

Correlation of “Emotional Burnout” and Various Forms of Empathy Manifestations for Teachers of Technical Higher Education Institutions

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Abstract—The article describes the results of a study of emotional burnout among teachers of technical universities. It is proved that the empathy values of the teacher towards students impede the development of burnout syndrome.

Keywords—emotional burnout, emotional burnout syndrome (EBS), emotional and moral disorientation, reduction of professional duties, empathy, benevolence index.

I. INTRODUCTION.

The complexity and ambiguity of the modern socio-cultural situation, the rapidly changing demands of the labor market, the increasing demands on the subject of professional activity lead to the increase in emotional stress and, as a consequence, the development of the emotional burnout syndrome.

The professional activity of a university teacher is complex and multifunctional, since it is determined by a set of tasks aimed at training a competent specialist and bringing up an independent, creative and moral personality. It provides for the integration of a culture of teaching and professionalism. In addition, a teacher must have certain personality traits - being organized, pro-active and responsible, being able to show emotional sensitivity, responsiveness, agreeableness, capable of a systematic self-reflection. The ability of a teacher to empathize is one of the most important professional and personal characteristics. However, sometimes individual personality traits may conflict with the specifics of the activity performed or the profession itself, and cause mental stress. According to G.G. Gorelova, “pedagogical activity is problematic for the subject in terms of professional deterioration and high emotional stress” [1] that is a risk factor for the formation of burnout syndrome.

Since the mid-80s, when H.J. Freudenberger introduced the concept of “burnout” (staff burnout), extensive theoretical and empirical material has been accumulated regarding the factors determining its manifestation and structure, and rela-

ble and valid diagnostic methods have been developed [2]. At the same time, the issues related to understanding the mechanisms of the onset and development of burnout syndrome, the underlying psychological bases necessary to analyze its manifestations are not sufficiently developed.

II. LITERATURE REVIEW

Currently, there are various approaches for understanding the “burnout” phenomenon. C. Maslach et al. describe burnout syndrome as a state of physical, emotional, and motivational exhaustion, manifested in the subjective loss of interest in work, dulling of emotions, and personal detachment [3, 4]. V.V. Boyko views burnout as a “psychological defense mechanism in the form of complete or partial elimination of emotions (reducing their energy in response to selected traumatic effects)” [5] N. E. Vodopyanova understands burnout as a professional deformation [2]. According to V.E. Orel and E.F. Zeer, burnout is different from occupational hazard and occupational stress and is a specific form of professional deterioration that results in a violation of the individual integrity, reducing its stability [6, 7]

T.V. Formanyuk believes that this syndrome is manifested among teachers with professional unsuitability [8].

There is no doubt that the occupational burnout syndrome is preconditioned by a complex interaction of various [5, 8-10].

1) organizational (specificity of professional activity, motivation, satisfaction with conditions, salary, a high degree of uncertainty in the assessment of work, restriction of freedom of action and the use of existing potential);

2) personal (personal dysfunctions, individual limit of “emotional self”, negative individual experience, tendency to emotional coldness and to intensively going through negative circumstances in professional activity)

3) socio-psychological (dissatisfaction with injustice, role ambiguity, social status, lack of support from the environment, propensity towards conflict).

Some researchers attribute burnout syndrome to a defensive reaction to emotional stress [4]. A. Langle believes that burnout develops in those cases when a person has no motivation and formally performs his or her duties, feeling meaninglessness in work (a form of existential vacuum) or "the action is focused primarily on satisfying subjective need and is only secondarily aimed on the subject of classes " [11]. In this case, burnout syndrome is often preceded by the initial deep personal involvement in the labor process. On the other hand, the syndrome develops when rigid production and emotional demands come into conflict with the excessive devotion of an employee with the concomitant neglect of his family life and rest. In this case, burnout is a consequence of violations in adaptation and self-control mechanisms [4, 12-14] it seems to be based on the same physiological changes in the functional state as those during stress — activation of the central nervous system structures — the reticular formation, the limbic systems and hypothalamus, adaptive restructuring of functional systems, as well as specific behavioral and subjective reactions [12, 15]. From the point of view of functional systems, emotions are primary in relation to any doings and actions, since, being a motivational unit of the psyche; they set the direction of behavior [16]. It is an emotional stress reaction that determines the nature of the further development of emotional burnout [17].

