

# Personal Determinants of Emotional Burnout in Students (Future Physical Training Teachers)

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**Abstract: Purpose:** *The purpose of the study is to identify and analyze the manifestations of emotional burnout of future physical education teachers and to determine the role of personal determinants in the formation and overcoming this condition. The purpose was specified in the following tasks: to identify the features of emotional burnout in future physical training teachers; to investigate the relationships between emotional burnout and personal characteristics of students; to find out the differences in the sets of personality characteristics of students of future physical training teachers with different levels of emotional burnout.*

**Design and Methods:** *The research involved 150 students of the college (18.1±2 years) who study in the specialty “physical training and sports”: the 1st year, n=50; 2nd year, n=32; 3rd year, n=37 and 4th year, n=31). The sample is heterogeneous (61.33% of boys, 38.67% of girls). The Maslach Burnout Inventory (C. Maslach), “Diagnostics of the level of emotional burnout” (V.V. Bojko), the modified form of the FRI questionnaire was employed. Methods of descriptive statistics, Spearman correlation analysis, Kruskal-Wallis one-way analysis of variance and structural analysis (by A.V. Karpov) were used. Mathematical data processing and graphical presentation of the results were carried out using the computer software package of statistical software SPSS 22.0.*

**Results:** *The article confirms the assumption about the existence of correlation relations between emotional burnout and personal characteristics of future physical training teachers. The statistically significant differences between groups of students with different levels of emotional burnout on the scale of “neuroticism”, “spontaneous aggression”, “depression”, “emotional lability”, “irritability”, “reactive aggression”, “openness” that are more common to future teachers with high level of emotional burnout are revealed. It is empirically proven that students with different levels of emotional burnout characterized by various structural organizations of personality characteristics, and also that the growth of indicators of the emotional burnout formation is accompanied by a qualitative restructuring of the personality characteristics.*

**Conclusions:** *The obtained data contributes to the study of the phenomenon of burnout and provide an opportunity to identify further directions of its prevention and correction among future physical training teachers. Subsequent studies will be aimed at developing an individual system of psychological training and support for the prevention and correction of emotional burnout among students.*

**Keywords:** *emotional burnout; future physical training teachers; exhaustion; depersonalization; reduction of personality achievements; personality characteristics of an individual.*

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## 1. Introduction

*Burnout syndrome is stalking us when our life is meaningful,  
but we cannot or do not want to stop and admit it ...  
The burning requires that we bear it ...  
(Glauberger, 2004, p. 22)*

The reform of the educational system, difficult political and economic conditions influenced the massive manifestation of emotional burnout among representatives of socio-occupational professions. Current studies suggest the prevalence of this syndrome, not only among people engaged in employment but also among students.

Student's age, according to B.H. Ananiev is a sensitive period for the development of the main sociogenic potentials of human (Ananiev, 1974). It is at this stage of life if favorable conditions occur, the actualization and systematization, the concentration of development of various aspects of the individual, the assimilation of social values, norms, attitudes, patterns of behavior, and the expansion of social ties take place. This is the period "... when their own resources seem inexhaustible, and optimism in relation to their health prevails over the care of its preservation" (Nikiforov, 2006, p. 466); resulting in a loss of awareness of the personality of the value of health and creating favorable conditions for the formation of emotional burnout.

The student environment is characterized by the presence of a large number of stress factors that threaten the mental health of the student and lead to an increase in the number of people with neuro-psychological and somatic diseases, to the occurrence of numerous personal deformations, one of which is the syndrome of emotional burnout. These include: high emotional stress, academic load, exam sessions, changes in living conditions, unsettled life, lack of support in education, conflict of values related to learning, social and professional uncertainty of a future specialist, the need for a job search, presence of people (teachers, students) who "burn out", a crisis of identity, etc.

The syndrome of emotional burnout at a student's age was studied by M.J. Fimian (1988), Y. Neumann & A. Reichel (1990), W.B. Schaufeli, I. Martinez, A. Pinto, M. Salanova, & A. Bakker (2002), W.J.G. Evers, W. Tomic, A. Brouwers (2004), H.C. Bernhard (2007), M.E. Dahlin, B. Runeson (2007), M.L. Jennings (2009), J. Maroco, J. Campos (2012), I.V. Kondratenko (2014) and others. Among students (future trainers, athletes), emotional burnout was studied by A.V. Mishchenko (2011), E.I. Berilova (2016), O.N. Borovik (2018), and others. However, the personal component as the determinant of the occurrence of emotional burnout

among future physical training teachers has not previously been the subject of a special study.

