PERCEPTION OF SELF-EFFICACY AND PROFESSIONAL BURNOUT IN GENERAL EDUCATION TEACHERS*

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ABSTRACT

Purpose. The objective of the study was to determine to what degree general perception of self-efficacy protects general education teachers in Poland (educational stages II–IV) against professional burnout, and whether teachers of various subjects display any differences in this respect. Basic procedures. The study was carried out between April and June 2005 on a sample of 404 teachers (women \( n = 310 \), men \( n = 94 \)). The diagnosis of the burnout syndrome was based on the Maslach Burnout Inventory (MBI). The perception of coping competences in teachers facing professional stress was measured with the General Self-Efficacy Scale (GSES) (Polish version) by R. Schwarzer, M. Jerusalem and Z. Juczyński. Main findings. Teachers are characterized by a high level of self-efficacy perception. Conclusions. As a factor preventing development of the three-dimensional burnout syndrome, perception of self-efficacy protects teachers against a loss of professional satisfaction, increasing emotional exhaustion and a tendency to depersonalize their pupils. Teachers of various subjects perceive the preventive role of self-efficacy differently.

Key words: teacher, professional burnout, self-efficacy

Introduction

Teachers constitute a group classified as one of the so-called helping professions, which are risk groups particularly vulnerable to the professional burnout syndrome. The consequences of the syndrome have a negative effect on burned out teachers whose health deteriorates and who work less effectively. The resulting loss of social competences also disrupts teacher–student relations crucial in the educational process. The decreasing involvement of burned out teachers due to the lack of professional satisfaction produces no new solutions and fails to improve the effectiveness of teachers’ work.

In her analysis of pre-disposing and preventive factors in teachers, Sęk [1] confirmed the preventive role of perception of self-efficacy in the professional burnout syndrome in teachers. “The conviction of self-efficacy is confidence in possibilities of effective action in new, ambiguous, unpredictable or even stressful situations” [2, p. 213]. Perception of self-efficacy must be discriminated from expectation of specific outcomes. It is a belief that we can cope with any unfavorable conditions. For example, a teacher can be convicted that he/she knows how to teach chemistry the best way, but he/she may be uncertain whether his/her students can learn it [2].

Perception of self-efficacy is a component of the cognitive system structure of each individual. According to Bandura [2] it plays a key role in human motivation. In intentional acts, the perceived self-efficacy affects one’s aspirations, efforts, endurance, resistance to failures and the level of experiencing stress. A strong conviction of self-efficacy corresponds to good mood and higher immunity of the body [2]. Perception of self-efficacy consists of the specific part, i.e. perception of one’s specific professional competences, and the general part, i.e. general perception of self-efficacy. The problem of perception of professional efficacy was thoroughly analyzed by Gaś [3].

Professional burnout occurs in conditions of chronic stress, the source of which is another individual. Stress depends on the actual context and conditions of performed work, so for different professions different stressors and loads can be distinguished [4, 5]. Few re-
search studies have been devoted to the scale and specificity of workloads of teachers of particular subjects. Tucholska [6] in her analysis of burnout causes in Polish teachers introduced the variable taught subject. Studies on professional burnout in PE teachers were also carried out by Brudnik [7, 8] and Pec [9].

The aim of the present study was to determine to what degree general perception of self-efficacy protects general education teachers in Poland (educational stages II–IV) against professional burnout, and whether teachers of various subjects display any differences in this respect.

**Material and methods**

The study consisted of a diagnostic survey and was carried out between April and June 2005 on a sample of teachers of various subjects from state comprehensive schools from the Małopolska and Śląsk Provinces in Poland. In total 22 schools participated in the study (educational stages II–IV) from the provincial and district capitals as well as from smaller towns. The sample consisted of 404 teachers (310 women (76.7%) and 94 men (23.3%)).

The teachers’ professional burnout syndrome was diagnosed using the Maslach Burnout Inventory (MBI) (Polish version by Noworol; unpublished) which allows assessment of the level of professional burnout due to chronic emotional stress. The MBI is a three-scale questionnaire consisting of 22 items: Emotional Exhaustion (EE) – 9 items, Sense of Negative Personal Accomplishment (PA) – 8 items, and Depersonalization (DP) – 5 items. The subjects give their responses to each item on a seven-point scale: 0 = never, 1 = several times a year, 2 = once a month, 3 = several times a month, 4 = once a week, 5 = several times a week, 6 = every day. Subjects considered to be burned out were those with all three components of the syndrome present.

The teachers’ perception of coping competences while managing professional stress was measured with the aid of the General Self-Efficacy Scale (GSES) (Schwarzer, Jerusalem, Juczyński; Polish version [10]). It is a 10-item scale measuring general perception of self-efficacy in coping with difficult situations and adversities. Subjects’ responses are made on a four-point scale: 1 = not at all true, 2 = hardly true, 3 = moderately true, 4 = exactly true. The sum of responses to the 10 items yields the composite score, i.e. the Index of General Self-Efficacy.

