

THE RELATIONSHIP BETWEEN ASSESSMENT METHODS AND THE LEVEL OF ACADEMIC STRESS AMONG STUDENTS

Gjorgjina Kjimova

International Slavic University, Sveti Nikole, Republic of North Macedonia, ginakimova@yahoo.com

Slavica Vasileva

slavica.todorova81@gmail.com

Abstract: Academic stress represents one of the most pronounced psychological challenges faced by students in contemporary higher education, particularly under conditions of increased academic demands, competition, and continuous forms of evaluation. Assessment methods, as an essential component of the educational process, influence not only academic achievement but also have significant implications for students' emotional well-being, motivation, and perceived academic control. The aim of this study was to examine whether and to what extent different dimensions of students' perceptions of assessment methods (summative and formative assessment, clarity and transparency of criteria, perceived fairness, and sense of control) are related to the level of academic stress among higher education students. The study was conducted as a cross-sectional survey on a convenience sample of 108 students from various faculties in the Republic of North Macedonia, with diversity in gender, age, year of study, and field of study. The research instruments included a demographic questionnaire, the Perception of Assessment Methods Questionnaire (adapted from Brookhart, 2013), and the shortened version of the Academic Stress Inventory (ASI). Data were analyzed using descriptive statistics, Pearson correlation analysis, and multiple linear regression. The results indicated a high average level of academic stress among students ($M = 48$, $SD = 6$), with exam-related stress and workload being the most prominent stressors. Correlation analysis confirmed that summative assessment was moderately positively associated with academic stress ($r = 0.35$, $p < .001$), as was perceived unfairness in assessment ($r = 0.40$, $p < .001$), suggesting that rigid, final, and insufficiently flexible forms of evaluation represent significant risk factors for increased stress. In contrast, formative assessment ($r = -0.30$, $p < .01$), clarity and transparency of assessment criteria ($r = -0.28$, $p < .01$), and a sense of control over the assessment process ($r = -0.33$, $p < .001$) showed significant negative associations with academic stress, positioning them as protective factors for students' psychological well-being. Multiple linear regression analysis confirmed that all five dimensions of assessment methods jointly explained 42% of the variance in academic stress ($R^2 = 0.42$, $p < .001$). Summative assessment and perceived unfairness emerged as the strongest positive predictors, while formative assessment, transparency, and sense of control were identified as the most significant protective factors. The general hypothesis regarding a significant relationship between assessment methods and academic stress was fully confirmed. In conclusion, the findings suggest that assessment systems characterized by transparency, fairness, continuity, and student-centered support and involvement can significantly reduce academic stress and enhance psychological well-being. As a practical implication, the study highlights the need to promote formative and student-oriented assessment models, as well as to provide training for academic staff in developing flexible, empathetic, and fair evaluation practices in higher education.

Keywords: assessment methods, academic stress, students, perceived fairness, psychological well-being

1. INTRODUCTION

Academic stress has become one of the most prevalent psychological challenges among students in contemporary higher education, particularly in contexts characterized by increased academic demands, competitiveness, and continuous assessment practices (Pascoe et al., 2020). Stress related to academic obligations not only affects students' emotional well-being but also impairs motivation, concentration, and overall academic performance (Ellington, 2024). Academic stress is increasingly linked to assessment overload and performance-oriented evaluation cultures (Stallman, 2020; Van de Velde et al., 2021). Students' perceptions of fairness and consistency in assessment strongly influence emotional regulation and stress responses (Kornell & Bjork, 2020). Assessment methods represent a central component of the educational process and play a crucial role in shaping students' learning experiences. Beyond their evaluative function, assessment practices significantly influence students' perceptions of fairness, control, and academic self-efficacy, which are closely linked to stress levels (Brookhart, 2021). Rigid and predominantly summative assessment systems, particularly those focused on high-stakes examinations, have been identified as major sources of academic stress (Pascoe et al., 2020).

Recent research emphasizes that formative, transparent, and student-centered assessment approaches can function as protective factors by reducing stress and enhancing psychological well-being (Hinze et al., 2024; Castro et al., 2025). However, empirical evidence examining the relationship between specific dimensions of assessment methods

and academic stress among students in higher education remains limited, particularly in the context of Southeast Europe.

Therefore, the aim of this study is to examine the relationship between students' perceptions of assessment methods and the level of academic stress, as well as to identify which assessment dimensions act as risk or protective factors for students' psychological well-being.

