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Goals that worth to follow – The effect of self-concordant goal selection on teacher burnout

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ABSTRACT

Teacher burnout is a current topic in Hungary. Since the past eight years, the public educational system has changed, which now provides less freedom and autonomy in the teaching practice. The present study focuses on teachers' inner capacity, their personality traits and the consequences of following a self-concordant goal. Our research question was whether positive emotions and support regarding work-related goals of teachers can prevent the development of burnout. Besides, we intended to examine the motivational background of goals, assuming that there is a significant relationship between the level of teacher burnout and self-concordant goal selection. In the statistical analyses, Kruskal-Wallis test and K-means Cluster analysis were applied. The results proved that there is a significant connection between emotions, social support and motivational background of goals with all burnout dimensions. In the Cluster analysis, it was found that two clusters were created (one including positive or 'preventing' variables and the other including negative or 'risk' variables of burnout) and the test proved that the Clusters were dependent of the different levels of burnout syndrome. The present study provides a foundation for research on the protecting factors in teacher burnout, through the examination and refinement of work-related goals of teachers.

Key words: Teacher, goals, burnout, social support, motivational background.

INTRODUCTION

Teachers in Hungary are having challenging times at present. They experience increasing demands of their work (particularly administrational work) and few years ago, the educational system became centralized which means that the teachers deliberate choice to teach what they like has greatly reduced. They do not have the chance to create their own curriculum, nor can they decide which book they want to teach from. Most teachers in the public education feel that the decisions made regarding their work is out of their control. In addition, the prestige of teachers is low in Hungary – reflected in their salary, which cannot be compared with wages in the industry.

It is not surprising, that within the present circumstances, there are very few people in Hungary who are willing to commit to become a teacher (according to the data of the central statistical office: https://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_zoi010b.html). It became a so-called 'not preferred' profession. Moreover, the chance for developing burnout syndrome may also increase. In present circumstances, it is important to care about teachers' well-being and mental health, because in challenging times there is only one thing to do – referring to Viktor Frankl's words: to change one's attitude. As he said: *"Everything can be taken from a man but one thing: the last of the human freedoms – to choose one's attitude in any given set of circumstances, to choose one's own way."*

With this philosophy, we will take burnout syndrome, and explore certain factors connected to it with the hope of finding protecting inner (personality) factors for burnout.

We apply an inventory – the Personal Goals and Plans inventory developed by Kennon M. Sheldon, which had not been investigated in connection with burnout syndrome previously. In this study, we assessed the burnout level of teachers and investigated its connections to the kind of goals teachers follow in their profession, by collecting information about motivational background of the goals, social support experienced by teachers when working for a goal and the emotions they experience by following their goals. We were interested in what variables play a role in living a happy and virtuous life as teachers without the development of burnout. By raising awareness on teachers' mental health, it may result in attracting more undergraduates in the future to become teachers as their vocation, and last but not the least, it would lead to a healthier and inspiring teacher community.

Burnout syndrome

Burnout is a state of emotional and mental exhaustion, which is developed by chronic emotional strains and stress that the individual experiences, and the outcomes are the experience of helplessness and incompetence, loss of goals and purpose, and the development of negative attitudes toward one's work, self and others (Freudenberger, 1974). Maslach et al. (2001) in their work created the assessment tool for burnout (the MBI), which defined three major dimensions of the syndrome: *emotional exhaustion*, *depersonalization* and (*reduced*)*personal accomplishment*. Among the dimensions, emotional exhaustion is the most important quality of burnout, and this is the experience, that people who feel burned out usually refer to. Burnout was found first among the employees of the human service sector (among hospital nurses), but shortly after developing the MBI-HSS version of the inventory, Maslach developed the educators' version (MBI-ES) (Maslach and Jackson, 1981).

Teacher burnout

In the case of teachers, the most significant characteristic that plays a role in the development of burnout is the demanding job, which teachers have to do in cooperation with students, colleagues and parents as well. In addition, teachers have to be a role model for students, which is hard work – referring to Hochschild's phenomenon, emotional labour (Hochschild, 1983) – when there is an expected emotional or mental state that workers have to be able to communicate while working (e.g.: kind and calm attitude of stewardesses, ethical behaviour of teachers). Teacher burnout have been investigated connected to personality variables as well as to work environment variables previously. Grayson and Alvarez (2008) investigated school climate factors regarding teacher burnout, and found that problems within the parent community, conflicted student peer relations, administrational obligations, problematic teacher-student relations, (lack of) student academic orientation and problematic instructional management had most significant effects as risk factors for teacher burnout. According to the finding of Foley and Murphy (2015), student relations, (lack of) order and organization in the classroom and negative classroom interactions can be predicting factors for the appearance of teacher burnout. Teachers situation in Hungary – as mentioned before – can be characterised by these risk factors of burnout. The centralized instructional management requires mandatory administration work from teachers. The low prestige of teachers may cause conflicts with parents as well as with students, since they do not respect teachers. Personality and other work environment variables regarding teacher burnout will be examined hereafter.

