The Effect of Teachers' Stress on Educational Organizations' Health

Dr. Ali Sabanci
Associate Professor
Faculty of Eduation
Akdeniz University
Turkey
E-mail: alisabanci@akdeniz.edu.tr

Abstract

The purpose of of this study was first to examine the relationship between teacher stress and a healthy school organization. The measurement model was tested using a confirmatory procedure employing the structural equation modelling software. In the analysis, Percentage, frequencies, means, significance test, t test and One-Way ANOVA. Post-Hoc tests, Pearson correlations coefficient, Multiple Linear Regression were used. This article reports a significant negative relationship between teachers' stress levels and organizational health.

Key words: Education, organizational health, schools, teachers' stress

Introduction

Contemporary educational studies focus upon the various types of stress and organizational health independent of one another. According to Cox and Thomson (1999) recent research has suggested that measures of health at the finest level of the quality of the system's components are relatively strong predictors of outcome measures such as employees' experience of stress, their self-reported well-being and absence behaviour. There is, therefore, evidence that the health of the organization is related to that of its employees. The purpose of this study was to consider the relationship between these two organizational factors with the premise that healthy organizations consist of healthy human resources. There are many definitions of stress. Stress is a physiological and emotional response to stimuli that place physical or psychological demands on an individual (Daft, 2003). Stress is an individual's response to a strong stimulus which is called a stressor (Griffin, 1999). According to Robbins (1993) stress is a dynamic condition in which an individual is confronted with an opportunity, constraint, or demand related to what he or she desires and for which the outcome is perceived to be both uncertain and important. Stress refers to a psychological and physical state that results when certain features of an individual's environment, called stressors, create discomfort, anxiety, or feelings of being overwhelmed (Gordon, 1999). Stress is usually thought of in negative terms.

It is thought to be caused by something bad. But there is also a positive, pleasant side of stress caused by good things. It is also important to point out what stress is not: 1. Stress is not simply anxiety. 2. Stress is not simply a nervous tentsion. 3. Stress is not necessarily something damaging, bad, or to be avoid (Luthans, 1995). According to Robbins (1993), 1) a lot of seem to be suffering from stress symptoms. 2) A recent research including two hundred big and small companies showed that twenty five percent of the employees suffered from anxiety or stress related disorders. 3) Stress related health problems cost business and society a ton of money. 4) Some stress seems to come with every job. 5) When co-workers or friends are loosing their jobs and you fear for your own, your stress level is naturally going to increase. 6) Long working hours is also putting pressure on employees.

Causes of Work Stress

According to Robbins (1993) the potential sources of stress are *environmental*, *organizational* and *individual*. On the other hand, Daft (2003) identified *work stressors* placing them in four categories: demands associated with job tasks, physical conditions, roles (sets of expected behaviours) and interpersonal pressures and conflicts. Environmental factors include economic uncertainties, political uncertainties and technological uncertainties. Individual factors occur because of family and person relationships, marital difficulties, discipline problems with children, poor management of their financial resources, person's personality. Robbins (1993) categorized organizational factors as task, role and interpersonal demands; organization structure; organizational leadership and organizations life stage. Task demands are stressors arising from the task required of a person holding a particular job. For instance a decision with incomplete information under time pressure, serious consequences is a potential stressor. Physical demands are stressors associated with the setting in which an individual works. Role demands are the set of behaviours expected of a person because of that person's position in the group.

When they are uncertain about what behaviours are expected of them they encounter role ambiguity, on the other hand, when an individual perceives incompatible demands from others he/she may encounter role conflict. Interpersonal demands are stressors associated with relationships in the organization. Interpersonal conflict occurs when two or more individuals perceive that their attitudes or goals are in opposition. Organization structure defines the level of differentiation in the organization, the degree of rules and regulations and where the decisions are made. Organizational leadership represents the managerial style of the organization's senior executives. An organization's life stage refers to the idea that it goes through a cycle such as establishing, growing, becoming mature and declining stages. The establishment and declining stages are particularly stressful.

Consequences of Stress

It is generally recognized that low level of stress can enhance job performance. The performance of many tasks is in fact strongly affected by stress. Performance usually drops off sharply when stress rises to high levels (Luthans, 1995). The results of stress may be positive or negative (Griffin, 1999). The problems due to high levels of stress can be exhibited physically, psychologically and behaviourally by the individual (Gordon, 1999). Medical or physical consequences of stress affect an individual's physiological well-being. High blood pressure, high levels of cholesterol, arthritis, heart disease and stroke, headaches, backaches, ulcers and related disorders and skin conditions have been linked to stress. Psychological consequences of stress interfere with an individual's mental health and well being. These outcomes include anger, anxiety, nervousness, irritability, tension, boredom, sleep disturbances, depression, family problems and sexual dysfunction. These types of psychological problems from stress, in turn, are relevant to poor job performance, lowered self esteem, resentment of supervision, inability to concentrate and make decisions and job dissatisfaction. The outcomes of stress can also have a direct cost effect on the organization (Griffin, 1999; Luthans, 1995). Individual stress also has direct consequences for business. For an employee stress may result with poor quality work, lower productivity, calling in sick, leaving the organization, developing feelings of indifference, feeling low levels of job satisfaction, morale and commitment. For managers stress may mean faulty decision making, disruptions in working relationships, missing deadlines, taking longer lunch breaks. Withdrawal behaviours can also result from stress. Burnout which is feeling of exhaustion as a consequence of stress is common. There is also some research evidence indicating a relationship between stress and especially absenteeism and turnover (Griffin, 1999; Luthans, 1995).

