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Occupational Burnout and Pro-Health Behaviours of Pre-School Teachers from Kraków

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Abstract

Preserving and improving human health potential is fostered by a healthy lifestyle, in particular a rational diet, recreational physical activity, effective coping with psychological stress, avoidance of psychoactive substances and risky sexual contacts, and the use of preventive examinations. The aim of the study was to assess health-related behaviours and professional burnout of pre-school teachers from Kraków. Anonymous research, by means of diagnostic survey, was conducted in 2018 among a randomly selected group of teachers from public ($n = 139$) and non-public ($n = 43$) preschools in Kraków. The Occupational Burnout Questionnaire (MBI) based on the concept of Ch. Maslach was used to assess the structure of professional burnout (emotional depletion, depersonalisation and sense of professional achievement). Using the Inventory of Pro-health Behaviours (IZZ) by Z. Juczyński, four cate-

gories of pro-health behaviours were assessed: correct eating habits, preventive behaviours, positive mental attitude and health practices. The results of correlation analysis using Pearson's r showed a relationship between three out of four scales of the Inventory of Pro-health Behaviours (preventive behaviours, positive mental attitude, health practices) and a general indicator of health behaviours and the results of the MBI questionnaire. The obtained data suggest that people who present health-related behaviours to a lesser extent are characterised by a higher level of burnout components.

Key words: teacher, pre-school education, professional burnout, pro-health behaviours

Introduction

Occupational burnout is the largest threat faced by professionally active people in the 21st century. This phenomenon is becoming more and more common and is present at all workplaces (Maslach, Leiter, 2010, p. 15). In the group at risk of burnout, there are occupations exposed to stress that often result from the very nature of the work itself. Such groups include work requiring contact with other persons, namely the profession of a teacher, nurse, doctor, manager, social worker. However, research shows that burnout concerns not only professions related to social services (education, social work, etc.). It has been demonstrated that burnout is also experienced by students (Aypay, 2011, Luo, Wang, Zhang, Chen, Quan, 2016), pupils (Boudreau, Santen, Hemphill, Dobson, 2004; Capri, Ozkendir, Ozkurt, Karakus, 2012) or athletes (Raedeke, Smith, 2009, Creswell, 2009).

In the subject-based literature, there are different concepts of professional burnout, however, the most-referenced ones are those proposed by: Ch. Maslach, A. Pines, C. Chernissa, R. Golembiewski, J. Eldewich and A. Brodsky. Nevertheless, the multidimensional model of professional burnout, which was initially defined by the authors – Ch. Maslach and S. Jackson, has become the most popular. The authors define it as:

a psychological syndrome of emotional exhaustion, depersonalisation and a reduced sense of personal achievement that can occur in people working with other people in a certain way. Emotional exhaustion refers to a person's sense of being emotionally overly charged, and his/her emotional resources have been significantly depleted. Depersonalisation refers to a negative, callous or excessively indifferent response to other people who are usually recipients of a person's services or an object of care on his/her part. A reduced sense of personal achievement refers to a decrease in the sense of self-competence and success at work (Maslach, 2009, p. 15).

Over the years, this concept has been broadened by C. Maslach. Occupational burnout was presented as a reaction of the body to prolonged stress, associated with social pressure and excessive involvement in a given activity, and not only relations with students, patients or mentees.

Professional burnout is a serious threat to holistically understood health (as physical, social and psychoemotional well-being), and the effects of this disease are visible both in the individual (mental and physical) and social dimension, and significantly affect quality of life. Research conducted in European Union countries indicates that about 30% of employees observe a destructive effect of professional activity on psychophysical state (Paoli, 1997). In the years 1985–1990 in the United States, the number of employees complaining about stress doubled, and the percentage of those suffering from psychosomatic diseases increased from 13% to 26% during this period (Ogińska-Bulik, 2006). The results of many studies indicate close association between psychological and psychosomatic symptoms (Henschen, 2001, Schaufeli, Buunk, 2003, Cresswell, Eklund, 2006, Cresswell, 2009), also among teachers (Pyżalski, 2002; Bauer, Stamm, Virnich, Wissing, Muller, Wirsching, Schaarschmidt, 2006; Milfont, Denny, Ameratung, Robinson, Merry, 2008).

