DETERMINING THE FACTORS THAT AFFECT BURNOUT AMONG ACADEMICIANS

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Akademisyenlerin Tükenmişlik Düzeyini Etkileyen Faktörlerin Belirlenmesi

Özet

The purpose of this study was to measure the levels of burnout among academicians and to investigate the factors that affect burnout levels of academicians in Turkey. The data were obtained by using sociodemographic data form, Maslach Burnout Inventory and "work and work environment" scale from 160 academicians that have been working in accounting and finance sub-department in Faculties of Economics and Administrative Sciences in 78 public and private universities. In the analysis of data, descriptive statistic (mean and standard deviation), correlation analysis, factor analysis and discriminant function analysis were used. In this study, general burnout scores and subscales of burnout scores were found to be lower than other studies. The factor analysis of the 13 items which have possible effect on burnout among academicians revealed five factors: Work environment, administrative workload, academic workload, promotion and evaluation and research fund. For determining the possible influence of factors which were revealed by factor analysis upon general burnout levels and burnout subscales, a discriminant function analysis was used.

Keywords: Burnout, academicians, factors affecting burnout, academic work, work environment.

Abstract

Bu çalışmanın amacı, Türkiye'deki akademisyenlerin tükenmişlik düzeylerini ölçmek ve akademisyenlerin tükenmişlik düzeylerini etkileyen faktörleri araştırmaktır. Veriler, toplam 78 kamu üniversitesinin ve özel üniversitenin İktisadi ve İdari Bilimler Fakültelerinde muhasebe - finansman anabilim dalında görev yapan 160 akademisyenden, sosyo-demografik anket formu, Maslach Tükenmişlik Envanteri ve "iş ve iş çevresi" ölçeği kullanılarak toplanmıştır. Verilerin analizinde tanımlayıcı istatistik (ortalama ve standart sapma), korelasyon analizi, faktör analizi ve diskriminant analizi kullanılmıştır. Çalışmada, genel tükenmişlik ve tükenmişlik alt boyutlarının skorları, diğer çalışmaların sonuçlarına göre daha düşük bulunmuştur. Akademisyenlerin tükenmişlik düzeylerini etkileme olasığına sahip 13 unsura uygulanan faktör analizi sonucunda, söz konusu unsurlar beş temel faktör altında toplanmıştır. Bu faktörler; iş çevresi, idari işyükü, akademik işyükü, ilerleme ve değerleme ve araştırma fonudur. Bu faktörlerin akademisyenlerin tükenmişlik düzeyleri üzerindeki etkilerini belirlemek amacıyla, diskriminant analizi kullanılmıştır.

Anahtar Kelimeler: Tükenmişlik, akademisyen, tükenmişliği etkileyen faktörler, akademisyenlik, iş çevresi.

Determining the Factors that Affect Burnout Among Acedemicians

1. INTRODUCTION

The term burnout came to social sciences from the language of aerospace. While term burnout is used to describe the consumption of fuel in rockets and nuclear reactors in language of aerospace, in social sciences, burnout is used to define becoming exhausted, especially as a result of overwork or occupational stress (Briscoe, 1984: 2). The concept of burnout was first used by Freudenberger in 1974. Freudenberger (1974) concluded that young social workers who were employed in substance abuse projects could be subject to depression after a few years. In the most widely used definition which was done by Maslach (1993), burnout is described as "a psychological syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who work with other people in some capacity". It is a response to the chronic emotional strain of dealing extensively with other individuals, particularly when they are troubled or have problems. It can be considered as one type of job stress. According to Maslach (1993), there are three components of burnout: Emotional exhaustion, depersonalization and reduced personal accomplishment. Emotional exhaustion refers to the depletion of psychic energy or the draining of emotional resources. Depersonalization refers to the development of negative, cynical attitudes toward the recipients of one's services. Reduced personal accomplishment is the tendency to evaluate one's own work with recipients negatively, an evaluation that is often accompanied by feelings of insufficiency. Individuals with high levels of emotional exhaustion report feeling psychologically drained. They have little energy or motivation left of themselves to give to others or to their job. Individuals with high levels of depersonalization report feeling cynical, pessimistic, and apathetic towards one's clients. Low levels of

personal accomplishment are associated with feelings of negativity towards oneself, especially in the context of one's relationship to clients.