Coping Strategies for Stress

People and organizations should be concerned about how to limit the damaging effects of stress. Managing stress may also have cultural considerations. Attitudes about power distance, the social acceptability of conflict, preferred styles of conflict resolution may vary and influence the stress felt by workers (Gordon, 1999). According to Rosenfeld and Wilson, (1999) recent studies focus on two strategies for coping with harmful impact of stress on personal level. These are physical strategies and psychological or behavioural approaches. Physical strategies include exercise and good diet. Psychological or behavioural approaches include developing networks or social support within the organization, planning ahead, being prepared with alternative proposals, taking holidays, trying meditation and relaxing training. They also propose strategies for reducing stress on the organizational level. These are 1) Changes in organizational structure or function which include decentralization, adjustment to the reward system, improved techniques or training and placement of employees, arranging for employee participation in the decision making process, improved lines of communication in the organization. 2) Changes in the nature of specific jobs which include job enlargement and job enrichment.

Strategies for coping with organizational stressors were creating a supportive organizational climate, enriching the design of tasks, reducing conflict and clarifying organizational roles, planning and developing career paths and provide counselling. Organizations in a fast changing environment will never be stress-free. Managers and individuals are responsible to participate in stress management for themselves and for their colleagues in the organization. Among many practical stress-reducing activities Robbins (1993) proposed some as follows: An understanding and utilization of basic time management principals can help an individual better cope with job demands. Forms of exercises such as swimming, jogging, riding a bicycle increase heart capacity, provide a mental diversion from work pressures. Fifteen of twenty minutes relaxation releases tension and provides a person sense of peacefulness. Specific goals that are perceived as attainable clarify performance expectations. The right job design and participation of the employees to decision making process might reduce uncertainties and stress level and increase job performance.

Organizational Health

Healthy individuals and healthy organizations, are those which are seemingly sound, that is fit-forpurpose, thriving and able to adapt in the longer term (Cox & Thomson, 1999).

Miles has delineated 10 properties of organizational health. Those properties include goal focus, communication adequacy, optimal power equalization, resource utilization, cohesiveness, morale, innovativeness, autonomy, adaptation and problem-solving adequacy (Henderson et al. 2005; Hoy, et al., 1991). Parsons suggested that schools exert three levels of control over activities: technical, managerial and institutional. A healthy school is therefore one in which the technical, managerial and institutional levels work in harmony (Hoy & Feldman, 1987). Organizational Health (OH) is a concept that has been developed to reflect the effectiveness of an organization in various environments and how that organization reacts to changes in circumstances (Cox & Howarth, 1990). Organizational health is an organization's ability to function effectively, cope adequately, change appropriately and grow from within (Hill, 2003). A healthy organization needs to ensure some level of consistency between its subjective and objective aspects. Thus, organizational health is also an indication of the "perceived goodness" of the psychosocial subsystems of an organization and their integration and coherence with "organizational reality" (Cox & Leiter, 1992). Healthy organizations are those which, among other things, not only design and effectively manage healthy systems of work, but also seek explicitly to enhance the health of their employees, encouraging healthy work behaviour (Cox & Thomson, 1999). Healthy organizations consist of healthy followers and leaders.

Organizational health depends on the extent to which people are healthy, successful and have their needs met. School health describes the vitality and dynamics of professional interactions of students, teachers and administrators (Hoy & Sabo, 1998; Hoy & Tarter, 1997; Uras, 2000; Tarter et al. 1995; Dayton, 1994). Hoy and Feldman (1987) determined seven organizational health factors: institutional integrity, collegial leadership, respect, staff affiliation, morale, resource influence and academic emphasis. Altun (2001) determined five factors in her research in Turkey: organizational leadership, organizational integration, organizational identity, organizational product and environmental integration. *Organizational leadership* includes setting the objectives, planning, using resources effectively, controlling and developing a vision. *Organizational integration* includes protection against destructive effects, interaction among people and integrating the needs of society and the organization. *Organizational identity* includes feeling integrated with the organization and atmosphere, which promotes staff and school morale. *Organizational product* includes providing resources, promoting the quality of those resources, integrating situational factors with the resources and generating a healthy product. *Environmental integration* includes effective internal and external interactions and integrating the needs of the society and the school.

Literature Review on Organizational Health

Korkmaz (2007) found that there was a negative relationship between organizational health and teachers' exposure to bullying and organizational health could be an indicator of bullying experience. Cemaloglu (2007) studied the effects of leadership styles on organizational health and found that transformational leadership had a profound impact on teachers' job satisfaction. The transformational leadership of the principal directly and indirectly affects the school's health through the teachers' job satisfaction. Bevans et al. (2007) found that both school and staff level characteristics are important predictors of organizational health. A review of the literature suggested that there is a strong and positive correlation between organizational health and student achievement (Henderson et al. 2005; Roney et al. 2007). Research in Tennessee middle high schools showed that dimensions of organizational health such as teacher affiliation, academic emphasis and resource support contribute significantly to improved academic performance of students (Henderson et al. 2005). Licata and Harper (2001) suggested that academic emphasis and institutional integrity were typical characteristics of good organizational health.

