

The relationship between the environmental safety of the school educational environment and teacher burnout

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Abstract. The purpose of the research is to study the relationship between the components of professional burnout and indicators of educational environment safety. A correlation study was conducted with 43 teachers from 2 schools from different regions of Russia, average age 42.2 years, all women. It was shown that a decrease in the safety of the educational environment leads to the development of symptoms of emotional exhaustion and reduction in professional achievements in the teacher. Unsatisfactory relations of a teacher with colleagues and superiors, forcing them to work against their will, by means of threats, impossibility to express their point of view accelerate professional burnout most of all. The relationship between a teacher's attitude to the educational environment and burnout was also found: the greatest connection is with the emotional component (the teacher stops liking the work), behavioural component (the teacher wants to quit it); the cognitive component (general idea of work as a way of self-realisation) is not connected with burnout. The conclusion assumes that by increasing the safety of educational environment, it is possible to slow down the professional burnout of teachers, and thus contribute to their professional longevity.

1 Introduction

Professional burnout of teachers is a huge problem of modern education. Professional burnout is a clinical syndrome, which the World Health Organisation has officially included in the 11th International Classification of Diseases (code QD85) since 1 January 2022. According to the definition, it is a clinically significant syndrome that occurs in a situation of chronic stress in the workplace and which cannot be successfully overcome. The presence of professional burnout is a severe symptom that leads to job dissatisfaction, absenteeism, disability pension [1] and reduction of professional longevity of a specialist [2]. As studies show, the level of burnout in representatives of many professions correlates with the number of days of absence from work for various reasons and periods of absence due to illness. Studies have shown that workers with a high level of burnout are absent from work for an

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average of 13.6 days per year compared to those with a low level of burnout - they are absent from work for only 5.4 days. An increase in burnout predicted a 21% and 9% increase in days of absence and sickness absence, respectively, even after adjusting for socio-demographic, work and health conditions [3].

The teaching profession is at risk of professional burnout; increased demands on teachers, the need for continuous professional growth, professional development and combining work with additional study increase mental fatigue and professional stress [4]. Researchers also noted that the profession of "teacher" belongs to the type of social professions that are at risk of accelerated biopsychological aging [5], and increased professional burnout of teachers leads to a decrease in their professional longevity and early retirement from the profession. Professional burnout increases the likelihood that educators will look for an excuse to be absent from the workplace. For higher education employees, for example, it has been shown that increased professional burnout leads to staffing shortages [6]. Researchers noted that among the consequences of teacher burnout for higher education institutions is a decrease in performance and, as a consequence, a decrease in inclusion in new development projects of the institution, the ability to enthusiasm, efficiency and effectiveness are lost. In spite of the fact that education is a factor contributing to the prolongation of productive life [7], in the presence of burnout symptoms teachers continue to work, but with less intensity and interest, which can lead to professional and personal deformation, when a teacher conducts classes on «automatic mode" - goes to "automated" forms of classes [6].

Psychologists describe three dimensions of burnout: a) emotional exhaustion, characterised by emotional exhaustion and loss of energy; b) depersonalisation or cynicism, also described as dehumanisation, detachment from work and clients and emotional hardening; and c) reduction of personal achievement or ineffectiveness, i.e., the feeling of personal or professional inadequacy, as well as reduced performance and coping skills [8].

The relationship of professional longevity with different indicators of professional burnout among public and private-public school teachers has been studied in Turkey. Professional commitment is the desire to continue one's career in the same profession, while positions may vary. Depersonalisation, as one of the subspaces of burnout, was shown to have a negative directional effect on some aspects of professional commitment, particularly emotional professional commitment and general professional commitment, while normative professional commitment was not significantly affected [9].

In a recent review of 993 articles from different databases (36 studies were retained after analysis), the authors concluded that the consequences of burnout can be very severe: physical, psychological and occupational. The most common physical consequences were cardiovascular diseases (coronary heart disease) and hospitalisation for them, there were also other risk factors for these diseases: obesity, hyperlipidemia, type 2 diabetes, metabolic syndrome, hypertension, high triglycerides, low cholesterol and a number of others. The main psychological consequences were insomnia and depressive symptoms, and occupational consequences were job dissatisfaction [1].

