. The questionnaire began with demographic questions about gender, age, institution, study level and year, year renewal, and GPA. The questionnaire contained 20 statements – 16 about EI (4 for each dimension) and 4 about stress levels. Respondents rated statements on a five-point Likert scale (1 - absolutely disagree, 5 - absolutely agree). The survey statements were based on prior research and tailored to align with the focus of the current study. The statements related to EI were taken and adapted based on Wong & Law (2002), while the statements related to stress levels were developed based on the scale by Cohen, Kamarck & Mermelstein (1983).

The research was conducted in May 2024 and included 254 respondents. The sample was segmented by gender, age, level and year of study, faculty and place of study, as well as grade point average (GPA). The participants were predominantly female (74%) and students ages 19 through 25 (95%). Most were undergraduate students (94%), with the majority in their first (49%) and second year (29%). Regarding GPA, 46% had an average between 7 and 8, 36% between 8 and 9, 10% above 9, and 8% between 6 and 7. The collected data were analysed using SPSS. The reliability of the instruments was examined, principal component analysis (PCA) was applied, and the hypotheses were tested using correlation, regression,

and mediation analyses. The majority of students (24%) attend the Academy of Applied Studies of Western Serbia, followed by the Faculty of Technical Sciences in Novi Sad (13%), the Faculty of Economics in Belgrade (10%), and the Faculty of Hotel Management and Tourism in Vrnjačka Banja (9%). Other faculties individually account for less than 8%. Almost all attend public universities, with only three respondents studying at private institutions.

### RESULTS AND DISCUSSION

The dimensionality of the scales was assessed using Principal Component Analysis (PCA). Items with loadings  $\geq 0.60$  were retained, and factors were extracted based on eigenvalues  $> 1$  (Tabachnick & Fidell, 2013). From the initial 20 items, one stress item (STR1) was excluded due to cross-loadings, leaving 19 items across five factors: motivation, self-regulation, empathy, self-awareness, and stress. Data adequacy was confirmed (KMO = 0.877- which is above the minimum recommended threshold of 0.6 (Kaiser, 1974).; Bartlett's test  $\chi^2 (171) = 2556.74$ ,  $p < 0.001$ ). The five factors explained 70.71% of the variance, with loadings ranging from 0.649 to 0.954 (Table 1).

Table 1. Percentage of variances, eigenvalues and factor loadings of factors and items

| ors                        | Items  | Eigen value | % of variance | Factor loading |
|----------------------------|--------|-------------|---------------|----------------|
| Motivation<br>(MOT)        | MOT3   | 6.904       | 36.339        | 0.918          |
|                            | MOT4   |             |               | 0.906          |
|                            | MOT2   |             |               | 0.860          |
|                            | MOT1   |             |               | 0.727          |
| Self-regulation<br>(SELFR) | SELFR2 | 2.354       | 12.389        | 0.954          |
|                            | SELFR3 |             |               | 0.838          |
|                            | SELFR4 |             |               | 0.832          |
|                            | SELFR1 |             |               | 0.649          |
| Empathy (EMP)              | EMP1   | 1.589       | 8.365         | 0.904          |
|                            | EMP2   |             |               | 0.885          |
|                            | EMP4   |             |               | 0.804          |
|                            | EMP3   |             |               | 0.662          |
| Self-awareness<br>(SELFA)  | SELFA3 | 1.429       | 7.521         | 0.886          |
|                            | SELFA1 |             |               | 0.840          |
|                            | SELFA2 |             |               | 0.747          |
|                            | SELFA4 |             |               | 0.668          |
| Stress (STR)               | STR4   | 1.158       | 6.095         | 0.877          |
|                            | STR3   |             |               | 0.845          |
|                            | STR2   |             |               | 0.710          |

Source: Author's calculation

Table 2 shows that reliability and validity indicators were satisfactory. Cronbach's alpha and Composite Reliability values exceeded 0.70, confirming internal consistency (Nunnally & Bernstein, 1994; Hair et al., 2019). AVE values (0.601–0.669) were above the 0.50 threshold (Fornell & Larcker, 1981), supporting convergent validity. Discriminant validity was confirmed, as the square root of AVE for each construct was higher than inter-construct correlations.

