An Intervention to Reduce Work-Related Burnout in Teachers

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The objective of the study was to develop and evaluate a 2-day burnout intervention program focused at enhancing coping with stresses observed in teachers' work. Karasek's job stress model was used as the theoretical framework. The aim of the intervention was to teach participants to deal better with high job demands and low job control. Some cognitive-behavioural methods of overcoming workload and enhancing a sense of self-mastery and relations with students were introduced in the workshop. 59 teachers were randomly assigned to an experimental or to a control group. Results showed that emotional exhaustion, perceived workload and somatic complaints decreased significantly in the intervention group. The greatest effect of the intervention was observed with regard to increased behavioural job control. It was concluded that teaching participants how to manage their work environment better could help them in changing their perception of stressful job characteristics, reducing emotional exhaustion and somatic complaints.

work-related burnout psychosocial work conditions somatic complaints intervention

1. INTRODUCTION

Work-related burnout has been the focus of increased research attention in recent years. Research on burnout has mainly covered people-oriented professionals, like teachers, social workers, nurses, doctors; however, burnout may affect any kind of occupation [1]. People-oriented professionals' work demands a great deal of emotional, cognitive and physical energy. These overloading and conflicting demands may lead to emotional exhaustion, mental weariness and physical fatigue, which are generally labelled as burnout [2, 3].

According to Maslach and Jackson [4] first conceptual approach toward burnout, it is a syndrome with three dimensions: emotional exhaustion, reduced personal accomplishment and depersonalization. Emotional exhaustion, which is the feeling of being depleted of one's emotional resources, is regarded as the basic individual stress component of the syndrome [2]. Reduced personal accomplishment indicates a tendency to evaluate oneself negatively with regard to one's competence and productivity and a lowered sense of self-efficacy. Depersonalization refers to negative, cynical or excessively detached responses to other people at work. According to Maslach et al.'s [2] modified conception, depersonalization was renamed cynicism; reduced personal accomplishment was re-labelled reduced efficacy or ineffectiveness. The Maslach Burnout Inventory (MBI) has been the most popular tool for measuring burnout in empirical research [5, 6]. It is often pointed out that the use of a total score to represent burnout should be avoided (e.g., 7, 8, 9]. Emotional exhaustion has been shown in meta-analytic reviews as the core component of the MBI [6].

A review of the literature on burnout [2, 3, 6, 10] shows it is a consequence of one's exposure to chronic job stress. Qualitative and quantitative overload, role conflict and ambiguity, lack of control over one's work and lack of social support are the stresses that may lead to burnout [3, 5]. According to another popular approach to job burnout, it results

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from perceptions of organizational inequity, which indicates that individuals consider the outcome of their work (e.g., salary, status, appreciation) as disproportionate to their input into work (e.g., time, attention, effort) [11, 12].

Numerous studies confirmed the relationship between depression, anxiety and subjectively reported health-related problems and burnout, including circulatory and heart problems, musculoskeletal pains, gastrointestinal problems, sleep disturbances, recurrent headaches [13, 14, 15]. Several studies showed that burnout has been linked to some negative organizational outcomes, including increased turnover and absenteeism [16, 17], lower organizational commitment [3] and self-reported use of violence [18]. It has been stressed that adverse organizational conditions are more significant in the aetiology of burnout than personality factors like negative affectivity and low self-esteem [2, 3]. Given these negative outcomes of burnout, it is not surprising that a number of interventions to combat this dangerous syndrome have been developed. However, most burnout interventions reported in the literature are individual-oriented [10]. They usually combine various methods such as cognitive stress management, time management and social skills management.

West, Horan and Games [19] used the three kinds of stress management approaches for women from various helping professions. They found that stress inoculation training decreased emotional exhaustion, the level of anxiety and systolic blood pressure, and improved personal accomplishment. Corcoran and Bryce [20] showed that a 4-week interpersonal skills and rational emotive therapy training had helped social workers in decreasing the level of emotional exhaustion. In Higgins's study [21], a cognitive behavioural programme that included assertiveness training turned out to be effective in lowering emotional exhaustion in working women. Schaufeli [22] showed that a 3-day burnout workshop consisting of relaxation, interpersonal skills training and some cognitive elements resulted in a significant decrease in emotional exhaustion in a group of nurses. Additionally, Rowe [23] found that emotional exhaustion decreased, and personal accomplishments increased at a 2-month followup after a coping skills training program. Van Diedendronck et al. [24] proved that a 5-week intervention aimed at reducing perceptions of inequity in the relationship with the organization helped to reduce burnout and absenteeism, and to diminish the deprived feelings in health care professionals. Freedy and Hobfoll [25] found a significant reduction in emotional exhaustion in an experimental group of nurses who were taught how to use social support and individual mastery resources.

