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Burnout Syndrome and Lifestyle Among Primary School Teachers: A Czech Representative Study

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Background: Burnout is a state of vital exhaustion that is manifested on physical, cognitive, and emotional levels. Teachers work in a field where they are exposed daily to high job-related stressors, which can result in job change, a higher rate of unhappiness, and even earlier retirement. This study explored the relationship between job stressors, lifestyle, and burnout.

Material/Methods: Descriptive statistics were used to explore the burnout levels, together with *t* tests to compare between men and women, and regression analysis was performed to explore the relationship between the rates of burnout and lifestyle.

Results: The overall sample size was 2394 teachers from primary schools. While males had higher emotional burnout, females reported higher physical burnout rates. We found that higher income was associated with less burnout, and a healthier lifestyle is associated with lower burnout rates. Teachers who take time for family and personal interests have significantly lower rates of burnout than those that do not.

Conclusions: Based on our results, we propose that teachers should be informed about the risk of burnout. We found that some teachers reported they do not know what burnout syndrome is. The primary aim should be to increase awareness. In fact, burnout is a major threat to those who are perfectionists and who tend to work overtime.

MeSH Keywords: **Burnout, Professional • Depression • Faculty • Life Style**

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Background

Although burnout syndrome is still predominantly discussed within the medical professions, [1] it is now seen as a syndrome affecting a much wider field of professions [2] and it can occur even during academic studies [3]. Teaching is a profession with many job-related stressors, often on a daily basis. This stress load can result in frequent job changes, higher rates of unhappiness, and even earlier retirement. When compared to other professions, teachers' results are not very conclusive, as some state that a teacher's mental state is not significantly worse than other professions [4], yet other studies found lower wellbeing scores of teachers when compared to other working population samples [5].

Predictors and prevalence

There is a relationship between burnout rates and overall job satisfaction, [6] teachers' self-efficacy [7,8] and teachers' levels of depression [9]. Teachers' overall wellbeing is significantly associated with levels of depression and stress at work [5].

Other factors affecting health states and burnout rates are teachers' perceptions of students' misbehaviors, as well as perceptions of leadership, in addition to their levels of affiliation [10,11]. The number of students and the school environment do not seem to affect levels of burnout [12]. Furthermore, studies report an association between teachers' general pedagogical knowledge and burnout rates [12], but this evidence is not conclusive [13].

Burnout seems to be associated with neurotic personality traits [7,14,15]. In addition to worsening the mental wellbeing of teachers directly, an additional danger lies in the fact that teachers' burnout levels are directly linked to students' physiological stress regulation [16].

There seem to be higher rates of burnout and worsened wellbeing among females [5,12,13] and those who have a shorter length of practice [12]. Social support in the form of marriage and children seems to protect against burnout [13]. However, some studies have not found any association between factors such as gender [11], levels of experience, and burnout [11,13].

Coping

Burnout has many social components that can be addressed with appropriate coping strategies. Some of the strategies for managing teachers' burnout levels are to apply self- and co-regulation proactive strategies, as well as to monitor the perceived working environment of teachers [7,17]. Appropriate coping strategies lead to decreased levels of burnout and are associated with improved overall health [18]. Furthermore,

gratitude intervention and meaningful life orientation were associated with decreased levels of emotional exhaustion [19] and there is evidence that humor is a potential coping strategy that can be used to mediate the effects of stress [20]. Overall, good mental health appears to protect against higher burnout levels in the long term [21]. Teachers themselves report that they would appreciate feedback on their performance, higher monetary reward for high performance, and technology that would allow them to deliver better lessons for their students [22]. Another coping strategy for teachers is to set aside time for themselves and to be able to differentiate between student-time and self-time [23].

Aims and objectives

Few studies have attempted to map the burnout of teachers in the Czech Republic and none of the studies were large-scale studies that also looked at associations between burnout and teachers' lifestyles.

