

Occupational Stress of Teachers: A Comparative Study Between Turkey and Macedonia

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Abstract

The aim of the study is to determine the stress level of Turkish and Macedonian teachers living in different socio-cultural and economic situations. The scale used in the study has been developed by researchers. 416 Turkish teachers and 213 Macedonian teachers have participated in the study. At the end of the study it was seen that Turkish teachers have mild stress levels and Macedonian teachers have moderate stress levels. There is a meaningful difference in the stress level points of Turkish and Macedonian teachers. Policy makers are advised to analyse the teacher training and assessment system with the assumption that personal and social characteristics and working conditions may have an effect on teacher stress. Implications for further research are also discussed.

Keywords: Teacher stress, primary education teachers, Macedonia, Turkey

1. Introduction

Stress is the abnormal reaction that the organism displays against threatening environmental elements. (Luthans, 1994). Stress, which is a general term used for pressure that people are exposed to in life (Jepson and Forrest, 2006) may be defined as the individual harmony effort that the person displays against a stimulant which has excessive psychological and physical pressure on the person. (Griffin, 1990). When a person feels insufficient in dealing with demands and challenges faced in life, she/he experiences stress. Being harmed by this situation or taking advantage of it mainly depends on the person because stress may either be a factor threatening the organism physically or psychologically or a power which gives energy in dealing with life (Baltaş, 2002). Sources of stress may be classified as individual, organizational and outside of organization (Gupta, 1981; Kreitner and Kinick, 1992) or it is possible to divide them into two groups as individual and organizational components (Nahavandi and Malekzadeh, 1999; Smith and Milstein, 1984). Organizational stress, which is also called professional stress, is the interaction between working conditions and the working person in environments in which the work demand exceeds the skills of the worker (Ross and Altmaier, 1994).

The elements that cause stress in organizations are environmental factors and the behaviour formed as a result of the pressure of these elements on the individual (Amason, Allen and Holmes, 1999). These factors may be monotony, change of technology, excessive work load, job security, ergonomics, management problems (Cooper and Davidson, 1987; Sutherland and Cooper, 1990), the hinderance of the drive of success, personal ambitions, the lack of harmony between person-role (Yates, 1989) and individual characteristics (Quick and Quick, 1984), the feeling of insufficiency (Ivancevich, Matteson, Freedman and Philips 1990). Shortly, organizational policies, the structure and the climate of the organization, physical conditions and process are the basic factors of stress in the organization (Luthans, 1994). In addition, cultural and geographical factors such as climate and religion may shape factors of stress (Cooper and Davidson, 1987).

Stress in working people results in various feelings such as worry, fear and depression (Margolis, Kroes and Quinn, 1974). The first symptoms of stress in workers are; tardiness, absenteeism at work (Furnham, 1997) and the decrease in performance and production. (Atkinson, 1994; Schafer, 1996). Distress results in loss of service in the organization, increase in costs, and loss of work of different types (Robbins, 1986), dissatisfaction and loss of spirits in workers (Griffin, 1990), lack of harmony between managers and workers (Hubbard, 1995), lack of productivity, burnout (Dunham, 1992), lack of job satisfaction (Van Dick, Phillips, Marburg and Wagner, 2001) in addition to creating personal problems. Apart from these, it is possible that workers may become ill or lose their lives (Allen, 1983). Distress is one of the most important hinderances in the realization of organizational aims (Klarreich, 1988).

Stress is not only a problem for developed information societies but also for developing countries. However, there may be differences in these countries in the sources of stress that people face and their degree of importance (Bhagat, Steverson and Segovis, 2007). Stress is not always a negative fact (Palmer and Hyman, 1993). While a low level of stress results in immobility and laziness, stress in the optimal level (eustress) has the effect of motivating (Nydegger, 2002), exciting, increasing creativity (Griffin, 1990) and success (Schermerhorn, Hunt and Osborn, 2000; Newstrom and Davis, 1997). In fact, a bit of stress is necessary to gain outstanding success. Because of this, successful people are those who convert their stress to creative energy and creative power (Krüger, 1993). Some experts argue that those who work in a moderate level of stress work with a higher performance (Steers, 1981). Besides, a moderate level of stress may have a motivating effect if the individual's comprehension of roles is positive (Little, Simmons and Nelson, 2007). Each profession causes a specific level of stress. However, teaching is among the professions that causes more stress compared to other professions (Hargreaves, 1999; Pithers, 1995). Stress affects both the teacher and the learners in the teaching process (Forlin, Douglas and Hattie, 1996). Kyriacou (1987) who has carried out various studies on teacher stress, defines teacher stress as the experiencing of unpleasant feelings such as depression, anger, worry, irritability and tension which are formed as a result of working as a teacher.