According to C. Maslach, professional burnout syndrome manifests itself in psycho-emotional exhaustion (decrease in emotional tone and loss of interest in others), depersonalization (detachment in relation to others, decrease in empathy) and reduction of professional achievements (simplification of actions in activities, reduction in the value of labor results) [3].

Developing, this syndrome goes through three phases: strain, resistency and exhaustion. Each phase has its own pronounced symptoms, starting with the experience of traumatic circumstances, emotional and moral disorientation and ending with psychosomatic and psycho-vegetative disorders [4].

In table 1 we give the description of the manifestations of burnout syndrome at the psycho-physiological and psychological levels in the cognitive, emotional and behavioral aspects.

Emotional burnout for teachers often emerges due to the level of development of empathy, which is manifested in a special way of understanding (empathy, projection) of, mainly, emotional states of others.

Empathy is a complex phenomenon, the structure of which represents a combination of cognitive, emotional and behavioral manifestations. The personality perceives and comprehends the state of another person, shows empathy in the form of a reflective experience, creates an atmosphere of trust and openness of relations. The research works of Yu.B. Gippenreiter show that effective pedagogical interaction is possible only with congruent empathy. Congruence in empathy, according to the author, is achieved by the ability to consistently express the understanding of the other and flexibly switch with the sincere expression of one's own feelings, including nega-

tive ones, without losing the positive acceptance of the other [18].

TABLE I TABLE 1 FEATURES OF THE MANIFESTATION OF BURNOUT SYNDROME ON THE PSYCHO-PHYSIOLOGICAL AND PSYCHOLOGICAL LEVELS

Phases	Symptoms of EBS		
	Cognitive	Emotional	Behavioural
"Strain"	At a psychophysiological level		
	Intellectual fatigue	Feeling of tiredness, fatigue. Reduced vitality	The need for relaxation and rest, organizing frequent breaks
	At a psychological level		
	Decreased concentration and memory. Memory impairment	Anxio-depressive manifestations	Dissatisfaction with the activity and yourself
"Resistency"	At a psychophysiological level		
	Inability to concentrate, reduced mental activity	Increased groundless anxiety, irritability, aggressiveness	The desire to reduce responsibilities, requiring emotional costs. Limitation of contacts and relationships
	At a psychological level		
	Reducing interest in people, new ideas and theories in work. Preference for standards, patterns and routine to creativity	Dullness of moral feelings. Reduced empathy. The need for self-justification	Matter-of-fact attitude to duties. Rationalizing your own inappropriate actions
"Exhaustion"	At a psychophysiological level		
	Inability to focused attention, a decrease in intelligence. Rigidity of thinking	The decrease in the general vitality and the weakening of the nervous system: psychosomatic and psycho-vegetative disorders	Reduced activity. Refusing to participate in educational activities. Reduced performance
	At a psychological level		
	Unawareness of the difference between economic expression of emotions and inadequate selective reactions	Pessimism, callousness and cynicism, a sense of hopelessness and personal helplessness. Indifference to students, colleagues, job. Emotional "deafness"	Isolation from others and misunderstanding them. Inadequate selective reactions during contacts with students and colleagues. Personality detachment. Loss of life objectives

The purpose of the research presented in this article is to study the relationship of burnout syndrome among teachers of institutes of higher education with various forms of empathy.

III. MATERIALS AND METHODS OF STUDY.

The following methods were used as diagnostic tools: the MBI questionnaire (C. Maslach and S. Jackson, adapted by N.E. Vodopyanova and E.S. Starchenkova), the Diagnosis of Emotional Burnout questionnaire (V.V. Boyko), Emotional Empathic Tendency Scale (EETS) by A. Mekhrabian and N.