The purpose of this study was to examine the relationship between teacher stress and a healthy school organization. Further, it aimed to determine the views of managers and teachers themselves about the extent to which teachers feel stress and how healthy they believe their schools to be. As shown in the literature review above, while some studies focus on trying to determine factors affecting organizational health, others focus on various methods of validating the factors. There are also studies that aim to measure the health of various organizations using validated questionnaires. This research aimed to contribute to the debate by focusing on the stress factor that was assumed to affect organizational health. The specific questions addressed were:
- According to the views of primary school managers and teachers, to what extent do teachers feel stress?
-Do primary school managers and teachers' views differ in relation to (a) gender, (b) academic background (c) total work experience (by years) and (d) work experience in the last school (by years)?
- According to the views of primary school managers and teachers, what is organizational health?
- Do primary school managers and teachers' views differ in relation to (a) gender, (b) academic background (c) total work experience (by years) and (d) work experience in the last school (by years)?
- The effect of teachers' stress on organizational health?

Method

Participants and Procedure

The population of the research consisted of 129 state primary school principals, 240 assistant principals and 3.980 teachers working in primary schools in Antalya, Turkey in the 2007-08 education years. 35 schools were chosen out of five districts using cluster sampling method. In deciding on the sample size "sample size tables" were used (Anderson, 1990). So, the sample was designed to include 79 managers and 277 primary school teachers (classroom teachers, subject teachers and guidance teachers). A hundred questionnaires were sent to managers and 350 questionnaires were sent to teachers in order to prevent loss in the sample. Managers and teachers were chosen according to random sampling method representing each school in the sample. However the questionnaires completed by 87 principals and assistant principals' and 283 teachers (152 classroom teachers, 132 subject teachers) contained usable data (Anderson, 1990).

Demographic characteristics of the participants were as follows:

Of the 87 managers, 11 (12.6%) of the managers were women and 76 (87.4%) were men. Sixteen (18.4%) managers had one to five years' experience at work; 23 (26.4%) had six to ten years; 17 (19.5%) had 11–15 years; 3 (3.4%) had 16–20 years; and 28 (32.2%) had 21 or more years' experience. Forty six (52.9%) of the managers worked one to five years; 16 (18.4%) worked between six and ten years, and 25 (28.7%) worked more than 11 years. Five (5.7%) of the managers had masters degrees and 50 (57.5%) had graduate degrees. Thirty two (36.8%) of the participants had pre-license degrees. Of the 283 primary school teachers who participated in the survey, 151 (53.4%) were classroom teachers; 132 (46.6%) were subject teachers. One hundred and six seven (59%) were women and 116 (41%) were men. Fifty (17.7%) had one to five years' experience; 80 (28.3%) had between six and ten years; 55 (19.4%) had 11–15 years; 53 (18.7%) had 16-20 years and 45 (15.9%) had more than 21 years' experience. Fourteen (4.9%) of the teachers had less than one years' experience in the same school; 182 (64.3%) had between one and five years; 66 (23.3%) had six to ten years; and 21 (7.4%) had more than 11 years' experience in the same school. Fifty five (19.4%) of the teachers had pre-license qualifications; 214 (75.6%) had graduate degrees and 14 (4.9%) had masters degrees.

Measures

In order to gather data about organizational health and teachers' stress levels two questionnaires were used. The first questionnaire was "organizational health inventory" developed by Akbaba (1997) and was used, with the author's permission. The second questionnaire was developed to measure teachers' stress by Acar Baltas and Zuhal Baltas and was used with the authors' permission (Baltas & Baltas, 1987). The applied questionnaire comprised of three parts. The first part was designed to collect data about demographic characteristics of the participants. The second and third parts consisted of questions to collect data about teachers' stress levels and organizational health. The stress questionnaire comprised 43 items and organizational health questionnaire comprised 53 items which were based on a five-point Likert scale ranging from 'every time to 'never. The inventory to measure stress consisted of 5 items to measure "Physical Stressors" such as "I am fed up with the noisy environment, 14 items to measure "Social Stressors" such as "I can not resolve the conflicts between me and the other teachers in the school or the conflicts with my family", 14 items to measure "Job Related Stressors" such as "School management prevent me doing my work effectively by giving extra assignments, 10 items to measure "Stressor of The Way of The Individual Interpreting Him/Herself" such as "I do not feel comfortable when I speak to my colleagues.

