Dependence of the level of burnout in teachers of physical culture on socio-demographic factors

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Abstract: This article deals with the problem of emotional burnout of teacher of physical culture. Studied, the dependence of the level of burnout on socio-demographic factors of teachers - education, work experience, skill level, place of residence, marital status. Revealed, that the strength of symptoms increases with length of work experience; teachers with secondary vocational or incomplete higher education, as well as a lower category, burn out stronger of their qualified colleagues. Urban teachers` burnout level is a bit higher than that of teachers in rural areas. Marital status has little effect on the level of burnout.
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Introduction

Currently, in reforming secondary schools in the Republic of Kazakhstan in connection with the transition to twelve training, arise a lot of questions, related to the problem of health of teachers and students. Modernization of the general education system, creation of the modern sustainable mechanism of school development, ensuring accessibility and quality of education pushed the issue into the background.

In the 2013-2014 school years, 1001 teacher of physical culture with different level of education and skills employs in schools in the Pavlodar region, which is approximately 7.5% of the population. They teach in 418 schools of various types and profiles, that contain 359 gyms, enrollment is 88,148 people. Presented socio-demographic characteristics give qualitative composition of teaching staff in Pavlodar region (Table 1) [1].

Table 1. Data on the qualitative composition of physical education teachers of Pavlodar region for 2013-2014 academic year

Education		Category				Place of work	
higher, incomplete higher	average vocational	highest	I	II	no category	city	country side
769	232	199	270	284	250	547	454
In total		1001					

Introduction of compulsory third lesson of physical culture in the timetable in 1998, favorably affected the health of schoolchildren, as increased volume of organized physical activity. However, this had a negative impact on the physical and mental health of physical education teachers, intensifying the process of professional burnout.

In a market economy and increased competition, activity of teachers has many stress factors of economic, social - psychological, organizational character. Especially these factors manifest themselves in the activities of physical education teachers. Thus, according to research at the Institute of Occupational Health, physical education teachers occupy one of the first places on the occupational hazard. Due to the nature of their professional activities, they are permanently above all norms of noise effects, they are subject to sudden changes in temperature, gyms are very often the source of dust, infectious and parasitic diseases, and given the actual existing high traumatic dangerous lesson, the teacher of physical culture is in a state constant stress. Introduction of the third lesson of physical culture has further aggravated the current situation due to the fact that lessons are conducted with two and sometimes three classes in one gym simultaneously.

Special intensity of teacher`s work, which is characterized by intense psycho-emotional communication with children, leads to deterioration of mental health of teachers and to development of emotional burnout syndrome (EBS). On the background of troubled psychological state of teachers, it is impossible to provide favorable conditions for physical and mental health of students.

The syndrome of burnout at work refers to a combination of emotions, physical symptoms and behaviors that develop as a consequence of the conditions and characteristics of the so-called helping professions (Ben-Zur & Yagil, 2005; Buunk & Schaufeli, 1999; Gil-Monte & Peiró, 1997; Maslach, Leiter & Schaufeli, 2001) [2-5].

The development of this syndrome characterized primarily for occupations dominated by

helping people (health workers, teachers, psychologists, social workers, rescue workers, law enforcement officers, firefighters). Burnout syndrome is considered as a result of adverse resolution of workplace stress (Crane, 1988; Felton, 1998) [6, 7].

In recent years, around the world, scientists have shown an increased interest in the problem of investigating the dependence level of burnout of teachers on socio-demographic factors. Similar studies were conducted in Europe, USA, Asia, Africa and Australia. This is confirmed by our satisfied brief overview of the literature.

In particular Whitehead, AJ, & Ryba, K. (1995, 2000) performed a study to determine the effects of occupational stress and coping strategies of primary school teachers in New Zealand [8, 9].

Subudhi (1997) conducted a study on job stress and burnout in teachers of secondary schools of Orissa. According to the findings, old teachers experienced more burnout feelings than their younger counterpart. Government school teachers experienced less burnout feelings than aided schools [10].

Svein Pedersen (1998) defended his dissertation research for identifying the level of burnout of American teachers [11].

Chaudhary (2001) studied teacher burnout in relation to occupational stress, mental health problems and socio economic status. Study was conducted on 400 teachers selected randomly from 47 schools out of 20 districts in Haryana. It was found that marital status, educational qualifications, teaching experience and residence of teacher had independent effect on burnout and its various dimensions to varying degree [12].