Epstein, adapted by Yu.M. Orlov and Yu.N. Emelyanov, "Diagnosis of the level of empathic abilities" questionnaire (V.V. Boyko), the method of "Diagnosis of interpersonal relationships" (DIR by T. Leary).

The study involved 50 teachers of two universities at the age of 27 to 65 years. The median age was 45 years. The average work experience was 20 years.

MBI questionnaire by C. Maslach interpreted by N.E. Vodopianova makes it possible to assess the degree of expression of various aspects of occupational burnout: psycho-emotional exhaustion, depersonalization and reduction of professional duties, as well as to calculate the integral burnout index.

Methodology of V.V. Boyko "Diagnosis of emotional burnout" presents a detailed picture of the dynamic burnout process unfolding stage-by-stage in accordance with the three-phase structure of stress: strain, resistency, exhaustion. The level of emotional burnout is estimated according to 12 scales. The final index of burnout syndrome is: low level - from 0 to 108 points, medium level - from 109 to 180 points, high level - from 181 to 360 points.

Emotional Empathy Questionnaire (Emotional Empathic Tendency Scale) by A. Mekhrabian and N. Epstein, adapted by Yu.M. Orlov and Yu.N. Emelyanov, will allow determining empathic tendencies, the ability to empathize as a personality trait.

V.V. Boyko's questionnaire "Diagnosis of the level of empathic abilities" gives an idea of the structural components of empathy and makes it possible to identify the leading channel of empathy (rational, emotional, intuitive), attitudes that promote or inhibit empathy, penetrability of empathy and identification of empathy.

Leary's method is aimed at identifying the dominant style of interpersonal relationships and allows calculating the index of benevolence. A high index of benevolence is indicative of the person's predominance of altruism, tenderness, and propensity to cooperate. We considered the benevolence index as one of the main indicators of the development of the spiritual and moral qualities of a person.

IV. RESEARCH RESULTS AND DISCUSSION

At the first stage of the study, the normative values of indicators of emotional burnout for teachers were determined. Based on the data obtained by the method of V.V. Boyko, two groups of teachers were singled out. In the first group (52% of subjects) with an average level of emotional burnout, the integral burnout index was 0.57 and in the second group (48% of subjects) with a low level of emotional burnout, the integral burnout index was 0.46.

The first group of the studied sample can be characterized as a group that is at the stage of formation of emotional burnout (Fig. 1).

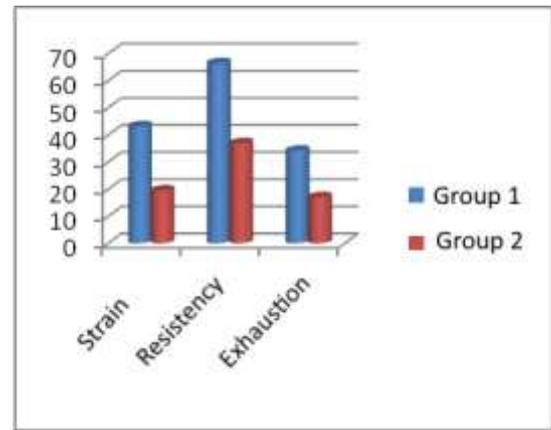


Fig 1. LEVEL OF EMOTIONAL BURNOUT AMONG TEACHERS OF GROUPS 1 AND 2 IN THE PHASE OF STRAIN, RESISTENCY AND EXHAUSTION

The subjects of this sample revealed a high level of development of symptoms characteristic of the first and second phases of burnout: experiencing stressful circumstances (16.91), inadequate emotional response (16.83), emotional and moral disorientation (13.10), expansion of the emotion economy sphere (20.30), reduction of professional duties (16.21), table 2.

As it can be seen from Table 2, in the manifestation of the emotional burnout of teachers, the resistency phase is most intense and is characterized by resistance to increasing stress. We have previously shown that emotional and moral disorientation can result in psycho-emotional stress, enhancing the experience of traumatic circumstances. By affecting each other, they are able to strengthen or weaken the syndrome [19].