The inventory to measure organizational health consisted of 13 items such as "The managers (principals and assistant principals) encourage teachers about entrepreneurship about educational issues" to measure organizational leadership; 10 items such as "Managers protect teachers against outside pressures" to measure organizational integrity; 14 items such as "In order to integrate with the society, several activities have been organized by the school personnel" to measure environmental integration; 8 items such as "Teachers are aware of the aims of their school" to measure organizational identity and 8 items such as "Teachers feel job satisfaction". The reliability of the original questionnaire was found to be (Cronbach's alpha) r = 0.96. Akbaba (1997) determined five factors of organizational health: organizational leadership, organizational integration, organizational identity, organizational product and organizational environment. The reliability of this research was found to be (Cronbach's alpha) .92. The reliability of research into the five factors was: organizational leadership .85, organizational integration .77, organizational identity .74, organizational product .85 and organizational environment .75. The measurement model was tested using a confirmatory procedure employing the structural equation modelling software, Lisrel 8.54. The indices for evaluating five factor model are RMSEA (Root mean square error of approximation): 0.065, GFI (Goodness of fit index):0.72, AGFI (Adjusted goodness of fit): 0.69, PGFI (Parsimony goodness of fit): 0.66, CFI (Comparative fit index): 0.96, RMR (Root mean square residual): 0.69, NFI (Normed fit index): 0.93,

Chi-Square: 2805.37., p-value: 0.0. The reliability of the stress inventory for five factors were as follows: physical environment stressors .70, social interaction stressors .76, work related stressors 76, and stressors related to self-perception .65 The measurement model was also tested using a confirmatory procedure employing the structural equation modelling software, Lisrel 8.54. The indices are: RMSEA (Root mean square error of approximation): 0.065, GFI (Goodness of fit index): 0.77, AGFI (Adjusted goodness of fit): 0.74, PGFI (Parsimony goodness of fit): 0.68, CFI (Comparative fit index): 0.90, RMR (Root mean square residual): 0.11, NFI (Normed fit index): 0.82, Chi-Square: 1746.33., p-value: 0.0.

Data Analysis

The author used SPSS software to analyze relationships between the variables. Specific descriptive analyses to analyze 1st, 2nd, 3rd and 4th questions addressed were percentage, frequencies, means, significance test, t test and One-Way ANOVA. Post-Hoc tests (Scheffe, Tukey HSD, LSD and Dunnett C) were used. In the analyses, the significant data were presented and discussed. In the analyses of the 5. question addressed Pearson correlations coefficient, Multiple Linear Regression (simultaneous regression) were used. In order to validate the model, the Durbin Watson coefficient was calculated and the results show that there was no autocorrelation between any factors. The D-W coefficient was calculated 1.552 for organizational leadership; 1.603 for organizational integration; 1.682 for environmental integration; 1.785 for organizational identity and 1.666 for organizational product. The multicollinearity problem was eliminated because correlation coefficients were lower than .80, and VIF values were acceptable. VIF, stands for Variance Inflation Factor. A value of 2 for VIF shows a close correlation, and a value of 1 shows little correlation (Akgul & Cevik, 2003; Bryman & Cramer, 2001; Buyukozturk, 2001; Hair et al., 1998; Leech et al. 2005; Muijs, 2004).

Results

The results of this research are presented and discussed below.

Primary School Teachers' Stress Levels According to Managers and Primary School Teachers

As indicated in Table 1, managers and teachers believe that teachers experience moderate levels of stress from physical environment stressors, social interaction stressors, work related stressors and stressors related to self-perception. Analysis (one way ANOVA) of whether there is a difference in their views in relation to the their duty variable shows that their views differ in physical environment stressors [$F_{(2-367)}$= 6.390; p<.05]. The Scheffe test shows that classroom teachers ($\bar{x}$=2.8715) expressed higher levels of stress than subject teachers ($\bar{x}$=2.5924) and managers ($\bar{x}$=2.4851).

Table 1: Primary School Teachers' Stress Levels

Factors	Duty	N	$\bar{X}$	S	F	p	Difference
Physical environment stressors	A. Manager	87	2.4851	.87212	6.390	.002	B-A,C
	B. Classroom teacher	151	2.8715	.89751			
	C. Subject teacher	132	2.5924	.85976			
Social interaction stressors	A. Manager	87	2.4672	.57904	1.221	.296	-
	B. Classroom teacher	151	2.5866	.57956			
	C. Subject teacher	132	2.5352	.55149			
Work related stressors	A. Manager	87	2.0714	.49679	1.618	.200	-
	B. Classroom teacher	151	2.1883	.52037			
	C. Subject teacher	132	2.1607	.44414			
Stressors related to self-perception	A. Manager	87	2.3218	.46915	2.373	.095	-
	B. Classroom teacher	151	2.4623	.50751			
	C. Subject teacher	132	2.4068	.45132			

Primary School Teachers' Stress Levels According to Demographic Factors

As indicated in Table 2, according to the work experience variable views on stressors related to self-perception are statistically different [$F_{(4-365)}$= 5.121; p<.005]. Results of the Scheffe test shows that managers and teachers with eleven to fifteen years' work experience ($\bar{x}$=2.5736) reported higher levels of stress related to self-perception than those with 16–20 ($\bar{x}$=2.2357) and 21 years and more ($\bar{x}$=2.3178) work experience. The gender variable shows that views differ in social interaction stressors [$t_{(368)}$=2.331; p<.05]. Women reported higher levels of stress ($\bar{x}$=2.6112) than men ($\bar{x}$=2.4743). According to academic background and work experience in the last school variables no differences were found in their views.

