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High school students' burnout in the context of exam preparation: the role of the educational environment

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Abstract

Context and relevance. School burnout is a fairly new concept that is beginning to be widely discussed due to the need for intensive and continuous learning in today's society. Researches show that students with high burnout level are less involved in studying, demonstrate lower academic results, drop out of school more often, and are prone to depressive symptoms. **Objective.** To study the problem of school students' burnout in the context of preparation for the exams and to identify burnout-related characteristics of the educational environment in a sample of highly motivated Russian high school students. **Methods and materials.** Online survey of students using the "School Burnout Inventory" and a specially developed author's questionnaire. **Results.** The analysis of answers of more than 1000 high school students shows the presence of significant links between burnout and the level of academic load, additional education, subjective assessment of the quality of relations between teachers and students. **Conclusions.** Results can be used to strengthen psychological and pedagogical support of high school students and design managerial decisions regarding preparation of high school students for the exams, because prevention and reduction of burnout in school are important for both individual well-being of students and well-being of the school climate, and they can also matter for adaptation of former high school students to the university environment.

Keywords: school burnout, schoolchildren's well-being, educational environment, teacher-pupil relations, preparation for the exams, highly motivated schoolchildren

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Выгорание старшеклассников в контексте подготовки к ЕГЭ: роль образовательной среды

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Резюме

Контекст и актуальность. Выгорание школьников является достаточно новым конструктом, который начинает широко обсуждаться в связи с необходимостью интенсивного и непрерывного обучения в современном обществе. Исследования показывают, что учащиеся с высокими показателями выгорания слабее вовлечены в учебу, демонстрируют более низкие академические результаты, чаще отсеиваются из школы, подвержены депрессивной симптоматике. **Цель**. Установить связи выгорания школьников с характеристиками образовательной среды в контексте подготовки к ЕГЭ на выборке высокомотивированных российских старшеклассников. **Методы и материалы**. Проведен онлайн-опрос учащихся с использованием «Опросника выгорания школьников» и специально разработанной авторской анкеты. **Результаты**. Анализ ответов более 1000 учащихся старшей школы показывает наличие значимых связей между выгоранием и уровнем академической нагрузки, насыщенностью дополнительного образования, а также субъективной оценкой качества отношений между учителями и учениками. **Выводы**. С учетом ограничений, обусловленных несбалансированностью выборки по полу, полученные результаты можно использовать для усиления психолого-педагогической поддержки учащихся старшей школы и проектирования управленческих решений в отношении подготовки старшеклассников к ЕГЭ, поскольку профилактика и снижение выгорания в школе важны как для индивидуального благополучия учащихся, так и для благополучия школьного климата в целом, а также они могут играть роль в адаптации бывших школьников к среде вуза.

Ключевые слова: выгорание школьников, благополучие школьников, образовательная среда, отношения «учитель-ученик», подготовка к ЕГЭ, высокомотивированные школьники

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Introduction

Research on burnout syndrome [6; 10], which is most commonly understood as a prolonged response to chronic emotional and interpersonal stressors at work — manifesting as emotional exhaustion, de-

personalization, and a reduced sense of professional accomplishment [14; 15] — has been conducted since the second half of the 20th century. However, since the early 2000s, studies have emerged indicating that burnout can also occur among students, particularly high school and university students, as their academic workload and level of responsibility are often comparable to those of working adults [23; 26]. Student burnout (academic burnout) follows a similar three-component structure, comprising: (1) emotional exhaustion, which manifests as a persistent sense of tension and chronic fatigue due to excessive academic demands; (2) cynicism toward learning (analogous to depersonalization in adults), characterized by a detached, indifferent attitude toward the educational process, loss of interest in studying and teachers, and a diminished sense of purpose in learning; and (3) a sense of inadequacy and reduced academic achievement, expressed in declining academic performance, a mismatch between the student's capabilities and school expectations, and decreased self-efficacy in learning [1; 23].