TABLE II AVERAGE VALUES OF "EMOTIONAL BURNOUT" INDICATORS (TEST OF V.V. BOYKO) IN SAMPLES OF TEACHERS

Phases EBS	Burnout rates	group 1		group 2	
		Average	Deg. of deviation	Average	Deg. of deviation
"Strain"	Experiencing traumatic circumstances	16,91	6,74	6,77	4,48
	Self-dissatisfaction	8,72	5,82	5,38	3,64
	Feeling cornered	8,41	6,70	3,43	2,25
	Anxiety and depression	9,14	6,71	3,92	2,45
"Resistency"	Inadequate emotional response	16,83	4,92	9,50	4,34
	Emotional and moral disorientation	13,10	5,34	8,0	4,21
	Expansion of the emotion economy sphere	20,30	7,10	7,55	4,10
	Reduction of professional duties	16,21	8,11	9,9	7,83
"Exhaustion"	Emotional deficiency	9,37	6,13	4,41	5,60
	Emotional detachment	6,11	5,84	6,23	4,80
	Depersonalization	9,53	9,41	2,15	1,71
	Psychosomatics	9,16	7,62	4,23	1,82

In the structure of the burnout of teachers of this group (according to the method of C. Maslach) there is an increased level of emotional exhaustion and depersonalization (Fig. 2), which indicates that the syndrome is developing incrementally.

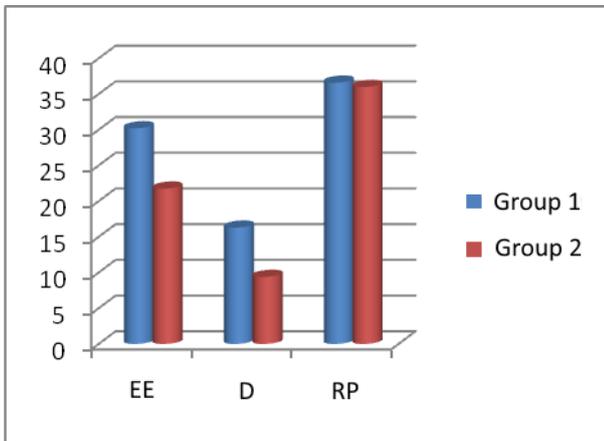


Fig 2. AVERAGE VALUES OF BURNOUT INDICATORS (ACCORDING TO C. MASLACH): EE - EMOTIONAL EXHAUSTION, D - DEPERSONALIZATION, RP - REDUCTION OF PROFESSIONALISM.

At the behavioral level, this is manifested in affective lability, a tendency toward impersonal pedagogical interaction and, as a consequence, fulfilling one's professional duties formally. However, the syndrome does not evolve into the third phase, apparently due to the development of protective mechanisms.

The average values of indicators of professional burnout in the second group of teachers are within the limits of normative values.

At the next stage, the values of the level and structural components of empathy were also calculated in the studied samples (table 3). As we see, among the teachers of the first group the level of empathic tendencies and all the structural components of empathy are higher than in the second.

The mean values of the benevolence index (BI) are about the same, but the standard deviation of the BI values indicates a greater variability of data in the first group (from positive to negative values).

TABLE III AVERAGE VALUES OF INDICATORS OF EMPATHY AND BENEVOLENCE INDEX IN THE SAMPLES OF TEACHERS

Indicator	group 1		group 2	
	Average	Deg. of deviation	Average	Art. of deviation
Empathic tendencies	29,07	3,22	22,15	2,11
Rational channel	4,65	0,72	2,56	1,65
Emotional channel	4,41	0,93	3,42	1,27
Intuitive channel	4,22	1,42	3,37	1,34
Values that promote empathy	4,21	0,98	2,69	1,11
Empathic penetrability	3,69	0,72	2,23	0,97
Empathic identification	3,81	0,74	2,88	0,89
Benevolence index	2,86	5,57	3,2	4,69

As a result of the correlation analysis using the Pearson correlation coefficient, a number of significant relationships between the studied parameters were identified. A positive correlation between the total value of emotional burnout and the general level of empathic abilities ($r = 0.51$ with $p \leq 0.01$) and a negative correlation with the benevolence index ($r = -0.31$ with $p \leq 0.05$) were found in the sample of teachers with an emerging burnout syndrome. It can be assumed that the higher the level of empathy and the lower the index of benevolence, the more likely the formation of emotional burnout. Apparently, in this case the teachers used non-constructive behavior models.