Sports activity has its own specificity, therefore, the sources and manifestations of burnout of athletes are different from the factors of its development and symptoms among specialists of other professions (Berilova, 2016, p. 79). Probably, they will be different for future physical training teachers already at the stage of their studies in college.

## **2. Review of literature**

### ***2.1. Emotional burnout***

The Burning syndrome is one of the common “diseases” of our time, it is a condition that develops in parallel with the loss of motivation and is accompanied by a weakening of the ability to withstand mental stress. At the same time, the person as if succumbing to destiny and feels insulted. These states are the result of a high increase of employee requirements. It often happens to people who have had a very high (often unrealistic) level of expectations towards themselves and their achievements.

Burning is not a medical diagnosis, although the burnout syndrome usually leads to diseases that have a direct relationship to medicine: depression, fear, psychosomatic disorders. From the point of view of psychology, “burnout” is a metaphor, a vivid description of a well-defined state (Grabe, 2008, p. 6).

The problem of the burnout of a person is relatively new, it begins in the foreign psychology of the late twentieth century. The term “burnout” was introduced by the American psychologist, psychiatrist H.J. Freudenberger (1974), who worked in an alternative health care service and described the phenomenon that he observed in himself and his colleagues (exhaustion, loss of motivation and liability), calling it “burnout” (Freudenberger, 1974, pp. 159-165).

Bojko (1996) interprets burnout as a stress-related professional deformation, which in most cases contains an acquired stereotype of professional behavior that helps the subject to dosage and economically use their energy resources, and the protective mental mechanism for the complete or partial “shutdown” of emotions in response to psycho-traumatic influences, related to professional activities (Bojko, 1996, p. 133; Clipa & Clipa, 2019).

In the presented scientific work, we proceed on the interpretation of emotional burnout as a gradual loss by the subject of vitality under the influence of prolonged stress within the activity (educational-professional), which turns out in symptoms of chronic fatigue, general exhaustion,

depersonalization, reduction of personality achievements (Clipa, 2017; Koltunovych, 2016).

There are more than 100 symptoms of burnout, which are usually grouped into three groups (Nikiforov, 2006, p. 549):

1) Psychophysiological symptoms: chronic exhaustion that does not fade even after a night's sleep, fatigue, headache, disorders of the gastrointestinal tract, sweating, respiratory failure, insomnia, constant desire to sleep during the day, reduction of susceptibility and reaction to changes in the environment, weight fluctuations, etc.

2) Socio-psychological: the general negative attitude to life and professional perspectives, a sense of hyper-liability, fear of results and process of activity, feeling of isolation and misunderstanding of others, feeling of lack of support from significant people, constant experience of negative emotions, increased irritability, indifference, passivity, depression, increased conflict, anxiety.

3) Behavioral: distancing from employees, clients (students, patients); addictive behavior, failure to perform important tasks and sticking to details instead, refusal to make decisions the feeling that work is getting harder, and doing it is more and more difficult; feeling of futility, despair; reduction of enthusiasm while working; indifference to results; an employee is increasingly beginning to take work home, which usually does not perform there; stay late at work; a delay or even an absence from work.

Burning is determined by the interaction of many factors. M.V. Borisova (2003, p. 17-18) distinguishes individual psychological (high level of neuroticism, inconsistency in the value-motivational sphere, the failure of the system of conscious self-regulation) and socio-psychological (negative socio-psychological climate, shortcomings in the organization of activities) determinants of emotional burnout and emphasizes that systematic determinants that play a leading role in burning out occurrence are still individual and are psychological peculiarities of personality (Borisova, 2003, p. 24).

## ***2.2. Students' burnout***

Educational activity of students is inseparable from significant mental work, the need to perceive, memorize and interpret the new information promptly, comprehend and solve various problems, learn different learning technologies, and search for effective ways to memorize the material. In the student's age, the role of self-study is increasing, and the students are often unprepared for organization and implementation of it. In addition, students carry out various social affairs.