Nowadays, more and more connections between proper functioning at work and an individual's lifestyle are highlighted, and the importance of pro-health behaviours for broadly understood quality of life, including occupational life and satisfaction, is emphasised (Bailey, Hillman, Arent, Petitpas, 2013; Pedišić, Rakovac, Titze, Jurakić, Oja, 2014; Eime, Harvey, Payne, 2014; Maher, Pincus, Ram, Conroy, 2015; Kosiba, Gacek, Wojtowicz, Bogacz-Walancik, 2016a).

A key determinant of holistically defined health is a lifestyle shaped as a result of socio-cultural factors and personal resources of a subject. Preservation and improvement of health potential are fostered by pro-health behaviours related to rational diet, recreational physical activity, effective coping with mental stress, regular check-ups and avoidance of psychoactive substances and risky sexual encounters (Heszen, Sęk, 2012; Gray, 2017). H Sęk (2000a, p. 539) defines health-related behaviours as *reactive, habitual and/or intentional forms of human activity that remain – in light of the objective knowledge about health and subjective belief – in a substantive, reciprocal relationship with health*.

Assuming that everyday health behaviours have significant impact on broadly understood quality of life (physical, psycho-social, emotional), and that professional burnout is a serious threat to holistically understood health, a research was carried out aimed at understanding and describing the structure of

burnout and pro-health behaviours of Kraków preschool teachers and indicating possible connections between the variables mentioned above.

Materials and methods

The research was carried out in 2018 among a randomly selected group of preschool teachers from Kraków¹. Out of 172 public (1,799 full-time teachers) and 137 non-public (797 full-time teachers) preschools, using a random number generator, 10% (18 branches, 208 full-time teachers) of public preschools and 10% (14 branches, 73 full-time teachers) of non-public preschools were randomly drawn. Ultimately, 139 teachers from public preschools and 43 from non-public preschools expressed their willingness to participate in the study. Ultimately, the questionnaires were completed by 182 people, including 178 women and 4 men. Significant diversity of the results for men and women resulted from the small percentage of men working at preschools. Due to the small number of men taking part in the study, their questionnaires were omitted from the analysis. Research, with the consent of the directors of the facilities, was conducted directly at the preschools, using surveyors specially trained for this kind of research.

In the presented research, the method of diagnostic survey was used, and the following research tools were used:

- Maslach Burnout Inventory (MBI) to assess the structure of professional burnout (emotional depletion, depersonalisation and a sense of professional achievement) (Maslach, Leiter, 1986);
- Inventory of Pro-health Behaviours (IZZ) by Z. Juczyński (2009) to assess four categories of pro-health behaviours: proper eating habits, preventive behaviours, pro-health practices and positive mental attitude. The severity of pro-health behaviours was evaluated using the appropriate sten standards (Juczyński, 2009).

The results of the research were subjected to statistical analysis, which included basic numerical and percentage characteristics as well as analysis of correlations and relationships within the examined variables. Statistical analysis was carried out using the Statistica 10 statistical programme by StatSoft Poland. To examine differences between groups, the following were used: Chi-square test with multiple comparisons (the test for proportions with the Bonferroni correction is indicated in the table by the letters a and b) and the Student's *t* test. To

¹ Board of Education, data from 30 Sep. 2017.

analyse the differences between the scales of the MBI and IZZ questionnaires, ANOVA for dependent variables was used, while Pearson's r was implemented to analyse the correlation between the scales of the IZZ and MBI questionnaires. Test probability was assumed to be significant at $p < 0.05$, and highly significant at $p < 0.01$ and $p < 0.001$.

Research results

On the basis of the average values of components of professional burnout, it can be stated that for public preschool teachers, the average for the component of emotional exhaustion was 15.37, for depersonalisation – 3.26, while the average value for the component regarding sense of own achievements – 33.94. Among teachers of non-public preschools, these values were as follows: emotional exhaustion: 17.26, depersonalisation: 3.58, sense of own achievements: 32.81.

