

IMPROVING STUDENTS' STRESS Resilience: PSYCHOLOGICAL METHODS, EMPIRICAL RESEARCH, AND PRACTICAL RECOMMENDATIONS

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ANNOTATION

This article examines the psychological nature of academic stress, which is widespread among students studying in higher education institutions, its impact on emotional-volitional spheres, and modern psychological methods for increasing stress resilience based on empirical research. Within the framework of an experimental study involving university students in Tashkent (n=120 years, 18–23 years), the R. Lazarus and S. Folkman methodology, the G. Eyzank neuroticism scale, and the A. Rean voluntary self-control test were applied. The results showed that 85.8% of students are at risk of experiencing moderate or high levels of stress, with the most common mechanism being the destructive "evasion-avoidance" coping strategy (42.4%). A strong positive correlation was found between volitional self-regulation and constructive coping strategies ($r_s=0.641$; $p<0.01$). Implementing a specialized psychological training program significantly reduced stress levels in the experimental group. The results of the article conclude with practical recommendations aimed at improving the quality of psychological services in higher education institutions.

Key words: academic stress, coping strategies, emotional stability, volitional regulation, psychological training, student psychology.

ABSTRACT

This article investigates the psychological nature of academic stress prevalent among university students, its effects on emotional-volitional domains, and evidence-based approaches to enhancing stress resilience. An experimental study conducted at Tashkent University (n=120, ages 18–23) utilized the Lazarus & Folkman coping scale, the Eysenck Neuroticism Inventory, and the Rean Voluntary Self-Regulation test. The results revealed that 85.8% of students exhibit a moderate to high risk of stress, with the destructive escape-avoidance coping strategy being the most prevalent (42.4%). A strong positive correlation was found between volitional self-

regulation and constructive coping ($rs=0.641$; $p<0.01$). The implementation of a targeted psychological training program significantly reduced stress in the experimental group. The paper concludes with practical recommendations for strengthening psychological support services in higher education.

Keywords: academic stress, coping strategies, emotional stability, volitional regulation, psychological training, student psychology.

1. INTRODUCTION

The modern higher education system demands not only profound academic knowledge but also a high level of psychological stability from students. The reforms in the field of education of the Republic of Uzbekistan, including the Law "On State Youth Policy" and the programs of President Sh.M. Mirziyoyev aimed at improving the quality of education, make the training of intellectually and spiritually developed specialists a strategic task.

The student period is a unique transitional stage in human ontogenesis, during which an individual's nature, worldview, and professional identity are formed. At the same time, during this period, socio-psychological adaptation, academic workloads, examinations, and a sense of uncertainty regarding the future become strong sources of stress. Stress in psychology (Seley, 1974; Lazarus and Folkman, 1984) is interpreted as a discrepancy between an individual's external demands and their internal resources, and its consequences have a profound impact not only on the psychological but also on the somatic and behavioral spheres.

The relevance of this study lies in the fact that systematic and empirically verified psychological programs aimed at increasing student stress resilience in higher education institutions in Uzbekistan have not yet been sufficiently developed. Therefore, this article comprehensively examines the mechanisms of educational stress, the nature of coping strategies, their impact on the emotional-volitional sphere, and practical methods for increasing stress resilience.

2. LITERATURE REVIEW AND THEORETICAL BASIS

The concept of stress was first introduced into scientific discourse by the Canadian pathophysiologist Hans Selye (1974). Selye called the body's non-specific adaptive response to any strong or unusual stimulus stress and divided it into two types: beneficial stress and destructive distress. Later, representatives of cognitive

psychology, R. Lazarus and S. Folkman (1984), developed a transactive model of stress: according to this theory, the stressor depends not on objective characteristics, but on how the individual cognitively evaluates it. When a student believes that the workload exceeds their resources, distress occurs.

Research into coping strategies (overcoming mechanisms) examines an individual's cognitive and behavioral actions in overcoming a difficult situation. Folkman and Lazarus (1984) divided coping into problem-focused and emotion-focused types. Further research (Vodopyanova, 2009; Bodrov, 2000), and escape-

showed that the escape-avoidance strategy is the most destructive mechanism in the academic environment.

In Uzbek psychology, Goziev (2010), Karimova (2012), and Barotov (2019) studied the adaptation process, emotional stability, and psychological immunity of student youth. Umidov (2024) empirically proved the relationship between academic procrastination and academic stress. Nevertheless, research that has examined the correlation between volitional regulation, coping, and stress based on a wide sample and tested the effectiveness of practical training is still limited in the context of Uzbekistan.

Voluntary self-regulation of the individual (Ivannikov, 2006; Dikaya, 2003; Rean et al., 2006) plays a central role in stress resilience: high volitional regulation allows the student to overcome emotions in difficult situations and activate constructive coping strategies.

