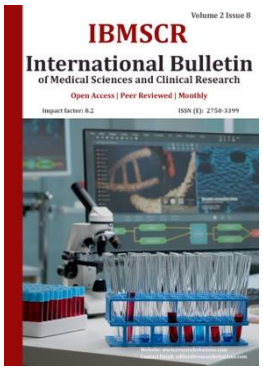

PSYCHOLOGICAL METHODS FOR CORRECTING STUDENTS' INTELLECTUAL ACTIVITY UNDER STRESSFUL CONDITIONS

Norqulova Sevara O'roz qizi
is a student majoring in Psychology
at Karshi State University
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Annotatsiya. Ushbu maqolada stressli sharoitlarda talabalarning intellektual faoliyatini psixologik korreksiyalashning nazariy va amaliy asoslari tahlil qilinadi. Stress — o'quv jarayonida talabalarning kognitiv qobiliyatlari (diqqat, xotira, tahlil, qaror qabul qilish) va hissiy sohasiga jiddiy ta'sir ko'rsatuvchi omil sifatida namoyon bo'ladi. Maqolada stressning fiziologik va psixologik mexanizmlari, talabalar intellektual faoliyatining stress ta'sirida pasayish sabablari, shuningdek, psixologik korreksiyalash usullari: kognitiv-xulq atvor terapiyasi (KXAT) elementlari, relaksatsiya va nafas olish mashqlari, neyrofeedback treninglari, vaqtni boshqarish va stressga chidamlilikni oshiruvchi treninglar, meditatsiya va ayyorlik texnikalari ilmiy manbalar asosida yoritilgan. Shuningdek, psixologik korreksiyalash usullarining klinik va pedagogik ahamiyati — imtihon oldi tashvishni kamaytirish, akademik ko'rsatkichlarni saqlash va talabalarning psixo-emotsional salomatligini mustahkamlash tahlil qilindi.

Kalit so'zlar: stress, talabalar, intellektual faoliyat, psixologik korreksiya, kognitiv-xulq atvor terapiyasi, relaksatsiya, neyrofeedback, stressga chidamlilik, vaqtni boshqarish, meditatsiya.

Аннотация. В данной статье анализируются теоретические и практические основы психологической коррекции интеллектуальной деятельности студентов в стрессовых условиях. Стресс выступает как фактор, серьезно влияющий на когнитивные способности (внимание, память, анализ, принятие решений) и эмоциональную сферу студентов в процессе обучения. В статье на основе научных источников освещены физиологические и психологические механизмы стресса, причины снижения интеллектуальной деятельности студентов под воздействием стресса, а также методы психологической коррекции: элементы когнитивно-поведенческой терапии (КПТ), релаксационные и дыхательные упражнения, нейрофидбек-тренинги, тренинги по управлению временем и повышению стрессоустойчивости, медитация и техники осознанности. Также проанализированы клиническая и педагогическая значимость методов психологической коррекции — снижение предэкзаменационной тревожности, сохранение академических показателей и укрепление психоэмоционального здоровья студентов.

Ключевые слова: стресс, студенты, интеллектуальная деятельность, психологическая коррекция, когнитивно-поведенческая терапия, релаксация, нейрофидбек, стрессоустойчивость, управление временем, медитация.

Abstract. This article analyzes the theoretical and practical foundations of psychological correction of students' intellectual activity under stressful conditions. Stress acts as a factor that significantly affects cognitive abilities (attention, memory, analysis, decision-making) and the emotional sphere of students during the learning process. Based on scientific sources, the

article discusses the physiological and psychological mechanisms of stress, the reasons for the decline in students' intellectual activity under the influence of stress, as well as methods of psychological correction: elements of cognitive-behavioral therapy (CBT), relaxation and breathing exercises, neurofeedback training, time management and stress resilience training, meditation, and mindfulness techniques. Furthermore, the clinical and pedagogical significance of psychological correction methods — reducing pre-exam anxiety, maintaining academic performance, and strengthening students' psycho-emotional health — is analyzed.

Keywords: stress, students, intellectual activity, psychological correction, cognitive-behavioral therapy, relaxation, neurofeedback, stress resilience, time management, meditation.

Relevance. Today, stress levels among students are reaching epidemic proportions. According to recent research, 75–80% of students regularly experience moderate to high levels of academic stress, while 30–35% exhibit clinically significant anxiety and depressive symptoms [1]. In higher education, examinations, a heavy load of lectures and practical classes, strict deadlines, financial difficulties, and concerns about future employment place students' intellectual resources under serious strain [14].

In recent years, the intensification of the educational system, the digitally saturated environment, information overload, and social isolation have further exacerbated the stressful situation. Students are compelled not only to maintain high academic performance but also to adapt to a constantly changing labor market and to develop into competitive professionals. This forces them to utilize their cognitive resources (attention, memory, analytical ability, decision-making) to their limits, ultimately leading to a decline in the effectiveness of intellectual activity. The negative impact of stress on cognitive functions has been confirmed neurobiologically: chronic stress impairs the functioning of the prefrontal cortex, which is responsible for short-term memory, working memory, and creative thinking, while simultaneously causing emotional instability through hyperactivity of the amygdala and the limbic system [17].

This process poses a direct threat to students' academic motivation, self-regulation abilities, and overall psycho-emotional health. The impact of stress on intellectual activity is twofold: short-term, mild stress (eustress) can temporarily enhance attention and motivation; however, chronic, high-intensity stress (distress) significantly impairs cognitive abilities—including working memory capacity, information processing speed, creative thinking, and decision-making quality. Neurobiological research indicates that chronic stress suppresses activity in the prefrontal cortex—the center of higher-order cognitive functions—while increasing activity in the amygdala—the center for fear and anxiety [2]. Therefore, investigating and implementing psychological correction methods for students' intellectual activity under stressful conditions is extremely relevant, not only for their academic success but also for maintaining their mental and physical health. Contemporary psychology and pedagogy face the task of developing effective, brief, practical, and evidence-based psychocorrectional programs for students [10].