The development of burnout

First of all, let's take a look at Maslach's theory of burnout. It remained the "gold standard" throughout the years, and she developed a model which illustrates the process of burnout syndrome demonstrated by the order of the three dimensions. According to Maslach and Leiter's theory (1988, in Leiter, 1993) *emotional exhaustion* is the first dimension to appear in the burnout syndrome, *depersonalization* is a maladaptive coping strategy that an individual applies as a reaction to being exhausted. The *personal accomplishment* dimension appears later, when the exhaustion-depersonalization process (an inner conflict) manifests in the person's performance at work. Leiter himself had a different approach a few years later. In his model (1993), he found that the *depersonalization* and *personal accomplishment* dimensions appear almost at the same time, both after *emotional exhaustion* appeared, and they develop together, increasing each another.

There is another approach to burnout developed by Demerouti et al. (2001), it is the *job demands-job resources model*. This model presumes that there is a part of the job which can be defined as *demands* (e.g.: time pressure, workload, shift work, recipient contact); and another part which can be labelled *resources* (e.g.: feedback, job control, rewards). According to `, job demands predict *exhaustion* and in the case of lacking the job resources *disengagement* arises. The model assumes that the first phase in the development of burnout is *exhaustion* because of the increased job demands. Then, individuals start to lack resources, and this leads to the *withdrawal from the work*. Thus, in this model, personal accomplishment appears almost at the same time with emotional exhaustion. Reflecting on teachers' situation in Hungary, job demands have increased in the past eight years for teachers, since the last educational reform, where the structure of the profession and the centralization had been introduced by

the government (Szabó and Jagodics, 2016). The available resources do not satisfy the emerging new demands in education, this means that there is no balance between the demands and resources in the teaching profession, which – confirming the finding of Demerouti et al. (2001)– leads to burnout among teachers in Hungary.

As the introduced models above show, there is no agreement in the scientific literature about the developmental process of burnout, however, most of the researchers agree that emotional exhaustion is a determinate dimension in the development of burnout syndrome.

Emotional aspects of the personality in teacher burnout

In previous studies (e.g. Alarcon et al., 2009), it was found that emotional aspects of personality showed the strongest connection with emotional exhaustion. Several studies proved that emotional stability, positive and negative affectivity and emotional intelligence are strongly related to emotional exhaustion(e.g.: Foley and Murphy, 2015; Ju et al., 2015). In a study by Alarcon et al. (2009), it was found negative connection between emotional stability (the Big 5 factor) and emotional exhaustion. In the same study, positive affectivity was proven to be connected negatively with emotional exhaustion. Another study proved that positive affectivity may affect hope thus being a protecting factor for burnout (Gustafsson et al., 2013). It can be assumed that positive and open-minded teachers will have lower chance to develop burnout.

Social support and teacher burnout

Besides personality factors, researchers also investigated work environment variables regarding teacher's burnout. In a previous review article of authors, both the personality and work environment factors regarding burnout were explored (Nagy and Takács, 2017). According to the findings, among the workplace variables, the most significant factors regarding burnout are workload, role stress and social support. Among these variables, social support's connection with burnout will be introduced in the followings, because it is one of the variables that was investigated in the present study. Szabó and Jagodics (2016) found in their work that social support coming from colleagues and supervisor are protecting factors against burnout. Li et al. (2015) explored that social support decreased the level of personal accomplishment in a large manner, and Leiter (1993) found in his developmental model that social support effects diminished both personal accomplishment and depersonalization in a negative way. In a study by Lin et al. (2014), it was found that social support is a mediator in the relationship of work-leisure conflict, well-being and burnout. Whereas Hayes (2013) investigated different qualities and kinds of support and the results showed that in burnout, the most effective support emanated from the supervisor, who was ideally a competent, trustworthy and person respected by the individual and who was a great source of inspiration and education. Also, Avanzi et al. (2018), in a recent study, pointed out that dedicated teachers receive more support in their work. As previous studies proved, colleagues and principal's support is a great supply for teachers in their battle against burnout.