Also, the correlations between various indicators of empathy and symptoms of burnout were significantly higher in the first group.

A positive correlation was found between the "empathic penetrability" and the symptom of "depersonalization" ($r = 0.88$ with $p \leq 0.05$), a negative connection with the "expansion of the emotion economy sphere" ($r = -0.28$ with $p \leq 0.05$) and "emotional deficiency" ($r = -0.28$ with $p \leq 0.05$) symptoms. It turns out that the more teachers have expressed the desire to create an atmosphere of confidence and sincerity, "involving emotionally", the more likely is the emergence of emotional "fatigue", resulting in negative attitudes towards subjects of activity ($r = -0.17$ at $p \leq 0.05$).

A positive correlation was also found between the rational channel of empathy and the symptom of "experiencing traumatic circumstances" ($r = 0.48$ with $p \leq 0.05$), as well as the symptoms of "depersonalization" ($r = 0.61$ with $p \leq 0.05$) and "psychosomatic disorders" ($r = 0.76$ with $p \leq 0.01$).

A positive connection was found between the emotional channel of empathy and the symptom of "expanding the emotion economy sphere" ($r = 0.50$ with $p \leq 0.05$), between the intuitive channel and the symptom of "psychosomatic disorders" ($r = 0.66$ with $p \leq 0.01$). Based on this, it can be concluded that the more cognitive and emotional empathy a teacher has, the more he understands the state and behavior of others, emotionally participates and sympathizes with them, the more likely the transition from the resistency phase to the emotional exhaustion phase.

The relationship between attitudes that contribute to empathy and the final indicator of emotional burnout ($r = -0.64$ with $p \leq 0.05$), as well as the symptoms of "experiencing traumatic circumstances" ($r = -0.17$ with $p \leq 0.05$), "anxiety and depression" ($r = -0.28$ with $p \leq 0.05$), "emotional deficiency" ($r = -0.37$ with $p \leq 0.05$) and "psychosomatic disorders" ($r = -0.08$ with $p \leq 0.05$) is negative (the higher the value that promotes empathy, the less expressed the symptoms of burnout).

A positive correlation was found between values that promote empathy and the benevolence index ($r = 0.41$ with $p \leq 0.05$). Based on the data obtained, it can be concluded that values that contribute to empathy expand the range of emotional responsiveness and with a high index of benevolence, a high level of development of spiritual and moral qualities of a person and empathy do not result in emotional burnout.

V. CONCLUSION

Thus, it has been discovered that the majority of teachers are tend to the psychological syndrome of emotional burnout as a dynamic symptom complex, the influence of which covers the main structural characteristics of the personality. There is a profound gradual increase in the indicators of psychological syndrome of emotional burnout with the dominance of attitudes that prevent empathy and a low level of the index of benevolence. The more cognitive and emotional empathy a teacher has, the more he understands the condition and behavior of others, becomes emotionally involved, sympathizes and does not use non-constructive behavior models all while, with the defense mechanisms failing to cope, the more likely the transition from the resistency phase to the phase of emotional exhaustion.

We believe that the development of the syndrome occurs as a result of spiritual and moral problems of an individual. The development of the burnout syndrome can go in two ways. In the first case, emotional burnout occurs when an inadequate selective emotional response and a vitality drop occur with negative emotions. In the second case, the psychological defense mechanism is activated without signs of exhaustion at the initial stage. However, when the syndrome deepens, the defense mechanism ceases to cope with the increased load and exhaustion develops as a result.

When there are values contributing to empathy, when the benevolence index and a level of development of spiritual and moral qualities of the teacher's personality are high, it is unlikely that the syndrome is going to develop.

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