Table 2 : Stress According to Total Work Experience and Gender

Factors	Total work experience	N	$\bar{x}$	S	F	p	Difference
Stressors related to self-perception	A- 1-5 years	66	2.4758	.47428	5.121	.001	C-D,E
	B- 6-10 years	103	2.4117	.47202			
	C- 11-15 years	72	2.5736	.49788			
	D- 16-20 years	56	2.2357	.44779			
	E- 21+	73	2.3178	.45379			
	Gender	N	$\bar{x}$	S	df	t	p
Social interaction stressors	Women	178	2.6112	.54149	368	2.331	.021
	Men	192	2.4743	.58884			

Managers' and Teachers' Views In Relation to Organizational Health

Table 3 shows that organizational health is high in organizational leadership, environmental integration, organizational integration, organizational identity and organizational product. Results of the Anova test show that views of the groups according to the duty variable differ for organizational leadership, environmental integration, organizational integration and organizational product. The Dunnett C test shows that managers reported higher levels of organizational health for both organizational leadership ($\bar{x}$=4.4359) and organizational integration ($\bar{x}$=4.1161) than subject teachers ($\bar{x}$=4.1486; 3.7947) and classroom teachers ($\bar{x}$=4.1768; 3.8563). The Scheffe test shows that managers reported higher levels of organizational health for environmental integration ($\bar{x}$=4.0681) than subject teachers ($\bar{x}$=3.6899) and classroom teachers ($\bar{x}$=3.8770); and higher levels for organizational product ($\bar{x}$=4.2557) than subject teachers ($\bar{x}$=3.9754).

Table 3 : Organizational Health Level

Factors	Duty	N	$\bar{X}$	S	F	p	Difference
Organizational leadership	A. Manager	87	4.4359	.52417	6.431	.002	A-B,C
	B. Classroom teacher	151	4.1768	.66835			
	C. Subject teacher	132	4.1486	.62833			
Environmental integration	A. Manager	87	4.0681	.46812	13.869	.000	A-B,C
	B. Classroom teacher	151	3.8770	.54337			
	C. Subject teacher	132	3.6899	.53655			
Organizational integration	A. Manager	87	4.1161	.54258	6.410	.002	A-B,C
	B. Classroom teacher	151	3.8563	.71848			
	C. Subject teacher	132	3.7947	.69615			
Organizational identity	A. Manager	87	4.0776	.51051	1.731	.178	-
	B. Classroom teacher	151	4.1101	.52578			
	C. Subject teacher	132	3.9962	.52375			
Organizational product	A. Manager	87	4.2557	.48521	7.349	.001	A-C
	B. Classroom teacher	151	4.0853	.55007			
	C. Subject teacher	132	3.9754	.53357			

Organizational Health According to Demographic Factors

As indicated in Table 4, views on environmental integration differ in relation to academic background [$F_{(2-337)}$= 3.439; p<.005]. Results of the Scheffe test show that the group with pre-license degrees ($\bar{x}$=3.9557) believes that organizational health is high in relation to environmental integration than those who had master degrees ($\bar{x}$=3.6203). In relation to total work experience, the views of the groups differ in environmental integration [$F_{(4-365)}$= 4.404 p<.05] and organizational identity [$F_{(4-365)}$= 2.697 p<.05]. Results of the Scheffe test show that managers and teachers with 6-10 years' experience reported lower levels of environmental integration ($\bar{x}$=3.7184) than those with 16-20 years' experience ($\bar{x}$=3.9758). Results of Dunnett C show that managers and teachers with 1-5 years' experience reported lower levels of organizational identity ($\bar{x}$=3.9205) than those with 16-20 years' experience ($\bar{x}$=4.1942).

Table 4: Organizational Health According to Academic Background, Total Work Experience

Factors	Academic background	N	$\bar{x}$	S	F	p	Difference
Environmental integration	A- Pre-license	87	3.9557	.50192	3.439	.033	A-C
	B- Graduate	264	3.8390	.54980			
	C- Master	19	3.6203	.54297			
	Total work experience						
Environmental integration	A. 1-5 years	66	3.7511	.60664	4.404	.002	B-D
	B. 6-10 years	103	3.7184	.52459			
	C. 11-15 years	72	3.9851	.53425			
	D. 16-20 years	56	3.9758	.49884			
	E. 21+	73	3.9217	.49346			
Organizational identity	A. 1-5 years	66	3.9205	.58328	2.697	.031	A-D
	B. 6-10 years	103	4.0243	.56286			
	C. 11-15 years	72	4.1406	.41534			
	D. 16-20 years	56	4.1942	.47728			
	E. 21+	73	4.0634	.50909			

The relationship between teachers' stress and organizational health factors

Table 5 shows that all the stress factors correlated significantly with all the organizational ones. There was negative correlation between stress factors (physical environment stressors, social interaction stressors, work related stressors and stressors related to self-perception) and organizational health factors (organizational leadership, organizational integration, environmental integration, organizational identity and organizational product).

Table 5: Correlations between Stress Factors and Organizational Health Factors

		Org. Leadership.	Org. Integ.	Env. Integ.	Org. Identity.	Org. Product.
Physical environment stressors	Pears. Corr.	-.281**	-.333**	-.293**	-.216**	-.268**
Social interaction stressors	Pears. Corr.	-.179**	-.166**	-.180**	-.113*	-.194**
Work related stressors	Pears. Corr.	-.421**	-.449**	-.372**	-.323**	-.432**
Stressors related to self-perception	Pears. Corr.	-.248**	-.253**	-.245**	-.180**	-.244**

* $p < .05$. ** $p < .01$.