'Doing' and 'having' aspects of personality

In this study, we were intended to investigate not only the emotional aspects of personality and social support regarding burnout syndrome, but we also tended to investigate the "bridge" which links the two: one's attitude in a given set of circumstances. As it was introduced above, previous studies have found (e.g. (Ju et al., 2015) that social support can work as an influencing factor, as emotional character of the personality can be moderated by certain situational circumstances. What kind of information can be drawn about one's personality by examining the situation where individuals operate? Brian Little had an alternative answer to this question (2014). According to Little (2014), there is a so-called *'having'* aspect of personality, which originates from Allport (1937), a trait psychologist, who assumed that there are relatively stable dispositions of the personality, which are defined by biological variables and in most cases hard to change. He developed his theory, the so-called *Big Five* dimensions, which arranges the personality traits into five categories: Extraversion, Conscientiousness, Openness, Agreeableness, and Neuroticism (McCrae and John, 1992). As for the *'doing'* part of personality, Little introduced it through the manifestation of personal projects, that is, investigation of the personality in action when someone follows a goal in their life. This approach enables exploring the subtle factors of personality, which can be done by including the context of the behaviour, thus giving a broadened perspective for analysis (Little, 2014).

Personal goals and plans

To determine how personal goals effect burnout, the first thing to be done is to examine Deci and Ryan's Self Determination Theory (referred to as SDT in the followings)(1985). The authors define three needs that an individual is willing to fulfil: need for *competence*, need for *relatedness* and need for *autonomy*. The way individuals satisfy these needs can be out of *autonomous* reason (when an individual does something because he or she really believes in it, without any outer input from other people), or *controlled* reason (when an individual does something because of someone ordered it or feels a pressure from the

environment). The motivation that is connected to autonomous reasons is *intrinsic* regulation, and he controlled reasons are implying *external* regulations. Deci and Ryan assumed that there is a continuum from the external to the intrinsic rather than a sharp distinction between the two phenomena: it is possible to internalize a goal, that is, when a goal becomes more and more intrinsically motivated. Therefore, we can distinguish between *external regulation* (when the individual does something completely to satisfy the pressure of the environment), *introjected regulation* (when there is some value in the activity for the individual, but the main reason is still to avoid a constraint), *identified regulation* (when an individual feels that the activity is important but it is not completely aligned with one's interests) and *intrinsic regulation* (when the individual feels that the action is completely aligned with one's interests).

Self-concordance model (SCM)

Based on the SDT theory, Kennon M. Sheldon developed his model, the SCM (self-concordance model) (Sheldon and Elliot, 1999). The word *self-concordant* means that there are certain goals that an individual attains, which are in harmony with the individual's core values and interests. Sheldon assumed that every individual follows certain goals in every seconds. Part of these goals are automatically driven, and individuals are unconscious about them (e.g.: to eat, to sleep), and some of the goals are under conscious regulation of the self. According to Carver and Scheier (1998), unconscious goals are the lower level goals (e.g.: physiological needs, safety needs), and the more conscious a goal becomes, the higher level it has (e.g.: the need of self-actualisation). There is an interesting phenomenon Sheldon noticed about goals: automatic, unconscious goals imply faster processes of decision making, thus it requires increased awareness from the individuals if they want to live their lives consciously driven, because then they have to keep up with the speed of automatic goal selection (of lower needs) (Sheldon, 2014). The Sheldon and Elliot (1999) model is shown in Figure 1. They implemented the regulation types from Deci and Ryan's SDT model, as they connected regulation types with either self-concordant or non-self-concordant goal selection. Intrinsic regulation and identified regulation are the predictors of having self-concordant goals, while introjected regulation and extrinsic regulation assume that the individual follows a non-self-concordant goal. To prove the validity of his theory, Sheldon and Elliot (1999) conducted three longitudinal studies which had successfully confirmed the phenomena explored by the SCM.