Our aim here was to fill in this missing information, to describe the levels of burnout among Czech teachers, and to explore the possible differences. The main implication of this study will be recommendation for possible school interventions that can be implemented in the Czech Republic and elsewhere. We also hope to raise awareness of the danger of burnout syndrome.

Material and Methods

Teachers were approached through the school management and through the media: we sent emails to the school administrators requesting participation and information, and we used specialized media and organizations such as the National Institute for Further Education, School Unions, and Teaching Associations. We assured both teachers and school management about the anonymity of the results as well as about the importance of the research. Furthermore, we informed them about our intention to publish the results not only in academic journals and scientific conferences, but also through platforms focused on pedagogical practice, and we explained that we would present the results to the Ministry of Education and to the school directors.

The questionnaire was distributed through an online application for 8 weeks during the period 2016 to 2017. This relatively short period of data collection was chosen in order to ensure similar conditions, as it is well known that during the school year the number of tasks and fatigue associated with them varies.

The questionnaire survey consisted of an anamnestic part (e.g., lifestyle and professional satisfaction) and standardized

Table 1. ANOVA – rates of burnout according to subjective feeling of threat and long-term stress.

	Do you feel threatened by burnout?			Are you experiencing long-term stress?		
	N	Mean burnout	Std. deviation	N	Mean burnout	Std. deviation
Definitely yes	391	43.54	14.81	519	43.85	14.49
More likely yes	745	43.00	13.66	908	41.68	13.06
More likely no	785	38.86	12.99	778	39.08	13.09
Definitely no	212	37.65	14.07	178	36.71	14.66
Total	2133	41.05	13.87	2383	40.93	13.68

	Do you feel threatened by burnout ?				
	Sum of squares	df	Mean square	F	Sig.
Between groups	11463.58	3	3821.19	20.41	.000
Within groups	398546.82	2129	187.20		
Total	410010.41	2132			

	Are you experiencing long-term stress ?				
	Sum of squares	df	Mean square	F	Sig.
Between groups	10785.22	3	3595.07	19.674	.000
Within groups	434716.63	2379	182.73		
Total	445501.85	2382			

questionnaires: SVF 78, SMBM, ENRICH D SSI, BDI II, USE. The obtained data were analyzed in IBM SPSS Statistics v. 24.

This study was approved by the IRB of Charles University. Data were collected anonymously and individual participants could not be identified based on the data collected. Furthermore, informed consent was collected from all participants and we ensured their participation in the study was voluntary. All participants were informed about their right to withdraw at any point during the survey. There was no risk involved for the participants and they were given a contact address in case they required additional information about the study.

Results

The overall sample size was 2394 teachers from primary schools: 358 (15%) males and 2036 (85%) females. This inequality in gender distribution corresponds to the data from the Czech Ministry of Education collected in 2016, which found that only 13.9% of teachers in primary schools are males. The age range was 18–72 years; the mean age for males was 45.21 years and the mean age for females was 46.61 years. The average length of teaching experience for males was 19.92 years and for females it was 21.68 years. Males teach on average 15.9 hours per week and females 19.31. Overall, the sample

consisted of 2198 full-time teachers and 194 part-time teachers. Although our primary aim was not to have a representative sample, our sample nonetheless reflects the teacher population in terms of gender and grade in which they teach.

Although results of *t* tests showed no significant differences in the overall burnout rates between genders ($t [2390] = -.604, p = 0.546$), we found significant differences in the physical ($t [2390] = -2.068, p = 0.039$) and emotional ($t [2390] = 4.688, p < .001$) subscales between genders. While males had higher emotional burnout, females reported higher physical burnout rates.

We wanted to explore teachers' levels of knowledge about burnout syndrome, as well as the extent to which they feel threatened by burnout. Overall, 18.3% of respondents felt definitely threatened by burnout syndrome, 34.9% reported they might be threatened by it, and only 9.9% of teachers reporting feeling they were definitely not threatened by burnout syndrome. Those that reported, "I do not know" were treated as missing cases ($N = 247, 10.3%$). Nonetheless, it is important to note that it is those teachers at which further interventions need to be aimed in order to increase awareness about the importance of mental wellbeing. ANOVA was used to explore whether there are differences in burnout between those that report different feelings about risk of burnout syndrome, showing significant differences between groups ($F [3, 2129] = 20.41,$

Table 2. Correlations.

