

Burnout among physical education teachers in primary and secondary schools

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Abstract

The present study examined whether physical education teachers working in primary and secondary schools experience the same burnout levels. Four hundred and thirty seven full-time Greek physical education teachers from primary and secondary public schools filled in the “educator’s” version of Maslach Burnout Inventory. Two hundred and seven were teaching in primary schools and 230 in secondary. Multivariate analysis of variance showed that physical education teachers working in the primary schools reported significantly and meaningfully higher levels on the core burnout dimension, namely emotional exhaustion” in comparison to their colleagues in the secondary schools. Moreover, the strength of association among the three burnout components was more prominent in primary physical educators than in secondary. The paper shows that the education level in which physical education teachers are working represents an important job characteristic that influences burnout levels and should be taken into consideration when this syndrome is examined, at least within the Greek educational system.

Keywords: Physical education teachers, Burnout, Primary schools, Secondary schools, Job characteristics, Greece

1. Introduction

In recent years, the issue of burnout has received considerable research attention. A plethora of studies on burnout have consistently documented that this phenomenon results in significant consequences, both at work and in family life (Hellesøy et al., 2000). For example, burnout has been associated with job turnover, absenteeism, low morale and reduced feelings of job satisfaction for those suffering it. Among the various definitions that researchers have suggested for the comprehension of the burnout phenomenon, Maslach, Schaufeli and Leiter, (2001), approach seems to be accepted by the majority of the researchers. These authors conceptualized burnout as “... a tridimensional syndrome characterized by emotional exhaustion, cynicism (depersonalization), and reduced efficacy (reduced personal accomplishment)” (p.399).

Burnout has mainly been associated with the helping professions, such as education, health, and social services (Alexander and Hegarty, 2000; Grunfeld, et al., 2000; Koustelios, 2001; Koustelios & Tsigilis, 2005; Tsigilis et al., 2004). As far as teaching is concerned, it has been characterized as a profession very susceptible to burnout (Maslach et al., 2001). In fact, Maslach et al. (2001) reported that teachers have the highest level of emotional exhaustion, whereas the other two components are close to average. The importance of burnout syndrome in the educational setting is even more emphasized, because apart from affecting the mental, psychosomatic and social health of educators it also decrease the quality of teaching and work performance, which in turn may negatively influences students’ academical achievement (Blandford, 2000). Maslach and Jackson (1986) recognizing the deleterious effects of burned - out teachers on themselves, their students and finally on the learning process, and the importance of studying burnout phenomenon in the educational environment they developed the Educators’ version of Maslach Burnout Inventory.

Numerous researchers used the MBI Educators’ version for the assessment of burnouts’ phenomenon in various education levels (elementary, intermediate, secondary) across different cultural contexts such as North America (Boles et al., 2000), Canada (Byrne, 1991), Dutch (Schaufeli et al., 1994), Greece (Antoniou et al., 2006; Kantas and Vassilaki, 1997) and Cyprus (Kokkinos, 2006). The results of the above data seem to indicate that teachers working in European countries experience lower levels of burnout in comparison to their colleagues in Northern America (Kantas & Vassilaki, 1997; Van Horn et al., 1997). In particular, van Horn et al. (1997) found that Dutch teachers had lower levels of emotional exhaustion and depersonalization than their Canadian peers.

Similar results were found when Greek teachers compared to a US normative teachers' sample (Kantas & Vassilaki, 1997; Koustelios, 2001). Finally, Greek secondary teachers reported lower levels of burnout in relation to their European colleagues (Pomaki & Anagnostopoulou, 2003). Various studies have been conducted to investigate the influence of background variables such as gender, age, teaching experience on educators burnout scores (Antoniou et al., 2006; Koustelios, 2003; Smith & Leng, 2003; Van Horn, et al., 1997). However, Maslach (1999) pointed out that job factors are more strongly related to burnout syndrome than background characteristics. Indeed characteristics of the work setting are likely to affect how employees feel about their job and whether they experience burnout. For example, in a recent study it was found that the domain in which early educators worked, namely public or private affected their perceived levels of emotional exhaustion (Tsigilis et al., 2006). An important job factor in teaching profession, which received little attention, is whether teachers are working in primary or secondary education, especially for physical education teachers (Koustelios & Tsigilis, 2005).

The results of the few existing studies are far from conclusive. In particular, certain authors suggested that burnout is more prevalent among secondary school teachers than among primary (Anderson & Iwanicki, 1984, Feitler & Tokar, 1982; Schwab et al., 1986). Other studies reported that secondary teachers did not differ from primary teachers in the core burnout dimension, namely, emotional exhaustion (Byrne, 1991; van Horn et al., 1997). Finally, Tatar & Horenczyk (2003) found that Israeli teachers working in primary schools were more burned-out than their counterparts in secondary. Moreover, Kokkinos (2006) reported that primary Greek Cyprus teachers experience higher emotional exhaustion and lower personal accomplishment levels than their secondary peers. The results of the above mentioned studies clearly indicate the need for additional research for better understanding the different burnout patterns among the two education levels.