SDT model and teacher burnout

Fernet et al. (2008) developed a Work Task Motivation Scale for Teachers (WTMST) where the authors showed the connection between the SDT model in different tasks of teachers (e.g.: class management) and the effects different regulation types have on teacher burnout. Although the present assessment is similar to those of Fernet and colleagues' assessment, the aim of the study is different: it is to set the foundation for an effective prevention program for teacher burnout by exploring the connection between burnout syndrome and the kind of goals teachers follow in their professional lives (based on the SDT model). Reid (2014) had similar purpose in her master's thesis, she aimed to renew teachers' identities by leading teachers back to the attainment of self-interested, value-driven goals in an exploratory qualitative study (a six week renewal program). The effect of this program was that the level of teachers' burnout has decreased (Reid, 2014); therefore, the aim of the present study was to investigate the connection between self-concordant goals and burnout with a quantitative study in order to see if there is confirming data that can prove the effectiveness of such a program. Based on this, the following questions were addressed:

1. Is there any significant relationship between the level of teacher burnout and self-concordant goal selection?
2. Are social support and positive-negative emotions that teachers experience in their goals related to teachers' burnout as previous studies indicated? (social support and positive emotions work as a protecting factor and negative emotions work as a risk for burnout development).

METHODS

Participants and procedure

The assessment was conducted with the support of the Institute of Applied Pedagogy and Psychology of Budapest University of Technology and Economics. The Institute has a postgraduate program both for regular and master teachers (that principals) in the public education. This means that groups of teachers participated in postgraduate training programmes in order to develop their soft skills. In these trainings, the researchers of the present article asked them personally to fill out the test battery until a certain deadline. All together, 395 teachers completed the measurement, 68 men and 327 women, and majority of them (187 people) were in between 40 and 50 years old. This reflects the dispersion of teachers in Hungary: there are less men than women in this profession and the average age became older in the past years. In our sample the average teaching experience was 17 years, with an 8,4 years standard deviation. The whole country was represented in our sample, as there were 59 participants from the capital (Budapest), 114 participants from certain county seats, 145 participants from other cities and 77 participants from smaller towns or villages of Hungary.

Measurements

MBI-ES (Maslach burnout inventory-educators survey)

Teachers' burnout level was assessed with the Maslach Burnout Inventory, Educators Survey (Maslach and Jackson, 1981). In this inventory, the participants had to answer 22 items on a 7-point Likert scale, on how frequently they experienced a certain statement about burnout (e.g.: *I feel that my work is emotionally draining*. – statement for emotional exhaustion). 0 means: never, 6 means: every day. We asked for permission to include MBI-ES in our study from Mind Garden, the owner of the distribution rights of the MBI. The MBI-ES was validated by Szigeti et al. (2016) on a Hungarian sample. The Cronbach α was 0.86 for emotional exhaustion, 0.64 for depersonalization and 0.76 for personal accomplishment. As it was noted in the literature review, there was no agreement in the scientific community about the progressive developmental model of burnout. To distinguish between the low, moderate and high level in the 3 dimensions of burnout, the results and values of the validation study were applied. Afterwards, overall burnout phases were created according to the following criteria: those participants who had low levels in all of the dimensions of burnout and had one 'medium' level in any of the dimensions were labelled as *'low level burnout'* participants (marked with a 1). Those participants who had at least two 'medium' levels out of the three dimensions were labelled as *'medium level burnout'* participants and were marked with a 2. Those who had either at least two times the highest level out of the three dimensions were labelled *'high burnout level'* participants and were marked with a 3. Thus, 3 groups were distinguished.

Personal goals and plans inventory

For measuring the other constructs (positive and negative emotions related to workplace goals, social support and motivational background of the goals), Personal Goals and Plans inventory created by Sheldon and Elliot (1999) was applied in this case. In this inventory, the participants listed 4-6 personal goals that they would like to reach within 3-6 months. Then, participants had to pick 3 out of the goals (which are the most concerning to them), and then rate those goals according to different aspects (e.g. the emotions that are frequently experienced when attaining the goal) on a 7-point Likert scale. In this study, teachers' workplace goals were in the focus, thus the question was moderated when listing the goals: from 'Make a list of your personal goals' to 'Make a list of your *work-related* personal goals!'. There are four items that are applicable to the four types of regulations (from the SDT model) in the Personal Goals and Plans inventory. The question is in this case: 'What is your motivation when attaining this goal?'. As a result, the four regulation types were expressed in the following way:

- because someone expects it from me, or the situation force me to do it (External regulation)
- I would be ashamed or I would feel guilty if I didn't do it (Introjected regulation)
- I am sure it is an important goal (Identified regulation)
- it means a lot of joy and happiness to me (Intrinsic regulation)

The participants have to rate all of the items regarding each of their goals on a Likert scale where 1 means 'not true' and 7 means 'absolutely true'. In Hungary, several studies have been conducted with the Personal Goals and Plans inventory (e.g.: Martos, 2009; Martos et al., 2011; Martos et al., 2013).