	Burnout total	Burnout physical	Burnout cognitive	Burnout emotional
BDI II	.701**	.690**	.598**	.420**
Age	.019	-.007	.062**	-.023
Length of practice	.015	-.002	.055**	-.036
Income	-.077**	-.077**	-.062**	-.051*
Number of students	-.003	.002	-.013	.007
Number of hours/week	.011	.018	.012	-.011
Overall satisfaction	.354**	.370**	.239**	.282**
Number of functions	.022	.012	.024	.021

* Correlation is significant at the 0.05 level (2-tailed); ** Correlation is significant at the 0.01 level (2-tailed).

Table 3. ANOVA – burnout rates according to length of teaching.

Length of practice	N	Mean burnout
0–5	253	37.73
5–15	466	41.64
16–25	703	41.58
26–35	788	41.31
Over 36	182	38.84
Total	2392	40.89

	Sum of squares	df	Mean square	F	Sig.
Between groups	4029.08	4	1007.27	5.42	.000
Within groups	443416.76	2387	185.76		
Total	447445.84	2391			

$p < .001$). This suggests that respondents who feel they are most threatened by burnout syndrome also have the highest rates of burnout (Table 1).

We also explored whether teachers feel they are experiencing long-term stress. The percentage of teachers who reported “definitely yes” was 21.8%, compared to the percentage (7.5%) who felt they definitely were not experiencing long-term stress. Similar to those who feel threatened by burnout, ANOVA showed that there are differences between those feeling they are experiencing long-term stress and their burnout levels ($F [3, 2379] = 19.67, p < .001$). Table 1 shows that mean burnout is highest for those who reported they definitely feel they are experiencing long-term stress. Additionally, the burnout rate gradually decreased with the subjective feeling of experiencing less stress.

Associations with other variables were explored further by correlation analysis to explore the relationship between total burnout and its 3 subscales (cognitive, physical, and emotional), as well as different variables that might affect burnout levels. Table 2 shows there is a strong and significant correlation between burnout and depressive symptomatology as measured by the Beck Depression Inventory II (BDI II). Cognitive burnout

seems to be associated with age and length of teaching employment. Surprisingly, the number of students, the teaching hours per week, and the number of teaching functions required showed no association with overall burnout on any of its 3 subscales. On the other hand, income and overall satisfaction showed significant associations with overall burnout and all 3 subscales. “Satisfaction” was a measure of overall satisfaction, which includes satisfaction with students, colleagues, job prestige, students’ parents, technology, and relationship with the Ministry of Education. The scale for satisfaction was reverse-coded; therefore, our results suggest that higher satisfaction is correlated with lower burnout.

Length of teaching employment and income were further explored by ANOVA. As seen in Table 3, there were significant differences between the length of teaching employment and burnout. The lowest rates of burnout were seen in those who had taught for the fewest years while, the highest rates were among teachers who had taught for 6–15 years. Further post hoc explorations showed that the most significant difference was between those who had taught for the fewest (0–5) years and all other groups. Surprisingly, no significant differences were found for the group with the longest teaching experience (36 years and longer).

Table 4. ANOVA – burnout rates according to income.

Income	N	Mean burnout	Std. deviation	Std. error
Up to 10 000 Kč	3	43.67	9.24	5.33
10 001–20 000 Kč	72	40.82	14.19	1.67
20 001–30 000 Kč	356	42.26	14.24	0.75
30 001–40 000 Kč	613	41.88	12.85	0.52
40 001–50 000 Kč	657	41.49	14.19	0.55
50 001–60 000 Kč	286	40.24	13.11	0.77
60 001–70 000 Kč	99	37.52	13.38	1.34
70 001 Kč and more	75	37.31	12.41	1.43
Total	2161	41.22	13.62	0.29

	Sum of squares	df	Mean square	F	Sig.
Between groups	3513.71	7	501.96	2.72	.008
Within groups	397361.80	2153	184.56		
Total	400875.51	2160			

ANOVA showed significant differences between income groups and corresponding burnout rates (Table 4), showing that higher income is associated with less burnout.