The purpose of this study was to examine whether physical education teachers experience the same burnout levels between the two different educational levels. Among teachers from various disciplines the present study was focused to physical educators for two reasons: (a) In Greek educational system physical education lessons are delivered only by qualified physical education teachers in both primary and secondary schools. Thus, a comparison of burnout between the two education levels is meaningful. (b) On the other hand physical education teachers' working conditions are far from similar in comparison to other school-based teachers'. Physical education classes heavily depend on equipment and facilities and are mainly conducted outdoors in tracks, courts, or school-yards which results in increased problems for maintaining class discipline and demands constant alertness for students' safety and. One the other hand physical education teachers have a dual role, to teach and to coach and they are frequently obliged to teach under different weather conditions (heat, cold), away from the classroom shelter. Therefore, physical educators' have unique working characteristics in relation to teachers from other disciplines and hence differentiate burnout sources which might lead to different burnout patterns (Koustelios & Tsigilis, 2005).

2. Method

2.1 Participants

Four hundred and thirty seven full-time Greek physical education teachers from primary and secondary public schools participated in the study. Two hundred and seven were teaching in primary schools and 230 in secondary schools. Primary school teachers' age was 40.21 years ($SD = 4.19$), their mean teaching experience was 11.91 years ($SD = 4.85$) and 44.4% (92) were women. On the other hand secondary physical education teachers were older ($M = 42.57$, $SD = 5.89$, $t_{432} = 2.36$, $p < .01$, $n^2 = .05$), with more teaching experience ($M = 15.44$, $SD = 7.81$, $t_{430} = 5.57$, $p < .01$, $n^2 = .067$) and had similar percentage of women (40.9%, $p > .05$).

2.2 Instruments

In order to measure the perceived burnout of physical education teachers, the 'educators' version of the Maslach Burnout Inventory (MBI) was used (Maslach and Jackson, 1986). The MBI consists of 22 items of job-related feelings for assessing three burnout dimensions: emotional exhaustion (nine items), depersonalization (five items), and lack of feelings of personal accomplishment (eight items). Each respondent was requested to indicate the frequency of the feeling represented by each item on a 7-point Likert scale, ranging from 0 (never) to 6 (every day). High scores on emotional exhaustion and depersonalization denote higher degrees of experienced burnout, whereas lower scores on personal accomplishment correspond to higher degree of burnout. Prior studies have established the validity of the MBI in the Greek language (Kantas & Vassilaki, 1997; Kokkinos, 2006).

2.3 Procedure

Self-completed questionnaires were administered to the participants during their presence in the school premises.

Researchers informed all participants that their participation was completely voluntary and the individual responses would be held in strict confidence and will be used only for academic purposes.

2.4 Statistical analysis

Quantitative data were analyzed using the Statistical Package for the Social Sciences. Descriptive statistics, correlation analysis and multivariate analysis of variance were chosen as the most appropriate methods for purposes of this study. Moreover, meaningfulness of differences was assessed with eta-square. Olejnik and Algina, (2000) suggested that n^2 values of .01-.03, .06-.09 and above .14 indicate a small, medium and large effect, respectively.

3. Results

Means, standard deviations, Pearson correlation coefficients and internal consistency of the Maslach Burnout Inventory (MBI) subscales for the total sample are presented in Table 1, and across the education level are presented in Table 2. Cronbach's α coefficient were above the conventionally accepted value of .70. All correlation coefficients were statistically significant either at .01 level. Inspection of table 2 showed that the pattern of relationships among the three burnout dimensions was stronger for physical education teachers working in primary education than their colleagues in secondary.

Table 1. Means, standard deviations, internal consistency and correlation matrix for the three burnout dimensions

	<i>M</i>	<i>SD</i>	<i>1</i>	<i>2</i>	α
1. Emotional Exhaustion	15.44	8.67	1.0		.79
2. Depersonalization	3.60	4.11	.50*	1.0	.70
3. Personal Accomplishment	39.34	6.42	-.35*	-.44*	.75

Note: * $p < .01$

Table 2. Means, standard deviations and correlations between MBI values across primary and secondary level of education