2. MATERIALS AND METHODS

The study was conducted as a cross-sectional survey on a convenience sample of 108 students enrolled at various faculties in the Republic of North Macedonia. The sample included students of different genders, ages, years of study, and academic disciplines, ensuring diversity in educational background and academic experience. Self-report measures of academic stress and assessment perceptions are widely used and validated in higher education research (Van de Velde et al., 2021). The research instruments included: A demographic questionnaire collecting data on gender, age, faculty, and year of study; The *Perception of Assessment Methods Questionnaire*, adapted from Brookhart (2021), assessing five dimensions: summative assessment, formative assessment, clarity and transparency of assessment criteria, perceived fairness, and sense of control over assessment; The shortened version of the *Academic Stress Inventory (ASI)*, measuring overall academic stress and specific stressors related to exams and workload (Pascoe et al., 2020). Data were analyzed using SPSS software. Descriptive statistics were used to determine the level of academic stress, while Pearson correlation analysis examined relationships between assessment dimensions and stress. Multiple linear regression analysis was conducted to identify the predictive value of assessment methods for academic stress.

3. RESULTS

The results indicated a high average level of academic stress among students ($M = 48$, $SD = 6$), with exam-related stress and academic workload emerging as the most prominent stressors, which is consistent with recent international findings (Pascoe et al., 2020; Ellington, 2024). Exam-related stress as the dominant stressor is consistent with recent European student mental health findings (Auerbach et al., 2021). Correlation analysis revealed that summative assessment was moderately and positively associated with academic stress ($r = 0.35$, $p < .001$), indicating that frequent high-stakes and final evaluations increase students' stress levels (Pascoe et al., 2020). Similarly, perceived unfairness in assessment showed a moderate positive correlation with academic stress ($r = 0.40$, $p < .001$), highlighting fairness as a critical factor in students' emotional responses to evaluation (Ellington, 2024). In contrast, formative assessment demonstrated a significant negative association with academic stress ($r = -0.30$, $p < .01$), suggesting its protective role in reducing anxiety and pressure (Brookhart, 2021). Clarity and transparency of assessment criteria were also negatively correlated with stress ($r = -0.28$, $p < .01$), supporting previous evidence that clearly communicated expectations reduce uncertainty and emotional strain (Castro et al., 2025). Furthermore, a stronger sense of control over the assessment process was associated with lower levels of academic stress ($r = -0.33$, $p < .001$), emphasizing the importance of student involvement and autonomy (Hinze et al., 2024). Multiple linear regression analysis showed that all five assessment dimensions jointly explained 42% of the variance in academic stress ($R^2 = 0.42$, $p < .001$). Summative assessment and perceived unfairness emerged as the strongest positive predictors, while formative assessment, transparency, and sense of control were identified as the most significant protective factors.

4. DISCUSSION

Transparent and feedback-oriented assessment enhances perceived academic control and reduces stress (Panadero et al., 2022). The findings of this study confirm a significant relationship between assessment methods and academic stress, aligning with contemporary research emphasizing the psychological impact of evaluation practices in higher education (Pascoe et al., 2020; Ellington, 2024). The results demonstrate that assessment systems heavily oriented toward summative evaluation and perceived as unfair contribute substantially to increased stress among students.

Conversely, formative assessment, transparency, and student control emerged as key protective factors, supporting the notion that assessment should be viewed not only as a measurement tool but also as a pedagogical strategy that promotes well-being (Brookhart, 2021). These findings are consistent with recent studies indicating that supportive and student-centered assessment practices foster emotional security and resilience (Hinze et al., 2024; Castro et al., 2025).

Although the study is limited by its cross-sectional design and convenience sampling, the results provide valuable insight into the mechanisms through which assessment practices influence students' psychological experiences.

5. CONCLUSIONS

This study confirms that assessment methods are significantly related to the level of academic stress among higher education students. Rigid, summative, and perceived unfair assessment practices represent important risk factors for elevated stress, while formative assessment, transparency, and a sense of control function as protective factors for students' psychological well-being.

The findings suggest the need for higher education institutions to promote assessment systems characterized by fairness, clarity, continuity, and student involvement. Training academic staff in formative and empathetic assessment practices may significantly reduce academic stress and contribute to healthier and more supportive learning environments.

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