The imperfect organization of educational activities of students is reflected in the non-optimal planning of their classroom and extracurricular activities, in increasing the workload in the process of preparation for classes and at the classes. Therefore, students are often fatigued and have academic and exam stress. Not always a financial environment, living conditions in a hall of residence, etc. are favorable. (Fishman & Goltsova, 2014).

Due to the age characteristics, students tend to be compassionate, they are changeable, dreamy. At the beginning of the study, many of them have too idealistic views on learning, do not adapt to new requirements, assess their capabilities inadequately, experience failures and even feel their own incapability. As a result, dissatisfaction with education is formed, indifference to their liabilities increases. There are signs of chronic fatigue, psycho-emotional stress, depersonalization, indicating the development of emotional burnout.

That is, potentially the whole process of learning involves the danger of emotional burnout. In the first years, mainly because of the stresses caused by the transition from educational activities to vocational education. At the undergraduate in the process of intensive professionalization, the student may experience self-doubt, the uncertainty of choice of profession, opportunities for further self-realization in it, and disappointment in the process of learning itself. In addition, students have to overcome considerable difficulties due to demanding physical, mental, moral and strong-willed individual resources. Most students are not able to correctly calculate their strengths, organize their work rationally and evaluate their potential resources. All this often becomes a reason for emotional burnout.

### **3. Purpose of the study**

#### ***3.1. The aim of the study***

The study is aimed at the identification and analysis of the emotional burnout manifestations in future physical training teachers and find out the role of personal determinants in the burnout formation and overcoming.

#### ***3.2. Research assignments***

The purpose was specified in the following tasks:

- to identify the peculiarities of emotional burnout among the future physical training teachers and its specific features among students of different years of studying;
- to investigate the relationship between emotional burnout and personal characteristics of students;
- to determine the personal characteristics inherent in future physical

training teachers with different levels of emotional burnout.

For empirical testing, the following assumptions were made: there is a logical connection between emotional burnout and its components and personal characteristics of future physical training teachers; the formation of emotional burnout among future physical training teachers is determined by the peculiarities of the structural organization of personality characteristics.

## **4. Design and methods**

### **4.1. Participants**

The study covered 150 students (future teachers of physical training) 1-4 years of study (average age –  $18.2 \pm 2$ ). Of these: 33.33% of students are the first year, 21.33% – the second, 24.67% out of the third and 20.67% – the fourth year. The sample is heterogeneous (61.33% of male respondents, 38.67% of female respondents).

### **4.2. Measures**

#### *Emotional Burnout Study.*

To achieve this goal, the following techniques were used:

- “Method for diagnosing the level of emotional burnout” (Bojko, 1996) for the diagnosis of burnout as a dynamic process consisting of three phases (tension, resistivity, exhaustion) and twelve symptoms;
- MBI-ES (MBI: Educators Survey) (Maslach et al., 1996) in the adaptation of N. Vodopianova (Vodopyanova, 2009, pp. 146-147) to identify three components of the burnout syndrome: exhaustion, depersonalization, and reduction of personal achievements

#### *Personality traits*

The personality traits of future physical training teachers were studied using the modified form B of the FPI questionnaire to determine the personal characteristics of educators (Krylov & Manicheva, 2003, pp. 314-223).

#### *Mathematics Methods*

Methods of descriptive statistics, Spearman correlation analysis, Kruskal-Wallis one-way analysis of variance, and structural analysis (by A. Karpov) were used (Karpov, 2006). Mathematical data processing and graphical presentation of the results were carried out using the computer software package of statistical software SPSS 22.0.

## 5. Results

### *5.1. Features of emotional burnout among future physical training teachers*

The results of the diagnosis of the emotional burnout characteristics of the MBI method indicate a fairly high percentage of college students with emotional exhaustion (62% had a high level of emotional exhaustion and 24% had an average level), depersonalization (65.33% and 30.67% respectively), and reduction of personality achievements (41.33% and 48.67% respectively).

Analysis of the obtained data by the method of V.V. Boyko (1996) shows the dominance in the structure of burning of the researched phase “resistance” (formed in 52% of students, 33.33% is in the formation stage), which is characterized by excessive emotional exhaustion, resistance to increasing stress, conscious or unconscious desire of the subject to psychological comfort, reduce the pressure of external influences through the means available to him. Obviously, in such a background, any engagement in carrying out an academic load will cause a sense of dissatisfaction, rapid fatigue and provoke protective reactions that will make a student emotionally closed, distant, indifferent. In such a state, a student begins to study worse as well as perform professional duties, reduces the intensity of interaction with others, in particular with pupils, expands the scope of saving emotions, seeks solitude, etc.