Burnout has an importance in business and social life because of its effects. Firstly, burnout have negative impacts on the psychological and physical health of individuals. Burnout is a putative factor in the development of family discord, drug and alcohol abuse, insomnia, and fatigue (Evers/Tomic, 2003: 329; Mcdonald/Siegall, 1998: ; Bailey, 2006: 11; Jackson/Maslach, 1982: 63). Also, burnout is positively correlated with reports of headaches, sleep disturbances, and other somatic symptoms of stress (Taycan et al., 2006: 100; Bauer et al., 2006: 199; Kaçmaz, 2005: 30; Bailey, 2006: 11). Secondly, burnout has an effect on job productivity and performance. In general, burnout decreases job performance, job satisfaction, job commitment and quality of service, and increases absenteeism, low morale, and job turnover (Piko, 2006: 311; Marchiori/Henkin, 2004; Uskun et al., 2005: 63; Rocca/Kostanski, 2001: 2; Schwab et al., 1986: 14; Ing-Chung et al., 2003; Toppinen-Tanner et al., 2005; Nowack et al., 1985: 137; Maslach/Jackson, 1984: 133). Therefore, the factors that cause burnout are recognized and then strategies for burnout prevention are improved. In the last two decades, a lot of studies have been done about burnout in both academic world and business world.

A broad range of occupations can experience burnout. Burnout is a prolonged response to chronic job-related stressors. Because of this, various studies have been done research on different occupations such as doctor, nurse, police, teacher, librarian, manager. In these studies, a lot of factors were found to be considerable predictors of burnout. In general, these factors are divided into two groups: Personal (demographics) factors and environmental (organizational and work) factors. Several studies have found that organizational factors and work features were more highly correlated with burnout than personal factors (Maslanka, 1996: 195; Lecroy/Rank, 1987: 23; Pagel/Wittman, 1986: 131; Rocca/Kostanski, 2001; Schaufeli/Janczur, 1994: 95; Zellars et al., 2000: 1570; Kırılmaz et al., 2003: 8). Some demographic characteristics, such as age, gender and marital status were found to be related to burnout in several studies (Maslach/Jackson, 1985: 837; Lau et al., 2005: 491; Poulin/Walter, 1993: 5; Sucuoğlu/Kuloğlu, 1996: 44; Sarı, 2004: 292; Siebert, 2006: 25; Taycan et al., 2006: 100; Sünter et al., 2006: 9). In addition, personality characteristics, such as extraversion, neuroticism, introversion and aggression were found to be related to burnout in sevaral studies (Mo, 1991: 4; Eastburg et al., 1994: 1233; Zellars et al., 2004: 887; Sandoval, 2006: 321; Kokkinos, 2007: 229). Attention to these factors may alleviate symptoms of burnout among employees.

Educators are particularly susceptible to burnout, probably due to the close and persistent contact with students. But, many of the burnout studies related to educators were about teachers. In the educator group, another profession that service to students is academician. Different factors are contributing to burnout because of different work conditions and organizational factors. Some of these factors are number of students that one must deal with (Lackritz, 2004: 713), levels of job satisfaction (SEILER/PEARSON, 1984: 301), reward systems (Todd-Mancillas/Johnson, 1987), promotion in occupation (Bilici et al., 1998: 186), level of income/salary (Bilici et al., 1998: 186; BRISCOE, 1984: 4), teaching load (Todd-Mancillas/Johnson, 1987), unappreciative students (Todd-Mancillas/Johnson, 1987), budget concerns (Johnson, 1989), administrative style (Johnson, 1989), communication and environmental problems (JOHNSON, 1989), job security (Unıversıty Of Plymouth, 2003: 6; Tytherleigh, 2005: 41), time invested in various activities (Lackritz, 2004: 713) and personal characteristics such as age, gender, and marital status (Lackritz, 2004: 713; Faculty Recruitment & Retention Committee, 1999: 11; Jaschik, 2005; Johnson, 1989; Bilici et al., 1998: 181; Özdemir et al., 1999: 98; Barut/Kalkan, 2002: 66).

