

Occupational Stress Relation to Tenure and Educational Level in Primary School Teachers in Greece

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Abstract

The teaching profession is constantly becoming even more demanding, with miscellaneous challenges and continuous constitutional changes. Stress in teachers is a reference point of study at a global level, as its rates are increasing with a variety of negative side effects. The need to study stress lies in the influence it has, both on the individual level and in the educational process itself. The present study in a sample of 167 teachers of all specialties from public primary schools in Greece, attempts to link educational level and tenure to job stress. Results showed higher stress levels among teachers who have not received a Master's Degree, while tenure did not play a significant role. It seems that stressors in the working environment hold the most crucial role in predicting stress levels. In practical terms, therefore, the overriding importance of specific interventions in the dominant sectors, which put stress on teachers, is emphasized. The analysis of applications is mentioned further in detail in the discussion section.

Keywords

Job Stress, Primary School Teachers, Postgraduate, Years of Service, Stress Sources, Greece, Tenure, Educational Level

1. Introduction

Strain is defined as an interaction process, where diverse environmental events trigger individual cognitive and physiological reactions, which end up affecting the well-being of the individual (Spiromitros & Iordanidis, 2017), whereas stress as a perceived or actual threat to the psychology and/or physical functions of

each human being (Andreou et al., 2011). In modern reality, definitions of anxiety and stress, although conceptually different, tend to be identical (Ioannidou, 2017). Occupational stress is defined as the experience of negative feelings related to work factors (Spiromitros & Iordanidis, 2017). The most typical and commonly occurring stress symptomatology encloses mental health disorders, pathological consequences and emotional manifestations.

2. Literature Review

Research suggests that the professional environment is one of the most important sources of stress. The 2010 stress survey, with a sample of 941 people in different professional sectors, in the light of symptomatology, showed that 73% of Greeks experience normal or mild stress levels while 9.4% experiences a serious stress impact (Andreou et al., 2011). The teacher's profession is one of the fields, which have been significantly affected by occupational stress. In 2012, 83%, out of 3.447 Greek teachers, said they would gladly take part in stress management courses (Kourmoussi, Darviri, Varvogli, & Alexopoulos, 2015). In 2013, teachers were obviously more dissatisfied compared to 2009, which was the beginning of the Greek economic crisis (Polimeropoulou, Skorda, & Sorkos, 2015).

The fundamental causes of teachers stress, to which studies converge, are the non-supportive attitude of colleagues, school leadership and counselors, issues concerning students, limited professional development, personal motivation, non-recognition of their educational work from parents, little work experience, pressure and time management, learning difficulties, but also compulsory distance from family environment (Polimeropoulou, Skorda, & Sorkos, 2015).

In a survey of 211 teachers, 15.8% is in the category of highly emotionally exhausted and the inverse relationship between age and experience and the levels of emotional exhaustion, which takes the form of stress, is underlined. In addition, university graduates, without further training, score low, compared to those holding postgraduate degrees, where 45.1% exhibit moderate emotional exhaustion (Spiromitros & Iordanidis, 2017). In another sample of 141 teachers with a maximum of 4 years' experience, 55.6% reported that they were confronted with stressful situations over 14 days of teaching (Schmidt, Klusmann, Lüdtkke, Möller, & Kunter, 2017).

3. Research Question

The latest educational reforms were a springboard for teachers' need for further training. The percentage of teachers with postgraduate qualifications, and not generally compulsory or not educational learning, and their relationship to stress at work, is not a constant reference area in the studies. The lack of in-depth investigation was therefore a reason for this study.

Greek studies show that although they include the factor of tenure in the demographic data, they do not analyze in detail its correlation with the levels of occupational stress of primary school teachers.

This research is therefore oriented towards linking the years of service and the holding of a master's degree to the levels of job stress experienced by Greek primary school teachers, looking into its sources.

The significance of the conclusions lies on the fact that the variables examined are on the one hand issues that concern every new contemporary primary school teacher, and on the other hand, they represent areas, which the education system and its reformists can take into account for future restructuring and decision making.

4. Research Hypothesis

Given the results of the scientific articles that take into account the factor of tenure, and the causes of job-related stress, the anticipated conclusion is the proportional relationship between low experience and high levels of occupational stress. Accordingly, it is assumed that teachers with a master's degree will be under higher stress, as the theoretical background conflicts with school reality and ambitions are higher, but the system is restrictive.

5. Methods

5.1. Survey Type—Sample

It was therefore decided to investigate this case, following the quantitative, naturalistic and inductive model of research, as this research was based on primary data collected, compared and analyzed in order to lead to the results. The sample was composed of teachers of all disciplines in primary schools in Athens, Piraeus and Giannitsa in Greece (N = 167). This heterogeneous sample is possible to achieve generalization to the rest educational population of primary schools in Greece.