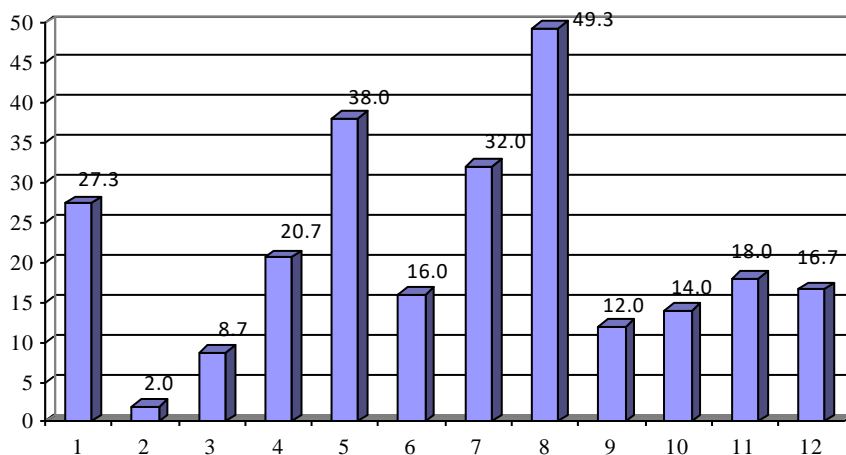
The following positions occupy the following phases: the phase of “exhaustion” (formed in 16.67% of the subjects, 37.33% is in the stage of formation), which is characterized by a decrease in the overall energy tone (life inspiration), weakening of the nervous system, psychophysical fatigue, leveling out of academic achievements, the development of a cynical attitude towards participants of the educational process, psychosomatic disorders; phase “tension” (formed in 18% of the subjects, 31.33% is in the stage of formation), which is characterized by a feeling of emotional exhaustion, chronic fatigue.

Operating the obtained data, it can be noted that in general, the largest number of subjects dominated by the second phase of emotional burnout (phase of “resistance”), followed by the phases of “exhaustion” and “tension”.

Among the dominant symptoms, the following are defined (pic.1):

- “reduction of liability” (dominated by 49.33% of the subjects, 58.67% of students have this symptom formed, 24.67% is in the formation stage);
- “inadequate selective emotional response” (38% of the subjects

- dominate, 57.33% of them are formed, 24.67% of them are in the stage of formation);
- “expansion of scope emotional savings” (32% of the respondents dominate, formed in 42.67%, 20% is at the stage of formation of the subjects studied);
  - “experiencing stressful circumstances” (dominated by 27.33% of the subjects, formed in 37.33%, 23.34% is at the stage of formation of the subjects);
  - “emotional alienation” (prevalent in 14% of the subjects, formed in 26.67%, 30.66% is in the stage of formation of the subjects studied).



1 – experiencing stressful circumstances; 2 – dissatisfaction with themselves; 3 – reach an impasse; 4 – anxiety and depression; 5 – inadequate selective emotional response; 6 – emotional and moral disorientation; 7 – expansion of the scope emotional savings; 8 – reduction of professional liability; 9 – emotional deficit; 10 – emotional alienation; 11 – personal alienation; 12 – psychosomatic and psycho-vegetative disorders.

**Fig. 1.** Distribution of subjects under the dominance of symptoms of emotional burnout, % (**Source:** Authors own contribution)

Thus, 81.3% of students (20.67% of which have a high level of emotional burnout diagnosed, 60.67% have an average emotional burnout diagnosed) are characterized by excessive exhaustion, which results in the emergence and development of protective reactions that make the student emotionally alienated, distant, indifferent. Against this backdrop, any involvement in affairs and communication causes a feeling of excessive exhaustion, perceiving the conditions of learning and interpersonal relationships as traumatic and causing the creation of protective barriers in such communications.