Table 2. Results of reliability, convergent, and discriminant validity testing

| Factors | CA    | AVE   | CR    | MOT          | SELFR        | EMP          | SELFA        | STR          |
|---------|-------|-------|-------|--------------|--------------|--------------|--------------|--------------|
| MOT     | 0.894 | 0.733 | 0.915 | <b>0.856</b> |              |              |              |              |
| SELFR   | 0.866 | 0.681 | 0.894 | 0.440        | <b>0.825</b> |              |              |              |
| EMP     | 0.827 | 0.671 | 0.889 | 0.402        | 0.324        | <b>0.819</b> |              |              |
| SELFA   | 0.819 | 0.624 | 0.868 | 0.516        | 0.514        | 0.472        | <b>0.789</b> |              |
| STR     | 0.759 | 0.662 | 0.854 | -0.210       | -0.231       | 0.037        | -0.169       | <b>0.814</b> |

Source: Author's calculation

The correlation between EI and stress is negative and statistically significant (-0.238;  $p < 0.01$ ), indicating that higher levels of EI are associated with lower stress among students. Results are consistent with studies Fteiha & Awwad, 2020. Hypothesis 1 is supported

The correlation between EI and academic achievement (GPA) is positive and statistically significant (0.422;  $p < 0.01$ ), suggesting that higher levels of EI may lead to higher academic achievement (Table 3). Results are consistent with previous studies (MacCan et. al., 2020, Quílez-Robres et. al., 2023). Hypothesis 2 is supported.

Table 3. Correlation between EI and stress and EI and GPA

|    |                     | STRESS 2 | GPA    |
|----|---------------------|----------|--------|
| EI | Pearson Correlation | -.238**  | .422** |
|    | Sig. (2-tailed)     | .000     | .000   |
|    | N                   | 254      | 254    |

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Source: Author's calculation

In order to clarify the partial effects of individual EI dimensions on academic achievement (AA) and stress, a multiple regression analysis was conducted. The results show that the dimensions of emotional intelligence significantly predict stress, explaining 11.2% of its variance ( $F(4,249) = 7.813, p < 0.001$ ). Self-regulation has a significant negative effect on stress ( $\beta = -0.194, p = 0.009$ ), confirming that students who better control their emotions and behavior experience lower stress. This finding is consistent with the results of studies by Pratiwi, Erti & Enggal (2021) and Wang, Xie & Cui (2016). Motivation also shows a negative, but marginally significant

effect ( $\beta = -0.139$ ,  $p = 0.065$ ), indicating a potential tendency for intrinsic motivation to contribute to stress resilience. This finding aligns with studies by Chang & Tsai (2022) and García-Martínez et al. (2021). On the other hand, empathy has a statistically significant positive effect on stress ( $\beta = 0.184$ ,  $p = 0.008$ ), which may reflect increased sensitivity to others' emotions. A positive correlation between empathy and stressors was also observed by García-Martínez et al. (2021). This finding is interpreted according to the claim that people with a strong understanding of others have greater predispositions toward stress (Pérez et al., cited in García-Martínez et al., 2021) because "they can appropriate other people's emotions" (García-Martínez, 2021:8). The self-awareness component did not show a statistically significant effect ( $p > 0.05$ ) (Table 4).