There is very little data available regarding the burnout levels of academicians and the factors that have impact on burnout levels of academicians in Turkey. The aim of this study is to explore the levels of burnout among academicians and to investigate the factors that affect burnout levels of academicians.

2. LITERATURE REVIEW

As burnout ‘‘can occur among individuals who work with people in some capacity’’ (Maslach, 1993: 19), university faculty members are not exempt from problems associated with burnout because of their relationships with large numbers of students, staff, and administrators. There have been a number of studies published that have examined burnout in academic world. In these studies, different findings have been found.

A study which was done by Johnson (1989) to identify factors contributing to burnout between full time faculty members and sfaff showed that full-time faculty burnout was a significant problem; gender, ethnicity and length of service were not significantly related to burnout; and major contributors to burnout were treatment of faculty, budget concerns, administrative style, the cluster system, communication problems and environmental problems. Lackritz (2004) examined burnout among 265 university faculty members and found that burnout showed significant

correlations with numbers of students taught, time invested in various activities and numerical student evaluations. Talbot (2000) investigated the correlation of burnout among community college nursing faculty members and their use of humor to mediate academic stress related to burnout. Neidle (1984) concluded that burnout often occurs at various intervals throughout one's academic career. McDonald and Siegall (1998) explored the effects of job burnout and positive expectations regarding alcohol use among university professors. Results of this study showed that faculty members who experience greater degrees of job burnout and have more positive expectations regarding the use of alcohol report a significantly higher level of binge drinking. Differences in factors contributing to the relationship between burnout and drinking were found between men and women. Diminished personal accomplishment was found significantly related to drinking for women and depersonalization was found significantly related to drinking for men. Doyle and Hind (1998) examined whether differences in work-related stress and burnout among male and female academics working in psychology departments. They found that females have greater work stress but lower levels of burnout. Siegall and McDonald (2004) investigated the role of person-organization value congruence on the experience of burnout among academicians. They found that burnout was associated with less time spent on teaching, service/administrative tasks and professional development activities and person-organization value congruence was strongly associated with burnout. Singh et al. (1998) investigated the effects of intrinsic motivation to do research and perceived lack of rewards contingent on doing research on burnout among academicians and found that these two variables were relating to burnout. Chalmers (1998) investigated workload and stress in New Zealand universities and found that the main sources of work related stress for many university staff were linked to their work and workload, rather than the contents of their jobs, most academicians worked in the evening or took work home on one evening or more a week, and university staff were concerned about funding, career prospects, the ability to exercise academic freedom and to take research leave and working life in general. Jacobs and Winslow (2004) stated that academicians have more autonomy regarding the substance of their work and more flexibility in their daily schedules but they work long hours for less pay than many other professionals. Jacobs and Winslow showed that the average workweek for full-time academicians exceeds fifty hours.

In Turkey, there is not enough research about burnout among Turkish academicians and most of these studies are related to relationship between burnout levels and demographic factors. Barut and Kalkan (2002) investigated the relationship between burnout and demographic characteristics among

academicians in Ondokuz Mayıs University; Özdemir et al. (1999) compared the levels of burnout among academicians in two faculties in Cumhuriyet University; Bilici et al. (1998) investigated the association between the level of burnout and demographic factors and depression in five faculties in Karadeniz Technical University. One of the aims of this study is to contribute to the literature which has not enough research about burnout among academicians and factors that affect burnout levels of academicians. The results from this study can help and guide to both university administrators and academicians. For decreasing burnout levels of academicians and increasing individual and organizational performance, firstly, a better understanding of burnout and factors that affect burnout is needed.

3. METHODOLOGY

3.1. Population of the Study and Sample

The population of the study comprised academicians that have been working in accounting and finance sub-department in Faculties of Economic and Adminitrative Sciences in 78 public and private universities in Turkey. The questionnaires were sent to 400 academic staff which constitutes the universe of the study through electronic mail. The survey was conducted between May 1, 2006 and July 30, 2006. A total of 160 completed questionnaires were received back, giving a response rate of 40%.

