



RESEARCH NOTE

Gender and age differences in occupational stress and professional burnout between primary and high-school teachers in Greece

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Abstract

Purpose – To identify the specific sources of occupational stress and the professional burnout experienced by teachers working in Greek primary and secondary schools. A special emphasis is given to gender and age differences.

Design/methodology/approach – A cross-sectional design was used. Two self-report measures were administered to a sample of 493 primary and secondary school teachers, a self-report rating scale of specific occupational stressors and the Maslach Burnout Inventory (education version).

Findings – The most highly rated sources of stress referred to problems in interaction with students, lack of interest, low attainment and handling students with “difficult” behaviour. Female teachers experienced significantly higher levels of occupational stress, specifically with regard to interaction with students and colleagues, workload, students’ progress and emotional exhaustion. Younger teachers experienced higher levels of burnout, specifically in terms of emotional exhaustion and disengagement from the profession, while older teachers experienced higher levels of stress in terms of the support they feel they receive from the government.

Practical implications – The findings will help to implement effective primary and secondary level prevention programmes against occupational stress taking into account how males and females and younger and older teachers perceive stress at work.

Originality/value – The study is a significant addition to the teacher stress and burnout literature, especially in Greece where few relevant studies exist dealing with these problems.

Keywords Greece, Teachers, Stress, Gender, Discrimination

Paper type Research paper



Research on stress and burnout among teachers has recently received considerable attention (Travers and Cooper, 1993). Numerous studies have explored the specific conditions that make teaching stressful. These conditions can be categorised either as exogenous (i.e. unfavourable occupational conditions, excessive workload, lack of collaboration, etc.) or endogenous pressures (i.e. individual personality characteristics, disappointment and frustration that probably stem from unrealistic expectations that teachers hold, etc.). A long-term consequence of stress is occupational burnout, which is defined as a syndrome that results from chronic and extended occupational stress, characterised by physical, emotional and attitudinal exhaustion (Kyriacou, 1987). In Firth-Cozens's and Payne's (1999) review of 43 studies carried out in the US between 1979 and 1998, teachers were classified first in terms of levels of emotional exhaustion compared with other professional groups of the study. The consequences of occupational stress and burnout are particularly grave for individuals who work in health and social services (Antoniou, 1999; Antoniou *et al.*, 2003) and this has been a major concern of human service and helping professionals.

A considerable number of studies both in mainstream (Brouwers and Tomic, 2000; Jaoul *et al.*, 2004) and in special education settings (Antoniou *et al.*, 2000; Jennett *et al.*, 2003) and at primary and secondary level (Carlile, 1985; Cooper and Kelly, 1993) have identified the major sources of teachers' occupational stress. These can be categorized as follows:

- *Factors that directly concern the nature of teaching profession.* The major stress factors are anchored in the in-class structure rather than in the organizational structure. Disciplinary problems, class heterogeneity, and work overload (Male and May, 1998; Lewis, 1999; Forlin, 2001) can affect the teachers.
- *Individual differences that influence teachers' vulnerability against stress.* Stress levels may differ in relation to age and gender. It is documented that younger teachers present higher levels of emotional exhaustion and depersonalisation as compared to their older colleagues. This reaction is probably related with the young teachers' difficulty to activate the appropriate coping strategies in order to reduce the occupational stress imposed by the difficulties of their job (Byrne, 1991; Travers, n.d.). Moreover, female teachers experience higher levels of stress and higher job dissatisfaction that generally stem from the negative conditions in the classroom and the students' behaviour, as well as work-family interface (Georgas and Giakoumaki, 1984; Offerman and Armitage, 1993; Kantas, 2001).
- *Administrative factors that are related to the school organisation and administration.* Limited support from the government, inadequate training, lack of information on contemporary educational issues, continuous changes in the curriculum and excessive demands from school administration and difficulty in interacting with parents, constitute serious sources of stress and exhaustion for teachers (Travers and Cooper, 1997; Forlin, 2001).

The limited available studies regarding the levels of occupational stress and burnout of Greek teachers (Papastylianou, 1997; Antoniou *et al.*, 2000; Kantas, 2001), have indicated that Greek teachers experience considerably high levels of stress and psychosomatic symptoms. In order to investigate the levels of stress and burnout in the Greek population, the present study aimed to identify the specific sources of occupational stress of Greek primary and secondary school teachers, to assess their

levels of professional burnout and the way that stress and burnout vary in terms of age and gender.

Methodology

About 493 Greek teachers (43.8 per cent males and 56.2 per cent females) of public primary (49.7 per cent) and secondary (50.3 per cent) schools working in large cities in Greece participated in the study. The teachers' age ranged from 25 to 65 years (34.7 per cent aged between 41 and 50 years). The majority of teachers were married and the majority of the sample had been teaching from 1 to 10 years.