*Table 4. Multiple regression analysis: dependent variable - Stress*

| Variables       | Beta   | T      | Sig.  | Tolerance | VIF   |
|-----------------|--------|--------|-------|-----------|-------|
| Self-awareness  | -0.125 | -1.557 | 0.121 | 0.551     | 1.815 |
| Empathy         | 0.184  | 2.654  | 0.008 | 0.744     | 1.344 |
| Motivation      | -0.139 | -1.855 | 0.065 | 0.636     | 1.572 |
| Self-regulation | -0.194 | -2.631 | 0.009 | 0.656     | 1.524 |

*Source:* Author's calculation

The regression results indicate that emotional intelligence (EI) significantly affects students' academic achievement ( $F(4,249) = 13.774$ ,  $p < 0.001$ ), explaining 18.1% of the variance in average grades. Empathy ( $\beta = 0.143$ ,  $p = 0.033$ ), motivation ( $\beta = 0.187$ ,  $p = 0.010$ ), and self-regulation ( $\beta = 0.157$ ,  $p = 0.028$ ) significantly enhance academic performance, while self-awareness is not significant ( $p > 0.05$ ) (Table 5). A differentiated impact of the individual dimensions of EI on academic achievement was also found by Halimi et al. (2021).

*Table 5. Multiple regression analysis: dependent variable - Academic success*

| Variables       | Beta  | T     | Sig.  | Tolerance | VIF   |
|-----------------|-------|-------|-------|-----------|-------|
| Self-awareness  | 0.064 | 0.830 | 0.407 | 0.551     | 1.815 |
| Empathy         | 0.143 | 2.148 | 0.033 | 0.744     | 1.344 |
| Motivation      | 0.187 | 2.607 | 0.010 | 0.636     | 1.572 |
| Self-regulation | 0.157 | 2.211 | 0.028 | 0.656     | 1.524 |

*Source:* Author's calculation

The regression model is statistically significant ( $F(1,252) = 16.143$ ,  $p < 0.001$ ) and explains approximately 6% of the variance in students' average grades. The coefficient analysis shows that stress has a negative and statistically significant impact on academic performance ( $\beta = -0.245$ ,  $p < 0.001$ ), indicating that higher stress levels lead to lower average grades

(Table 6). These results are consistent with previous studies (Gobena et al., 2024; Deng et al., 2022). The hypothesis H3 is supported.

Table 6. Linear regression analysis: dependent variable - Academic success

| Variables | Beta   | T      | Sig.  | Tolerance | VIF   |
|-----------|--------|--------|-------|-----------|-------|
| Stress    | -0.245 | -4.018 | 0.000 | 1.000     | 1.000 |

Source: Author's calculation

The mediation analysis revealed that emotional intelligence (Ks) significantly predicts AA (I) (total effect:  $\beta = 0.489$ ,  $p < 0.001$ ). When stress (M) was included in the model as a mediator, the direct effect of emotional intelligence on academic achievement remained significant ( $\beta = 0.447$ ,  $p < 0.001$ ), while the indirect effect through stress was also significant ( $\beta = 0.042$ , 95% CI [0.007, 0.098]). These findings indicate partial mediation, implying that stress management partially transmits the positive effect of emotional intelligence on academic performance, accounting for approximately 8.6% of the total effect (Table 7). The results are consistent with the studies by Shengyao et al. (2024) and García-Martínez et al. (2021). The result indicates that emotional intelligence (EI), through better stress management, contributes to improved AA.

Table 7. Mediation analysis results - independent variable: emotional intelligence; mediator: stress; dependent variable: academic success

| Effect          | Path                | B     | SE    | t     | P     | 95% CI (bootstrapped) | Conclusion                                       |
|-----------------|---------------------|-------|-------|-------|-------|-----------------------|--|
| Total effect    | X → Y               | 0.489 | 0.066 | 7.398 | 0.000 | [0.359, 0.619]        | Significant                                      |
| Direct effect   | (controlling for M) | 0.447 | 0.067 | 6.640 | 0.000 | [0.314, 0.579]        | Significant                                      |
| Indirect effect | X → M → Y           | 0.042 | 0.024 | -     | -     | [0.007, 0.098]        | CI does not include zero → significant mediation |

Source: Author's calculation

### CONCLUSIONS AND RECOMMENDATIONS

The measurement scales used in this study demonstrated good reliability and validity. EI has a statistically significant negative impact on stress, with differentiated strengths of its individual elements. When examined by individual components, higher levels of self-regulation and motivation lead to reduced stress, while a high level of empathy may contribute to its increase. EI has a positive, statistically significant effect on academic

achievement (AA), with differentiated strengths observed across its components: empathy, motivation, and self-regulation. A negative, statistically significant impact of stress on students' AA was identified, as well as a mediating role of stress between EI and AA.