Academic burnout has several negative consequences for students. It is negatively associated with their psychological well-being, engagement in learning, and academic performance [4; 9; 18; 24]. Burnout-related disengagement can lead to withdrawal from the learning process and academic failure [21; 23]. Adolescents experiencing academic burnout are also at greater risk of school dropout and are more prone to depressive symptoms and suicidal ideation [17; 31].

Individual personality-related risk factors for burnout among students include gender (with girls being at significantly higher risk) [24] and perfectionistic tendencies [27]. Protective factors include perseverance in goal achievement [13; 29; 30] and socio-emotional skills (such as social engagement, a sense of belonging, and academic buoyancy), which mitigate the risk of burnout among adolescents [12; 25]. Among the social determinants of student burnout, school-related factors prevail — for example, the support received from teachers and classmates, teacher sensitivity to students' emotional states, and the presence of disrespectful and impolite relationships within the school environment [3]. Additionally, anxiety related to university admission has been identified as a significant school-related stress factor, particularly in connection with exam preparation [32].

The aim of this study is to examine the relationships between burnout indicators among highly motivated Russian high school students and characteristics of the educational environment, such as the nature of student-teacher relationships, the accessibility and diversity of extracurricular education, and the quantity and content of academic tracks during preparation for the Unified State Exam (USE).

Materials and methods

From February to March 2024, a survey was conducted at an online school specializing in preparing highly motivated students for the Unified State Exam (USE). Information about the survey was disseminated via the social media platform Telegram among students participating in remote USE preparation courses across multiple subjects. Additionally, the survey was introduced during online classes. Data collection was carried out using Yandex Forms after obtaining written informed consent for voluntary participation.

The sample consisted of 1,209 students in grades 10 and 11 (M = 17,00, SD = 0,57), including 1,112 female and 97 male participants. All respondents were enrolled in online USE preparation courses, lived in

various types of settlements, and studied in different types of educational institutions and academic tracks. However, due to the uneven distribution of students across these categories, differences between them were not analyzed. All participants attended online classes several times per week for USE preparation in different subjects, which allowed them to be classified as highly motivated students. The gender composition of the sample (92% female, 8% male) reflects the predominantly female target audience of the online school but also limits the generalizability of the findings.

To assess school burnout among 10th- and 11th-grade students, the School Burnout Inventory (SBI) [23], adapted for the Russian population by A.A. Bochaver and O.R. Mikhailova [1], was used. The response scale was reduced to a traditional 5-point Likert scale (ranging from 1 — completely disagree to 5 — completely agree). The inventory consists of three subscales: Exhaustion (4 items, score range 4–20; example item: "Problems at school often disrupt my sleep."), Cynicism (3 items, score range 3–15; example item: "I lack the motivation to study at school, and I often think about dropping out."), Sense of inadequacy (2 items, score range 2–10; example item: "I used to have higher expectations for my school performance than I do now.") [2].

Additionally, participants answered a set of questions developed based on a review of scientific literature. These questions addressed: 1) characteristics of the educational environment, such as the number of subjects and specialized courses available for selection (e.g., "Do you have the option to choose subjects and specialized courses?"), the availability of academic tracks ("How many specialized 11th-grade classes are there in your school?"), and the number of minutes spent daily on homework; 2) attitudes toward these characteristics (e.g., "Does the academic track you are enrolled in align with your intended field of study?"): 3) perceived relationships with teachers and school administration (e.g., "Do your teachers help you prepare for the USE?", "In your opinion, are teachers and school administrators interested in students' successful performance on the USE?").

Responses were either binary (yes/no) or measured on a 5-point Likert scale to assess the degree of agreement with the statements. Additionally, questions regarding sociodemographic characteristics (gender, age, and place of residence) were included.

Data analysis was performed using Jamovi. Scale reliability assessment (Table 1) demonstrated high internal consistency for the Cynicism subscale, questionable reliability for the Exhaustion subscale, and low reliability for the Sense of Inadequacy subscale, suggesting that results should be interpreted with caution [8]. Given that the scale distributions deviated from normality, nonparametric methods were employed, including the Mann–Whitney U test, Spearman's rank correlation coefficient, and the Kruskal–Wallis test. In cases of significant differences, post hoc analysis was conducted using the Dwass–Steel–Critchlow–Fligner method.