A questionnaire on the specific sources of teachers' occupational stress was used, which included 30 statements referring to particular stressful situations for teachers. Teachers identify the level of stress that they experience at a six-point Likert-type scale ranging from 1 "it is not stressful at all" to 6 "it is very stressful" (reliability was calculated at $\alpha = 0.92$). Professional burnout was assessed by the Maslach Burnout Inventory (MBI – ED version for teachers) developed by Maslach and Jackson (1986). This scale has been used before with Greek teaching populations (Antoniou *et al.*, 2000; Kantas, 2001). It consists of 22 statements where the respondents identify how often they feel professional burnout at a six-point Likert-type rating scale ranging from 0 "never" to 6 "every day" (reliability was calculated at $\alpha = 0.68$). The three dimensions of professional burnout assessed by this tool are:

- (1) emotional exhaustion;
- (2) depersonalisation; and
- (3) reduced personal accomplishment.

Results

The teachers of the present study reported moderate to high levels of stress on average, scoring from 3 and above (3 – moderate stress, 4 – high levels of stress) at the six-point scale of the questionnaire in the majority of the statements. The most highly rated sources of stress refer to problems in interaction with students such as the large number of pupils in the classroom, the lack of interest from the part of the pupils, handling students with "difficult" character and the slow progress of certain students. Then followed lack of resources and equipment which constitutes a factor related to the school environment.

The factorial structure of the sources of occupational stress after performing principal components analysis with varimax rotation with eigenvalues > 1 , extracted six factors explaining 45.7 per cent of the total variance: "in-class problems and recognition by others" included items that referred to discipline problems, time and effort devoted to a limited number of students, lack of parental recognition of teachers' work, and work/family interface, "interaction with students and colleagues" consisted of items that referred to the lack of involvement in school decisions, difficult relationships with colleagues, inadequate training and the continuous need for decision-making in the classroom, "teachers' workload" consisted of items that concerned chores over and above the teachers' role, lack of teaching assistants, strict adherence to the program, "students' progress" included items that referred to slow progress and limited interest by pupils, limited time for one-to-one teaching, "government support" consisted of items that referred to the lack of support by the government, and "continuous demands from teaching" consisted of items that

referred to the stress resulting by the continuous evaluation of students, and the feeling of being responsible for students.

Regarding the teachers' levels of burnout, three groups were formed ("high" "moderate" and "low") in each dimension of professional burnout, according to the categorisation used by Maslach and Jackson using the actual scores of the distribution of the present study. Scores in the upper range of the distribution formed the "high emotional exhaustion/depersonalisation/reduced personal accomplishment" group, scores in the lower range formed the "low emotional exhaustion/depersonalisation/reduced personal accomplishment" group and scores in the middle range formed the "moderate" group. It is worth noting that the levels of depersonalisation of this sample are lower in comparison with the American norms. The intercorrelations among the study variables, means, standard deviations, and Cronbach α coefficients are presented in Table I.

The effect of the independent variables (personal and job demographics) on the sources of stress and the professional burnout was examined using univariate and bivariate analysis of variance (Table II).

A significant effect of gender was found in three stress factors namely, "interaction with students and colleagues" $F(1,491) = 7,74$, $MSE = 26,93$, $p < 0.01$ ($\eta^2 = 0.024$), "teachers' workload" $F(1,490) = 11,94$, $MSE = 24,40$, $p < 0.001$, $\eta^2 = 0.020$, "students' progress" $F(1,491) = 16,43$, $MSE = 16,13$, $p < 0.001$, $\eta^2 = 0.018$. Female teachers reported higher degree of stress compared to males on all three sources of stress regardless of their chronological age and type of school they were teaching in (primary or secondary). Despite the fact that the most highly rated sources of stress differed for the two genders, these results indicated that both men and women teachers agreed that problems in the classroom were the most serious. In terms of burnout, "emotional exhaustion" differed significantly between the two genders $F(1,491) = 7.53$, $MSE = 106,52$, $p < 0.01$, $\eta^2 = 0.015$, with females reporting higher levels of "emotional exhaustion" compared to their male counterparts.

Age was found to have a significant effect on stress stemming from the lack of "government support" $F(3,490) = 4,88$, $MSE = 6,97$, $p < 0.001$, $\eta^2 = 0.029$. Older teachers scored higher on this source of stress, and according to the *post-hoc* tests, significant differences occurred between the three oldest age groups 31-40, 41-50 and over 51 and the youngest group (teachers aged up to 30 years). Age had a significant effect on the two dimensions of burnout, i.e. "emotional exhaustion" $F(3,490) = 4,154$, $MSE = 105,902$, $p < 0.01$, $\eta^2 = 0.025$ and "depersonalisation" $F(3,490) = 3,951$, $MSE = 24,024$, $p < 0.01$, $\eta^2 = 0.024$. However, contrary to their stress levels, younger teachers reported higher levels of burnout in terms of these dimensions compared to their older colleagues (a significant difference occurred between the youngest – up to 30 years – group and the oldest – over 51 – group).