Such severe consequences raise another question for researchers: what are the causes of occupational burnout. Most researchers believe that a significant part of possible precursors of professional burnout of teachers can be united into one large group: insecurity of educational environment of an educational institution. According to the UNESCO resolution, it is the study of safety and well-being in education that is an important area of scientific research and field of practical application, through which the human right to well-being is realised. The key role of the safety of the educational environment is determined by the well-being of the teacher, who shapes this environment and ensures the well-being of students in it; there are studies confirming a significant relationship between school safety and teacher well-being [10].

Psychological safety of the educational environment includes three main components: 1) attitude to the educational environment as a structure that allows to fulfil oneself, give positive emotions and in which one wants to work, 2) satisfaction with its main characteristics, 3) protection from coercion and violence from other teachers, administration, parents and students [11]. The following factors of teachers' professional self-realisation have been identified, which showed strongly pronounced negative correlations with the indicators of emotional burnout: job satisfaction, activity (initiative), belief in professional success, cooperation with colleagues, self-education, aspiration for self-realisation [12].

Studies conducted on teachers of different levels (kindergarten teachers, primary and secondary school teachers) in China have shown that the relationship between teacher's professional identity and burnout is partially mediated by job involvement. According to I.A. Baeva, job involvement is part of the cognitive component of educational environment safety. Due to involvement in work, teacher's professional identity had the greatest predictive influence on burnout [13].

Based on the results of theoretical and empirical research in Lithuania, the main factors influencing the relationship between professional burnout and professional satisfaction were identified, also a significant negative relationship between professional satisfaction and professional burnout was confirmed [14]. Professional satisfaction according to I.A. Baeva is included in the emotional component of safety of the educational environment.

Another important direction in the study of professional burnout is the search for personal resources that increase professional longevity of specialists [15], [16]. The safety of professional environment is also referred to as the main resource of professional longevity of specialists [17]. Creating a safe educational environment is used to prevent professional burnout of young teachers [18].

Based on the analysis, the scientific task of our research is formulated: to study the relationship between the components of professional burnout and specific characteristics of the safety of the educational environment. This will allow us to prevent professional burnout of teachers through the creation of a safe educational environment in the future.

2 Research organisation

The purpose of the research is to study the relationship between the characteristics of professional burnout of teachers and the components of safety of the educational environment of secondary school.

Hypothesis looks as follows: there is a connection between certain characteristics of teachers' professional burnout and psychological safety of educational environment of an educational institution. The higher the indicators of school educational environment safety are, the lower the level of professional burnout is.

3 Research Methods

Diagnostic methods.

1. Maslach Burnout Inventory (MBI) [8], in Russian adaptation (authors N.E. Vodopyanova and E.S. Starchenkova) it is designed to measure the main indicators of professional burnout syndrome: emotional exhaustion, depersonalisation and reduction of professional achievements.
2. The method of assessing the safety of the educational environment for a teacher according to I.A. Baeva [11], which includes 3 questionnaires.
I. Attitude to the educational environment of the school. The indicators assessed were:

1. Cognitive component of attitude (whether work at school develops teacher's abilities and professional skills. A positive value of this indicator means that the teacher believes that the school develops his/her abilities and professional skills. A negative value means that it does not.
2. Emotional component of attitude (what emotions are caused by work at school: positive or negative). Positive value of this indicator means that school work causes positive emotions, negative - that it causes negative emotions.
3. Behavioural component of attitude (no intention to leave work in this school and profession in general). A positive value of this indicator means that the teacher wants to stay at work in this school and in the teaching profession. A negative value means that the teacher wants to leave the job and the profession in general.

The general attitude to the educational environment was also assessed as the sum of the other indicators.

II. Satisfaction with significant characteristics of the school's educational environment. This indicator included 8 components: satisfaction with the following indicators was assessed:

1. Relationships with teachers,
2. Relationship with students,
3. Opportunity to express their point of view,
4. Respectful attitude towards oneself,
5. Preservation of personal dignity,
6. Being able to ask for help,
7. Opportunity to show initiative and activity,
8. Consideration of personal problems and difficulties.

Overall satisfaction was also assessed as a sum of its components.

A positive value of any indicator meant that the teacher was satisfied with these components, and a negative value meant that he/she was not satisfied.

III. Protection from psychological violence. This indicator included 5 components. Protection from the following phenomena was assessed:

1. Public humiliation/insults.
2. Threats.
3. Forcing someone to do something against their will.
4. Ignoring.
5. Unfriendly attitude.

Total defensiveness as a sum of all components was also assessed. A positive value of any indicator meant that a person felt protected, and a negative value meant that he/she did not feel protected.