Results

A comparison of school burnout levels between female and male students using the Mann–Whitney test revealed significant differences: female students exhibited significantly higher scores across all three dimensions of burnout. However, the effect size, measured by the rank-biserial correlation coefficient, was low (see Table 2). These findings align with international research [24; 28]. However, given the substantial discrepancy in sample sizes between male and female students, the

Table 1

Descriptive statistics and indicators of consistency of the scales of the Burnout Questionnaire for school students

	Mean	SD	Skewness	Kurtosis	W Shapiro–Wilk	p	α Cronbach's	ω McDonald's
Exhaustion	12,78	3,39	–0,10	–0,35	0,99	0,00	0,62	0,63
Cynicism	11,16	3,09	–0,72	–0,22	0,93	0,00	0,82	0,82
Sense of inadequacy	7,13	1,97	–0,50	–0,44	0,94	0,00	0,58	0,58

97 male participants were excluded from further analysis. Consequently, all subsequent calculations were conducted exclusively on the sample of 1,112 female students. Although the discussion refers to students in general, it is important to acknowledge that the conclusions are based on a female student sample, and generalizing these findings to male students should be approached with caution.

Objective characteristics of the educational environment

Spearman's correlation analysis revealed a weak positive relationship between academic workload (measured as the number of daily lessons) and exhaustion ($\rho = 0{,}13$, $p < 0{,}001$), as well as a very weak association with a sense of inadequacy ($\rho = 0{,}06$, $p < 0{,}05$). Additionally, the number of minutes spent on daily homework exhibited a weak positive correlation with exhaustion ($\rho = 0{,}19$, $p < 0{,}001$). No significant correlations were found between burnout levels and the number of specialized 11th-grade classes in a school (an indirect indicator of school size) or the number of mock exams taken by students before the second semester.

A comparison of distributions using the Mann–Whitney test (see Table 3) demonstrated that cynicism and a sense of inadequacy were significantly higher among students who lacked the opportunity to choose their academic track or specialization, as well as among those who

Table 2

Differences between girls and boys on burnout indicators

Scale	Group	N	M	U Mann-Whitney	p	Effect size
Exhaustion	Female	1112	12,91	39943	**0,00**	0,26
	Male	97	11,29			
Cynicism	Female	1112	11,23	45585	**0,01**	0,16
	Male	97	10,31			
Sense of inadequacy	Female	1112	7,19	43651	**0,01**	0,19
	Male	97	6,47			

reported having no access to additional extracurricular activities. However, no significant differences were observed in exhaustion levels between these groups. Students engaged in sports activities exhibited significantly lower exhaustion and cynicism levels, although the effect size was weak. Furthermore, participation in foreign language courses was associated with significantly lower cynicism, whereas engagement in creative activities did not yield statistically significant differences in burnout levels.

No significant differences in burnout scores were found between students whose schools did or did not offer specialized academic tracks, nor between students who had taken mock exams at the time of the survey and those who had not.

Subjective characteristics of the educational environment

Findings indicate that subjective perceptions of various aspects of the educational environment — including both content-related and organizational factors

Table 3

Burnout scales and objective characteristics of the educational environment

Scale	Variable	Group	N	M	U Mann-Whitney	p	Effect size
Exhaustion	Opportunity to choose a study track and academic direction	Yes	220	12,70	94266	0,36	0,04
		No	892	12,96			
Cynicism		Yes	220	10,55	82909	**0.00**	0,16
		No	892	11,40			
Sense of inadequacy		Yes	220	6,82	85327	**0,01**	0,13
		No	892	7,28			
Exhaustion	Access to extracurricular activities	Yes	628	12,79	146142	0,27	0,04
		No	484	13,06			
Cynicism		Yes	628	10,82	126762	**0,00**	0,17
		No	484	11,77			
Sense of inadequacy		Yes	628	6,97	131091	**0,00**	0,14
		No	484	7,48			
Exhaustion	Participation in additional sports activities	Yes	181	12,47	76291	**0,04**	0,10
		No	931	12,99			
Cynicism		Yes	181	10,78	76521	**0,05**	0,09
		No	931	11,32			
Sense of inadequacy		Yes	181	7,22	80287	0,31	0,05
		No	931	7,22			
Exhaustion	Participation in additional foreign language classes	Yes	115	12,56	52632	0,15	0,08
		No	997	12,95			
Cynicism		Yes	115	10,32	48040	**0,00**	0,16
		No	997	11,34			
Sense of inadequacy		Yes	115	6,96	53235	0,20	0,07
		No	997	7,22			