The effect of Teachers' Stress on Organizational Health

The results of the regression analyses about the effect of teachers' stress on organizational health were given in Table 6.

A combination of physical environment stressors, social interaction stressors, work related stressors and stressors related to self-perception significantly predicts organizational leadership ($F_{(4-365)}=22.963$; $p<.01$). The adjusted R squared value was .19. This indicates that 19% of the variance in organizational leadership can be predicted from stress factors. According to beta coefficients (β), the weights of predictors for organizational leadership were work related stressors, social interaction stressors, physical environment stressors and stressors related to self-perception. Results of the t test indicate that physical environment stressors, social interaction stressors, work related stressors significantly contribute to predicting organizational leadership. A combination of physical environment stressors, social interaction stressors, work related stressors and stressors related to self-perception significantly predicts organizational integration ($F_{(4-365)}=30.168$; $p<.01$). The adjusted R squared value was .24. This indicates that 24% of the variance in organizational integration can be predicted from stress factors. According to beta coefficients (β), the weights of predictors for organizational integration were work related stressors, social interaction stressors, physical environment stressors and stressors related to self-perception. Results of the t test indicate that physical environment stressors, social interaction stressors, work related stressors significantly contribute to predicting organizational integration. A combination of physical environment stressors, social interaction stressors, work related stressors and stressors related to self-perception significantly predicts environmental integration ($F_{(4-365)}==18.102$; $p<.01$). The adjusted R squared value was .16. This indicates that 16% of the variance in environmental integration can be predicted from stress factors.

According to beta coefficients (β), the weights of predictors for environmental integration were work related stressors, social interaction stressors, physical environment stressors and stressors related to self-perception. Results of the t test indicate that physical environment stressors and work related stressors significantly contribute to predicting environmental integration.

Table 6: Results of the Regression Analyses

	Variables	B	Std. Error	β	T	p	Zero-order (r)	Partial
Organizational leadership	Constant	5.352	.165		32.367	.000		
	Physical environment stressors	.093	.038	.131	2.457	.014	-.281	-.128
	Social interaction stressors	.158	.070	.142	2.269	.024	-.179	.118
	Work related stressors	-.570	.084	-.441	-6.806	.000	-.421	-.336
	Stressors related to self-perception	-.021	.083	-.016	-.259	.796	-.248	-.014
	R= .448 Adjusted R^2=.19 $F_{(4-365)}$= 22.963 p= .000							
Organizational integration	Constant	5.155	.173		29.745	.000		
	Physical environment stressors	-.144	.040	-.188	-3.640	.000	-.333	-.187
	Social interaction stressors	.229	.073	.191	3.145	.002	-.166	.162
	Work related stressors	-.674	.088	-.483	-7.686	.000	-.449	-.373
	Stressors related to self-perception	-.002	.087	-.002	-.026	.979	-.253	-.001
	R= .498 Adjusted R^2=.24 $F_{(4-365)}$= 30.168 p= .000							
Environmental integration	Constant	4.785	.145		33.002	.000		
	Physical environment stressors	-.100	.033	-.165	-3.025	.003	-.293	-.156
	Social interaction stressors	.099	.061	.104	1.617	.107	-.180	.084
	Work related stressors	-.380	.073	-.343	-5.175	.000	-.372	-.261
	Stressors related to self-perception	-.039	.072	-.035	-.544	.587	-.245	-.028
	R= .407 Adjusted R^2=.16 $F_{(4-365)}$= 18.102 p= .000							
Organizational identity	Constant	4.738	.143		33.104	.000		
	Physical environment stressors	-.062	.033	-.106	-1.896	.059	-.216	-.099
	Social interaction stressors	.135	.060	.147	2.243	.025	-.113	.117
	Work related stressors	-.386	.072	-.362	-5.332	.000	-.323	-.269
	Stressors related to self-perception	-.009	.072	-.008	-.129	.897	-.180	-.007
	R= .353 Adjusted R^2=.12 $F_{(4-365)}$= 13.000 p= .000							
Organizational product	Constant	5.056	.141		35.928	.000		
	Physical environment stressors	-.068	.032	-.112	-2.103	.036	-.268	-.109
	Social interaction stressors	.113	.059	.120	1.910	.057	-.194	.099
	Work related stressors	-.503	.071	-.457	-7.058	.000	-.432	-.347
	Stressors related to self-perception	.002	.070	.002	.031	.976	-.244	.002
	R= .451 Adjusted R^2=.20 $F_{(4-365)}$= 23.310 p= .000							

A combination of physical environment stressors, social interaction stressors, work related stressors and stressors related to self-perception significantly predicts organizational identity $F_{(4-365)}$=13.000; p<.01). The adjusted R squared value was .12.

This indicates that 12% of the variance in organizational identity can be predicted from stress factors. According to beta coefficients (β), the weights of predictors for organizational identity were work related stressors, social interaction stressors, physical environment stressors and stressors related to self-perception. Results of the t test indicate that social interaction stressors and work related stressors significantly contribute to predicting organizational identity. A combination of physical environment stressors, social interaction stressors, work related stressors and stressors related to self-perception significantly predicts organizational product ($F_{(4-365)}==23.310$; $p<.000$). The adjusted R squared value was .20. This indicates that 20% of the variance in organizational product can be predicted from stress factors. According to beta coefficients (β), the weights of predictors for organizational product were work related stressors, social interaction stressors, physical environment stressors and stressors related to self-perception. Results of the t test indicate that work related stressors significantly contribute to predicting organizational product.