3. RESEARCH METHODOLOGY

Three fundamental approaches were adopted as the methodological basis of the study: (1) the principle of the unity of personality and activity (Leontyev, Rubinstein); (2) Lazarus-Folkman cognitive-phenomenological model of stress; (3) theories of volitional regulation and psychological adaptation (Rean, Dikaya, Ivannikov). The study was organized based on the principles of determinism, consistency, and development.

3.1. Selection

Empirical research involved students of higher educational institutions in Tashkent (n=120). Gender composition of the sample: 60 boys (50%) and 60 girls

(50%). Age range: 18-23 years ($M=20.4$; $SD=1.2$). The students were divided into two groups: the experimental group (EG, $n=60$) and the control group (CG, $n=60$). Primary diagnostic data confirmed the absence of statistical differences in both groups (t -test, $p>0.05$).

3.2. Psychodiagnostic methods

The following standardized methodologies were used:

(1) adapted version of the Perceived Stress Scale (PSS) developed by Cohen et al. to determine the level of learning stress; (2) adapted version of the Lazarus and Folkman Ways of Coping Questionnaire (WCQ) for evaluating coping strategies; (3) Eysank's personality questionnaire to measure neuroticism and emotional lability; (4) A.A. Rean's methodology for diagnosing volitional self-regulation. Mathematical and statistical analysis was performed using the SPSS (v.26) program: the Spiermann rank correlation coefficient (r_s) and Student's t -test were applied.

3.3. Research Stages

The study was conducted in four stages: (1) Preparatory and design stage - formation of methodology, selection of methodologies and adaptation to the Uzbek language; (2) Confirmation stage - conducting primary psychodiagnostics on 120 students and forming a database; (3) Formative stage - implementation of a special psychological training program with EG for 5 weeks; (4) Control stage - statistical verification of training effectiveness by conducting re-diagnostics in the EG and CG.

4. RESULTS OF THE RESEARCH

4.1. Spread of educational stress

The results of the study stress assessment showed the following picture: 38.3% ($n=46$) of students were in a state of high stress, 47.5% ($n=57$) were in a state of moderate stress, and only 14.2% ($n=17$) were in a state of low stress. That is, 85.8% of students are at risk of transitioning to a destructive form of academic stress. This indicator indicates the latent breadth of the systemic problem in modern student psychology.

The hierarchy of stressors most frequently mentioned by students is reflected in the following table:

No	Stressor type	Frequency (%)	Hierarchical position	Risk level
1.	Rating control and exams	84.2%	I	Upper
2.	Educational load and time constraints	76.5%	II.	Upper
3.	Risk of uncertainty about future employment	62.1%	III.	Medium
4.	The complexity of self-study	58.4%	IV	Medium
5.	Barriers to communication with teachers	41.3%	V	Medium
6.	Competition and conflict within the group	32.8%	VI.	Low

Table 1. Hierarchical classification and prevalence of academic stressors in students

4.2. Analysis of coping strategies

The distribution of coping strategies among students was determined as follows: "Escape-Avoidance" - 42.4%; "Planful Problem Solving" - 23.5%; "Positive Reappraisal" - 18.1%; "Seeking Social Support" — 16.0%. The most commonly used coping strategy, "avoidance-avoidance," is characterized in psychology as a mechanism that causes destructive and academic procrastination. Boys relied more on the "Confrontation" and "Planning" strategies, while girls preferred the "Search for Social Support" and "Escape" strategies ($p < 0.05$).

4.3. Parameters of the emotional-volitional sphere

According to the Eysank methodology: a high level of neuroticism was identified in 41.6% ($n=50$) of students; a medium level in 39.2% ($n=47$); and a low level (emotional stability) in only 19.2% ($n=23$). According to the Rean method, a high level of volitional self-control was observed in only 26.7% ($n=32$); a medium level in 29.2% ($n=35$); and a low level in 44.1% ($n=53$). Low resistance to frustration was noted in more than 50% of respondents, who exhibited aggressive reactions or complete abandonment of activities in the face of difficulties.

4.4. Correlation analysis results

The Spierman rank correlation analysis between the variables revealed the following statistically significant relationships:

Pair of variables	Correlation type	rs value	p level
Learning stress × Avoidance coping	Positive	0.584	p<0.01
Learning Stress × Neuroticism	Positive	0.612	p<0.01
Willpower regulation × Problem-solving coping	Positive	0.641	p<0.01
Voluntary regulation × Avoidance coping	Negative	−0.512	p<0.05
Positive re-evaluation × Emotional stability	Positive	0.435	p<0.05

Table 2. Spiermann correlation coefficients (rs) and confidence level (p).