(e.g., the range of subjects, specialized courses, and academic tracks available) as well as socio-communicative factors (e.g., perceived teacher support and attitudes) — are closely associated with burnout levels. Table 4 presents correlations between students' evaluations of several educational factors (e.g., satisfaction with subject and course selection, perceived engagement of teachers and school administration in students' success in the Unified State Exam, and perceived teacher support) and burnout components. Nearly all associations were statistically significant, with weak to moderate effect sizes.

Three factors–satisfaction with subject and course selection, alignment between students' academic track and their intended field of study, and satisfaction with school-based exam preparation — were further analyzed using the Kruskal–Wallis test, followed by pairwise comparisons with the Dwass–Steel–Critchlow–Fligner test (see Appendix, Tables 1–6). The results indicate significant differences depending on students' levels of satisfaction with these aspects of the educational environment. Although the effect sizes were generally weak, they reached 0,20 in the case of cynicism in relation to satisfaction with school-based exam preparation. Differences were observed not only between students at the extremes of the satisfaction scale (i.e., "completely satisfied" vs. "completely dissatisfied") but also among those with more moderate perspectives or uncertainty in their responses.

Students' perceptions of teacher attitudes play a critical role in burnout among high school students. Specifically, perceived teacher confidence in students' ability to pass the Unified State Exam, teacher support in exam preparation, and perceived in-

Table 4

Correlations between burnout components and respondents' assessment and perception of certain characteristics of the educational environment

Variables	Exhaustion	Cynicism	Sense of inadequacy
Satisfaction with the selection of subjects and specialized courses	–0,15*	–0,30***	–0,25***
Alignment of the study track with the intended field of further education	–0,04	–0,19***	–0,16***
Teachers' and administration's interest in students' successful performance on the Unified State Exam (USE)	–0,19***	–0,31***	–0,26**
Teachers' support in preparation for the Unified State Exam (USE)	–0,23***	–0,36***	–0,29***
Satisfaction with the school's preparation for the Unified State Exam (USE)	–0,29***	–0,44***	–0,37***
Perceived confidence and support from teachers toward the respondent	–0,33***	–0,42***	–0,39***
Perceived doubts from teachers regarding the respondent's abilities and success	0,35***	0,35***	0,41***

Note: *p < .05, **p < .01, ***p < .001

terest of teachers and school administrators in students' academic success were all moderately and negatively correlated with burnout. Conversely, perceived teacher doubt regarding students' ability to pass the exam was positively associated with burnout.

Table 5 presents differences in burnout levels between student groups based on whether they reported receiving teacher support, praise, and encouragement throughout the academic year or whether they experienced negative teacher interactions, such as harsh remarks, insults, or shouting.

Statistically significant differences were observed in all cases, with mean score

Table 5

Burnout scales and perceived attitudes of teachers

Scale	Variable	Group	N	M	U Mann-Whitney	p	Effect size
Exhaustion	Support	Yes	410	12,26	118034	**0,00**	0,17
		No	702	13,27			
Cynicism		Yes	410	10,23	103413	**0,00**	0,28
		No	702	11,79			
Sense of inadequacy		Yes	410	6,59	104783	**0,00**	0,27
		No	702	7,53			
Exhaustion	Praise	Yes	625	12,46	126290	**0,00**	0,17
		No	487	13,48			
Cynicism		Yes	625	10,65	114110	**0,00**	0,25
		No	487	11,98			
Sense of inadequacy		Yes	625	6,82	113529	**0,00**	0,25
		No	487	7,68			
Exhaustion	Approval	Yes	562	12,49	131013	**0,00**	0,15
		No	550	13,34			
Cynicism		Yes	562	10,80	129977	**0,00**	0,16
		No	550	11,67			
Sense of inadequacy		Yes	562	6,88	126877	**0,00**	0,18
		No	550	7,51			
Exhaustion	Harsh remarks	Yes	443	14,15	95765	**0,00**	0,35
		No	669	12,09			
Cynicism		Yes	443	12,34	97402	**0,00**	0,34
		No	669	10,49			
Sense of inadequacy		Yes	443	7,97	91456	**0,00**	0,38
		No	669	6,68			
Exhaustion	Insults	Yes	179	14,57	55508	**0,00**	0,34
		No	933	12,59			
Cynicism		Yes	179	12,64	56083	**0,00**	0,33
		No	933	10,96			