Stress sources of teachers may be summarised as low motivation in students, discipline problems, the pressure of time and the work load, being assessed by others, colleague relationship, conflict and indefiniteness of roles, bad working conditions and self-respect, students' discipline problems, the inadequate support of colleagues, family and friends (Detert, Derosia, Caravella and Duquette, 2006; Kyriacou, 2001). In addition, students' being late to school, their failure and students' not doing homework may cause stress in teachers (Adams 2001; Joseph, 2000). It is important for educational organizations to study and manage rationally the stress sources of teachers who have the important duty of educating individuals. Although stress in educational organizations has been determined with various studies, the number of researchers who have studied in different societies is limited (Kyriacou, 2001). For this reason, we have tried to contribute to field research by comparing general stress levels of teachers in different societies. The aim of our study is to determine and compare the stress levels of Turkish and Macedonian teachers who work in different socio-cultural situations.

2. Method

2.1. Population and sampling

The study was carried out in the 2009-2010 academic year. The population of the study is composed of primary education teachers employed in the primary schools in Prilep, a province located in the southern part of Macedonia and in Ankara a province located in the central Anatolia in Turkey. A sample size was identified by using the theoretical sample size table developed by Yamane (2001). To prevent the negative effect of a possible low return rate, the working sample size was identified as 700. Number of participants from Macedonia is 213 and from Turkey is 416. There were 629 returned questionnaires from the distribution of 700 surveys. The sample of the study is composed of a total of randomly selected teachers according to volunteered to participate in the research (McMillan, & Schumacher, 2006).

2.2. Data Gathering Instrument and Data Analysis

The review of the literature was followed by unstructured interviews with 50 teachers about the factors of teachers' stress. These activities led to a draft of the Teachers' Stress Survey, which was analyzed by a panel of experts that included four professors of education and educational research. The panel of experts verified the accuracy and importance of each survey item. Minor revisions were made after a pilot test with 125 teachers. We studied the factor analysis suitability of data by using Kaiser –Meyer- Olkin (KMO) and Bartlett Sphericity test and we found the KMO. 94 and Bartlett Sphericity test meaningful. The total explained variance in this scale with a structure of six factors is %60. We saw this ratio as sufficient in evaluating analysis. As a result of the analysis we found out the following data: The alpha value of the first factor is 0.92. The alpha value of the second factor is 0.90. The alpha value of the third factor is 0.84, the alpha value of the fourth factor is 0.83. The alpha value of the fifth factor is 0.77. The alpha value of the sixth factor is 0.74.

The alpha value of the whole scale is 0.95. The correlation values of the items in the first factor range between .55 and .84. The correlation values of the items in the second factor range between .65 and .80. The correlation values of the items in the third factor range between .62 and .78. The correlation value of the items in the fourth factor range between .70 and .82. The correlation values of the items in the fifth factor range between .71 and .81. The correlation values of the items in the sixth factor range between .70 and .80. The correlation of the total items in the scale range between .36 and .72. We assumed that the items in the scales were suitable for assessing the stress level of teachers.

All questions were scored on a five point Likert type scale ranging from no stress, to mild stress, moderate stress, much stress to extreme stress (0-5). We determined that the set of data were not distributed as normal as a result of the Kolmogorov- Smirnov Z test used. Due to this, in the data obtained in our study we used arithmetic mean, standard deviation, Mann- Whitney U test and Kruskal Walls test.

Demographic characteristics of Turkish and Macedon participants are displayed in Table 1.

Table 1: Demographic Characteristics

	Macedonia		Turkey	
	N	%	N	%
Gender				
Female	68	10,8	221	35,1
Male	145	23,1	195	31,0
Total	213	33,9	416	66,1
Seniority				
1-5 years	55	8,7	143	22,7
6-10 years	28	4,5	97	15,4
11-15 years	48	7,6	77	12,2
16-20 years	22	3,5	38	6,0
21 years +	60	9,5	61	9,7
Education				
Graduate	157	25,0	358	57,0
Postgraduate	55	8,8	58	9,2
Marital status				
Single	38	6,0	147	23,4
Married	175	27,8	269	42,8

33. 9% of the participants are Macedon and 66.1 % are Turk. 45. 9% of the participants are females and 54.1 % are males. 31.4 % of the participants have 1-5 years seniority 29.9% of the participants have 6.10 years seniority. 29.8 % of the participants have 11-15 years seniority.9.5% of the participants have 16-20 years seniority and 19.2% of them have 21 a seniority of 21 years and over .82 % of the participants have a graduate degree and 18% have a post-graduate degree 29.4% of the participants are single and 70.6% of them are married.