Discussion

The present study reveals that the main sources of stress experienced by Greek teachers are related to discipline problems and interaction with students and colleagues, in agreement with the documented sources of stress in the international literature. The most frequently reported occupational stressors of the Greek teachers refer to problems that are difficult to deal with in the classroom such as overcrowded classrooms, students' lack of motivation, poor achievement and students' disciplinary problems. It appears that these types of stressors are in accordance with a large body

Table I.
Means, standard deviations, and intercorrelations among study variables ($N = 493$)

Variable	Means	SD	Burnout rating	1	2	3	4	5	6	7	8	9
Stress												
1. In-class problems and recognition by others	23.03	5.04		—								
2. Interaction with students and colleagues	20.43	5.22		0.59*	—							
3. Teachers' workload	22.20	4.99		0.57*	0.57*	—						
4. Students' progress	21.59	4.08		0.60*	0.57*	0.51*	—					
5. Government support	11.80	2.67		0.34*	0.34*	0.43*	0.37*	—				
6. Continuous demands from teaching	15.86	3.60		0.58*	0.49*	0.52*	0.52*	0.39*	—			
Burnout												
7. Emotional exhaustion	22.36	10.39	Moderate	0.39*	0.24*	0.36*	0.36*	0.24*	0.41*	—		
8. Depersonalisation	5.19	4.94	Moderate-high	0.21*	0.15*	0.13*	0.13*	0.03	0.19*	0.50*	—	
9. Reduced personal accomplishment	35.94	5.83	Moderate	-0.06	-0.04	0.03	0.01	0.07	-0.06	-0.12	-0.37*	—

Notes: * $P < 0.001$; scale assessment: emotional exhaustion: $<17 =$ low, $18-26 =$ moderate, $>27 =$ high; depersonalisation: $<2 =$ low, $3-5 =$ moderate, $>6 =$ high; reduced personal accomplishment: $>39 =$ low, $38-35 =$ moderate, $<34 =$ high

	<i>F</i> -value								
	Emotional exhaustion	Depersonalisation	Lack of personal accomplishment	SF1	SF2	SF3	SF4	SF5	SF6
Age	4.15*	3.49*	NS	NS	NS	NS	NS	4.88**	NS
Gender	7.53*	NS	NS	NS	7.74**	11.94**	16.43***	NS	12.77**

Notes: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$; SF1: in-class problems and recognition by others, SF2: interaction with students and colleagues, SF3: teachers' workload, SF4: students' progress, SF5: government support, SF6: continuous demands from teaching

Table II.
Summary of one-way ANOVA of the burnout and sources of stress scores by level of gender, age, years of experience, thoughts of leaving the profession and school type

of evidence showing that in-class stressors rather than organisational stressors constitute the major stressors affecting teachers and these can lead to feelings of low self-efficacy and feelings that their job is meaningless (Male and May, 1998; Lewis, 1999; Forlin, 2001). It is worth pointing out that these particular sources of stress, endogenous to the teaching profession were similarly reported in earlier studies carried out with samples of Greek teachers working in special education (Antoniou *et al.*, 2000).

Furthermore, the results also support the hypothesis that gender has an effect on stress and burnout, demonstrating that female teachers experienced higher levels of occupational stress compared to males, as regards the difficulties they confront in the classroom and the workload that often spills over to personal and family life and the working conditions. These findings are confirmed by the majority of international and Greek studies exploring gender differences (Borrill *et al.*, 1996; Georgas and Giakoumaki, 1984; Papastylianou, 1997; Kantas, 2001) which indicate that female teachers report higher levels of stress and higher dissatisfaction stemming from, what they perceive, as adverse conditions in the classroom and students' behaviour, as well as work-family interface. A general tendency exists in the literature, according to which females experience higher levels of occupational stress regarding gender-specific stressors and have different ways of interpreting and dealing with problems related to their work environment (Offerman and Armitage, 1993).

Moreover, females in the present study presented higher levels of emotional exhaustion compared to their male counterparts, which probably suggests that either they have not acquired or cannot utilise the suitable psychological-coping resources geared to the demands of the profession. High levels of emotional exhaustion in females have also been observed in earlier studies (Maslach and Jackson, 1986). Nevertheless, interpreting these differences is a difficult task since there exists a number of intervening factors, such as workload, position in the job hierarchy and presence of social support (Greenglass, 1991; Borrill *et al.*, 1996).

That age has an effect on the way teachers experience their job difficulties, supports the hypothesis that younger and relatively new in the profession teachers present higher levels of stress and burnout (Byrne, 1991). As Pines and Aronson (1988) have reported, teachers in the beginning of their career invest all their energy in order to achieve their initial objectives, while they have to simultaneously deal with a number of stressful and intense demands from their environment. Failing to decrease the gap between their goals and their materialisation, this may have an adverse effect on their job satisfaction and may lead them to decreased involvement and effort regarding their job. This consequence can be interpreted through the young teachers' difficulty to activate the appropriate coping strategies in order to reduce the occupational stress imposed by difficulties occurring in the job (Travers, n.d.). It can also be maintained that the difficulties presented at the beginning of young teachers' career may be related with their adaptation in the profession and they appear not to have long-lasting repercussions (van Dick and Wagner, 2001).

While the cross-sectional design of the present study does not allow for causal interpretation in any of these relationships, these findings suggest that there might be a connection between age and gender and the way stress is perceived by different groups of teachers. Future studies can further investigate the specific personal, job demographics and occupational sources of stress and burnout to specific groups of teachers and suggest ways for prevention and intervention.

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