3.2. Data Instruments

Data were collected using three different questionnaires. The first questionnaire was sociodemographic data form which was designed to gather information regarding gender, age, marital status, children number, level of education, academic title, institution, years in occupation and years in institution. This questionnaire consisted of nine questions. The second questionnaire was the Maslach Burnout Inventory (MBI) which translated and adapted by Engin (1992) for measuring burnout. It consists of 22 items forming three subscales: Emotional exhaustion, personal accomplishment and depersonalization. The emotional exhaustion subscale consists of nine items which describe feelings of being emotionally over extended and exhausted by one's work. The five items on the depersonalization subscale describe unfeeling and impersonal responses to co-workers or recipients of services. The personal accomplishment subscale consists of eight items, describing feelings of competence and success about one's achievements. The items are scored on a five-point scale ranging from "never" (0) to "always" (4). High scores on

emotional exhaustion and depersonalization, and low scores on personal accomplishment are indicative of burnout. Therefore in this study, personal accomplishment variables were used as "recode" variables. The third questionnaire was "work and work environment" scale. There was not found an appropriate "work and work environment" scale in a review of Turkish literature for academicians. So we used the "work and work environment" scale which was developed by Houston et al. (2004). For getting a valid and reliable scale for Turkish academicians, firstly the scale translated to Turkish and then small group of academician were asked to answer the questions and then discuss any issues of confusion or ambiguity. Each individual evaluated the items and made recommendations for improvement. This scale consists of 18 items with five alternative responses i. e., strongly agree, agree, undecided, disagree and strongly disagree which are scored 1 to 5.

3.3. Analysis of Data

The data were analyzed by using SPPS 13 (The Statistical Package for Social Sciences). The descriptive data analysis was conducted by calculating frequencies, mean scores and standard deviations for determining burnout levels and background of the respondents. Pearson correlations were calculated to examine the associations among the burnout subscales. Exploratory factor analysis was used to uncover the latent structure (dimensions) of the items in the "work and work environment" scale. Discriminant analysis was used to assess the effect of the factors on general burnout level and burnout subscales. For reliability of the Maslach Burnout Inventory used in this study, Cronbach's alpha was used. Cronbach's alpha coefficinet was 0.88 for general burnout, 0.86 for emotional exhaustion, 0.72 for depersonalization, and 0.58 for personal accomplishment.

4. FINDINGS

The findings of the study were examined in two section. In the firt section, the demographic characteristics of the respondents were presented and in the second section, the results of the analysises were presented.

4.1. Demographic Characteristics of the Respondents

Demographic characteristics of the sample are shown in Table 1. The table shows the distribution of respondents by gender, age, marital status, children number, level of education, institution (public or private university), academic title, years in institution and years in occupation (tenure).

Table 1: Demographic Characteristics

Variables	n	%	Variables	n	%
Gender			**Marital Status**		
Female	105	66.0	Married	113	71.1
Male	54	34.0	Single	46	28.9
Age			**Chidren Number**		
21-30	46	28.9	No	69	43.7
31-40	71	44.7	1	49	31.0
41-50	31	19.5	2	32	20.3
51-60	9	5.7	3	8	5.1
61 or above	2	1.3	4 or more	-	-
Level of Education			**Academic Title**		
University	12	7.5	Research Assistant	56	35.2
Master	35	22.0	Lecturer	20	12.6
Doctorate (Ph.D)	112	70.4	Assistant Professor	48	30.2
Institution			Associated Professor	20	12.6
Public University	141	88.7	Professor	15	9.4
Private University	18	11.3			
Years in Institution			**Years in Occupation**		
Under 1 year	6	3.8	Under 1 year	6	3.8
1-5 years	43	26.9	1-5 years	35	22.0
6-10 years	43	26.9	6-10 years	40	25.2
11-15 years	43	26.9	11-15 years	45	28.3
16-20 years	8	5.0	16-20 years	14	8.8
21 or above	17	10.6	21 or above	19	11.9
Total	159	100.00	Total	159	100.00