Methods of mathematical statistics. Indicators of descriptive statistics (arithmetic mean and standard deviation) were calculated. Pearson's correlation coefficient between the indicators of professional burnout and the data on psychological safety of the educational environment for the teacher was also calculated.

Test subjects: 43 people, teachers of secondary general education schools aged from 19 to 52 years, all women. The average age was 42.2 years. Two randomly taken secondary schools (Penza, Ufa) were surveyed, the data were summarised. The survey was conducted anonymously with voluntary and informed consent of the subjects.

4 Results

We have examined the indicators of professional burnout and psychological safety of the educational environment for secondary school teachers. The results are presented in Table 1.

Table 1. Average values of indicators of professional burnout and psychological safety of the educational environment for secondary school teachers.

Statistics	Burnout indicators			Safety indicators of the EE		
	Emo- tional exha- ustion	Deperso- nalisation	reduction of profes- sional achievement	Attitudes to educational environment	Satisfaction with significant characteristics	Protection from psychological abuse
average	25.5	9.8	36.2	11.81	31.5	54.3
standard deviation	5.75	3.10	4.47	4.29	4.14	11.40

As can be seen from the table, the main indicators of teachers are mostly within the average norms. However, the indicator "emotional exhaustion" slightly exceeds the average level (average level from 16 to 24), and the indicator "reduction of professional achievements" (reverse scale) is also within the high level (30 and less). At the same time, EE safety characteristics are positive. Attitude to the educational environment - positive (indicator with a plus sign), satisfaction with the main components of the educational environment fluctuates between "Moderately" and "To a great extent". Protection from violence - fluctuates between "How to say" and "Rather protected than not protected".

At the next stage we evaluated the correlation of all indicators of safety of educational environment with indicators of professional burnout. The results are in tables 2-4.

Table 2. Correlation of professional burnout indicators with the attitude to the educational environment.

	Attitudes to educational environment			
	General	Cognitive component	Emotional component	Behavioural component
emotional exhaustion	-0.609**	-0.209	-0.513**	-0.569**
depersonalisation	-0.258	0.11	-0.403*	-0.193
reduction of professional achievement	0.304	-0.077	0.414*	0.213

* <0.05

** <0.01

As can be seen from the table, the correlation between emotional exhaustion and general attitude to the educational environment is negative; the worse a teacher's attitude to the educational environment of his school, the faster emotional exhaustion occurs. Emotional and behavioural components of attitude to the educational environment also correlate with emotional exhaustion. The emotional component of the attitude to the educational environment correlates with depersonalisation and reduction of professional achievements. In other words, in the presence of any symptoms of professional burnout, a teacher stops liking his work. Behavioural component - intention to leave this place of work correlates only with emotional exhaustion. Cognitive component - perception of work as a way of self-realisation is not related to the indicators of professional burnout.

As can be seen from the table, the general satisfaction with the educational environment is connected with emotional exhaustion and reduction of professional achievements. At the same time, the relationships with colleagues (indicators: relationships with teachers, respectful attitude to oneself, preservation of personal dignity) are most significantly connected with emotional exhaustion of a teacher. The same indicators are also associated with the reduction of professional achievements. Apparently, this is a symptom-complex when real or subjectively perceived disrespect on the part of colleagues leads to their own reduction of their achievements. Depersonalisation is not related to general attitudes towards

the educational environment, but still has one negative correlation with respectful attitudes towards oneself.

Table 3. Correlation of professional burnout indicators with satisfaction with educational environment.

	Satisfaction with educational environment								
	1	2	3	4	5	6	7	8	General
emotional exhaustion	-	-	-	-	-	-	-	-	-
	0.405*	0.302	-0.30	0.716**	0.548**	0.275	0.037	0.228	0.533**
depersonalisation	-	-	-	-	-	-	-	-	-
	-0.174	0.247	0.094	-0.395*	-0.201	0.068	0.170	0.179	-0.219
reduction of professional achievement	-	-	-	-	-	-	-	-	-
	0.338*	0.156	0.224	0.389*	0.512**	0.050	0.258	0.053	0.376*

* <0.05

** <0.01

1. Relationship with teachers,
2. Relationship with students,
3. Ability to express their point of view,
4. Respectful attitude towards oneself,
5. Preservation of personal dignity,
6. Opportunity to seek help,
7. Opportunity to show initiative, activity,
8. Consideration of personal problems and difficulties.

Table 4. Correlation of professional burnout indicators with protection from psychological abuse.