The study has several theoretical implications. It provides new insights into the relationships between EI, stress, and AA—a topic largely neglected in domestic literature—indicating that both EI and stress coping strategies can be further developed. The findings confirm the justification for a differentiated approach to EI components, as their effects on stress and AA are not uniform. The study also emphasises the importance of addressing these issues due to the growing number of uncontrolled factors that further burden students and negatively affect their success and well-being, which is relevant for higher education institutions. Finally, it highlights that the impact of EI on AA is stronger when EI is measured through performance-based tests rather than self-report measures, thus contributing to the discussion on assessing this construct.

The research also has practical implications. The results presented in the study can be useful for curriculum developers and management of higher education institutions.

The study has several limitations: a self-assessment instrument was used for AA, which introduces subjectivity; the perception of stress was analysed, but not its sources; the sample was unevenly distributed, with too many first-year students; and other sociodemographic characteristics that may influence the relationship between EI and AA were not considered.

These limitations point to directions for future research: it is necessary to include a larger and more evenly distributed sample of students, taking into account additional sociodemographic factors. It is also recommended to examine the sources of stress and their consequences to develop guidelines for training aimed at strengthening EI and stress coping strategies.

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## ЕФЕКТИ ЕМОЦИОНАЛНЕ ИНТЕЛИГЕНЦИЈЕ И СТРЕСА НА АКАДЕМСКО ПОСТИГНУЋЕ СТУДЕНАТА

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### Резиме

Период студирања представља важну фазу живота и професионалног развоја. Управо се у том периоду, због све већих изазова са којима се појединац суочава, емоционална интелигенција препознаје као значајан фактор компетенција и способности, успешног функционисања и постигнућа.

Виши ниво емоционалне интелигенције код студената доприноси бољим академским резултатима, јер развијенија емоционална интелигенција омогућава ефикасније управљање сопственим снагама и слабостима, односима са колегама и професорима, коришћењем когнитивних способности, избегавањем и решавањем конфликта, мотивацијом и организацијом времена, истрајношћу у суочавању са изазовима, смањењем стреса и анксиозности и, коначно, очувањем здравља.

Стрес је постао неизбежан пратилац свакодневног живота, а током студирања нагомилавање обавеза и промене у рутини — попут одвајања од породице, пријатеља и често места становања — могу негативно утицати на академско постигнуће и нарушити здравље.

Циљеви овог рада су да се испитају ефекти емоционалне интелигенције и стреса на академско постигнуће студената. У складу са тим циљевима, формулисане су и тестиране следеће хипотезе: Х1: емоционална интелигенција студената има статистички значајан негативан утицај на стрес; Х2: Емоционална интелигенција студената има статистички значајан позитиван утицај на академско постигнуће; Х3: Стрес има статистички значајан негативан утицај на академско постигнуће студената.

Истраживање је потврдило хипотезе о негативном утицају емоционалне интелигенције на стрес и позитивном утицају емоционалне интелигенције на академско постигнуће. Утврђено је диференцирано дејство компоненти емоционалне интелигенције на стрес: саморегулација и мотивација имају негативан ефекат – студенти са вишим нивоима ових особина мање су подложни стресу – док висок ниво емпатије може смањити отпорност на стрес. Емоционална интелигенција, кроз своје компоненте мотивације, саморегулације и емпатије, позитивно утиче на академско постигнуће, мерено просечном оценом (ГПА). Стрес је показао директан негативан ефекат на академско постигнуће, као и посредничку улогу између емоционалне интелигенције и академског постигнућа.

Због доказане ефикасности тренинга и курсева усмерених на развој емоционалне интелигенције, препознавање стреса и учење стратегија суочавања, као и на основу добијених резултата, ово истраживање препоручује да високошколске установе у своје наставне програме укључе овакве обуке.