The analysis of the indicators of the formation of emotional burnout and its phases over the years of training demonstrates the predominance of the “resistance” phase in all courses (tab. 01). However, a higher percentage of subjects who have this phase formed or is in the formative stage is characteristic for 4<sup>th</sup>-year students (58.06% and 32.36% respectively) and 2<sup>nd</sup>-year students (53.13% of subjects and 37.5% respectively). As for the students of 3<sup>rd</sup> and 4<sup>th</sup> year, a higher percentage of subjects have an “exhaustion” phase formed or under development (62.16% of the 3<sup>rd</sup> year students and 58.06% of the 4<sup>th</sup> year students).

**Table 1.** Distribution of 1st-4th-year students by formation level of emotional burnout and its phases, %

Formation level	1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year
<b>Phase “Tension”</b>				
formed	6	28.13	29.73	9.68
at the stage of formation	36	25	24.33	41.94
not formed	58	46.87	45.9	48.38
<b>Phase “Resistance”</b>				
formed	40	53.13	62.16	58.06
at the stage of formation	38	37.5	24.33	32.26
not formed	22	9.37	13.51	9.68
<b>Phase “Exhaustion”</b>				
formed	6	28.13	18.92	19.35
at the stage of formation	40	25	43.24	38.71
not formed	54	46.87	37.84	41.94
<b>Emotional burnout</b>				
formed	0	18.75	24.33	19.35
at the stage of formation	84	56.25	62.16	70.97
not formed	16	25	13.51	9.68

**Source:** Authors own contribution

Analysis of the results obtained using Kruskal Wallis’s single-factor variance analysis indicates that there are no statistically significant differences

between students of different courses based on the index of emotional burnout and most of its components (tab. 02).

**Table 2.** Results of the comparison of the four course of students due to the emotional burnout and its components

	Test Statistics <sup>a,b</sup>															
Chi-Square	1.04	13.75	89.57	6.42	5.29	14.59	4.61	6.86	6.52	5.60	42.57	31.96	10.75	5.67	15.21	56.10
df	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Asym p. Sig.	.791	.289	.023	.935	.401	.204	.892	.076	.089	.133	.462	.581	.013	.129	.157	.107

a. *Kruskal Wallis Test*

b. *Grouping Variable: course*

**Source:** Authors own contribution

The statistically significant differences between the students of different courses were revealed only by the symptoms of “reach an impasse”, which is more typical for students of the second and fourth year, compared to the first ( $p \leq 0.05$ ), and the “personal alienation” prevailing among students of the second year, in comparison with the first one ( $p \leq 0.01$ ).

## 5.2. Personality characteristics of future physical training teachers

Comparative analysis of personality characteristics of students of the different year of study by Kruskal Wallis’s single-factor variance analysis (tab. 03) revealed several statistically significant differences between courses.

**Table 3.** Results of the comparison of the four course of students due to the personal characteristics

	Test Statistics <sup>a,b</sup>											
	neuroticism	spontaneous aggression	depression	irritability	sociability	balance	reactive aggression	timidity	openness	extraversion-introversion	emotional lability	masculinity-feminism
Chi-Square	3.967	3.550	3.458	.431	7.569	15.835	4.090	.236	1.909	1.051	4.313	10.211
df	3	3	3	3	3	3	3	3	3	3	3	3
Asymp. Sig.	.265	.314	.326	.934	.056	.001	.252	.972	.592	.789	.230	.017

a. *Kruskal Wallis Test*

b. *Grouping Variable: course*

**Source:** Authors own contribution

“Balance” prevails among students of the second year, in comparison with the students of the third and fourth year ( $p \leq 0.01$ ). “Masculinity” is higher in the second and fourth year, compared to the first ( $p \leq 0.05$ ).

In order to determine the validity of the personal features’ differences of students with different levels of emotional burnout, the sample was divided into three groups (with high, medium and low levels of emotional burnout) and the H-test was calculated (tab. 04).

**Table 4.** Results of the comparison of the three groups of students with different levels of emotional burnout due to the personal characteristics

	Test Statistics <sup>a,b</sup>											
	neuroticism	spontaneous aggression	depression	irritability	sociability	balance	reactive aggression	timidity	openness	extraversion-introversion	emotional lability	masculinity-feminism
Chi-Square	25.19	19.62	28.35	21.65	5.91	1.05	14.19	3.97	9.25	3.13	20.32	4.64
df	6	4	1	7	1	0	4	4	5	2	5	8
Asym p. Sig.	.000	.000	.000	.000	.052	.592	.001	.137	.010	.209	.000	.098

a. *Kruskal Wallis Test*

b. *Grouping Variable: level of emotional burnout*

**Source:** Authors own contribution

Statistically significant differences between groups of students with different levels of emotional burnout are revealed by personal characteristics such as “neuroticism”, “spontaneous aggression”, “depression”, “emotional lability” that are more common for students with a high level of emotional burnout than students with average and low levels. “Neuroticism” is prevalent among students with high and average levels of burnout, compared with low.