As seen Table 1, 66% of the respondents were female and 34% of the respondents were male. Concerning age of the participants, 28.9% of the respondents were between 21-30 years, 44.7% of the respondents were were between 31-40 years, 19.5% of the respondents were between 41-50 yeras. Only 1.3% of the respondents were 61 or above yeras of age. Most of the participants were married (71%). 43.7% of the participants had no any children while 56.3% of the participants had one or more children. Concerning level of education of the participants, %70 of the academicians had Ph.D. degree. In terms of academic title, 35.2% of the respondents were research assistant, 12.6% of the respondents were lecturer, 30.2% of the respondents were assistant professor, 12.4% of the respondent were associated professor and

9.4% of the respondents were professor. While 88.7% of the participants had worked in a public university, 11.3% of the participants had worked in a private university. Concerning years in occupation or tenure of the participants, 22% of the participants had been in high education between 1-5 years, 25.2% of the participants had been in higher education between 6-10 years, 28.3% of the participants had been in higher education between 11-15 years and 11.9% of the participants had been in higher education for more than 20 years. In terms of year in institution, percent rates were egual for 1-5 years, 6-10 years and 11-15 years. 15.6% of the participants had been at the institution for more than 15 years.

4.2. Results

4.2.1. Burnout Scores of Academicians

The means and standard deviations of the general burnout and three burnout subscales are shown in Table 2. As seen Table 2, four different scores were calculated; general burnout score, emotional exhaustion score, depersonalization score and personal accomplishment score. Minimum - maximum-scores were 0-88, 0-36, 0-20 and 0-32 for general burnout, emotional exhaustion, depersonalization and personal accomplishment, respectively. The higher mean scores of the emotional exhaustion and depersonalization subsacles and lower mean scores on personal accomplishment subscale correspond to greater degrees of burnout. The general burnout scores changed between 7-61, mean score of the general burnout was 24.7 and standard deviations of the general burnout score was 10.25. The mean score on the emotional exhaustion subscale was 10.2 (SD=6.10) for academicians. The mean score on the depersonalization subscale was 2.9 (SD = 2.64) for academicians. On the personal accomplishment subscale, the mean score was 11.6 (SD = 3.45). The average scores showed that burnout levels of academicians were not hihger.

Table 2: Means and Sdandard Deviations of Burnout Scores

Subscales	N	Item Number	Mean	Std. Deviation	Minimum Score	Maximum Score
Emotional Exhaustion	160	9	10.2000	6.10269	.00	30.00
Depersonalisation	160	5	2.9250	2.64349	.00	13.00
Personal Accomplishment	160	8	11.6000	3.44991	5.00	24.00
General Burnout	160	22	24.7250	10.25704	7.00	61.00

Correlation matrix for general burnout and burnout subscales is shown in Table 3. There were a positive significant relationship betwen general burnout and burnout subscales. General burnout was strongly correlated with the level of emotional exhaustion burnout (r = 0.94). Also, there were significant intercorrelations among burnout subscales. The emotional exhaustion had positive and significiant correlation with depersonalization and personal accomplishment. The relationship between personal accomplishment and depersonalization was significant, but lower.

Table 3: Correlation Coefficients

Subscales	**EE**	**D**	**PA**	**GB**
Emotional Exhaustion (EE)	1	.661(**)	.529(**)	.943(**)
Depersonalisation (D)	.661(**)	1	.300(**)	.752(**)
Personal Accomplishment (PA)	.529(**)	.300(**)	1	.728(**)
General Burnout (GB)	.943(**)	.752(**)	.728(**)	1

** *α= 0.01 significant level (Pearson Correlation)*

4.2.2. Factor Analysis

Exploratory factor analysis was used to assess the factors that affect burnout among academicians. Firstly, KMO (Kaiser-Meyer-Olkin) sampling adequacy measure was calculated for determining the convenience of data for factor analysis. KMO varies from 0 to 1. This measure shows that sampling is convenience for factor analysis when it is close to 1 and it shows that sampling is not convenience for factor analysis when it is under 0.50. KMO sampling adequacy measure was 0.734 therefore sampling was convenience for factor analysis. Also, significiant level of Barlett test was calculated 0.00. Consequently, both of the tests showed that factor analysis could be applied to data.