However, there are also studies that have failed to reduce burnout or that suffered from methodological limitations such as lack of control groups [22, 26, 27].

The present study

The aim of this study was to audit those stresses that might lead to workplace burnout in teachers and to develop an intervention focused at ameliorating their coping with these stresses. The instrument for stress monitoring based on Karasek's model of job stress was used in the study. The broadened version of this model [28] differentiates between the three key work dimensions: demands, control and social support, and looks for determinants of workers' health and motivation in the interaction of these characteristics. Particularly, a situation of high demands, low control and low social support is viewed as stressful for a worker. Numerous studies examining Karasek's model show that although its basic assumption of interactional impact of the aforementioned job characteristics on health and well-being still remains a matter of discussion, the linear relations between demands, control and social support, and health are commonly found [29, 30]. The present study has examined changes in teachers' perception of job stress (namely, the three job characteristics), burnout symptoms and somatic complaints due to the intervention aimed at enhancing coping with the stresses which dominated in a group study. In order to identify such stresses, the measures obtained during pre-intervention tests (T1) were compared to the norms developed for the Polish population of eight professions [31]. It turned out that high scores in job demands (particularly

workload—8 sten, intellectual and psychosocial demands—7 sten) and very low level of job control (3 sten) were observed in the studied group of teachers. The outcome concerning social support reached an average level of 5 sten.

It was hypothesized that due to the intervention, the perception of these job characteristics would improve and burnout symptoms would decrease. Because high job demands have been related to emotional exhaustion and health complaints in previous studies [32], it was hypothesized that the intervention could help in ameliorating somatic health of the participants of the intervention.

2. METHOD

2.1. Measures

The teachers completed a battery of questionnaires to assess demographic variables, job stress, burnout and somatic complaints.

Demographic variables included age, gender, years of experience.

Teacher's stress was assessed using the Psychosocial Working Conditions Questionnaire [31]. This is a 36-item questionnaire with five subscales, three of which were used in the study:

- Demands Scale with (a) intellectual demands, (b) psychosocial demands and demands resulting from responsibility for safety, and (c) demands resulting from overload and role conflict;
- 2. Control Scale with (a) behavioural control and (b) cognitive control;
- 3. Social Support Scale with (a) support form superiors and (b) support form co-workers.

Each subscale was scored on a 5-point Likert scale (0—to no extent, 6—to a great extent). Cronbach's alpha internal consistency coefficient for the Demands Scale was $\alpha = .79$ (T1, pre-intervention) and $\alpha = .81$ (T2, post-intervention), for the Control Scale it was $\alpha = .83$ (T1) and $\alpha = .81$ (T2), and for the Social Support Scale it was $\alpha = .96$ (T1) and $\alpha = .92$ (T2).

The MBI scale in Koniarek's [33] adaptation was used to assess occupational burnout. It

consists of 22 statements and three subscales: emotional exhaustion (9 items), personal accomplishment (8 items) and depersonalization (5 items). The scale of frequency was taken into account; the items were rated on a 6-point scale (from 0—*never* to 6—*every day*). High scores of emotional exhaustion and depersonalization, and low scores of personal accomplishment were indicative of burnout. Cronbach's alpha internal consistency coefficient for emotional exhaustion was $\alpha = .80$ (T1) and $\alpha = .79$ (T2), for personal accomplishment it was $\alpha = .76$ (T1) and $\alpha = .78$ (T2), and for depersonalization it was $\alpha = .57$ (T1) and $\alpha = .58$ (T2).

Intensity and frequency of somatic symptoms were assessed using the scale of Widerszal-Bazyl's [34] questionnaire, which examines 30 frequently encountered health complaints.

Both intensity and frequency were estimated on a 6-point scale (0—*never*, 6—*every day* for the frequency scale, and 0—*no pain*, 6—*very strong pain* for the intensity scale). Cronbach alpha internal consistency coefficients for intensity and frequency were $\alpha = .91$ (T1), $\alpha = .92$ (T2), and $\alpha = .90$ (T1), $\alpha = .91$ (T2) respectively.