The Student's t test results for independent samples (Tab. 1) did not indicate statistically significant differences in the values of individual components of professional burnout between public and non-public preschool teachers ($p > 0.05$). Therefore, in further analyses of the relationship between burnout and pro-health behaviours, the results for the whole sample were used.

Table 1. Components of professional burnout (MBI) in the group of preschool teachers depending on type of preschool (M \pm SD)

Components of professional burnout	Type of preschool				Total (N = 178)		Student's t test ^k (df = 176)	
	Public (N = 136)		Non-public (N = 42)		M	SD	t	p
	M	SD	M	SD				
Emotional exhaustion	15.37	10.17	17.26	10.94	15.82	10.36	-1.041	0.299
Depersonalisation	3.26	4.23	3.58	3.98	3.34	4.16	-0.443	0.658
Sense of own accomplishment	33.94	8.27	32.81	7.81	33.68	8.15	0.617	0.538

^k – comparison of individuals working at public and non-public preschools
Source: Authors' research

The conducted analyses of variance (Tab. 2) showed statistically significant differences in the intensity of all components of burnout (in order to unify the results before the analysis, the raw results of individual scales were divided by the number of items for a given scale).

Table 2. Differences between intensification of certain categories of professional burnout in the group of preschool teachers

	F (1, 181)		p	
	SOA	D	SOA	D
EE	355.49	315.63	<0.001	<0.001
D	965.15		< 0.001	

EE – emotional exhaustion, D – depersonalisation; SOA – sense of own achievements
Source: Authors' research

Analysing the results of individual scales of the Inventory of Pro-health Behaviours (Tab. 3), it was shown that the surveyed teachers obtained the highest average score in the range of proper eating habits ($M = 22.22$) and positive mental attitude ($M = 22.03$), lower regarding preventative behaviours ($M = 21.35$) and the lowest in the area of pro-health practices ($M = 20.12$). The obtained results allow to state that the subjects undertook behaviours related to healthy eating more often and tried to control psychological factors, such as avoiding strong emotions and tension. They rarely exhibited preventive practices (compliance with medical recommendations, regular check-ups, etc.), and most rarely, daily health practices related to sleep, rest, avoidance of stimulants, recreational physical activity.

Within the categories of the pro-health behaviours mentioned above, statistically significant differences were found between public and non-public preschool teachers in preventative behaviours ($t(176) = 2.538, p = 0.012$); positive mental attitude ($t(176) = 2.856; p = 0.005$) and overall pro-health behaviour index ($t(176) = 2.365; p = 0.019$). There was also a tendency towards differences ($0.1 > p > 0.05$) in favour of teachers working at public preschools regarding proper eating habits ($t(176) = 0.676, p = 0.050$). However, no significant differences were found ($p > 0.05$) in the area of every day health practices.

Table 3. Individual categories of pro-health behaviours (IZZ) within the group of preschool teachers depending on the type of preschool ($M \pm SD$)

Pro-health behaviours	Type of preschool				Total (N = 178)		Student's t test ^k (df = 176)	
	Public (N = 136)		Non-public (N = 42)		M	SD	t	p
	M	SD	M	SD				
Proper eating habits (PEH)	22.34	4.15	21.86	3.62	22.22	40.03	0.676	0.050
Preventative behaviours (PB)	21.81	4.06	19.88	5.02	21.35	4.37	2.538	0.012

Table 3.

Pro-health behaviours	Type of preschool				Total (N = 178)		Student's t test ^k (df = 176)	
	Public (N = 136)		Non-public (N = 42)					
	M	SD	M	SD	M	SD	t	p
Positive mental attitude (PMA)	22.49	3.76	20.55	4.10	22.03	3.92	2.856	0.005
Pro-health practices (PHP)	20.29	3.24	19.60	3.72	20.12	3.36	1.166	0.245
Overall indicator of pro-health behaviours	86.92	11.90	81.88	12.61	85.73	12.22	2.365	0.019

^k – comparison of individuals working at public and non-public preschools
Source: Authors' research

The conducted analyses of variance also showed statistically significant differences in the intensity of almost all categories of pro-health behaviours. A statistically significant difference was not only demonstrated between proper eating habits and the level of positive mental attitude (Tab. 4).