RESULTS

The statistical analysis was done with SPSS version 23. To examine the collected data, first one-way variance analysis was done. To gain more precise information about the investigated phenomena, K-means Cluster analysis was done as a second step.

Stressors associated with burnout: Personal goals and plans as a significant predictor

The connections between burnout levels and the chosen items of the Personal Goals and Plans inventory were investigated with variance analysis, but after analysing the data, it was discovered that the distribution does not follow the normal distribution curve. Therefore, Kruskal-Wallis test was applied. It created mean ranks of the dependent variables (which were the items of the Personal Goals and Plans inventory) and looked for significant differences among the mean ranks as compared with burnout scores. During the analysis, mean scores of the items of the Personal Goals and Plans Inventory were applied, since participants had to answer every item regarding their three goals. As for burnout dimensions, they were investigated separately, since there were different number of items in the three dimensions, and mean values were different, thus working with altogether burnout score would have been lead to misinterpretation in the results. The dimensions were applied in the Kruskal-Wallis test as constant variables, that is, there was no groups created out of the variables (such as 'low emotional exhaustion' etc.). The third burnout dimension (Personal Accomplishment) was a reversed scale, the values of this scale was reversed during the analysis. The result of the analyses is shown in Tables 1, 2, and 3. The analyses showed that there was significantly high correlation between burnout dimensions and positive and negative emotions regarding the goals that teachers follow in their professional lives. Moreover, both emotional and professional social support tended to be significantly related to all burnout dimensions. All of the motivational variables showed significant connection with (diminished) personal accomplishment, and in the case of emotional

Table 1: Results of the Kruskal-Wallis test – Emotional exhaustion.

Test statistics[a,b]								
Parameter	**Pos_ MEAN**	**Neg_ MEAN**	**Em.Support _ MEAN**	**Prof.Suppor t_ MEAN**	**Introj_ MEAN**	**Extern_ MEAN**	**Integr_ MEAN**	**Intrin_ MEAN**
Chi-square	86.188	91.605	69.521	68.244	62.310	51.349	55.720	72.868
df	43	43	43	43	43	43	43	43
Asymp. Sig.	0.000	0.000	0.006	0.008	0.029	0.179	0.092	0.003

a.Kruskal Wallis test.
b. Grouping Variable: EE_Score.

Table 2: Results of the Kruskal-Wallis test – Depersonalization.

Test statistics[a,b]								
Parameter	**Pos_ MEAN**	**Neg_ MEAN**	**Em.Support _ MEAN**	**Prof.Suppor t_ MEAN**	**Introj_ MEAN**	**Extern_ MEAN**	**Integr_ MEAN**	**Intrin_ MEAN**
Chi-Square	45.907	44.121	34.049	36.599	33.183	22.102	42.436	48.455
df	15	15	15	15	15	15	15	15
Asymp. Sig.	0.000	0.000	0.003	0.001	0.004	0.105	0.000	0.000

a.Kruskal Wallis test.
b. Grouping Variable: DP_Score.

Table 3: Results of the Kruskal-Wallis test – Diminished personal accomplishment.

Test statistics[a,b]								
Parameter	**Pos_ MEAN**	**Neg_ MEAN**	**Em.Support _ MEAN**	**Prof.Suppor t_ MEAN**	**Introj_ MEAN**	**Extern_ MEAN**	**Integr_ MEAN**	**Intrin_ MEAN**
Chi-square	79.398	46.050	64.244	58.255	50.156	47.168	61.671	83.728
df	31	31	31	31	31	31	31	31
Asymp. Sig.	0.000	0.040	0.000	0.002	0.016	0.032	0.001	0.000

a.Kruskal Wallis test.
b. Grouping Variable: PA_Score'.

exhaustion and depersonalization, there was significant relationship indicated with the exception of external regulation.

The results produced by the nonparametric variance analysis led us to the conclusions that almost all of the examined items of the Personal Goals and Plans inventory significantly relate to burnout. The next step was to examine the connection in order to specify this relationship.