Steven (2004) examined the perceived level of burnout in untenured urban teachers and determined what personal and school related variables were associated with untenured urban teacher burnout (i.e. gender, age, educational level, and years of teaching experience). Study was conducted utilizing the Maslach Burnout Inventory and Background Data form developed by researcher. Results of the study indicated that the untenured urban school teachers had a significantly lower burnout level. The statistically significant differences were found in several variables associated with teacher burnout (i.e. gender, teaching experience, teacher personality, student and teacher relationship) [13].

Kumar (2006) conducted a study on teacher burnout and teacher's efficacy in different types of schools. A total of 200 teachers were taken from different types of schools. It was found that emotional exhaustion measure of burnout was related to age, teaching experience, gender and organizational climate. Personal accomplishment dimension was found to be related to teaching experience and educational level [14].

Gavrilovici (2009) studied the burnout level of 178 teachers in primary, secondary, high schools and special schools in Iasi county of Romania during the period 2007-2009. The results showed that emotional exhaustion of teachers with work experience of more than 17 years was significantly higher than teachers with less work experience. In contrast no significant difference were found between the teachers work experience and their levels of depersonalization and reduced personal accomplishment. Gender and marital status did not show any effect on any dimension of burnout. In case of gender, mixed results had been reported [15].

Luk et al (2009, 2010) studied the relation between demographic variables and burnout among 138 teachers of primary and secondary schools in Macau. The results revealed that Macau school teachers had moderate levels of emotional exhaustion and low levels of depersonalization. Age, Marital status, teaching experience significantly affected burnout levels of teachers. Younger and single teachers had significantly higher emotional exhaustion and depersonalization than older and married teachers. Similarly, teachers with less years of experience had significantly higher emotional exhaustion than teachers with more than 20 years of experience [16].

Jack (2012) in his empirical study on job burnout concluded that male teachers are more emotionally exhausted than female teachers and teachers with 6 to 10 years of experience showed higher emotional exhaustion [17].

Cottongim, W. Wesley (2012) studied the effect of initiatives in school reform and their impact on level of burnout of teachers [18].

A brief literature review has shown how diverse range of scientific research on the problem that interests us. Unfortunately, in Kazakhstan, this question is absolutely not developed, is not reviewed and is not in demand by researchers.

Teachers are highly susceptible to the development of Emotional burnout syndrome (EBS). This is due to the fact that the professional work of teachers has a very high emotional tension. We know a large number of objective and subjective emotiogenic factors that have a negative impact on the work of the teacher, causing a strong emotional tension and stress. It should also be borne in mind that this is one of altruistic type professions, where the risk of mental burnout is high. EBS is well studied in the field of pedagogical work, unfortunately, on the activities of physical education teachers the problem is not fully understood (Bronskiy & Kusmidenov, 2013) [19-22].

Material and methods

The study is organized in the framework of the cathedral

Scientific theme "Teacher's personality and problems of the modern lesson of physical culture". Survey of respondents is performed on the basis of the Regional Institute for Advanced Teachers Training, during their courses. The sample size was n = 126 respondents. The classification of respondents-teachers into groups based on socio-demographic factors: education, skill level - category, experience in the teaching profession, place of residence, marital status.

The survey was carried out according to the method developed by Boyko [23]. Respondents completed a questionnaire of 84 judgments, allowing to diagnose three phases of professional burnout: stress, résistance (the body's ability to resist external harmful influences) and exhaustion. Each phase of stress is diagnosed on the base of four of her symptoms.

The proposed methodology provides a detailed picture of the syndrome of "emotional burnout". First of all, it is necessary to pay attention to symptoms taken separately. Severity of each symptom index ranges from 0 to 30 points:

- 9 or less points - not formed symptom;
- 10-15 points - forming symptom;
- 16 -20 points - formed symptom;
- 20 or more points - symptoms with such indicators are dominant in phase or throughout the whole burnout syndrome.

The next step in the interpretation of the survey results - understanding the indicators of phases of stress development - "tension", "résistance" and "exhaustion. " In each of them it is possible to score within the range of 0 to 120 points. However, a comparison of points obtained for phases, not legitimate, because it does not show their relative importance or contribution to the syndrome. The fact that these measured phenomena are substantially different: response to external and internal factors, methods of psychological defense, state of the nervous system. Quantitative indicators are rightly judged only on how each phase is formed, which phase is formed to a greater or lesser extent:

- 36 or less points - phase is not formed;
- 37 - 60 points – forming phase;
- 61 or more points - formed phase.