The identified correlations fully confirmed the main and auxiliary hypotheses of the study. Most importantly, the strong positive correlation between volitional self-regulation and constructive coping (rs=0.641; p<0.01) indicates that the development of volitional regulation is the most effective key direction for increasing stress resistance.

5. PSYCHOLOGICAL TRAINING PROGRAM AND ITS EFFECTIVENESS

5.1. Structure of the training program

Based on the results of the empirical analysis, a special psychological training program was developed for EG students and conducted over 5 weeks (2 sessions per week, 90 minutes each). The program is organized into three main modules:

Cognitive module (Sessions 1-2): Introduction to the cognitive-transactive model of stress; methods of automatic negative thought detection and cognitive restructuring; logical reassessment techniques that reduce anxiety before an exam.

Emotional Module (Sessions 3-5): Breathing techniques (diaphragmatic breathing, 4-7-8 method); progressive muscle relaxation; mindfulness and focus on

the present moment exercises; techniques for feeling and reinforcing positive emotions.

Voluntary and behavioral module (Sessions 6–10): Goal setting and planning skills (SMART-goal methodology); time management and prioritization; strategies for overcoming academic procrastination; activation of the social support network and development of communication skills.

5.2. Statistical confirmation of training effectiveness

Control diagnostics conducted 3 weeks after the completion of the training were analyzed using Student's t-test. The results showed significant positive changes in EG:

Indicator	EG (previously)	EG (later)	NG (previously)	NG (later)
Learning stress (points)	24.6	16.2**	24.2	23.8
Voluntary regulation (points)	14.1	19.4**	14.4	14.6
Level of neuroticism (points)	17.3	12.8**	17.0	16.9
Constructive copying (%)	23.5%	41.7%**	23.2%	24.1%
Destructive coping (%)	42.4%	24.1%**	43.0%	42.8%

Table 3. Comparison of EG and CG indicators before and after training

*** $p < 0.01$ (Student's t-test, dependent sample).*

The results fully confirmed the experimental hypothesis (H3): a systematic psychological training program showed a statistically significant effect on reducing destructive coping, reducing stress levels, and increasing emotional and volitional stability in students. No significant changes were noted in the control group.

6. CONFERENCE

The research results align with existing scientific data in world psychology and provide a number of new additional information. In particular, Hobfoll's (1989) resource conservation theory was clearly confirmed in the case of students: the

primary mechanism of academic stress is the depletion of volitional and cognitive resources. The central role of cognitive assessment in the concept of Lazarus and Folkman (1984) is also evident in our correlation analysis: students with a high level of neuroticism evaluate any learning load as a dangerous stressor, and therefore, the level of distress is also high ($r_s=0.612$).

The effectiveness of the training program is reflected in Western studies (Biggs, 2011; Gallagher et al., 2016), the purposeful development of volitional self-regulation activates constructive coping and breaks the stress cycle. In the context of Uzbekistan, this result is particularly significant, as a low level of volitional regulation in students (a low indicator of 44.1%) indicates the need for systematic psychological support.

Limitations of the study: the sample was limited to a single institution; long-term observation (longitudinal design) was not carried out; the influence of socio-economic factors was not fully controlled. In future research, it is recommended to use a multi-institutional and comprehensive longitudinal design.

7. CONCLUSIONS AND PRACTICAL RECOMMENDATIONS

This study empirically proved that the problem of academic stress among students in the higher education system is a systemic and widespread phenomenon in the context of Uzbekistan. The main conclusions of the study are as follows:

First, 85.8% of students are at risk of experiencing moderate or high levels of stress, with the main stressors being rating control (84.2%) and time constraints (76.5%). Second, 42.4% of students rely on the most destructive coping strategy — "avoidance-avoidance"; this is the primary psychological mechanism of academic procrastination. Thirdly, a strong positive correlation between volitional self-regulation and constructive coping ($r_s=0.641$; $p<0.01$) proves that the development of volitional regulation is the key to increasing stress resistance. Fourthly, the specially developed psychological training program has a statistically proven effectiveness in reducing stress and forming constructive coping.

Based on the research results, the following practical recommendations are put forward:

(1) The psychological service of universities should monitor stress and coping strategies in first-year students every semester. (2) It is recommended to introduce

compulsory courses or training programs in higher education institutions that develop skills in volitional regulation, cognitive restructuring, and time management. (3) Professors and instructors must maintain a balance of workloads in the curriculum and create a positive pedagogical environment. (4) Improve the peer support system and digital stress management resources (mobile applications, online training) for students.

In conclusion, increasing students' stress resilience is not merely an individual psychological issue, but a strategic guarantee for the quality of the higher education system and meeting the country's need for competitive personnel with intellectual potential.

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