In the factor analysis, principal component analysis and varimax rotation technique were used. According to the results of this analysis, only the first five are extracted for analysis though there were 13 factors, because under the extraction options, SPSS was told to extract only factors with eigenvalues of 1.0 or higher. Five factors explained 68.12% of the total variance. Factor 1 explained most proportion of the total variance (20.1%) and consisted of variables which contained “work environment”. Factor 2 explained 13.94% of the total variance and consisted of variables which were related to “administrative workload”. Factor 3 explained 13.67% of the total variance and consisted of variables which were related to “academic (occupational)

workload". Factor 4 explained 11.74% of the total variance and factor 5 explained 8.69% of the total variance and they consisted of variables which were related to "promotion and evaluation" and "research fund", respectively. Table 4 shows groups of questions.

For internal reliability of the factors, Cronbach's alpha coefficinet was calculated and reliability of the factors were 77.2%, 66.1%, 64.8% and 54.9%, respectively. Also, total reliability that explained five factors was 75%. Therefore, the factors that affect burnout were reliable.

Table 4: Grouping of Work and Work Enviroment Questions According to the Factor Analysis

The Factors That Affect Burnout	**Factor 1**	**Factor 2**	**Factor 3**	**Factor 4**	**Factor 5**
Work Environment					
I feel acknowledged for a job well done. (11)	.884				
I am supported when change and new initiatives are being introduced. (12)	.848				
Staff morale is high within my department, institute, school, or unit. (13)	.767				
I am willing to put in a great deal of effort in order to help this university be successful. (10)	.447				
Administrative Workload					
The amount of administration I am expected to do is reasonable. (3)		.526			
The number of students I am expected to teach and/or supervise is reasonable. (4)		.819			
I have time to do good quality research. (5)		.692			
Academic Workload					
My workload has increased over the past 12 months. (1)			.805		
I often need to work after hours to meet my work requirements. (2)			.771		
Promotion and Evaluation					
I believe the promotions procedures recognize the variety of work that staff do. (7)				.857	
I believe that teaching and research achievements are considered equally by promotions committees. (8)				.615	
I know what is expected of me in my role. (9)				.522	
Research Fund					
I have difficulties to find research funds. (6)					.860

4.2.3. Discriminant Analysis

The possible influence of variables which were revealed by factor analysis (work environment, administrative workload, academic workload, promotion and evaluation, and research fund) upon burnout levels of academicians was investigated by using discriminant analysis. Before discriminant analysis, some assumptions should be covered for using discriminant analysis and reliable results. For this reason, firstly correlation matrix of independent variables was calculated and it was seen that correlation coefficients were under 0.70. This showed that there was not multiple linear linkage between independent variables. Then, group covariances were calculated and it was seen that group covariances were equal. Therefore, linear discriminant analysis was using.

4.2.3.1. Discrimination For Emotional Exhaustion Levels

For determining the effect of factors on emotional exhaustion level, emotional exhaustion grouped into three levels; low, moderate and high. Covariance matrixs of groups were equal (Box's M=8.789; F=1.304 and p=0.253). Tablo 5 shows the structure matrix, standardized canonical discriminant function coefficients and and Fisher's linear discriminant functions (classification function coefficients) which was constituted according to the emotional exhaustion levels. In Table 5, the structure matrix shows the correlations of each variable with each discriminant function. While structure matrix coefficients are whole (not partial) coefficients, the standardized canonical discriminant function coefficients indicate the partial contribution of each variable to the discriminant functions and are used to compare the relative importance of the independent variables.