In psycho diagnostic conclusion the following issues are covered:

- what symptoms dominate;
- what prevailing and dominant symptoms accompanied by "exhaustion";
- can we explain "exhaustion" (if found) by factors of professional activity, which entered the symptoms of "burnout", or by subjective factors: what symptom (what symptoms) is more likely aggravate the emotional state of the individual;
- the directions in which it is necessary to influence the situation in the professional team to reduce tension;
- what signs and behavioral aspects of the personality should be corrected not to prejudice professional activities and partners by the emotional "burnout".

Result and discussion

State of burnout phases depending on the socio-demographic factors

Earlier conducted study showed that the dependence of the state of burnout symptoms on socio-demographic factors of teachers - age, gender, work experience, skill level, place of residence is a complex, diverse and quite contradictory. Socio-demographic and professional variables that support the greatest number of significant correlations with symptoms of EBS are: age, work experience, place of residence. Pedagogical experience has some parallels with another variable - the age of respondents, with a similar correlation scheme [24].

Before we assess the state of burnout phases depending on the socio-demographic factors, we give a brief description of phases.

Tension phase - the experience of psychotraumatic circumstances, dissatisfaction with oneself, "driven into the cage", anxiety and depression.

Resistance phase - inadequate selective emotional reaction, emotional and moral disorientation, widening of scope of emotions saving, reduction of professional duties.

Exhaustion phase - emotional deficit, emotional detachment, personal detachment, psychosomatic and psycho-vegetative disorders.

Phases state of EBS of teachers, depending on *educational qualification*, is as follows . Teachers with higher and incomplete higher education have almost the same burnout picture. This category includes representatives of all age groups with work experience from 1 to 16 years and more. Nevertheless, aged teachers in this category are much more. By the total indicators symptoms, the phase "*Tension*" of burnout syndrome has not yet formed (indicator is estimated at 29.3 points). At the same time, two other phases "*Resistencia*" and "*Exhaustion"* are forming (from 38.1 to 49.3 points).

Category of teachers with secondary (average) vocational education is represented by college graduates with little or negligible work experience. All three phases of burnout in this category of teachers are characterized as not formed.

Professional burnout syndrome and its effects are not terrible to the teachers in this group. The main reason we see that the complexity and features of professional activity have not yet been reflected in the psyche of teachers due to the small work experience at school (Table 2).

Table 2. State of burnout phases depending on socio-demographic characteristics of teachers (pts)

Socio-demographic factors		Burnout phases		
		tension	resistance	exhaustion
Education	higher pedagogical	29,3	39,2	49,3
	incomplete higher	21,5	46,9	38,1
	average vocational	14,7	27,8	12,3
Category	highest	46,1	78,9	92,2
	first	29	42,2	39,2
	second	23	34,3	27,1
	no category	16	13,8	3,2
Work experience (years)	1-5	14,8	18,3	12,6
	6-15	19.8	21.1	16.6
	16 and more	44.5	67.7	88,4
Place of residence	city	30,5	53,8	57,2
	country side	25,1	42,4	46,8
Marital status	married	23,3	39,3	48,2
	unmarried	29,0	48,2	52,6

Phases' state of burnout of respondents, depending on *qualification category*, is as follows. In the group of teachers with the highest qualification category, provided employees with 16 years of teaching experience and more, phase

"*Tension*" is forming (the sum is equal to 46.1 points), the other two phases

"*Resistencia*" and "*Exhaustion*" are formed phases. And the state of the phase

"Exhaustion" is estimated at near-limit of 92.2 points out of 120 possible. This figure is the highest argument, stating that the organism of respondents in this age group is in a very critical situation.

Decisive importance in this phase is the dominant symptom of "*Psychosomatic and psycho-vegetative disorders*". Its effects are manifested at the level of physical and mental health. The transition of reactions of the individual from the level of emotion to the level of psychosomatics indicates that the organism of teachers itself no longer copes with the emotional stresses [19].

Teachers of qualification category I, with higher or incomplete higher education, have not formed phase *"Tension*", whereas the other two phases are forming.

This state of organism suggests that the mechanisms EBS have already been started and they need to take preventive measures.

Group of teachers with qualification category II and who has not deserved the category yet, are represented by young professionals, graduates of universities and colleges with minimal or negligible work experience. All three phases of the syndrome are classified as "not formed", the consequences of teaching profession have not affected on the state of their organism.

Study of the influence *of teaching experience* on the state of burnout symptoms and phases of teachers has been published previously and its characteristics are close to the considered state of EBS from qualification category of respondents [25].

Indicators of phase "*Tension*" in groups of teachers with experience of 1-5 years and 6-15 years classify it as "not formed". Propensity of younger teachers to burnout is explained by emotional shock that they experience, confronting with reality, often irrelevant to their expectations.