Cluster analysis

In the Cluster analysis, burnout levels were between applied as a grouping variable (level 1, 2, and 3). The categorization between the different burnout levels was done by the criteria described in "Methods" section. By burnout level 3, during the categorization process, the criteria were alleviated, because the number of the participants falling in this category were less than 10 if the categorization was done by the criterion described above. Therefore, those cases were also included in level 3 that had one at least in one dimension the highest level in any of the three dimensions and in another dimension there was 'medium' level indicated. Thus, in the first level group, there were 289 individuals, in the second group (medium level) 87 participants, and in the burnout level 3 cases, there were 19 participants altogether.

To examine the connection of burnout levels with the other variables, variables of the Personal Goals and Plans inventory had to be standardized (Table 4). Then, the newly created variables were put in a K-means Cluster analysis. In the analysis two clusters were set as a default, which produced the following results (shown in Table 5). The Clusters were saved as new variables in order to use them for further statistical analysis.

Table 4: Standardized variables of the personal goals and plans inventory.

Descriptive statistics					
Parameter	**N**	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
Zscore(Pos_MEAN)	395	-2,70579	1,90112	0.0000000	1,00000000
Zscore(Neg_MEAN)	395	-1,64128	2,48814	0.0000000	1,00000000
Zscore(Em.Support_MEAN)	395	-2,32210	1,48120	0.0000000	1,00000000
Zscore(Prof.Support_MEAN)	395	-2,21913	1,44171	0.0000000	1,00000000
Zscore(Introj_MEAN)	395	-1,13248	2,15812	0.0000000	1,00000000
Zscore(Extern_MEAN)	395	-1,74143	1,55250	0.0000000	1,00000000
Zscore(Integr_MEAN)	395	-5,02787	,81998	0.0000000	1,00000000
Zscore(Intrin_MEAN)	395	-2,91046	1,33692	0.0000000	1,00000000
Valid N (listwise)	395				

Table 5: Cluster analysis.

Final cluster centers		
Parameter	**Cluster**	
	1	**2**
Zscore(Pos_MEAN)	0.47957	-0.74255
Zscore(Neg_MEAN)	-0.36242	0.56117
Zscore(Em.Support_MEAN)	0.43709	-0.67678
Zscore(Prof.Support_MEAN)	0.46714	-0.72331
Zscore(Introj_MEAN)	-0.12243	0.18956
Zscore(Extern_MEAN)	-0.13948	0.21598
Zscore(Integr_MEAN)	0.43703	-0.67669
Zscore(Intrin_MEAN)	0.53181	-0.82344

The clusters implied that positive emotions, emotional and professional social support (regarding workplace goals), Integrated regulation and Intrinsic regulation fell in the same cluster, whereas negative emotions related to goals, introjected regulation and external regulation fell into the other cluster. The strongest defining variable of a factor had the highest positive score (in the case of Cluster 1 it is intrinsic regulation, and in the case of Cluster 2 it is negative emotions – regarding the goals).

To explore the connection of burnout and the other examined variables, Chi-square test was applied (as shown by Table 6). The result of the analysis was significant, and the criterion was fulfilled (the expected frequency exceeded 5 at least 80% of the cells).

The strength of the relationship between the variables was tested with the Cramer's V coefficient. Its value was V=0.320 which indicated a moderately strong relationship. The results of the Chi-square test – based on the crosstabs – are shown Figure 2.

As Figure 2 shows, the most significant difference between the cases of the different burnout levels was observed in burnout level 1 and burnout level 3. In burnout level 1, more than twice of the cases fell into Cluster 1 as compared with Cluster 2 (199 to 90). In the case of burnout level 2, a considerable difference between the clusters was not observed, however, Cluster 2 had more cases than Cluster 1 (47 to 40). Nevertheless, in the case of burnout level 3, there was again a great difference, only 1 case fell into Cluster 1 (compared to 18 cases in Cluster 2). The results of the Chi-square test showed that the Clusters were not independent from the burnout levels, in fact, the majority of lower burnout level cases fell into the 'positive cluster' (with positive emotions, social support, identified regulation, and intrinsic regulation). The high burnout level cases fell however into Cluster 2, the 'negative cluster' (with negative emotions, introjected regulation, and external regulation).

DISCUSSION

The results of both statistical analyses (Kruskal-Wallis test and Chi-square test) confirmed the assumption of previous studies that there is a strong connection between the *emotions* that people experience in their lives and the development of burnout (Alarcon et al., 2009; Rouxel et al., 2016). Participants were asked to rate whether they experience positive or negative emotions when following a

Table 6: Chi-square test among clusters and burnout levels.