Scale	Variable	Group	N	M	U Mann-Whitney	p	Effect size
Sense of inadequacy		Yes	179	8,08	57206	**0,00**	0,32
		No	933	7,02			
Exhaustion	Yelling	Yes	298	14,01	91353	**0,00**	0,25
		No	814	12,50			
Cynicism		Yes	298	12,39	85077	**0,00**	0,30
		No	814	10,80			
Sense of inadequacy		Yes	298	6,95	89246	**0,00**	0,26
		No	814	7,85			

differences exceeding two points in some instances. The effect sizes were substantial, with a maximum value of 0,38 for harsh remarks. Overall, negative teacher interactions (e.g., harsh remarks, insults, shouting) demonstrated stronger effect sizes compared to positive interactions (e.g., support, praise, encouragement). Students who perceived negative teacher attitudes exhibited higher burnout levels, whereas those who viewed their teachers as supportive reported lower burnout levels. Furthermore, the association between perceived negative teacher attitudes and burnout was stronger than the association between perceived positive teacher attitudes and burnout.

Discussion

This study reveals multiple significant associations between school burnout and various characteristics of the educational environment.

First, we examined the relationship between school burnout and objective characteristics of the educational environment. The findings indicate no significant association between burnout and the availability of specialized academic tracks, the number of 11th-grade classes in a school, or the number of mock exams taken by the second semester. However, high academic workload demonstrated a weak but positive correlation with burnout. The potential link between burnout and the type of academic track requires further investigation. Overall, the results suggest that burnout is less related to objective indicators of the educational environment and more strongly associated with students' ability to make choices (e.g., selecting academic tracks and additional courses) and to extend their learning beyond the framework of the Unified State Exam (USE) through extracurricular education. Such activities may enhance students' well-being, reduce physical inactivity, and provide opportunities for self-actualization and achievement. Given that highly motivated high school students devote most of their time to USE preparation, our findings suggest that participation in voluntary activities such as sports and foreign language courses may serve as important psychological resources that help mitigate burnout.

Second, school burnout was analyzed in relation to students' perceived characteristics of the educational environment. The results indicate that higher satisfaction with the availability of subjects and specialized courses corresponds to lower burnout levels across all dimensions. Furthermore, the better a student's academic track aligns with their intended field of study, the lower their levels of cynicism and perceived inadequacy. Additionally, greater satisfac-

tion with school-based USE preparation was associated with lower exhaustion, cynicism, and perceived inadequacy. Thus, students' satisfaction with the opportunities provided by their schools, along with their ability to take advantage of these opportunities, plays a crucial role in burnout prevention and may serve as a protective factor against it.

Third, we examined the relationship between school burnout and students' perceptions of teacher and administrative attitudes toward them. The analysis revealed consistently significant statistical associations: positive teacher attitudes — such as confidence in students' success, support, praise, and encouragement — were linked to lower burnout levels. Conversely, a lack of confidence in students' abilities, harsh remarks, insults, and shouting were associated with higher burnout scores.