“Reactive aggression” and “openness” are more typical for students with a high level of burnout, compared to students at a low level.

### ***5.3. Features of the relationship between emotional burnout and personality characteristics of future physical training teachers***

For a more thorough analysis, rank correlation (r-Spearman) was calculated (tab. 05).

**Table 5.** The significant correlation between emotional burnout and its' components and personal characteristics

	neuroticism	spontaneous aggression	depression	irritability	sociability	balance	reactive aggression	timidity	openness	extraversion-introversion	emotional lability	masculinity-feminism
Experiencing stressful circumstances	.459**	.233**	.404**	.287**	-.305**	-.020	.133	.329**	.093	-.132	.341**	.045
Dissatisfaction with themselves	.297**	.213*	.155	.134	-.283**	-.150	.106	.103	-.032	-.061	.109	-.002
Reach an impasse	.326**	.275**	.306**	.193*	-.167*	-.068	.241**	.091	.100	.094	.218**	.184*
Anxiety and depression	.435**	.167*	.438**	.262**	-.297**	.009	.110	.327**	.158	-.056	.391**	-.005
Tension	.520**	.302**	.461**	.310**	-.345**	-.073	.196*	.317**	.119	-.070	.382**	.054
Inadequate selective emotional response	.109	.176*	.176*	.322**	.007	-.008	.157	.038	.410**	.260**	.190*	.219**
Emotional and moral disorientation	.074	.057	.084	.142	-.060	-.009	.191*	.137	.127	.055	.121	.086
Expansion of scope emotional savings	.432**	.206*	.335**	.309**	-.079	-.128	.178*	.084	.123	.097	.294**	.122
Reduction of professional liability	.282**	.297**	.364**	.339**	-.170*	.196*	.270**	.126	.281**	.228**	.186*	.156

Resistance	.331**	.233**	.327**	.386**	-.071	-.018	.252**	.134	.326**	.210*	.266**	.215*
Emotional deficit	.186*	.245**	.299**	.326**	-.180*	-.079	.141	.060	.152	.043	.208*	.124
Emotional alienation	.122	.474**	.267**	.354**	-.142	.236**	.340**	.023	.129	.199*	.220**	.229**
Personal alienation	.454**	.379**	.416**	.374**	-.244**	.044	.317**	.160	.183*	.106	.424**	.209*
Psychosomatic and psycho-vegetative disorders	.408**	.121	.358**	.238**	-.134	-.030	.194*	.116	.131	.083	.356**	.166*
Exhaustion	.399**	.393**	.444**	.429**	-.229**	.065	.338**	.106	.188*	.142	.389**	.240**
Total indicator of burnout	.503**	.395**	.487**	.454**	-.265**	-.001	.328**	.216*	.238**	.118	.404**	.196*

Note: \*\* –  $p \leq 0.01$ ; \* –  $p \leq 0.05$ .

**Source:** Authors own contribution

The obtained results confirm the assumption of the existence of links between emotional burnout and its components and individual personality characteristics.

Due to a large number of detected relationships, only the most significant ones were analyzed ( $p \leq 0.01$ ). In particular, direct statistically significant interrelationships were found between “neuroticism”, “depression”, “irritability”, “emotional lability”, “reactive aggression”, and the total indicator of burnout. The smallest number of correlations were detected between burning components and “balance”, “extraversion” and “masculinity”. We also point out that all correlations between the components of burnout and “sociability” are reversed. That is, the presence of a strong need for communication and constant readiness to meet this need, wealth and brightness of manifestations, naturalness and ease of behavior, readiness for cooperation, sensitive, attentive attitude to others, kindness, the presence of close friends, acquaintances are accompanied by a decrease in tension, exhaustion and emotional burnout as a whole.