Table 4. Differences between intensification of individual categories of pro-health behaviour in the group of preschool teachers

	F (1, 181)			P		
	PMA	PB	PEH	PMA	PHB	PEH
PB	5.657			0.018		
PEH	0.356	7.337		0.552	0.007	
PHP	48.890	18.164	42.716	< 0.001	< 0.001	< 0.001

PB – preventative behaviours; PEH – proper eating habits; PHP – pro-health behaviours; PMA – positive mental attitude
Source: Authors' research

The results of correlation analysis using Pearson's test (Tab. 5) showed relationships between three out of four scales of the Inventory of Pro-health Behaviours (preventive behaviours, positive mental attitude, pro-health practices) and the overall indicator of pro-health behaviours and the results of the MBI questionnaire (for scales: emotional exhaustion and depersonalisation, the observed correlation was negative, while in the case of the scale of the sense of own achievements, it assumed positive values). The obtained results suggest that people who present the aforementioned pro-health behaviours are characterised by a higher level of professional burnout to a lesser extent.

Among the analysed pro-health behaviours, the highest connection to burn-out (Tab. 5) regarded positive mental attitude ($|r| =$ from 0.338 to 0.387), the lowest statistically significant differences were noted in the case of preventative behaviours ($|r| =$ from 0.156 to 0.316) . There were no significant correlations between burnout and proper eating habits ($p > 0.05$).

Table 5. Pearson’s correlation coefficient (Pearson’s r) between individual categories of pro-health behaviours (IZZ) and components of professional burn-out (MBI) in the group of preschool teachers

			Inventory of Healthy Behaviours (IZZ)				
			Proper eating habits	Preventative behaviours	Positive mental attitude	Pro-health behaviours	Overall indicator of pro-health behaviours
M Maslach Burnout Inventory (MBI)	Emotional exhaustion	r	-0.131	-0.156*	-0.359**	-0.246**	-0.282**
		p	0.093	0.029	<0.001	<0.001	0.093
	Depersonalisation	r	-0.098	-0.206**	-0.338**	-0.216**	-0.274**
		p	0.173	0.004	<0.001	0.002	0.173
	Sense of own accomplishments	r	0.122	0.316**	0.387**	0.269**	0.351
		p	0.106	<0.001	<0.001	<0.001	0.134

** Significant correlation at the level of 0.001 (two-sided); * Significant correlation at the level of 0.05 (two-sided)
Source: Authors’ research

Discussion

The Maslach Burnout Inventory (MBI) was used to characterise the structure of professional burnout among Kraków preschool teachers, which examines three dimensions of experience related to work. High scores in the area of emotional exhaustion and depersonalisation with low results of sense of personal achievement indicate that an employee is experiencing burnout, while the reverse pattern – low results in the area of emotional exhaustion and depersonalisation with high scores in the area of sense of personal achievements indicate many positive experiences related to involvement in professional work (Maslach, Leiter, 2011). Although determining the level of professional burnout among teachers is difficult due to lack of standards for this tool, it is possible to compare the obtained values of its individual components to the results of research using the same tool.

The results of the research show that the surveyed preschool teachers demonstrate a lower level of emotional exhaustion (15.82) compared to the results

obtained in this area of burnout by teachers working in schools at various levels of education. For example, in Polish teachers, in the research by H. Sęk (2000b), the value of the emotional exhaustion component was 22.0, J. Pyżalski (2002) obtained the value of 16.40, in the research by S. Tucholska (2003) – 21.07, and in J. Kirenko and T. Zubrzycka-Maciąg (2011) – 18.24. Higher values concerning the area of emotional exhaustion compared to the results of the authors' research were also observed in Greek primary school teachers – 30.86 (Kokkinos, 2007), Dutch teachers – 16.83 (Brouwers, Tomic, 2000) and 17.84 (Bakker, Schaufeli, 2000), American agriculture teachers – 18.20 (Croom, 2003) and in the results obtained by Norwegian educators – 27.51 (Skaalvik, Skaalvik, 2007). The values of this component, comparable with the results for preschool teachers, have been demonstrated in the research by N. Ogińska-Bulik (2006) – 15.82 vs. 15.55.