These findings largely align with previous international research. For example, studies indicate that additional physical activity is negatively associated with emotional exhaustion [7], while academic workload is closely linked to student exhaustion [5; 22]. Researchers have also emphasized the role of social support, particularly student-teacher relationships. Prior studies demonstrate that teachers' attentiveness and respect toward students are negatively correlated with school burnout [20], while support for struggling students is linked to lower burnout levels [16]. A survey of 2,400 Finnish students found that the level of emotional support received from teachers and classmates was positively correlated with academic engagement, which in turn was negatively associated with cynicism — one of the three core components of burnout [19]. Furthermore, a meta-analysis of studies on different types of social support and school burnout found a negative correlation between all forms of social support and students' sense of inefficacy in school [11].

Thus, teacher-student relationships play a significant role in students' emotional well-being, a finding supported by both international research and the results of the present study.

Conclusions

The identified relationships between perceived characteristics of the educational environment and the severity of academic burnout among students have significant practical implications and considerable managerial potential. These findings can serve as a foundation for targeted interventions and administrative decisions in schools aimed at preventing burnout. Key strategies may include (1) reducing academic workload, (2) enhancing students' self-regulation skills, fatigue recognition, and self-care practices, and (3) improving the overall school climate and the quality of student-teacher relationships. It is crucial to invest in teacher training, expanding their knowledge of student burnout, its antecedents, and its consequences. This will enable educators to effectively support students' emotional well-being, prevent burnout, and provide a more adaptive learning environment. Additionally, when designing USE (Unified State Exam) preparation programs, schools should consider students' intentions and incorporate their feedback as a potential indicator of program effectiveness.

Although the present study does not establish causal relationships, it suggests the existence of reciprocal links between school burnout and teacher behavior. On one hand, students experiencing exhaustion, cynicism toward learning, and a perceived mismatch with academic ex-

pectations may elicit more frustration and less empathy from teachers. On the other hand, negative teacher attitudes — such as a lack of praise, support, and encouragement — may contribute to increased exhaustion, cynicism, and feelings of inadequacy among students.

An important consideration is the role of universities, which admit emotionally exhausted first-year students who may already exhibit cynicism toward the educational process. The findings highlight potential challenges in student adaptation to the university environment and emphasize the need to address their emotional well-being to minimize the risk of escalating burnout and subsequent psychological and academic difficulties.

Future research directions include comparing burnout severity among students enrolled in different academic tracks, examining gender differences, and analyzing variations in burnout levels between high school students and vocational college students. Additionally, it would be valuable to compare students in traditional in-person schooling with those in distance learning programs. Further research could explore the relationship between student burnout and objective school characteristics, geographic and socioeconomic factors, academic workload, academic performance, and USE results. Employing methods beyond self-report measures would provide a more comprehensive understanding of academic burnout. These insights would support the development of empirically grounded programs tailored to high school students, aimed at preventing and reducing burnout, as well as informing administrative decisions that promote student well-being.

Limitations: Highly motivated high school students participated in the survey; however, the final sample included only girls, so caution should be exercised when extrapolating results to boys. Additionally, there is no objective data on the schools where the respondents study.

Список источников / References

1. Бочавер, А.А., Михайлова, О.Р. (2023). Выгорание школьников: адаптация опросника на российской выборке. *Вопросы образования,* 2. https://doi.org/10.17323/1814-9545-2023-2-70-100
   Bochaver, A.A., Mikhailova, O.R. (2023). School burnout: adaptation of the questionnaire in a Russian sample. *Educational Studies Moscow*, 2. (In Russ.). https://doi.org/10.17323/1814-9545-2023-2-70-100
2. Бочавер, А.А., Михайлова, О.Р. (2023). Объявление об ошибке в статье [Электронный ресурс] // Вопросы образования, 3.237. URL: https://vo.hse.ru/article/view/18059 (дата обращения: 07.07.2024).
   Bochaver A.A., Mikhailova O.R. (2023). Error announcement. *Educational Studies Moscow*. 3, 237. (In Russ.) URL: https://vo.hse.ru/index.php/vo/article/view/16424 (accessed 7.07.2024).
3. Илюхин, А.Г. (2021). Выгорание в жизни школьников и студентов: причины, последствия и способы преодоления. *Современная зарубежная психология,* 10(2), 117–127. https://doi.org/10.17759/jmfp.2021100212
   Ilyukhin, A.G. (2021). Burnout in the lives of schoolchildren and students: causes, consequences and ways to overcome. *Journal of Modern Foreign Psychology*, 10(2), 117–127. (In Russ.). https://doi.org/10.17759/jmfp.2021100212
4. Осин, Е.Н. (2015). Отчуждение от учебы как предиктор выгорания у студентов вузов: роль характеристик образовательной среды. *Психологическая наука и образование*, 20(4), 57–74. https://doi.org/10.17759/pse.2015200406
   Osin, E.N. (2015). Alienation from Study as a Predictor of Burnout in University Students: the Role of the Educational Environment Characteristics. *Psychological Science and Education*, 20(4), 57–74. (In Russ.). https://doi.org/10.17759/pse.2015200406
5. Aypay, A. (2011). Elementary School Student Burnout Scale for Grades 6–8: A Study of Validity and Reliability. *Educational Sciences: Theory & Practice*,11, 520–527.