2.2. Procedure

The quasi-experimental design of the study consisted of pre- (T1) and post- (T2) intervention measures among the experimental and the control groups. After completion of questionnaires at Time 1 (T1) participants were randomly assigned either to the control or the treatment condition. Using independent-sample t tests, the treatment and the control groups were compared on demographic and dependent variables. No significant differences were found. Then, the levels of Psychosocial Working Conditions Questionnaire T1 measures (Table 1) were assessed, and it was concluded that the teachers suffer from high job demands and low job control. One participant from the 30 participants who had started the program did not complete the intervention. A month after the intervention ended, the post-treatment measures (T2) were taken in both the experimental and the control group. In order to maintain an equal number of participants in the study groups, the outcomes of one, randomly selected participant from the control group, was excluded [35].

2.3. Sample

The final experimental and control groups consisted of 29 teachers each. Overall, 58 females and males were included. The mean age was 41.8 (SD = 7.1), the mean job tenure—18.3 years (SD = 4.9). Most were women—69.8%; males constituted 30.2% of the group.

2.4. The Intervention Program

A 2-day, 6-hrs-a-day stress management workshop was organized for the participants from the experimental group. Treatment was aimed at improving coping with stressors related to high job demands (particularly the demands resulting from overload, role conflict and intellectual demands) and to very low job control relating mainly to problems with managing relations with students.

The first main goal of the programme was to teach participants how to avoid workload. Exercises in time management, setting general (priorities) and specific goals in their work were introduced in the workshop. The participants were also taught a more realistic professional role. Through some cognitive restructuring they tried to avoid perfectionism, and some dysfunctional beliefs like "I cannot fail", "I have to know everything". On the other hand, they were encouraged to take opportunities to participate in additional professional training and to seek professional help from their co-workers. To better handle the strain of working, some exercises in relaxation and detraction were introduced in the program.

The second main goal of the intervention was to teach the participants how to increase their sense of job control through some useful interpersonal and communication skills, including assertiveness. Teachers learning and experimenting with skills for coping with disruptive students' behaviours, like overt and passive aggression, is an example. On the other hand, some exercises in negotiating, and presenting a respectful attitude towards students were also introduced. In order to enhance self-efficacy and a sense of self-mastery the participants were encouraged to identify all the positive meanings of their work including their role in the process of shaping young personalities. They were also taught how to benefit from peer support through counselling, discussing difficult cases and also through gaining some emotional support from their close ones.

3. RESULTS

Means and standard deviations of the outcome measures in the experimental and in the control groups are presented in Table 1.

Independent-sample t tests did not show any significant differences between the experimental and the control groups in the pre-test scores of variables, nor did the groups differ in age, gender or job tenure.

Following Bunce and Stevenson's [36] guidelines, repeated-measures MANOVA (Wilk's criterion) was used as the most appropriate method for examining whether the intervention led to changes in all the study variables. In the MANOVA analysis, time was the within-subject variable, and intervention (1—intervention, 2— nonintervention) was the between-subject variable (Table 2).

The MANOVA showed a significant effect of time and intervention interaction on 5 of the 10 variables included in the analysis, i.e., on intellectual demands, overload and role conflict, behavioural control, emotional exhaustion and intensity of somatic complaints (Table 2). The greatest effect was observed with regard to behavioural control. The perception of organizational stress related to intellectual demands, overload and role conflict, decreased significantly in the experimental group.

Only emotional exhaustion was significantly reduced due to the intervention, but the effect was substantially greater in comparison with the other effects of the intervention (Table 2). No significant changes—as a result of participating in the intervention—were found for the perception of social support, from both supervisors and coworkers. The treatment had no effect on personal accomplishment, depersonalization or the frequency of somatic complaints.

	Experimental Group		Control Group	
	N =	29	N =	= 29
Variable	T1	T2	T1	T2
Intellectual demands				
Μ	34.59	31.72	35.20	35.65
SD	4.25	5.70	3.59	3.72
Psychological demands				
Μ	33.94	32.89	34.35	35.24
SD	4.04	5.39	3.86	3.84
Overload and role conflict				
Μ	15.69	13,24	17.62	18.72
SD	3.79	3.32	2.93	2.60
Cognitive control				
M	36.01	35.61	34.92	28.27
SD	3.45	3.85	4.34	5.01
Behavioural control				
Μ	28.06	31.89	29.55	28.27
SD	4.89	4.52	5.81	5.06
Support from supervisors				
M	25.13	26.62	24.89	23.79
SD	5.71	7.47	7.06	7.71
Support from co-workers				
Μ	26.37	25.26	25.20	25.34
SD	5.44	6.47	6.29	6.26
Emotional exhaustion				
Μ	26.37	25.06	25.20	25.34
SD	5.44	6.47	6.29	6.26
Personal accomplishment				
Μ	12.76	10.96	12.31	11.88
SD	1.74	1.45	1.83	1.80
Depersonalization				
M	12.38	12.73	12.03	11.96
SD	1.14	.77	1.40	1.26
Intensity of somatic complaints				
M	35.58	29.51	33.02	36.42
SD	14.81	11.98	19.86	18.76
Frequency of somatic complaints				
Μ	26.88	23.20	28.18	30.41
SD	18.79	19.18	19.48	19.23

TABLE 1. Descriptive Statistics of Pre- and Post-Test Scores of the Study Variables

Notes. T1—pre-intervention test, T2—post-intervention test.