Also, in the area of depersonalisation, the results obtained in this study (3.34) are lower than the results presented in the research by the following authors: Sęk, (2000b) – 6.0, Bakker and Schaufeli (2000) – 5.97, Brouwers and Tomic (2000) – 6.50, Pyżalski (2002) – 4.33, Tucholska (2003) – 6.41, Croom (2003) – 5.96, Ogińska-Bulik (2006) – 6.57, Kokkinos (2007) – 4.02, Skaalvik and Skaalvik (2007) – 9.12, Kirenko and Zubrzycka-Maciąg (2011) – 6.83.

Consequently, in the area regarding the component of sense of personal achievement, the values obtained by preschool teachers were higher in comparison to the values obtained in the studies: N. Ogińska-Bulik (2006) – 24.50 vs. 33.68, C.M. Kokkinos (2007) – 30.86 vs. 33.68, A. Brouwers and W. Tomic (2000) – 27.10 vs. 33.68, A.B. Bakker and W.B. Schaufeli (2000) – 27.37 vs. 33.68 and E.M. Skaalvik and S. Skaalvik (2007) – 17.50 vs. 33.68, comparable with the results obtained by J. Pyżalski (2002) – 33.07 vs. 33.68, S. Tucholska (2003) – 14.52 vs. 14.32, J. Kirenko and T. Zubrzycka-Maciąg (2011) – 33.22 vs. 33.68 and D.B. Croom (2003) – 33.68 vs. 33.54, and slightly lower than the values obtained in the research by H. Sęk (2000b) – 35.40 vs. 33.68.

The compared results may suggest that the studied preschool teachers, to a lesser extent than those presented in the studies by other authors – teachers of primary and secondary schools – experience emotional exhaustion as well as indifference towards various subjects in their educational activities (depersonalisation). The lower level of these components regarding professional burnout in the profession of preschool teachers may result from the specifics of work at this stage of education, namely dominance of the educational-upbringing function. It is difficult to meet the needs and expectations of young children without proper care, warmth and kindness, and if the symptoms of depersonalisation

intensify, the willingness to make contact with the pupils is limited to the necessary minimum, and the relationships themselves become cold or even cynical. Specific personality traits necessary to work with preschool children are not without significance and include: high level of empathy, patience, caring, nurturing, cordiality, sensitivity, which are undoubtedly of importance when choosing the profession of a preschool teacher, and perhaps, they also protect the teacher from depersonalisation. The authors' results regarding the component of sense of professional achievement, manifesting itself in, among others, a decline in the sense of self-competence and successes at work, are diversified according to the results of other authors.

Comparing the obtained results with the research by N. Ogińska-Bulik (2006), which included representatives of 14 different professions (police officers, fire fighters, prison officers, security guards, municipal guards, emergency rescue workers, teachers, bank employees, probation officers, taxi drivers, drivers of public transport, managers, journalists, actors), it can be stated that the level of burnout among pre-school teachers is lower in terms of depersonalisation (3.34 vs. 6.19). More advantageously, in comparison with representatives of other professions, they perceive themselves within the area of a sense of personal achievement (33.68 vs. 25.45). In the case of emotional exhaustion, the results are very similar (15.82 vs. 15.45). At the same time, the author of the research emphasises that the level of stress at work felt by teachers turned out to be the highest in the entire surveyed group among 14 different professions (Ogińska-Bulik, 2006). In Germany, in turn, teachers show the highest rates of professional burnout compared to other occupations with high interpersonal involvement, such as doctors, nurses or social workers. This applies to many European countries where the burnout rate ranges from 25% to 35% (Bauer, Stamm, Virnich, Wissing, Muller, Wirsching, Schaarschmidt, 2006).

A research on professional burnout among teachers, however, using the extended version of the questionnaire by C. Maslach, the so-called MBI – General Survey (MBI – GS), was conducted under the supervision of J. Pyżalski and D. Merez (2010). The authors of these studies, comparing their results with data obtained by representatives of other professional groups, indicate a rather moderate, average level of professional burnout in teachers compared with other employees, while stressing that many people working in this profession have the competence to deal with the requirements of this profession effectively (Pyżalski and Merez, 2010). The relatively low level of depersonalisation and emotional exhaustion, as well as the relatively high level of personal achievements, are also demonstrated in the results of research conducted among Dutch

teachers (Evers, Tomic, Brouwer, 2004). The moderate level of emotional exhaustion in their work, the low level of depersonalisation in relations with students and co-workers, and a high degree of personal achievement at work are also experienced by American agriculture teachers (Croom, 2003).