6. Bradley, H.B. (1969). Community-based Treatment for Young Adult Offenders. *Crime & Delinquency,*15(3), 359–370. https://doi.org/10.1177/001112876901500307
7. Cheung, P., Li, C. (2019). Physical Activity and Mental Toughness as Antecedents of Academic Burnout among School Students: A Latent Profile Approach. *International Journal of Environmental Research and Public Health*, 16(11). https://doi.org/10.3390/ijerph16112024
8. Cronbach, L.J. (1951). Coefficient Alpha and the Internal Structure of Tests. *Psychometrika*, 16(8), 297–334. https://doi.org/10.1007/BF02310555
9. Evers, K., Chen, S., Rothmann, S., Dhir, A., Pallesen, S. (2020). Investigating the relation among disturbed sleep due to social media use, school burnout, and academic performance. *Journal of Adolescence*, 84(1), 156–164. https://doi.org/10.1016/j.adolescence.2020.08.011
10. Freudenberger, H.J. (1974). Staff burnout. *Journal of Social Issues,* 30, 159–165. https://doi.org/10.1111/j.1540-4560.1974.tb00706.x
11. Kim, B., et al. (2018). Relationships between social support and student burnout: A meta-analytic approach. *Stress and Health: Journal of the International Society for the Investigation of Stress*, 34(1), 127–134. https://doi.org/10.1002/smi.2771
12. Lakkavaara, A., Upadyaya, K., Tang, X., Salmela-Aro, K. (2024). The role of stress mindset and academic buoyancy in school burnout in middle adolescence. *European Journal of Developmental Psychology,* 1–18. https://doi.org/10.1080/17405629.2024.2382398
13. Mannerström, R., Haarala-Muhonen, A., Parpala, A. et al. (2024). Identity profiles, motivations for attending university and study-related burnout: Differences between Finnish students in professional and non-professional fields. *European Journal of Psychology of Education*, 39, 651–669. https://doi.org/10.1007/s10212-023-00706-4
14. Maslach, C., Jackson, S.E. (1981). The measurement of experienced burnout. *Journal of Organizational Behavior*, 2, 99–113. https://doi.org/10.1002/job.4030020205
15. Maslach, C. (1979). Burned-out. *The Canadian Journal of Psychiatric Nursing*, 20(6), 5–9.
16. Meylan, N., Meylan, J., Rodriguez, M., Bonvin, P., Tardif, E. (2020). What Types of Educational Practices Impact School Burnout Levels in Adolescents? *International Journal of Environmental Research and Public Health,* 17(4), 1152. https://doi.org/10.3390/ijerph17041152
17. Ponkosonsirilert, T., et al. (2022). Stress, self-compassion, and school burnout in Thai high school students. *International Journal of Adolescent Medicine and Health,* 34(5), 343–349. https://doi.org/10.1515/ijamh-2020-0109
18. Raiziene, S., Pilkauskaite-Valickiene, R., Zukauskiene, R. (2014). School Burnout and Subjective Well-being: Evidence from Cross-lagged Relations in a 1-year Longitudinal Sample. *Procedia — Social and Behavioral Sciences*, 116, 3254–3258. https://doi.org/10.1016/j.sbspro.2014.01.743
19. Rautanen, P., Soini, T., Pietarinen, J. et al. (2021) Primary school students' perceived social support in relation to study engagement. *European Journal of Psychology of Education*, 36(3), 653–672. https://doi.org/10.1007/s10212-020-00492-3
20. Romano, L., Angelini, G., Consiglio, P., Fiorilli, C. (2021). The Effect of Students' Perception of Teachers' Emotional Support on School Burnout Dimensions: Longitudinal Findings. *International Journal of Environmental Research and Public Health*, 18(4). https://doi.org/10.3390/ijerph18041922
21. Salmela-Aro, K., Upadyaya, K. (2014). School burnout and engagement in the context of demands-resources model. *British Journal of Educational Psychology*, 84(1), 137–151. https://doi.org/10.1111/bjep.12018
22. Salmela-Aro, K., Kiuru, N., Nurmi, J. E. (2008). The role of educational track in adolescents' school burnout: A longitudinal study. *British Journal of Educational Psychology*, 78(4), 663–689. https://doi.org/10.1348/000709908X281628
23. Salmela-Aro, K., Kiuru, N., Leskinen, E., Nurmi, J.-E. (2009). School Burnout Inventory (SBI): Reliability and validity. *European Journal of Psychological Assessment*, 25(1), 48–57. https://doi.org/10.1027/1015-5759.25.1.48
24. Salmela-Aro, K., Tynkkynen, L. (2012). Gendered pathways in school burnout among adolescents. *Journal of Adolescence*, 35(4), 929–939. https://doi.org/10.1016/j.adolescence.2012.01.001
25. Salmela-Aro, K., Upadyaya, K. (2020). School engagement and school burnout profiles during high school — The role of socio-emotional skills. *European Journal of Developmental Psychology*, 17(6), 943–964. https://doi.org/10.1080/17405629.2020.1785860
26. Schaufeli, W.B., Martínez, I.M., Marques Pinto, A., Salanova, M., Bakker, A.B. (2002). Burnout and engagement in university students: A cross-national study. *Journal of Cross-Cultural Psychology,* 33(5), 464–481. https://doi.org/10.1177/0022022102033005003