428 D. ŻOŁNIERCZYK-ZREDA

Variable	F	р	μ
Intellectual demands	<i>F</i> (1, 56) = 4.340	.042	.072
Psychological demands	<i>F</i> (1, 56) = 1.720	.190	.030
Overload and role conflict	<i>F</i> (1, 56) = 6.470	.014	.104
Behavioural control	<i>F</i> (1, 56) = 28.880	.000	.324
Cognitive control	<i>F</i> (1, 56) = 1.130	.290	.021
Support from supervisors	<i>F</i> (1, 56) = 0.419	.520	.008
Support from co-workers	<i>F</i> (1, 56) = 0.980	.320	.018
Emotional exhaustion	<i>F</i> (1, 56) = 9.470	.003	.152
Personal accomplishment	<i>F</i> (1, 56) = 0.262	.616	.005
Depersonalization	<i>F</i> (1, 56) = 0.006	.937	.000
Intensity of somatic complaints	<i>F</i> (1, 56) = 4.340	.042	.073
Frequency of somatic complaints	<i>F</i> (1, 56) = 3.910	.053	.065

TABLE 2. MANOVA Involving Time × Intervention Effects

4. DISCUSSION

The study confirmed previous findings that emotional exhaustion is the easiest symptom to reduce with various interventions [20, 21, 22, 24, 25]. The components of professional efficacy and depersonalization were always more difficult to change with intervention. The short period of intervention could be the reason for not obtaining any significant changes in these dimensions of burnout.

However, a surprisingly great effect of the intervention concerned perceived behavioural job control, and a somewhat smaller effect on perceived workload. It is supposed that the cognitive and behavioural exercises introduced in the intervention could substantially help teachers to increase their authority to make decisions on their job, to regulate their workload better and finally to facilitate lowering emotional exhaustion. It was proven that environmental sense of control is an important stress management resource. Brouwers and Tomic [37] also showed that interventions that incorporate mastery experiences were likely to reduce teachers' emotional exhaustion. A similar outcome concerning increased job control was obtained in Hatinen et al.'s study [38] after a 2week rehabilitation program aimed at enhancing individual coping resources.

Encouraging teachers to use active, nonwithdrawal coping and respectful, yet assertive attitudes towards their students has been a very important part of the intervention. Bakker et al. [39] suggested, on the basis of their study, that a positive, active attitude towards one's recipients could reinforce their positive, reciprocal behaviours. It is hypothesized that such reciprocal students' behaviours could be the response to the positive attitude of the teachers participating in the intervention. According to the equity theory, emotional burnout and, particularly, emotional exhaustion, result from lack of reciprocity in human relations at work [40]. The decrease in emotional exhaustion observed in the study suggests that teachers could gain more reciprocity in the relations with their students as a result of the training. Future research should also include their recipients' assessment.

The decrease in emotional exhaustion was accompanied by a decrease in subjectively perceived physical symptoms, and a decrease in perceived workload. This outcome is in line with data from Demerouti et al.'s [32] study, which showed that a high level of job demands is linked to health impairment.

Although the intervention was not aimed at any objective manipulation of job conditions, the perception of job control and job demands changed significantly due to the intervention. Perhaps greater changes in all burnout symptoms could have taken place in this study if the intervention had focused more on changing the situational and organizational factors that may play a greater role in the development of burnout than on individual ones [2]. Meta-analysis of work stress and burnout interventions suggests that individually oriented interventions do not take sufficient actions to prevent the causes of burnout development [10]. Nevertheless, in this study, a burnout symptom, two stressful job characteristics and health complaints decreased regardless of the fact that no such actions were taken. Future research should focus on developing an intervention that combines both individual (coping skills) and organizational work factors to reduce work-related burnout [41].

The limitations of the present study are that no objective measures, like absenteeism or turnover, were included, and no follow-up measure was taken to check the stability and duration of the observed outcomes.

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