3. Findings

First of all, we evaluated the means of the Turkish and Macedonian teachers together. After that, we evaluated the means of Turkish and Macedonian teachers seperately.

Table 2: The stress levels of Turkish and Macedonian teachers and their comparison

Factors	Macedonia		Turkey		Mann-Whitney U	p
	Mean	SD	Mean	SD		
Behaviors of school principals	3,38	,90703	2,58	,93251	23602,000	.00
Parent and student misbehavior	2,59	,93365	2,10	,78213	29580,500	.00
Poor colleague relations	3,11	,85686	2,79	,86157	34850,500	.00
Participating in decision-making	3,10	1,03604	2,44	1,00369	28589,000	.00
Professional development	3,01	,95933	2,50	,94494	31116,000	.00
Professional status	2,34	1,03252	2,45	,91705	40494,000	.08
Total	2,99	,69408	2,48	,67741	26524,000	.00

We found out that the stress of Turkish participants related to behaviour of school principals, parent and student misbehaviour, participating in decisions, professional development and professional status was of mild level ($\bar{X}=1.81-2.60$) and the stress related to poor colleague relations was moderate level ($\bar{X}=2.61-3.40$). The general mean of stress level in Turkish teachers is mild. We see the highest level of stress in Turkish teachers in poor colleague relations. The lowest stress level is in parent and student misbehaviour. We found out that the stress of Macedonian participants related to behaviour of school principals, colleague relations, participating in decisions and professional development is of moderate level ($\bar{X}=2.61-3.40$). We saw that stress related to parent and student misbehaviour and professional status was mild ($\bar{X}=1.81-2.60$). The stress level mean of Macedonian teachers is moderate.

We see the highest stress level in Macedonian teachers is in behaviour of school principals. The lowest stress level is professional status. There is a meaningful difference in terms of sub dimensions and the total stress level score except for the total stress level scores of Turkish and Macedonian participants related to the sub dimension of professional status ($U=26524,0$; $p<0,05$). While Turkish teachers have a mild level of stress, Macedonian teachers have a moderate level of stress.

3.1. The Comparison of the Stress Levels of Turkish Teachers

There is a meaningful difference between female and male teachers in Turkey in terms of total stress level score ($U=16674,0$; $p=0,000<0,05$). The stress levels of male teachers are higher in Turkey compared to female teachers. There isn't a meaningful difference among teachers of different educational backgrounds in terms of total stress level score. ($U=9520,0$; $p=0,311>0,05$). There isn't a meaningful difference among married and single teachers in terms of total stress level score ($U=18906,0$; $p=0,458>0,05$). There is a meaningful difference among teachers of different seniority in Turkey in terms of total stress level scores ($k^2=12,154$; $p=0,015<0,05$). We found out that teachers with a seniority of 21 years or over had a lower level of stress than all other seniority groups.

3.2. The Comparison of the Stress Levels of Macedonian Teachers

There isn't a meaningful difference between female and male teachers in Macedonia in terms of total stress level scores ($U=4282,5$; $p=0,132>0,05$). There isn't a meaningful difference among teachers of different educational levels in terms of total stress level scores ($U=4229,5$; $p=0,797>0,05$). There is a meaningful difference between married and single teachers in Macedonia in terms of total stress level scores ($U=2531,5$; $p=0,458>0,05$). The stress levels of married teachers are higher compared to single Macedonia in terms of total stress level scores. There isn't a meaningful difference among teachers of different seniority in Macedonia in terms of total stress level scores ($k^2=2,152$; $p=0,654>0,05$).

4. Discussions and Conclusions

The aim of our study was to determine and compare the stress levels of Turkish and Macedonian teachers living in different socio-cultural and economic situations. According to the results, we obtained Turkish teachers have a mild level of stress whereas Macedonian teachers have a moderate level of stress. Moderate levels of stress may improved effort to work, diligence and stimulate creativity (Schermerhorn, Hunt and Osborn, 2000). The stress level of Macedonian teachers is higher compared to Turkish teachers. These results are not consistent with studies on stress carried out in different countries (Borg, Riding and Falzon, 1991; Kyriacou and Chien 2004; Meng and Liu, 2008; Milner and Khoza, 2008; Pettegrew and Wolf, 1982; Schonfield, 1992). The stress levels of teachers in Turkey are low compared to teachers in other countries. The transition from primary school to secondary school and the transition from secondary school to high school is made with a difficult exam in the Turkish Education System. Besides, studies have shown that teachers in Turkey have various professional problems.