Maintaining and improving health potential are fostered by pro-health behaviours, related in particular to a rational diet, recreational physical activity, effective coping with psychological stress, avoiding psychoactive substances and risky sexual contacts, and undergoing routine preventative examinations (Heszen, Sęk, 2012; Gray, 2017).

From the authors' research, the results of which were obtained using the Inventory of Pro-health Behaviours, it has been demonstrated that the surveyed teachers obtained the highest average score within the range of proper eating habits (quality and regularity of consumed meals) and positive mental attitude (positive thinking, maintaining proper relationships with other people, avoiding strong emotions and tension), lower in the scope of preventive behaviours (compliance with medical recommendations, regular tests, etc.), and the lowest in the area of health practices related to sleep, avoidance of stimulants, recreational physical activity. Analysis of variance showed statistically significant differences between the severity of most categories of pro-health behaviours. Such differences were only not demonstrated between positive mental attitude, proper eating habits and preventive behaviours ($p > 0.05$). The values of these scales are very similar. The research results suggest that the surveyed teachers demonstrate pro-health behaviours in a varied way, and the lowest result in everyday health practices may indicate that the most neglected area is related to sleep, passive and active rest, avoidance of stimulants. Similarly in the research by M. Lipowski and Ź. Szczepańska-Klunder (2013), the lowest values achieved by the surveyed physical education teachers (groups of teachers who, due to their specialisation and preparation, aspire to the role of promoters of health education at school) were in the field of everyday health practices. Such a low position of this scale corresponds to the results of research by other authors on this subject, which indicate the prevalence of anti-health behaviours in the teachers' lifestyles (Pe'russe-Lachance, Tremblay, Drapeau, 2010; Webber, Rice, Johnson, Rose, Srinivasan, Berenson, 2012; Lipowski, Szczepańska-Klunder, 2013; Laudańska-Krzemińska, 2014). The main abnormalities in teachers' health behaviours demonstrated in the cited studies concerned the diet (lack of regularity and eating too much simple sugars), preference for passive relaxation (lack of or insufficient physical activity) and adverse behaviours related to mental health (Biernat, Poznańska, Gajewski, 2012; Laudańska-Krzemińska, 2014; Zysnar-

ska, Bernad, 2007; Sharma, Dortch, Byrd-Williams, Truxillio, Rahman, Bonsu, Hoelscher, 2013).

In turn, studies using the IZZ conducted among students of teaching faculties (Kosiba, Gacek, Bogacz-Walancik, Wojtowicz, 2016b) show a slightly different location of particular categories of pro-health behaviours in their lifestyle. Of the four categories of pro-health behaviours, they obtained the highest scores in terms of positive mental attitude and pro-health practices, and lower in terms of proper eating habits and preventive behaviours.

The results of correlation analysis using the Pearson's r indicated a relationship between three out of four scales of the Inventory of Pro-health Behaviours (preventive behaviours, positive mental attitude, pro-health practices), as well as the overall pro-health behaviour index and the results of the MBI questionnaire.

The obtained results suggest that people who demonstrate the aforementioned pro-health behaviours to a lesser extent are characterised by a higher level of professional burnout. Among the analysed pro-health behaviours, the highest relationship with burnout regarded positive mental attitude, and the poorest statistically significant differences were noted in the case of preventative behaviours. However, no significant correlation was found between burnout and proper eating habits.