	Protection from psychological abuse					
	1	2	3	4	5	general
emotional exhaustion	-	-	-	-	-	-
	-0.348*	-0.479**	-0.326*	-0.272	-0.312	-0.426**
depersonalisation	-	-	-	-	-	-
	-0.127	-0.339*	-0.383*	-0.205	-0.238	-0.314
reduction of professional achievement	-	-	-	-	-	-
	0.383*	0.467**	0.356*	0.293	0.282	0.437**

* <0.05

** <0.01

1. Public humiliation/insult;
2. Threats;
3. Being forced to do something against one's will;
4. Ignoring;
5. Unfriendly attitude.

Protection from psychological violence is interconnected with reduction of professional achievements and emotional exhaustion. If we look by components, aggressive characteristics of violence (public humiliation, threats, coercion to do something against desire) are connected with the indicators of professional burnout, the last two components also increase depersonalisation.

5 Discussion

Establishment of interrelationships between safety of educational environment and professional burnout of teachers opens for us the possibilities of psychoprophylaxis and

psychocorrection of this syndrome. If professional burnout is a severe clinical syndrome, the safety of the educational environment is a state of the environment determined by correctable and modifiable conditions. In our study, the most significant relationships between these two indicators were identified. Firstly, these are the links between safety from violence and all components of professional burnout. The links are negative and with a high level of significance. However, having considered in detail the revealed patterns, we see that not all characteristics related to violence give reliable correlations with professional burnout. First of all, the presence of threats and coercion to do something against the desire correlates with professional burnout, i.e. there is a deprivation of the teacher's subjectivity (an important factor in modern models of professional burnout [19]). We can assume the existence of the reverse dependence: if we increase the teacher's subjectivity, his/her right to control his/her professional activity, to make decisions about his/her work, it will slow down the rate of professional burnout. The obtained results coincide with the data of other researchers analysed above.

Let us also note that of all important components of the educational environment, dissatisfaction with the need "respectful attitude to oneself" correlates most strongly with all components of professional burnout. Also, teachers are dissatisfied with the indicator "preservation of personal dignity" and relationships with teachers. It should be noted that dissatisfaction most of all concerns interpersonal relations with colleagues, but not with children or parents, about whom teachers more often complain in conversations among themselves. But professional burnout is caused by relations with colleagues, head teacher, director, disrespectful attitude of equal or more status colleagues aggravate burnout problems.

Attention should be paid to the fact that the general attitude of teachers themselves to the educational environment of the school is positive; this attitude is characteristic of people with high resilience and, according to researchers, contributes to the slowing down of biopsychological ageing [20]. However, if we look at the components and evaluate the relationship of these components with professional burnout, we can notice a striking fact. The cognitive component of teachers' attitude to their educational institution is high enough, i.e., the reference importance of their professional environment for teachers is not reduced. They believe that work at school requires constant improvement of their skills and helps to develop their abilities. Perhaps, that is why there are no correlations between the cognitive component of teachers' attitude to the educational environment and their professional burnout. However, the emotional component of the attitude to school is rather low and its correlations with all components of professional burnout are present. Teachers do not like their labour specifically, their work often causes them bad mood, they do not find it interesting and exciting. And the less positive emotions they have at school - the stronger professional burnout is. But the emotional sphere can be corrected. There is a fundamental possibility to saturate the educational environment of secondary school with positive emotions. We would suggest to do more collective events for teachers, maybe to conduct social-psychological trainings on team-building. The trainings should be not burdensome and give positive emotions. This can become an important component of work with the teaching staff to prevent professional burnout, which in turn will contribute to improving the professional longevity of teachers.

6 Conclusion

The research made it possible to establish a connection between the indicators of professional burnout of teachers and the safety of the school's educational environment. Reduction of the safety of educational environment for teachers leads to the development of symptoms of emotional exhaustion and the reduction of professional achievements. The development of

depersonalisation symptom is almost not connected with the lack of safety. Unsatisfactory relations of a teacher with colleagues and superiors, forcing him/her to work against his/her will by means of threats accelerate professional burnout most of all. Teachers are also most dissatisfied with relations with colleagues and emotional atmosphere in their team. Unsatisfaction of these needs correlates with professional burnout.

Research perspectives. Our hypothesis was confirmed, that the safety of the educational environment, indeed, can become a resource of professional longevity of teachers. For this purpose, it is necessary to increase the subjectivity of teachers, their ability to express their opinion, and make decisions concerning their activity. This can slow down the rate of professional burnout and thus contribute to the increase of professional longevity.

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