#### ***5.4. Structural organization of personality characteristics of future physical training teachers with different levels of emotional burnout***

At the next stage of the study, an analysis of the structural organization of personality characteristics was made in all groups studied using the inter-correlation method of A.V. Karpov (2006). In order to establish regularities at the level of organization of personal structures among future physical training teachers with different levels of emotional burnout, matrices of intercorrelation have been calculated, which, in essence, are a reflection of structures of individual qualities, structural indices, basic,

leading personal characteristics (tab. 06) and weight ratios (tab. 07) in the three groups under study are defined.

As can be seen from the tab. 06, the indices of structural organization obtained are different in the three groups under study. This result indicates that as the professional burnout increases, the index of coherence of the structure of personality characteristics increases, which indicates an increase in integrative functions and mechanisms, and the structure divergence index is reduced. Therefore, we can assert a greater role of the integrating function, in comparison with the differentiating, with the increase in the level of formation of burnout. The structure index in the group of subjects with high levels of burnout (87) is 1.4 times higher than in the group with an average level of burnout (62) and 1.5 times higher than in the group with its low level (58).

**Table 6.** Index values of the structural organization of personality characteristics in the subjects with different levels of emotional burnout

Indices	Groups of subjects with different levels of emotional burnout		
	high	average	low
Index of structure coherence (ISC)	89	81	67
Index of structure divergence (ISD)	2	19	9
Index of structure organization (ISO)	87	62	58

**Source:** Authors own contribution

Consequently, the components of the personal structure of students with a high level of emotional burnout are more integrated and more intensively interact with each other, which gives the process of their burnout more complex nature. As a result, there is the so-called “synergistic effect”, in which the structured combination of certain components in the system increases the potential of each, and therefore the system as a whole. This is convincingly demonstrated by the low index of the structure divergence index in the group of subjects with a high level of emotional burnout (2).

The weighting coefficients (tab. 07) were calculated to describe the qualitative heterogeneity of structures, the content of basic and leading personal characteristics and their role in shaping the emotional burnout of future physical training teachers were analyzed.

**Table 7.** Basic and leading elements in personality structures investigated with different levels of emotional burning

Personality factors	Groups of subjects with different levels of emotional burnout					
	High		Average		Low	
	Weight	Rank	Weight	Rank	Weight	Rank
neuroticism	22	<b>2</b>	14	6	7	9
spontaneous aggression	15	7	15	<b>3</b>	10	6
depression	16	6	15	<b>3</b>	13	<b>2</b>
irritability	18	5	21	<b>1</b>	13	<b>2</b>
sociability	1	12	2	12	4	12
balance	10	9	4	10	7	9
reactive aggression	23	<b>1</b>	20	<b>2</b>	8	8
timidity	12	8	-4	10	6	11
openness	10	9	6	8	12	4
extraversion-introversion	19	4	15	3	9	7
emotional lability	20	<b>3</b>	8	7	14	<b>1</b>
masculinity-feminism	8	11	5	9	12	4
Leading elements	spontaneous aggression, irritability ( $p \leq 0.01$ ); masculinity, <b><i>neuroticism, emotional lability</i></b> ( $p \leq 0.05$ )		neuroticism, <b><i>irritability, spontaneous aggression</i></b> ( $p \leq 0.01$ ); <b><i>depression</i></b> , low sociability ( $p \leq 0.05$ )		low sociability ( $p \leq 0.01$ ); <b><i>depression</i></b> ( $p \leq 0.05$ )	
Basic elements	reactive aggression, <b><i>neuroticism, emotional lability</i></b>		<b><i>irritability</i></b> , reactive aggression, <b><i>spontaneous aggression, depression</i></b>		emotional lability, <b><i>depression, irritability</i></b>	

Note: the highest ranks are highlighted in bold, and the most significant personal characteristics are highlighted in bold italics

Source: Authors own contribution

The analysis of structural indices (tab. 06) makes it possible to state that in the subjects with high burnout, the structure of personality characteristics is more stable (ISC = 89, ISD = 2) than in the other two groups, and its core having the largest structural weight is “reactive aggressiveness” and “neuroticism” (tab. 0.7). Those with an average level of burning these characteristics rank the second and sixth position, respectively, and among the subjects, with low levels, these characteristics rank the eighth and ninth position. The core of the personal structure among the subjects with an average level of emotional burnout is “irritability”, “reactive” and “spontaneous aggression” and “depression”. The core of the personal structure among the subjects with a low level of emotional burnout is “emotional lability”, “depression” and “irritability”. This confirms the

opinion of many researchers that irritability is a characteristic feature of teachers (T.V. Bolshakova (2004), N.V. Peregonchuk (2011), R.L. Schwab et al., (1986), etc.). N.E. Vodopyanova & E.S. Starchenkova (2008) explain it as a result of fatigue, exhaustion, trouble, low psychological quality of life.