Main Body. 1. The Relationship Between Stress and Intellectual Activity. Stress is a non-specific response of the body to a demand (physical, emotional, or cognitive), according to G. Selye [18]. Short-term stress activates the body's "fight or flight" response: cortisol and adrenaline levels rise in the bloodstream, heart rate increases, and blood pressure rises. This can temporarily enhance the ability to make quick decisions in emergencies. However, during

chronic stress, persistently high cortisol levels damage neurons in the hippocampus—the memory center—reduce synaptic plasticity, and impair learning ability [13].

The most typical stressors for students include: examinations, public speaking, tests, thesis defenses, the risk of losing a scholarship, conflicts with teachers, and fear of failure in front of peers. These factors negatively affect the following aspects of intellectual activity: Attention: distractibility, reduced concentration, and a narrowing of attention span (by 30-40%) [6]. Working memory: a reduction in the capacity to temporarily store and process information by 2-3 units [3]. Long-term memory: a 25-35% decrease in the efficiency of information encoding and retrieval [16]. Analysis and synthesis: diminished ability to solve complex problems and apply creative approaches [5].

Decision-making: an increase in impulsive or overly cautious decision-making [20]. Psychological Correction Methods. Psychological correction is a system of methods aimed at eliminating or reducing the severity of mental disorders and negative states. The following methods have been found to be most effective for correcting students' intellectual activity under stressful conditions:
Elements of Cognitive-Behavioral Therapy (CBT). CBT teaches students to identify irrational and negative automatic thoughts related to stress (e.g., "If I fail this exam, my life is ruined"), critically evaluate them, and replace them with constructive thoughts. According to a Harvard University study, brief (4-6 sessions) CBT-based training reduces pre-examination anxiety levels in students by 45-55% and improves test scores by 20-25% [9].

Relaxation and Breathing Exercises. These methods aim to reduce the activity of the sympathetic division of the autonomic nervous system and activate the parasympathetic division. Techniques such as diaphragmatic breathing (inhale for 4 seconds, hold for 4 seconds, exhale for 6 seconds), progressive muscle relaxation (E. Jacobson's technique), and autogenic training (I. Schultz) have been shown to lower cortisol levels by 20-30% [12]. Performing these exercises 5-10 minutes before an exam can improve attention by 35% and memory performance by 25%.

Neurofeedback (EEG-biofeedback) Training. Neurofeedback is a method that displays the brain's bioelectrical activity on a computer monitor in real-time, teaching students to consciously regulate their alpha, beta, theta, and gamma rhythms. Under stress, beta-1 (anxiety) brainwave activity increases while alpha (relaxation) activity decreases. Neurofeedback training enables students to increase alpha rhythm and decrease beta-1, thereby increasing their stress resilience by 40-50% [8]. This method is particularly effective for students with high pre-exam anxiety.

Time Management and Stress Resilience Training. Poor time management skills are a primary source of stress. During training, students learn to: prioritize tasks (Eisenhower Matrix), break down large and complex tasks into smaller steps, identify and eliminate sources of ineffective time use (procrastination), and apply the Pomodoro Technique (25 minutes of work, 5 minutes of break). Research indicates that after time management training, students' academic stress levels decrease by 35-40% [7].

Meditation and Mindfulness Techniques. Mindfulness is the practice of "paying attention, in the present moment, non-judgmentally." An 8-week Mindfulness-Based Stress Reduction (MBSR) program has been shown to reduce cortisol levels in students by 30%, boost immune system function, and improve intellectual performance by 25% [19]. When brief (5-10 minute)

mindfulness exercises are performed before an exam, test results in the experimental group are 15-20% higher compared to the control group. Social Support and Group Training. Support from students' social networks (teachers, peers, family) mitigates the negative impact of stress. Group psychocorrectional training and peer-counseling programs enable students to normalize stress, express their emotions, and learn from others' coping strategies [4]. Mechanisms of Effectiveness of Correction Methods. Psychological correction methods restore and optimize intellectual activity under stress through the following mechanisms: Neuroendocrine level: reduction of cortisol and catecholamine secretion.

Neural level: strengthening of connections between the prefrontal cortex and the amygdala; stimulation of hippocampal neurogenesis. Cognitive level: restructuring of irrational thoughts; redistribution of attentional resources. Behavioral level: development of constructive stress-coping strategies (problem-solving, seeking help) and reduction of destructive strategies (alcohol use, withdrawal, procrastination) [11]. Clinical and Pedagogical Significance. Implementing these methods in practice yields the following outcomes:Reduction of pre-examination anxiety levels in students by 40-60%. Improvement of academic performance (GPA) by an average of 0.5-1.0 points. Prevention of depression and anxiety disorders among students. Reduction of dropout rates and academic debt by 25-30%. Enhancement of students' overall quality of life and psychological well-being [15].

Conclusion. Under stressful conditions, students' intellectual activity significantly deteriorates: attention, memory, analytical ability, and decision-making skills are impaired. However, modern psychological correction methods—elements of cognitive-behavioral therapy, relaxation and breathing exercises, neurofeedback, time management training, mindfulness meditation, and social support—can considerably mitigate these negative effects. These methods optimize students' physiological, emotional, and cognitive responses to stress, activate the brain's neuroplasticity mechanisms, and enhance academic performance. Therefore, the systematic integration of psychological correction methods into higher education, offered in preventive and brief program formats, is essential for protecting and developing students' intellectual potential.

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