5.2. Measurement Tools

The measurement tool used was a questionnaire containing questions on demographics (gender, age), educational level, work relationship and the years of service of respondents. We also used a Greek Questionnaire for the estimation of sources of stress (20 items—Stress Source Declarations, Mouzoura, 2005) (Cronbach $\alpha = 0.82$) and The Davis Stress Questionnaire (20 items—stress level measurement, Davis, Robbins-Eshelman, & MacKay, 2008) (Cronbach $\alpha = 0.90$). In the 40 statements there was a choice of answers on a five-point scale of Likert from 0 = None, up to 4 = Excessive. All measurement tools were found in official catalogue of psychometric tools in Greece (Stalikas et al., 2002).

5.3. Procedure—Ethics

Regarding the process of carrying out the research, the model of the synchronous survey was followed, as the results were collected over a single period of time. In particular, the questionnaires were provided for online completion via Google Forms at the end of November 2019. 300 invitations were sent and 167 of the initial sample participants provided us with a completed questionnaire

(55.66% response rate). The results were analyzed using the computing system of SPSS.

At this point, it should be noted that, having in mind the code of ethics, which should rule any research study on psychological matters, a consent form had been incorporated into the electronic questionnaire, following the guidelines of Aiken (1991). As Stalicas, Triliva and Roussi state in their book “*The Psychometric Tools in Greece*”:

The most important thing, which we must bear in mind, is that the protection of the rights and dignity of the person examined is the main objective and primary concern of the ethical criteria which determine the development and implementation of psychometric tests. That is to say that from an ethical standpoint the study was in line with all regulations, obligations and methodological standards as set but the international research scientific society.

6. Results

A sample of 167 people was used to carry out the survey. The statistical software “IBM SPSS Statistics Data Editor” was used to analyze the data.

All the variables used in demographic data, in the sources of work stress and in the measurement of work stress are nominal variables, because they refer to forms of categorical variables, where the total of their values does not reflect any property, but only their qualitative characteristics.

The approach methodology is based on descriptive statistics, meaning grouping, organizing and summarizing the characteristics of all data collected from the questionnaires. Emphasis is given on the representation of data by the tabulation presentation method, with the aim of numerically displaying the characteristics under consideration (variables), which represent the characteristics in qualitative and quantitative terms. The study of frequency distribution and its measurability leads this study to draw conclusions.

This study has three major categories of characteristics (variables):

- demographics
- job stress sources
- job stress measurement

Regarding the demographic data of the survey sample, the following nominal variables were recorded:

- Gender
- Age
- Educational Level
- Work Relationship
- Years of Service/Tenure

The demographic data showed that 82% of the sample was female, while 18% were male. Also, 67.7% were teachers with stable work relationship (permanent teachers), while 32.3% were teachers working with limited time contracts (substitute teachers). Further analysis of the remaining demographic data shows that the overwhelming majority of the sample has either bachelor’s or master’s de-

gree, while the majority of teachers has more than 10 years of working experience. The results are presented in the following **Tables 1-7**:

Table 1. Sample frequencies regarding age.

Age	Count	Percentage %
20 - 30	11	6.60
31 - 40	75	44.90
41 - 50	35	21.00
51+	46	27.50

Table 2. Sample distribution regarding educational level.

Educational Level	Count	Percentage %
Bachelor	95	56.90
Postgraduate	66	39.50
PhD	6	3.60

Table 3. Sample distribution regarding working experience/Tenure.

Working Experience	Count	Percentage %
0 - 5	17	10.20
6 - 10	16	9.60
11 - 15	58	34.70
16 - 25	43	25.70
25+	33	19.80

Table 4. Main sources of work stress as derived from the survey.

	Students with Learning Disabilities	Behavior Problems of Students	Lack of Teaching Facilities & Tools	Not Taking Part in Decision-Making	Lack of Cooperation by Students' Parents
None	0.60%	0.60%	3.60%	5.30%	3.00%
Little	7.80%	12.00%	8.40%	9.00%	13.20%
Medium	13.80%	21.50%	25.70%	24.60%	25.10%
Very	47.90%	52.10%	47.30%	41.90%	38.30%
Excessive	29.90%	13.80%	15.00%	19.20%	20.40%

Table 5. Cumulative work stress measurement according to educational level.

	Bachelor	MSc	PhD
Never	462	419	30
Occasionally	786	493	29
Somewhat Often	387	227	30
Often	207	139	25
Almost Always	6	42	58

Table 6. Cumulative work stress measurement according to years of service.