	<i>Primary education</i> <i>n = 207</i>				<i>Secondary education</i> <i>n = 230</i>			
	<i>M</i>	<i>SD</i>	<i>1</i>	<i>2</i>	<i>M</i>	<i>SD</i>	<i>1</i>	<i>2</i>
1. Emotional Exhaustion	17.2	9.65	1.0		13.8	7.39	1.0	
2. Depersonalization	3.85	4.25	.54*	1.0	3.30	3.87	.48*	1.0
3. Personal Accomplishment	38.8	6.66	-.38*	-.49*	39.8	6.21	-.29*	-.37*

Note: * $p < .01$

In their study Kantas and Vassilaki (1997) reported Greek teachers' burnout levels separately for primary and secondary schools. Comparisons of the present findings with those of Kantas and Vassilaki (1997) revealed significant differences only in the secondary education¹. In particular, physical education teachers had lower scores of emotional exhaustion ($p < .001$) and depersonalization ($p = .008$) and higher scores of personal accomplishment ($p = .015$). One-way multivariate analysis of variance indicated an overall significant difference ($F_{3, 360} = 6.75, p < .001, n^2 = .053$) between physical educators of primary schools and physical educators of secondary schools. Follow up univariate ANOVAs showed significant differences for the emotional exhaustion ($F_{1, 362} = 18.10, p < .001, n^2 = .048$) and personal accomplishment variable ($F_{3, 362} = 4.35, p < .038, n^2 = .012$). Examination of the mean values (table 2) revealed that primary physical educators had higher scores on emotional exhaustion and lower scores on personal accomplishment than their secondary colleagues.

4. Discussion

The present study was designed to examine whether physical education teachers experience different levels of burnout in relation to the education level in which they are working. Our findings suggest that physical education teachers in primary schools are more emotionally depleted in comparison to their secondary schools peers. This difference apart from statistically significant was also meaningful as indicated by the eta-square value. Similar findings have been reported for Israeli (Tatar & Horenczyk, 2003) and Greek Cyprus teachers (Kokkinos, 2006). Thus, it seems that in certain cultural and education settings outside Northern America the education level in which a teacher is working represents an important job factor that affects burnout levels and should be taken into consideration when that syndrome is studied. It should be noted that according to the proposed cut-off points (Maslach et al., 1996) Greek physical education teachers, experienced lower levels of emotional exhaustion, had fewer symptoms of depersonalization and more feelings of personal accomplishment.

This finding is consistent with prior studies conducted within the Greek educational setting (Koustelios, 2003; Koustelios & Tsigilis, 2005), as well as elsewhere such as, Israel (Fejgin et al., 1995) and Singapore (Smith & Leng, 2003), where physical education teachers reported low burnout levels. Thus although teaching has been characterized as a profession vulnerable to burnout this might not be the case at least for Greek physical education teachers. However, it has been argued that the existing cut-off points for classification of burnout prevalence may not be culturally robust (Schaufeli & Dierendock, 1995). Thus an effort was made to better understand the reported burnout levels of physical education teachers within the existing Greek education context by comparing our findings with those from prior studies in which participated Greek teachers from both primary and secondary schools (Antoniou et al., 2006; Kantas & Vassilaki, 1997). Of the published studies on Greek teachers' burnout, the data of Kantas and Vassilaki (1997) were only used because they reported burnout scores across the two education levels. Results showed that in primary education, physical education teachers' burnout scores were similar to teachers. However, a different picture emerged in the secondary education level. More specifically, physical education teachers were less burned-out than their colleagues.

Previous research indicates that the strength of teachers' burnout syndrome fluctuates in relation to the educational context in which it is studied. For example, Northern American teachers seem to be more vulnerable to burnout in comparison to the Europeans (Kantas & Vassilaki, 1997; Koustelios, 2001; van Horn et al., 1997) and European teachers are more burned-out than the Greek teachers (Pomaki & Anagnostopoulou, 2003). The different pattern of burnout prevalence clearly stresses the need to develop cut-off point for classification of burnout levels in relation to the specific cultural context and educational system. Moreover, the fact that, Greek physical education teachers reported significantly lower levels of burnout in comparison to their colleagues teaching other subjects, only in the secondary education apart that further support the need to examine burnout separately for each education level it also suggest that the subject an educator is teaching might affect his or her burnout scores.

Several explanations have been provided for the low burnout levels of physical education teachers. Specifically, it has been argued that the diminished place of the physical education in school hierarchy in comparison to other subjects, the low expectations of physical education and the increased levels of autonomy during realization of the physical education classes, might be responsible for the observed low burnout scores (Koustelios & Tsigilis, 2005; Fejgin et al., 1995; Smith & Leng, 2003). Moreover, in a recent study by Antoniou et al. (2006), it was found that the major stressors influencing Greek teachers' burnout are overcrowded classrooms, students' lack of motivation, poor achievement and disciplinary problems. These sources of stress might have low impact on physical education teachers, since the overcrowded classrooms are spread in the school yard or in the gym and most of the students are highly motivated to participate in the physical education lessons. In addition, the low expectations from the physical education lessons combined with the fact that in some cases physical education grade is excluded from the calculation of the average achievement grade decreases the importance of achievement.