In all groups of subjects, low weight coefficients are defined on the scale of “sociability” (tab. 07).

The leading properties in the groups studied with high and average levels of burning are “neuroticism”, which is manifested in emotional instability, increased sensitivity and anxiety, a propensity to affective reactions, aggressive directive with the desire to dominate, “irritability”, “spontaneous aggressiveness”. In addition to these characteristics, in the group of those with high levels of burnout, the following characteristics are defined as “emotional lability” and “masculinity”, in the group with average level of burnout “depression” and low “sociability” are also leading to the structure of personality characteristics in a group of future physical training teachers with a low level of emotional burnout are defined.

The obtained data (tab. 06) confirm the correctness of the above characteristics of the subjects with high and average levels of emotional burnout, derived from the values of the H-test.

According to A.V. Karpov (2006), both leading and basic components of the subject’s personality structure play the most important role in the formation of burning. Therefore, it can be assumed that the emotional burnout of the future physical training teachers with a high level of burning contributes to such personal characteristics as “neuroticism” and “emotional lability”. For students with an average level of burnout, such characteristics are “irritability”, “spontaneous aggression” and “depression”, and for students with a low level of burnout such characteristic is “depression”. Therefore, the decrease of these properties is likely to contribute to a decrease in the level of emotional burnout.

In order to determine the measure of homo/heterogeneity of the matrices of inter-correlations of personality characteristics of the studied groups, the “express- $\chi^2$ ” method (according to A.V. Karpov) (2006) was used.



**Table 8.** The degree of homo/heterogeneity of personality structures in the subjects with different levels of emotional burnout

Groups of subjects with different levels of burnout	high	average	low
high	1.000	.698*	.246
average	–	1.000	.517
low	–	–	1.000

Note:  $N = 12$ ,  $\chi^2_{sp.} = 0,708$ ,  $p \leq 0,01$ .

**Source:** Authors own contribution

The obtained coefficients (tab. 08) indicate the heterogeneity of the structures of personality characteristics ( $\chi^2_{emp.} < \chi^2_{cr.}$ ) in the groups of subjects with high and average levels of emotional burnout ( $\chi^2_{emp.} = 0.698$  при  $\chi^2_{cr.} = 0.708$ ), with high and low levels of emotional burnout ( $\chi^2_{emp.} = 0.246$ ) and the average and low levels of emotional burnout ( $\chi^2_{emp.} = 0.517$ ). That is, the growth rate of the formation of burnout reflects internal changes in the personal structure: the change in the level of emotional burnout is accompanied by a qualitative restructuring of the personality characteristics. The obtained result proves the assumption about the determinism of emotional burnout among future physical training teachers by the peculiarities of the structural organization of their personal characteristics.

## 6. Conclusion

The research outcomes indicate that there is an emotional burnout in the student's age already and that in the modern conditions of social development the process of burning starts before the beginning of the professional activity.

Future physical training teachers have the dominant symptoms of emotional burnout is a tendency to negatively assess themselves, their achievements and successes, negativism towards academic and sporting achievements and opportunities, limiting their capabilities and duties towards others, attempting to alleviate or reduce of liabilities that require emotional expenditure; uncontrolled influence of mood on relationships; emotional isolation, alienation, desire to turn off any communication; perception of learning environments, training, interpersonal relations as traumatic and creating a protective barrier against such psycho-traumatic influences in the form of complete exclusion of emotions.

According to the results of empirical research, we can speak of the presence of statistically significant relationships between emotional burnout and personality characteristics of future physical training teachers,

differences in the structures of personality characteristics of students with different levels of emotional burnout and the determinism of the last peculiarities of the structural organization of personality characteristics.

The ascertainment of such regularities will allow the timely detection and correction of the negative manifestations of burnout among future physical education teachers and can be used in the development of prevention programs and correction of professional burnout of students at various stages of its formation.

Further research will be aimed at improving psycho-technologies for preventing and overcoming emotional burnout among students.

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