The taught subjects were grouped into the following categories:

- humanities: Polish, history, civics, civil defense training, personal health and social education, religious instruction, pedagogy and history of education, arts;
- sciences: mathematics, physics, chemistry, IT, technical education, music;
- natural sciences: biology, natural science, geography, chemistry;
- foreign languages: English, French, German, Russian, Italian, Latin;
- physical education: PE, remedial exercises.

The collected data was statistically processed with the use of k-means clustering, Kruskal–Wallis one-way analysis of variance and the Pearson correlation coefficient [11]. All calculations were made by the Rutkowski Biuro Oprogramowania GEM using the SPSS/12 software package.

**Results**

The vast majority of subjects had a university degree with a teaching major (95.5%); mean age: $\bar{x} = 38.4$ years (women $\bar{x} = 38.9$, men $\bar{x} = 36.8$); job seniority: $\bar{x} = 13.6$ years (women $\bar{x} = 14.2$, men $\bar{x} = 11.8$).

In the analysis of the teachers’ professional burnout syndrome four homogenous clusters were distinguished, each grouping individuals with similar values of the burnout components: emotional exhaustion (EE), sense of negative personal accomplishment (PA), depersonalization (DP) (Tab. 1, 2).

Non-burned out teachers constituted one-third of the sample (Cluster II, $n = 153$, 37.9%). For them their work brought them real satisfaction, and with slight emotional exhaustion they related to their students very well (Tab. 2). Cluster IV ($n = 51$, 12.6%) included burned out teachers deeply frustrated with their work at school, with visible symptoms of emotional exhaustion and depersonalization. The teachers from Cluster I ($n = 104$, 25.74%) and Cluster III ($n = 96$, 23.76%) displayed different levels of the burnout syndrome (Tab. 2).

The progressive burnout noted among the teachers from Cluster I is indicative of the first crisis in profes-

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1. As there were only 10 teachers of arts and 15 of religious instruction (clergymen and laymen) in the sample, religious instruction and arts were included in the humanities category and music in the sciences category.
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Table 1. Profile of teachers in clusters \( n = 404 \) with regard to their sex, age and job seniority

| Cluster | Sex | Age | Job seniority |
|---------|-----|-----|---------------|
|         | Women | Mean | Men | Mean |
| I       | n = 104 | 36.07 | 11.26 | 8.827 |
| II      | n = 153 | 39.49 | 8.836 | 14.69 | 9.221 |
| III     | n = 96  | 39.96 | 9.507 | 15.41 | 9.480 |
| IV      | n = 51  | 37.12 | 9.175 | 12.02 | 9.229 |
| Total:  | n = 404 | 38.42 | 9.226 | 13.64 | 9.312 |

Table 2. Statistical analysis of the three components of the professional burnout syndrome within clusters

| Cluster | EE | PA | DP |
|---------|----|----|----|
|         | Emotional exhaustion | Sense of negative personal accomplishment | Depersonalization |
|         | \( \bar{X} \) | SD | Min | Max | \( \bar{X} \) | SD | Min | Max | \( \bar{X} \) | SD | Min | Max |
| I       | 13.4 | 5.14 | 0 | 23 | 22.1 | 5.28 | 15 | 46 | 3.9 | 3.53 | 0 | 16 |
| II      | 9.6  | 4.44 | 0 | 18 | 7.3  | 4.13 | 0 | 16 | 2.75 | 2.51 | 0 | 11 |
| III     | 32.4 | 7.28 | 22 | 53 | 24.5 | 6.34 | 13 | 47 | 9.73 | 5.31 | 0 | 24 |
| IV      | 32.4 | 7.28 | 22 | 53 | 24.5 | 6.34 | 13 | 47 | 9.73 | 5.31 | 0 | 24 |
| Total:  | 17.0 | 9.73 | 0 | 53 | 14.2 | 8.58 | 0 | 47 | 4.55 | 4.20 | 0 | 24 |

Table 3. Professional burnout of general education teachers \( n = 404 \) – categories of school subjects

| Categories of taught subjects | Professional burnout of general education teachers |
|------------------------------|--------------------------------------------------|
|                              | Non-burned out teachers | Partially burned out teachers | Burned out teachers | Total |
|                              | Cluster II | Cluster I | Cluster III | Cluster IV | n | % | n | % | n | % | n | % |
| Humanities                   | 47 | 37.0 | 29 | 22.8 | 34 | 26.8 | 17 | 13.4 | 127 | 100 |
| Sciences                     | 37 | 41.6 | 27 | 30.3 | 16 | 18.0 | 9 | 10.1 | 89 | 100 |
| Natural sciences             | 20 | 35.7 | 16 | 28.6 | 17 | 30.4 | 3 | 5.4 | 56 | 100 |
| Foreign languages            | 19 | 27.1 | 20 | 28.6 | 20 | 28.6 | 11 | 15.7 | 70 | 100 |
| Physical education           | 30 | 48.4 | 12 | 19.4 | 9 | 14.5 | 11 | 17.7 | 62 | 100 |
| Total                        | 153 | 37.9 | 104 | 25.7 | 96 | 23.8 | 51 | 12.6 | 404 | 100 |

With a low level of emotional exhaustion and average level of depersonalization, teachers who are disappointed with their work at school begin to lose the sense of value and usefulness of their work. Cluster III encompasses teachers who react to professional stress with emotional tension (Tab. 2). A high level of emotional exhaustion along with an average level of the sense of personal accomplishments at work yields a high level of depersonalization.