27. Shih, S.-S. (2012). An examination of academic burnout versus work engagement among Taiwanese adolescents. *The Journal of Educational Research*, 105(4), 286–298. https://doi.org/10.1080/00220671.2011.629695
28. Slivar, B. (2001). The syndrome of burnout, self-image, and anxiety with grammar school students. *Psihološka obzorja*, 10(2), 21–32.
29. Tang, X., Upadyaya, K., Salmela-Aro, K. (2021). School burnout and psychosocial problems among adolescents: Grit as a resilience factor. *Journal of Adolescence*, 86, 77–89. https://doi.org/10.1016/j.adolescence.2020.12.002
30. Teuber, Z., Nussbeck, F.W., Wild, E. (2021). The bright side of grit in burnout-prevention: Exploring grit in the context of demands-resources model among Chinese high school students. *Child Psychiatry and Human Development*, 52(3), 464–476. https://doi.org/10.1007/s10578-020-01031-3
31. Walburg, V. (2014). Burnout among high school students: A literature review. *Children and Youth Services Review*, 42, 28–33. https://doi.org/10.1016/j.childyouth.2014.03.020
32. Yusoff, M. (2010). Stress, stressors and coping strategies among secondary school students in a Malaysian government secondary school: Initial findings. *ASEAN Journal of Psychiatry*, 143–157.

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Alexandra A. Bochaver — planning of the research; control over the research; data analysis; application of statistical, mathematical or other methods for data analysis; visualization of research results; writing and design of the manuscript.

All authors participated in the discussion of the results and approved the final text of the manuscript.

Вклад авторов

Мурадымова Л.Р. — идея исследования; планирование исследования; сбор данных; проведение исследования; визуализация результатов исследования; написание и оформление рукописи.

Бочавер А.А. — планирование исследования; контроль за проведением исследования; анализ данных; применение статистических, математических или других методов для анализа данных; визуализация результатов исследования; написание и оформление рукописи.

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The authors declare no conflict of interest.

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