Inspection of the associations among the three burnout dimensions revealed a different pattern across the two educational levels. In particular, correlation coefficients yielded higher values in the primary education than in secondary. These findings are in accordance with previous studies conducted in a large sample of teachers from various educational levels in North America (Byrne, 1991, 1993) and provide further support for the existence of a similar pattern of relationships in physical education teachers working in another cultural context. The different pattern of association between the two education levels may suggest that changes in certain educators' burnout dimension are expected to affect the other two dimensions to a greater degree in primary education than in secondary. Thus increase of emotional exhaustion in a primary physical educator may have a greater impact on the other burnout dimensions in comparison to secondary peers. Future studies should attempt to identify the reasons that causing this differentiation.

Furthermore, comparison of the three burnout dimensions showed that physical education teachers who teach in primary schools experience higher levels of emotional exhaustion and lower levels of personal accomplishment than their counterparts working in secondary schools. However, the eta-square value regarding the personal accomplishment was very small, suggesting trivial differences and they are not interpreted. On the other hand differences in the emotional exhaustion dimension were both statistically significant as well as meaningful as indicated by the effect size value ($n^2 = .048$). It is worth noting that emotional exhaustion is regarded the core and most robust element of the burnout syndrome (Densten, 2001; Koeske & Koeske, 1989; Rohland et al., 2004; Shirom & Ezrachi, 2003), it develops independently from the other two burnout components and predicts personal accomplishment and depersonalization (Lee & Ashforth, 1993).

Thus it is not surprising that several studies used emotional exhaustion as the central measure of burnout phenomenon (Stremmel et al., 1993; Tsigilis et al., 2006). Although it is early for final conclusions regarding the different levels of emotional exhaustion experienced by physical educators in primary and secondary schools two possible explanations can be offered. The first one can be attributed to the different working conditions which exist across the two education levels. According to the Greek education system, educators in primary schools teach more hours per week (21-24) than their colleagues in secondary (16-21). On the other hand the existing national curriculum for physical education is more demanding in the primary than in the secondary grade. For example, primary physical education teachers are expected to teach a variety of activities (e.g., elements of movement, fundamental motor skills, traditional dances) and sport skills (e.g., track and field, basketball, and volleyball). Thus, for these educators the purpose of their work is to help students to learn and it is more likely to be emotionally involved. In contrast, the role of the secondary physical educators, especially in the last grades, is to establish the acquired skills by organizing games or matches and supervising them.

Finally, the inherent increased mobility of primary students requires high organization of the class, constant alertness by the physical education teachers and increased responsibility for the adoption of the correct safety measures. The above described different working environment between the two education levels may lead to increased working load and in high personal and emotional implication for physical educators working in the primary schools than their peers in the secondary resulting in higher levels of emotional exhaustion. The second explanation might be related to specific background characteristics of the participants, namely their age and teaching experience. The majority of international and Greek research evidence suggests that burnout is more pronounced in younger employees or people newer to the profession (Anderson & Iwanicki, 1984; Antoniou et al., 2006; Byrne, 1991; Kantas & Vassilaki, 1997). It has been argued that the first experiences of burnout may encounter as early as the student-teaching (Gold, 1985). During the initial stages of teaching educators accustomed with the habits of their profession and develop adaptive or maladaptive coping skills to overcome the job stress (Gold, 1985; Greer & Greer, 1992). In the present study primary physical educators were younger and had lower teaching experience than their secondary peers.

This finding was not unexpected because introduction of physical education in the primary Greek education as a separate subject, which is teaching by a specialized educator, has been realized in the last ten years. Thus the younger age and the less teaching years of primary physical educators might have influence their levels of experienced emotional exhaustion. In conclusion, the present study found that the education level in which a Greek physical education teacher is working represents an important job characteristic that influences the core element of burnout syndrome, namely emotional exhaustion. The higher scores of primary physical educators on emotional exhaustion in comparison to their secondary colleagues might be attributed to the different working conditions and/or to the younger age and to the less professional experience. Moreover the strength of association among the three burnout components was more prominent in primary physical educators than in secondary. In addition primary physical education teachers' levels of burnout were similar to their colleagues in the primary education teaching other subjects. Thus if an intervention program is to be implemented it should focus in those physical education teachers working in the primary schools.

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Authors' note. Comparisons were made using an on-line *t*-test calculator, which was accessed from the following website <http://www.quantitativeskills.com/sisa/statistics/t-test.htm>