Conclusions and Recommendations

The health of an organization can affect employee health both through the design and management of its work systems and procedures and through the experience of stress and the organization's impact on employee behaviour at work (Cox & Thomson, 1999). This article has focused on the relationship between teacher stress and health of school organization. The study suggests that stress is an important variable that has an effect on the organizational health. According to the findings all the stress factors were correlated significantly with organizational health factors and there were negative correlations between stress factors and organizational health factors. These findings seem quite interesting to provide with strong evidence to concentrate on other factors than found in the current literature on organizational health. The findings of other researches which were carried out by the researcher showed that burnout and morale factors were also significantly correlated with all the organizational health factors (Author, 2008; Author, 2009).

The results show that managers and teachers believe that teachers experience moderate levels of stress and organizational health is high. The findings are interesting in that because political, social, economical uncertainty and instability both in the world and in Turkey, especially arouse in 2008 and effected the whole countries in the world, was likely to create unfavourable conditions for education sector and teachers too. Moreover, starting from 2004-2005 education year, The Ministry of Education in Turkey decided to change the whole program in primary and secondary education. This was a radical change in that behavioural approach, on which teacher training programs were also based, was left and constructuvist education approach was adopted. The change in the curriculum, in teaching techniques and methodology, in the usage of materials was likely to affect all of what the teachers know and do and force them to change (Gozutok et al. 2005; Author(s), 2005). By the year of 2009, it is still not possible to claim that teachers adopted constructivist approach and learned how to teach according to the requirements of the new methodology. On the other hand, because there has not been an agreed policy about how to select and appoint school managers (principals and assistant principals) and laws have been changed for several times in the last five years, school management was likely to be a cause of stress itself. Starting form the end of 1990s until 2004 managers were selected with an examination including skills and abilities such as leadership as well as successful professional history (MEB, 2004).

With the new arrangements in 2007, examination was abolished and manager selection and appointment process was left open to political effect (MEB, 2007). According to the last change in the law arranging manager selection and appointment process managers have been selected on behalf of criterias which may depend on the choice of political power (MEB, 2008). The most important implication of the change in the criterias was the suspect and unreliability developed against the managers appointed according to the new arrangements. Furthermore, such an uncertainty in the leadership of an organization can be expected to create stress and to cause teachers and managers develop negative attitudes about organizational health. One of the most noteworthy factors which is likely to cause stress in teachers and managers and effect organizational health is immigration rates from particularly one city to another in Turkey. The immigration rates between the years 1980 and 2000 ranged from 6.55% to 8.14% (DIE, 2004). This is a huge amount for a population of approximately 67 million. This means that schools and classrooms consist of a wide range of population by means of economical, social, cultural, educational backgrounds and teachers have to overcome various unexpected and hardly managed circumstances. Consequently, as Cox and Thomson (1999) asserts the health of employees in unhealthy organizations is expected to be poor. The reverse is also true that the health of organizations is expected to be poor when the employees are unhealthy.

References

Akbaba, S. (1997). *Ortaogretim Okullarinin Orgut Sagligi (Bolu İli Ornegi)*. Yayinlanmamis Doktora Tezi. A. U. Sos. Bil. Enst. Egt. Yonetimi ve Planlamasi ABD. Ankara.

Akgul A. ve Cevik O. (2003). *İstatistiksel Analiz Teknikleri: SPSS'te Isletme Uygulamalari.* Emek Ofset, Ankara,

Altun, A. S. (2001). *Orgut sagligi.* Ankara: Nobel Yayınevi.

Anderson, G. (1990) Fundamentals of Educational Research. London: The Farmer Press.

Baltas. A. Batlas. Z. (1987). Stres ve Basa Cikma Yollari. Remzi Kitapevi, İstanbul.

Bevans, K., Bradshaw, C., Miech, R., & Leaf, P.P. (2007). Staff- and School-Level Predictors of School Organizational Health: A Multilevel Analysis. *Journal of School Health.* 77, 6.

Buyukozturk S. (2001). *Deneysel Desenler: Ontest-Sontest Kontrol Grubu Desen ve Veri Analizi*, 1.Baski, Ankara: PegemA Yayincilik.

Bryman A. & Cramer D. (2001) *Quantitative Data Analysis with SPSS Release 10 for Windows: A Guide for Social Scientists*, Routledge, London.

Cemaloglu, N (2007). The Relationship Between Organizational Health and Bullying That Teachers Experience in Primary Schools in Turkey. *Educational Research Quarterly.* 31, 2,.

Cox, T, & Howarth, I. (1990), Organizational health, culture and helping, *Work &* Stress*, 4*, 107-110.

Cox, T., & Leiter, M. (1992), "The health of health care organizations", Work & Stress,*6*, 219-27.

Cox T. & Thomson L. (1999). Coping, Health and Organizations. (Dewe, P. Editor). Independence, KY, USA: Taylor & Francis, Incorporated, http://site.ebrary.com/lib/akdeniz/Doc?id=10095055&ppg=205

Daft, R. L. (2003). Management. Sixth Edition. South Western, Ohio.