As a last step in this analysis, we decided to further explore the possible association between burnout and lifestyle factors. Stepwise linear regression analysis was used to assess the categorical variables affecting the rates of burnout and identified a number of factors that were significantly associated with burnout: enough time for family and/or hobbies, quality and length of sleep, thoughts of guilt in the last 12 months due to alcohol consumption, and consumption of sweets and sweetened drinks (Table 5).

It should not come as a surprise that a healthy lifestyle was associated with lower burnout rates. Those who were able to find time for their family and for their personal interests had significantly lower rates of burnout than those who were not. This shows that, contrary to popular belief, which often equates burnout with laziness, it is those who work too much and are unable to find free time who are at the highest risk of burnout. Quality of sleep is also an important factor associated with lower burnout rates. Alcohol intake and the subsequent feeling of guilt were also found to be significant predictors of burnout. We also found that unhealthy consumption of sweet drinks and food is associated with higher burnout rates. Our results support the idea that a healthy lifestyle is an important predictor of burnout; those who are aware of its importance and follow it have significantly lower burnout rates than those who report having an unhealthy lifestyle.

Discussion

We obtained results from 2394 teachers from the Czech Republic. The unequal gender distribution corresponds to results reported by the Czech Ministry of Education over the last decade, and our sample is therefore considered as representative of the general teacher population. Overall, we identified numerous lifestyle and professional factors that are associated with burnout in teachers [5,6]. Our study clearly demonstrates that burnout in a teacher should not be underestimated [2,4].

The subjective feeling of burnout is associated with the actual measured level of burnout. Teachers who feel threatened by burnout syndrome also have the highest rates of burnout. As research suggests, working as a teacher can cause long-term stress [4,5] and our results support this view, as a majority of the sample reported that their job is a source of long-term stress. This is worrying information, since increased stress goes hand in hand with increased levels of burnout.

Similar to the results of Pas et al. [11], we did not find significant differences among genders in overall burnout rates. However, we observed higher emotional burnout in males and higher physical burnout in females. Age seemed to correlate only with cognitive burnout in our sample, as in the study by O'Brien [12]. There was also an association between the length of teaching employment and overall burnout, suggesting that teachers with many years of experience in the profession have lower levels of burnout. Similar to other studies [12], we found no association between burnout and number

Table 5. Regression analysis of burnout rates and lifestyle factors.

Model		Unstandardized coefficients		Standardized Coefficients	t	Sig.
		B	Std. error	Beta		
1	(Constant)	56.48	1.77		31.94	.000
	Do you have enough time for family and/or hobbies?	-4.70	0.58	-0.42	-8.08	.000
2	(Constant)	45.52	3.40		13.38	.000
	Do you have enough time for family and/or hobbies?	-3.89	0.61	-0.35	-6.37	.000
	Do you have sleep that has good quality and is it long enough?	5.78	1.54	0.20	3.74	.000
3	(Constant)	40.81	3.57		11.43	.000
	Do you have enough time for family and/or hobbies?	-3.81	0.60	-0.34	-6.37	.000
	Do you have sleep that has good quality and is long enough?	5.74	1.51	0.20	3.79	.000
	How often were you feeling guilty in the last 12 months due to alcohol consumption?	3.25	0.88	0.18	3.68	.000
4	(Constant)	34.30	4.05		8.48	.000
	Do you have enough time for family and/or hobbies?	-3.55	0.60	-0.32	-5.98	.000
	Do you have sleep that has good quality and is long enough?	5.80	1.49	0.21	3.89	.000
	How often were you feeling guilty in the last 12 months due to alcohol consumption?	3.44	0.87	0.19	3.94	.000
	Do you adhere to following: low consumption of sweets and sweetened drinks?	2.63	0.81	0.16	3.25	.001
Correlations of the significant variables						
		How often were you feeling guilty in the last 12 months due to alcohol consumption?	Do you have enough time for family and/or hobbies?	Do you have sleep that has good quality and is long enough?	Do you adhere to following: low consumption of sweets and sweetened drinks?	
	How often were you feeling guilty in the last 12 months due to alcohol consumption?	1.000	-.018	.055**	-.049*	
	Do you have enough time for family and/or hobbies?		1.000	-.316**	-.069**	
	Do you have sleep that has good quality and is long enough?			1.000	.064**	
	Do you adhere to following: low consumption of sweets and sweetened drinks?				1.000	