The highest correlation between individual categories of burnout (emotional exhaustion, depersonalisation and sense of professional achievements) with the scale of the positive mental attitude from the IZZ, and the high position of this scale among the others may indicate that the surveyed teachers are aware of the negative impact of psychological stress on health (cf. Pyżalski and Miecz, 2010). It is worth emphasising not only the importance of reducing exposure to stress, but above all, the ability to apply effective remedial strategies to preserve and improve health. The ability to cope with stress is *not only about the potential of an individual to solve problems, but to a large extent, it determines a pro- or anti-health lifestyle* (Sygit-Kowalkowska, 2014, p. 202). The importance of active and effective coping with psychological stress was highlighted by researchers dealing with the issue of professional burnout among teachers (Sęk, 2000a, b, Tucholska, 2003). According to S. Tucholska, it is very important that:

teachers have appropriate interpersonal competences as thresholds in this profession (...), but equally important (...) are such properties as resilience, initiative, optimism, self-confidence, high self-esteem, ability to adapt to different, sometimes

difficult conditions and circumstances and active and effective coping with stress (Tucholska, 2003, pp. 225–226).

The existence of relationships between psychological features that are important in a teacher's daily work and in the prevention of professional burnout, such as self-efficacy, optimism, general life satisfaction and pro-health behaviours, indicate the results of research carried out in different population groups. In the research by G. Kosiba et al. (2016a), the relationship between the level of life satisfaction and the intensity of pro-health behaviours in the area of positive mental attitude, every day pro-health practices, proper eating habits and preventive behaviours in students of teaching faculties was demonstrated. Lipowski's research (2012) showed a relationship between the level of optimism and some pro-health behaviours of women practicing sports. In the research by Posadzki et al. (2010), the positive influence of positively correlated psychological features was demonstrated. These features included sense of self-efficacy, optimism and a sense of coherence regarding pro-health behaviours of Polish students. Results indicating a larger scale of rational food choices along with an increase in the sense of self-efficacy and life satisfaction were also obtained among women who do fitness recreationally, and they positively correlated with the level of optimism (Gacek, 2017).

In addition, the authors' research shows that people working at public preschools, in comparison to teachers from non-public preschools, are characterised by statistically significantly higher results of the IZZ questionnaire in terms of preventive behaviours, positive mental attitude and regarding the overall index of pro-health behaviours.

The greater activity of public preschool teachers in undertaking preventive behaviours (PB) in comparison to people working at non-public preschools may result from the age and experience of the subjects. Their average age (much higher in the case of public preschool teachers) was: 42 ± 11 years and 33 ± 10 years, respectively, while experience was: 17 ± 12 years for teachers of public preschools and 9 ± 9 years for teachers from non-public preschools. In turn, the higher rate of positive mental attitude may be the positive effect of working conditions in public preschools, namely employment stability (employment contract), as well as greater opportunities for career advancement.

Summing up the results of the authors' research on the relationship between professional burnout and pro-health behaviours of the subjects, it should be borne in mind that the obtained results show only the relationship between two variables, without indicating which variable is the cause and which is the

result (unless one of them would be a permanent feature – such as disposition). It is likely that an explanation to the above situation is that people who are more burned out at work begin to care about their health less. Therefore, health-related behaviours can both have a preventative function and reduce the symptoms of professional burnout.

Conclusions

1. Comparing the results of the author's research with the results of other authors, it can be noticed that significantly lower values are present in the area of emotional exhaustion and depersonalisation in the surveyed preschool teachers. The results regarding the component of sense of professional achievements are, within the context of research results obtained of other authors, differentiated.
2. The examined teachers obtained the highest average score within the scope of proper eating behaviours and positive mental attitude, lower in the scope of preventive behaviours, and the lowest in the area of pro-health practices.
3. Teachers working at public preschools, in comparison to teachers from non-public preschools, are characterised by statistically significantly higher results of the IZZ questionnaire within the scope of preventive behaviours, positive mental attitude and regarding the overall pro-health behaviour index.
4. Teachers who implement pro-health behaviours to a lesser extent are characterised by higher values of burnout components, which may indicate that pro-health behaviours can aid prevention as well as reduce the symptoms of burnout.
5. Among the analysed pro-health behaviours, the strongest correlation with burnout related to positive mental attitude, the weakest was noted in the case of preventative behaviours. There were no significant differences in the relationship between burnout and proper eating habits.

Practical conclusions

1. Universal health education at school should become an important element in shaping pro-health behaviours of not only students, but also, teachers. The modern educational system requires commitment of teachers (of all specialisations) to promoting a healthy lifestyle at school.

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