However, in the second age group indicators of this phase have higher values than their younger colleagues. Nervous (anxiety) tension in these categories of teachers is not the harbinger and "trigger" mechanism in the formation of burnout.

Tension from professional duties has no dynamic nature and does not cause debilitating persistence or intensification of stressful factors.

In the group of teachers with experience of 16 years and older, indicators of phase in 44.5 points assess it as "*forming*". The psyche of teachers is stressed from professional duties, has a dynamic character if a constant state (table 2).

Indicators of burnout phase "*Resistencia*" in groups of teachers with experience of 1-5 years and 6-15 years are estimated at 18.3 and 21.1 points, respectively, that allows us to classify it as "not formed". There is also a tendency to increase the index of work experience. Organism's resistance of teachers to rising stress has little meaning since the advent of the alarm tension. Organism of teachers has not yet exposed to the consequences of professional burnout.

In the group of surveyed teachers, with work experience of 16 years and older, identified the limiting values of the stress phase in 67.7 points, allowing to estimate it as "*formed"*. All causing it symptoms have indicators from 14.0 to 20.7 points. Organism's resistance to the rising stress has a significant meaning to the onset of first symptoms of alarm tension. Organism of teachers is subject to constant dynamic effects of stressful factors of burnout.

Phase of stress *"exhaustion"* on set of indicators of its symptoms has not yet formed in the first and second age groups of respondents. While their colleagues with work experience of 16 years and over showed a significant impact of symptoms on the mental health. State of phase in 37.6% of the respondents is characterized as "formed, in the rest 63.3% - as "forming".

Decisive importance in this phase has the dominant symptom of "*Psychosomatic disorders as functional disorders"*. One of the common, permanent and early components of neurosis is autonomic dysfunction: a variety of syndromes of disorder of internal organs functions and their physiological systems (circulatory, respiratory, digestive, sexual, etc.).

Launchers for autonomic phenomena may be the following factors: day-night rhythm disorders, sleep-wake rhythm disorders; the accelerated pace of life; influx of irritants; growing loss of ideals.

In the sphere of object relations to autonomic disorders often lead the following factors: financial worries; isolation, lack of interpersonal contact; conflicts in the family and at work; over tension due to a double load in the profession and life.

Location of teachers as one of the variables of the demographic factor equally with other variables affects the formation of phases of EBS. This position we noted in our earlier publications [26, 27].

Nevertheless, the overall performance of symptoms of all three phases of urban teachers is higher than the rate of rural colleagues.

Indicators of phase "*Tension*", irrespective of the residence of teachers classify it as "not formed". At the same time, two other phases "*Resistencia*" and "*Exhaustion*" are "forming". Dominant symptoms are "*Reduction of professional duties*" and "*Emotional deficit*" that allows us to speak of impending psychological problems.

To our mind, among the reasons, contributing to rural teachers to resist the development of EBS, are the following:

- traditionally a higher social status of teachers in rural areas;
- large social benefits (25% of "rural", benefits for public services);
- lesser degree of competition;
- less obvious manifestation of social inequalities within society;
- more manageable students, because of their smaller number.

Marital status of teachers slightly, but still affects the state of the syndrome phases. We found out the trend that the burnout process of unmarried teachers is of outstripping nature in comparison with their married colleagues. Indicators of phase "*Tension*", regardless of the presence or absence of family, classify it as "not formed". However, phases "*Resistencia*" and "*Exhaustion*" are "forming", the sum of scores from 39.3 to 52.6 indicates that the mechanisms of syndrome are started. Dominant symptoms include reduction of professional responsibilities and emotional detachment. Singles and unmarried teachers in phase "*Exhaustion*" are gaining critical 52.6 points, which bring it closer to the formed phase.

Conclusion and recommendations

Thus our study allows to make definite conclusions:

1. Level of EBS of teachers depends on their educational qualifications. Teachers with incomplete higher education or with average vocational education burn stronger than their qualified colleagues. Apparently this is due to their lower social status in comparison with colleagues who have higher education diploma.

2. Condition of burnout phases of respondents, depending on qualification category, is close in performance to level of EBS from teacher's work experience. Teachers with low qualification category and work experience from to 15 years show a lower level of burnout than experienced and qualified teachers.

3. Locations of teachers as one of variables of demographic factor marginally affect the formation of burnout level. Overall rates of symptoms of all three phases of burnout of urban teachers are above the rates of rural colleagues.

4. Marital status of teachers slightly, but still affects the state of syndrome phases. We found out the trend that the burnout process of singles and unmarried teachers is of outstripping nature in comparison with their married colleagues.

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