Dayton, D. L. (1994). Healthy Companies. *Training & Development*, *48,* 3.

DIE, (2004). 2000 Genel Nufus Sayimi. Goc Istatistikleri. www.die.gov.tr

Gordon J. R. (1999). Organizational Behavior: A Diagnostic Approach. Sixth Edition. Prentice-Hall, Inc. New Jersey.

Gozutok, D., Akgun O. E., & Karacaoglu C. (2005).Ilkogretim Programlarinin Ogretmen Yeterlikleri Acisindan Degerlendirilmesi. Egitimde Yansimalar:VIII Yeni İlkogretim Programlarini Degerlendirme Sempozyumu, Kayseri.

Griffin, R. W. (1999). Fundamentals of Management. Second Edition. Houghton Mifflin Company. New York.

Hill, G. D., (2003). Organizational Health. *School* Administrator, 60, 5.

Hair J. F., Anderson R.E., Tahtam R.L. & Black W.C. (1998). *Multivariate Data Analysis. (5th ed.).* Pearson Education, Upper Saddle River, New Jersey,

Henderson, C. L., Buehler, Alison E., Stein, W. L., Dalton, J. E., Robinson, T. R. and Anfara JR, V. A.. (2005) Organizational Health and Student Achievement in Tennessee Middle Level Schools. NASSP Bulletin 2005; 89; 54.

Hoy, W. K. & Feldman, J. A. (1987) Organizational Health: The concept and its measure. *Journal of Research and Development in Education, 20*, 30-38.

Hoy, W. K., Tarter, C. J. & Kottkamp, R. B. (1991). *Open schools/Healthy Schools*. Newbury Park, CA: Sage.

Hoy, W. K., *& Sabo, D.J. (1998), *Quality Middle Schools: Open and Healthy*. Corwin Press, Inc., Thousand Oaks, CA.,

Hoy, W. K, *& Tartar, C.J (1997), *The Road to Open and Healthy Schools: A Handbook for Change*. Corwin Press, Thousand Oaks, CA.

Korkmaz, M. (2007). The Effects of Leadership Styles on Organizational Health. *Educational Research Quarterly.* 30, 3.

Leech, N. L., Barrett, K.C. & George, A. M. (2005). *Spss For Intermediate Statistics: Use And Interpretation.* Second Edition. Lawrence Erlbaum associates, Publishers. London

Licata J. W., & Harper G. W. (2001). Organizational Health and Robust School Vision. *Educational Administration Quarterly.* 37; 5.

Luthans, F. (1995). Organizational behavior. Seventh Edition. McGraw Hill Inc. New York.

MEB (2004). M.E.B. Egitim Kurumlari Yoneticilerinin Atama ve Yer Degistirme Yonetmeligi. *Resmi Gazete.* Sayi:25343, Tarih:11.01.2004.

MEB (2007). M.E.B. Egitim Kurumlari Yoneticilerinin Atama ve Yer Degistirme Yonetmeligi. *Resmi Gazete.* Sayi:26492, Tarih:13.04.2007.

MEB (2008). MEB Egitim Kurumlari Yoneticilerinin Atama ve Yer Degistirme Yonetmeligi. *Resmi Gazete*. Sayi:26856, Tarih:24.04.2008.

Muijs D. (2004). *Doing Quantitative Research in Education with SPSS*, Sage Publications, London.

Robbins, S. P. (1993). Organizational Behavior: Concepts, Controversies, and Applications. Sixth Edition. Prentice Hall, Englewood Cliffs, New Jersey.

Roney K., Coleman, H., & Schlichting, K. A. (2007). Linking the Organizational Health of Middle Grades Schools to Student Achievement. *NASSP Bulletin.* 91; 289.

Rosenfeld R. H. & D. C. Wilson. (1999). Managing Organizations: Text, Readings & Cases. Second Ed. McGraw-Hill Publishing Company, London.

Author(s) (2008). Ilkogretim Okulu Yoneticilerinin ve Ogretmenlerinin Moral Duzeylerinin Orgut Sagligina Etkisi. *17. Ulusal Egitim Bilimleri Kongresi* 01–03 EYLUL 2008.

Author(s) (2005). Ogretmenin Etkinlik Odakli Hayat Bilgisi Ogretiminde Sinif Yonetimi Degiskenleri Acisindan Degerlendirilmesi: Bilen Ogretmenden Bulduran Ogretmene Dogru, Egitimde Yansimalar:VIII Yeni İlkogretim Programlarini Degerlendirme Sempozyumu, Kayseri.

Author (2009). "The Effect of Primary School Teachers' Burnout on Organizational Health. WCES 2009". Elsevier Publication.

Tarter, C. J, Sabo, D. J., & Hoy, W. K (1995), "Middle school climate, faculty trust, and effectiveness: a path analysis", Journal of Research and Development*, 29*, 41-9.

Uras M. (2000). Lise Ogretmenlerinin Orgut Sagliginin Moral, Yenilikcilik, Ozerklik, Uyum ve Problem Cozme Yeterligi Boyutlarina İliskin Algilari, *PAU Egitim Fakultesi Dergisi Sayi: 7*, Ozel Sayi.