The male teachers under study, constituting a minority in the highly feminized school teaching community, experience professional burnout more often than their female counterparts. It is manifested by the higher percentage of male teachers in Cluster IV and their lower percentage in Cluster II (Tab. 1).

The analysis of professional burnout level with regard to taught subjects revealed diverse tendencies. The most numerous group of respondents (burned out and non-burned out) were the PE teachers (48.4% and 17.7%, respectively). There was also a high percentage of teachers of sciences in the cluster of non-burned out teachers; but only three burned out teachers of natural sciences (5.4%) (Tab. 3).

One-fourth of the examined physics teachers \( n = 15 \) exhibited visible burnout symptoms (26.7%); as well...
as 17.7% of all PE teachers \((n = 62)\). The most numerous groups in the category of humanities were teachers of Polish \((n = 77)\), and in the foreign languages category, teachers of English \((n = 51)\); the number of burned out teachers in these two groups amounted to 15.6% and 13.7%, respectively (Tab. 3).

The examined general education teachers featured a high index of general self-efficacy \((\bar{x} = 31.11; \text{women } \bar{x} = 30.87; \text{men } \bar{x} = 31.91)\). The sex variable did not differentiate the subjects in terms of professional burnout, and neither did job seniority, school and its geographical location, despite slightly higher values in male teachers.

Perception of self-efficacy as a personality variable is a significant factor preventing professional burnout in general education teachers \((p < 0.001, \chi^2 = 40.230, df = 3)\). This correlation is statistically significant in teachers of humanities and physical education \((p < 0.05, \chi^2 = 11.143 \text{ and } 9.464 \text{ respectively, } df = 3)\). A strong correlation can also be noted in teachers of sciences \((p < 0.01, \chi^2 = 40.230, df = 3)\).
A high level of general self-efficacy most effectively prevents the loss of sense of personal accomplishment (PA) in the teachers under study (Tab. 5). Perception of self-efficacy also determines to a great extent the level of tolerated stress during intentional acts [12, 13 after 2]. It protects teachers against inevitable disorganization of actions and growing emotional exhaustion (EE), and prevents – mostly male teachers – from deterioration of interpersonal skills (Tab. 5). Depersonalization of students (DP) in conditions of intense professional stress is a defense mechanism. The teachers of different subjects perceive differently the preventive role of self-efficacy. Generally, self-efficacy perception protects teachers against the loss of professional interests and satisfaction. The exceptions are teachers of foreign languages, especially women, in whom perception of self-efficacy is decreased considerably by emotional exhaustion \( (p < 0.05) \) (Tab. 3, 5).

Professional burnout proceeds much slower in teachers of sciences (Tab. 3), in whom the preventive role of self-efficacy is highly significant \( (p < 0.01) \). The first reaction of teachers to professional stress is profound disillusionment with work at school (the highest percentage in Cluster I). Conviction of self-efficacy protects teachers (mostly women) against reduction of work satisfaction and progressive burnout (Tab. 3, 5).

Perceived self-efficacy in teachers of humanities determines two components of the burnout syndrome. In this group of subjects the burnout is initiated by emotional exhaustion (Tab. 3). The sense of self-efficacy protects the teachers (male teachers, in particular) against the loss of personal accomplishment (PA) and reduces stress at work in school (EE) (Tab. 5).

The analysis of professional burnout syndrome in PE teachers shows a high percentage of both non-burned out and burned out teachers. Perception of self-efficacy of PE teachers determines all the three components of the syndrome (Tab. 5). The obtained results point to the necessity of development of teachers’ sense of self-efficacy during their university studies and in-service training. This way the protection against the professional burnout syndrome will be ensured. A high level of perception of self-efficacy enhances effective stress management and coping with professional duties; it also facilitates changes in the working environment and prevention of the burnout causes [5]. The development of self-efficacy as a means of multidimensional resistance to the burnout syndrome should be of particular concern for PE teachers. Following Tucholska [6] it is the professional group of PE teachers, that displays the highest level of dissatisfaction with the effects of their professional activities.

Conclusions

1. General perception of self-efficacy protects school teachers against the professional burnout syndrome manifested by low professional satisfaction, growing emotional exhaustion and a tendency to depersonalize their students.

2. Among teachers of different subjects the preventive role of perception of general self-efficacy concerns the following burnout syndrome components:
   - emotional exhaustion, loss of personal accomplishment and depersonalization in physical education teachers;
   - emotional exhaustion and loss of personal accomplishment in teachers of humanities;
   - loss of personal accomplishment in teachers of sciences and natural sciences;
   - emotional exhaustion in teachers of foreign languages.

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