Chi-square tests			
Variable	**Value**	**df**	**Asymptotic Significance (2-sided)**
Pearson Chi-square	40.467[a]	2	0.000
Likelihood ratio	42.779	2	0.000
Linear-by-linearassociation	39.061	1	0.000
N of valid cases	395		

a. 0 cells (0.0%) haveexpectedcount less than 5. The minimum expectedcount is 7.46.

certain workplace-goal. This is not the same as measuring whether someone has positive or negative affectivity (as a personality trait), however, it was presumed that the affection that the individual experience through their goal is driven by an inner factor (personality variable), connected to positive or negative affectivity. An individual can be happy and feel like a goal is a good challenge, worth to go for (someone who is characterised by positive affectivity), thus experiencing joy and happiness by following it. On the other hand, someone who thinks that the goal is a burden and it is not worth pursuing (someone who is characterised by negative affectivity) may experience sadness and anxiety by following it. Moreover, as Fox and Spector (2000) pointed out in their research, people with positive affectivity are more likely to perform better on job interviews, thus their chance are better to get a job they like as compared with people with negative affectivity. In the case of positively affective individuals, it can be assumed that they work at a workplace that is favourable to them.

As for *social support*, the results confirmed the research data according to which social support may be a protecting factor for burnout syndrome. The Personal Goals and Plans inventory measured both emotional and professional support. Both was proven to have stronger relationship with the low burnout level (level 1) in the Kruskal-Wallis test, and both fell into Cluster 1 in the cluster analysis and were defined by the low burnout level cases according to the Chi-square test and the crosstabs (Table 6). In the study of Lin et al. (2014), it was shown that social support plays the role of a moderating factor in the relationship of burnout and work-leisure conflict. As Ju et al. (2015) pointed out in their study, workplace social support partially mediated the relationship of burnout and trait emotional intelligence. Thus, we may anticipate that social support has a role in protecting people from developing burnout syndrome, and it is connected with such variables as trait emotional intelligence and work-leisure conflict, and also interesting to analyse in connection with burnout. It is worth to investigate this topic with more research in the future as it has been proven that, the social support has a strong influence in the development of burnout.

As for the *goals' motivational background* (the regulation types from the SDT model), it can be seen that there is a strong distinction between introjected regulation and external regulation as compared with intrinsic regulation and identified regulation. The result have confirmed the previous data in the literature(Martos, 2009), meaning that intrinsic regulation is connected with identified regulation and external regulation is connected with introjected regulation. Both analyses showed that the latter two were more connected to high level of burnout (level 3), and the former two regulation types with low level of burnout (level 1). It worthy of note that within the Cluster analysis, intrinsic regulation was the strongest defining variable of Cluster 1 (according to the Z-scores). Then, in the Chi-square test, this cluster was highly connected with burnout level 1. This means that it is important to examine the connection between burnout and the SDT model, as it may be a significant influencing factor (or again, protecting factor like it was seen in the case of social support) for burnout development. The relationship of burnout and the SDT model was frequently measured among athletes so far (e.g.: Holmberg and Sheridan, 2013) but it would worth to widen the focus and include intellectual workers in the investigation.

LIMITATIONS AND FUTURE RESEARCH

The results of the tests have confirmed the starting hypotheses. The limitations of the present research were that the sample of the burnout levels were not balanced: more cases fell into burnout level 1 than burnout levels 2 and 3. This should have been balanced by changing the grouping criteria, but it would have been meant that the groups become mixed, as considerably low burnout cases would have been labelled as level 2 burnout cases, thus we decided to stay with the original idea of categorization. On the other hand, the sample had no normal distribution over the other measured items either (items of the Personal Goals and Plans inventory). Therefore, Variance analysis could not be applied, which may lead to less reliable results. The main limitation of our study is its cross-sectional nature, which includes biases of self-reporting and the inability to confer causality.

The present study provides a fertile foundation for the research of protecting factors in burnout syndrome. The

scientific literature is rich in studies investigating emotional aspects of personality and the role of social support – regarding burnout – although only a few studies have investigated the effect of the SDT model, especially the regulation types manifested in personal goals and plans of individuals. To analyse the connection of burnout and goals' motivational background, Structural Equation Modelling is suggested to see the causal connections between the motivations in goals and the development of burnout dimensions.

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