	0 - 5	5 - 10	11 - 15	16 - 25	25+
Never	74	118	270	240	209
Occasionally	130	92	450	370	266
Somewhat Often	65	64	246	138	131
Often	48	34	158	87	44
Almost Always	23	12	36	25	10

Table 7. Cumulative work stress measurement according to work relationship.

	Permanent	Substitutes
Never	606	305
Occasionally	937	371
Somewhat Often	422	222
Often	240	131
Almost Always	55	51

Then the sources of job stress were examined, the processing of which showed that the main five were the following:

- Many Students with learning/behavioral problems
- Lack of teaching facilities and tools
- Not taking part in decision-making on matters that concern them
- Lack of cooperation by students' parents
- Students behavior problems

In addition to the individual analyzes in the descriptive methodology, as part of this survey and with the purpose to answer the research question of the correlation of years of service and the possession of a postgraduate qualification, in relation to the levels of job stress experienced by Greek primary school teachers, tabular interactions in the respective nominal variables were studied.

From the replies gathered, it appears in the tables to be a significant balance between them, meaning there are no significant deviations from one variable under consideration to the other. But the factor, which mainly affects both Stress Sources and its manifestation, is mainly the work experience.

The allocations were examined regarding their symmetry. If the data is distributed symmetrically, as we move away from the mean value, we encounter the same number of observations. Skewness was studied as a measure of the asymmetry characterizing the distribution around its mean value. Positive skewness means that the curve extends more to the right of the mean value, whereas negative skewness means that the curve extends more to the left of the mean value.

Regarding the Sources of Occupational Stress, the ones that least affect the event (with negative skewness) are:

- Training Opportunities
- New Teaching Methods

- Job Insecurity

whereas all other sources had positive skewness.

This means that all the other factors affect more than moderately the sources of job stress.

Work Relationship did not seem to affect any of the dependent variables.

7. Discussion

From this study, it appears that teachers' job stress overall reaches moderate levels. Teachers, with many years of experience, are less stressed than the youngest ones and the substitute teachers. Similarly, teachers with a postgraduate degree are less stressed than others. In terms of gender, women experience more stress than men.

The years of service and the working relationship of teachers are also confirmed by other surveys (Andreou, et al., 2011; Kourmoussi et al., 2015). On the other hand, the possession of a master's degree does not autonomously increase the level of stress, according to the findings, which paradoxically do not confirm the original assumption. This also contrasts with the study conducted by Spiromitros & Iordanidis (2017), where those with a bachelor's degree have lower stress rates compared to those with a master. The increased stress rate on women is in line with the results of the other studies and is linked to the complexity of social roles with which, even today, women are charged, but also their temperament. The main sources of stress on teachers are the learning and behavior problems of their students and the lack of cooperation with their parents. Aggravating reasons are also the lack of teaching facilities and tools and the lack of participation in decision-making. These are parameters that have already been highlighted in previous studies (Polimeropoulou et al., 2015; Spiromitros & Iordanidis, 2017).

The sources of teachers' occupational stress appear to have a dominant role in the formation of the final stress scales, independently of variables such as the possession of a master's degree. So, the attention of the management, perhaps, needs to be focused on improving them. There is a need for substantial reforms both in the education process and in strengthening teacher preparation to manage and cope with these demanding circumstances, in order to reduce the stress they experience. This maximizes the chances of positive productive projections at psychological and labor level.

During the execution and the analysis of the study, a few limitations must be noted. The analysis of the opportunistic sample has made clear the dominance of specific social categories, a factor which may affect the potential to generalize it to the entire population. Initially, the record of demographic data shows the vast majority of women, compared to male teachers. In addition, the schools which were the source of the present survey, were mostly composed of permanent teachers. The number of substitute teachers is one third of the total, a fact which is assumed to affect the final result in many ways. It is also worth pointing out

that the limited range of teachers with the lowest possible stated working experience and also the younger ones, on the 20 - 30 scale, may have played an active role in the formulation of final results.

The above-mentioned results highlight areas of constructive future researches. Given the limited number of substitute teachers in the present survey, it would be important to study the level of stress experienced by them compared to permanent teachers, in particular because of the educational background, which has been established over the last decade in the Greek reality. Moreover, deriving from the first position that the student's behavioral problems hold, as a source of stress, it would be of great interest to carry out a research between teachers with and without possession of a postgraduate degree, particularly in the field of special education. Thus, there may have been findings which clarify the need for more appropriate teacher preparation. Finally, the investigation of the level of stress created by new teaching methods and the lack of teaching facilities and tools, proportional to the age of teachers, may have helped to clarify the role that the above had in the present investigation, since they are part of the most basic sources of occupational stress.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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