* Correlation is significant at the 0.05 level (2-tailed); ** Correlation is significant at the 0.01 level (2-tailed).

of students in a class. This is an interesting finding as it suggests that teachers who have larger classes have the same risk of burnout as those with smaller classes. This relationship should be further explored to see whether this is true in all cases (e.g., in private vs. government schools). Furthermore, we show that those with the highest levels of monetary reward reported the lowest burnout levels, which supports the results of Reichl [15], showing that extrinsic motivators can be associated with levels of burnout. Higher monetary rewards are correlated with lower levels of burnout.

Lastly, we explored burnout and healthy lifestyle. Our results suggest that having a healthy lifestyle and including enough family time and personal time are highly protective against burnout. Our results agree with previous research [12] showing that marriage and family can significantly protect against burnout. Therefore, those who have enough time for their hobbies and/or family are at lower risk of burnout than those who do not. The clear implication is that family support should not be underestimated. Lastly, we found that the feeling of guilt related to drinking alcohol is also associated with burnout. This association supports the idea that there is a relationship between physical and mental health, in which the emotion of guilt evokes burnout. The fact that teachers report increased feeling of guilt due to alcohol consumption is worrying and warrants further investigation [21].

Limitations

The main limitation of our study is its cross-sectional design, as it did not allow us to differentiate whether this state is a longitudinal one over the school year or only a current state of heightened burnout. This, however, was controlled by the short time period in which we conducted the data collection. We expected the behavior not to vary too much during this time period. We also collected data that serve as a representative sample of the Czech teacher population in primary schools. Although we have an unequal distribution among genders within the sample, as we have shown by t-test, there were no significant differences in the overall burnout levels. Furthermore, although we had both full-time and part-time teachers, *t* tests have shown that there were no significant differences between these two groups either.

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Conclusions

To the best of our knowledge, this is the first large-scale study to assess burnout in teachers in the Czech Republic. The main implication of our study is that teachers should be informed about the dangers of burnout. We saw that, even in our sample, some teachers (10.3%) reported they do not know what burnout syndrome is. This suggests there is clearly room for improvement and that burnout rates should not only be monitored more frequently, but awareness needs to be raised about burnout and the association between the subjective feeling of burnout and measured burnout levels. Based on our results, we further suggest that schools should try to ensure that their employees are given enough time for personal and family life and that they understand the importance of separating work from personal interests and needs [17,23]. Furthermore, we recommend assessing overall satisfaction with the work environment, and, if possible, teachers should be motivated by the possibility of increasing pay, as higher pay is associated with lower levels of burnout [7,10].

Overall, it is crucial to increase teachers' knowledge about burnout. Teachers should understand the importance of a healthy lifestyle and that their behavior is strongly linked with their mental wellbeing. It is not only their health that is at stake, but also the wellbeing of their students [16]. By ensuring a healthy environment of support for teachers, paying them adequately, supporting teacher self-awareness, and encouraging them to take more personal and family time, schools are also ensuring that the students will have a better educational environment and positive learning experiences [17,19]. Common misconceptions about burnout, such as the belief that burnout is just an excuse arising from a lazy attitude, should be countered, and awareness of the necessity of having general wellbeing must be raised. Our results provide further evidence of the association between physical and mental wellbeing.

Conflict of interest

None.

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