However, in the PISA 2006 study, the Turkish Education System achieved a very low level of success, below the OECD average. Due to this fact, we actually expected higher levels of stress from Turkish teachers. We need to note that low level stress linked to chronic laziness. Because mild stress can lead to longterm inability to work (Rai, Kosidov, Lundberg, Araya, Lewis and Magnusson, 2011). In Republic of Macedonia educational system is under constant changess, according to findings of Ministry of education. We can explane the level of teacher stress among Macedonian teachers as a result of new situations they are put in, the new role and high expectations from them. They are not educated how to manage with new situations during their initial training, they are not well prepared to work as a team, which will enable them to copy with stress in a effective way. Also they are in the constant threats for loosing their job, because of not compliting expectation from society about pupils achievement, which new low regulatives allows Government to do so. Due to these reasons, we think that the stress levels of teachers in Macedonia are normal.

It is possible that teachers who get social support (Griffith, Steptoe and Cropley, 1999), have close relations with their colleagues and use problem solving techniques have low levels of stress (Kyriacou, 2001) in Turkey. In addition, harmony among teachers and supportive and helpful relations may isolate reasons of stress (Griffith et al., 1999; Kowalski, 2002). Those who participated in our survey may have these characteristics. In addition to this, personal values and characteristics are some of the important factors in the person's sensivity against stress-causing situations (Gupta, 1981; Kaiser and Polczynski, 1982). Perceiving stressful situations may differ from one person to another as well as the fact that the reactions the same persons gives to stressful situations may change (Wong and Ujimoto, 1998). It is possible that the participants did not accept themselves as stressed as they get satisfaction from their job (Atkinson, 1994) or they may have a Type B personality that includes self-confident and not consider important to success (Fisher, 1994).

Another point is the effects of individualism and collectivism on work values. Individualistic people are those who give prominence to individual decision-making and success and are generally seen in modern, western societies (Hofstede, 1980; Hui, 1990). Worry of success may lead to stress. In collective cultures, harmony is more important than competition and display calmness away from anxiety. These cultural characteristics are seen in Asia (Triandis, 1988). Turkish teachers may have collectivist culture. In addition, job security of teachers is higher compared to other countries. Teachers do not lose their jobs unless they commit a serious political crime. Stress levels may be low in teachers who do not have a worry of the future. Despite these, previous studies have shown that individual characteristics play an important role on how the individual perceives stress (Kaiser and Polczynski, 1982). The fact that teachers feel insufficient professionally may be a source of stress for teachers. As teachers feel insufficient with the fear that they can't keep up with developing technology and current developments, their levels of professional stress increases (Fimian and Santoro, 1983; Terry, 1997). Macedonian teachers' fear of not being able to keep up with innovations and developments may be a source of stress for them. On the other hand, the importance Turkish teachers place on innovation and development may be lower than those of Macedonian teachers.

The stress levels of male Turkish teachers are high whereas those of with a seniority of 21 years and over are low. In studies on stress, the effect of demographic characteristics on stress may change. In some studies, no differences were found between the stress levels of female and male teachers (Kyriacou and Chien, 2004), whereas in some others it was found out that females (Payne and Furnham; 1987; Santiago, Otero-Lopez, Castro and Villardefrancos, 2008) or male teachers (Borg and Riding, 1991) were found out to be more stressed. We could not find a difference between Turkish participants in terms of marital status. In our study we found out that the stress levels of married Macedonian teachers were higher. Some study results show that marital status is not always a determinant and that in some cases those who have happy marriages and get support from their spouses tend to be happy and successful in professional life as well and be less stressed (Barling, 1990). There are studies which show that seniority may not add a difference to stress (Kyriacou and Chien, 2004). On the other hand, there are studies that found out that stress levels are low in senior teachers (Meng and Liu, 2008; Payne and Furnham, 1987). Based on these results, we may say that the demographic characteristics of teachers living in different societies affect stress levels differently.

According to the results we obtained from the study, we found out that the stress levels of the participants, especially the Turkish participants were low. We suggest that policy makers in Turkey and Macedonia analyse the system of teacher training and teacher evaluation and restructure it. Ankara and Prilep display differences in terms of population, religion, national income and culture. It also brings into discussion the carrying out of new studies related to teacher stress in different environments and new social situations. Because of this reason, the effect of different variables on teacher stress may be examined in comparative studies. Why the stress levels of Turkish teachers is low despite the difficult exam system may be a new subject of study. This study included only two districts, and thus, it may have limited generalizability. Similar studies should be done using larger samples in different regions of Turkey and Macedonia. Another limitation of this study relates to the type of schools studied: this study included only public basic schools, but future studies should include both public and private schools. Furthermore, the accuracy of the research results should be checked by other methods in addition to surveys (interviews, observations, etc.) and qualitative methods should be used to interpret the results in more detail.

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