Table 5: Structure Matrix, Standardized Canonical Discriminant Function Coefficientsand Fisher's Linear Discriminant Functions For Emotional Exhaustion Levels

Variables	Structure Matrix		Standardized Canonical Discriminant Function Coefficients			Classification Function Coefficients		
	Function 1	Function 2		Function 1	Function 2	Group 1	Group 2	Group 3
Factor 1 (Work Environment)	.886(*)	-.464	Factor 1	.930	-.380	.331	-.760	-1.604
Factor 2 (Administrative Workload)	-.094(*)	.003	Factor 4	.467	.890	.132	-.228	-1.182

Factor 3 (Academic Workload)	-.085(*)	.003						
Factor 5 (Researh Fund)	-.035(*)	.004						
Factor 4 (Promotion and Evaluation)	.378	.926(*)						
Constant						-.374	-1.662	-4.959

In the structure matrix, there were two discriminat functions because the dependent had three groups (low, moderate and high). When First function in the structure matrix had positive and significiant correlation with work environment (r=0.886) and promotion and evaluation (r=0.378). When the second discriminat function had positive and significiant correlation with promotion and evaluation (r=0.926), the second discriminat function had negative and significiant correlation with work environment (r=-0.464). According to the standardized canonical discriminant function coefficients, the factors of work environment and promotion and evaluation were found to influence the emotional exhaustion in the first discriminant funtion and the factors of promotion and evaluation and work environment were found to significantly influence the emotional exhaustion in the second discriminant funtion. In Table 5, columns of Group 1, Group 2 and Group 3 show the coefficients of Fisher's discriminant funtion. Here, Group 1 shows the coefficients of academicians that have low level of emotional exhaustion, Group 2 shows the coefficients of academicians that have moderate level of emotional exhaustion and Group 3 shows the coefficients of academicians that have high level of emotional exhaustion. These coefficients show the contribution of factors to the discrimination of groups. While the high coefficient shows the high contribution, the low coefficient shows the low contribution. For this reason, work environment was the most significant predictor for academicians who were in Group 1. But, no factors were found to be significant predictor for academicians who had moderate and high level of emotional exhaustion.

Table 6 shows the eigenvalue of discriminant functions and the significance level of the eigenvalue for each discriminant function. The larger the eigenvalue, the more of the variance in the dependent variable is explained by that function. Wilks's lambda tests the significance of each discriminant function. As seen in Table 6, the first discriminant function was found to be statistically significant (Wilks' Lambda=0.765; χ^2=38.727; df=4 and p<0,05).

The eigenvalue value indicated that the discriminant function explained 29.6% of the total variance and the square of canonical correlation indicated that discriminant function explained 22.8% of the variance in the dependent variable.

Table 6: Eigenvalues and Wilks' Lambda of Discriminant Functions For Emotional Exhaustion

Function	**Eigenvalue**	**Canonical Correlation**	**Wilks' Lambda**	Chi-square	**Df**	**Sig.**
1	.296(a)	.478	.765	38.727	4	.000
2	.009(a)	.094	.991	1.284	1	.257

a: First 2 canonical discriminant functions were used in the analysis.

Table 7 shows the classification results of discriminant function which was constituted for emotional exhaustion. As seen in Table 7, 94.4% of the 107 academicians who had low scores of emotional exhaustion were correctly classified, 36.1% of the 36 academicians who had moderate scores of emotional exhaustion were correctly classified and 20% of the 5 academicians who had high scores of emotional exhaustion were correctly classified. The correct classification ratio was 77.7% [(101+13+1)/148] in this analysis. This result indicated that the discrimination characteristic of the discriminant function was high level.

Table 7: Classification Results of Discriminant Function For Emotional Exhaustion

Predicted Group Membership					
Original count	**Group**	**1**	**2**	**3**	**Total**
	1	101	4	2	107
	2	23	13	0	36
	3	2	2	1	5
%	1	94.4	3.7	1.9	100.0
	2	63.9	36.1	.0	100.0
	3	40.0	40.0	20.0	100.0

4.2.3.2. Discrimination For Depersonalization Levels

As covariance matrixs of groups were equal (Box's M=1.693; F=1.653 and p=0.199), linear dicriminant analysis was used. Table 8 shows the results of

this linear discrimiant analysis which was constituted according to the depersonalization levels.

Table 8: Structure Matrix, Standardized Canonical Discriminant Function Coefficients and Fisher's Linear Discriminant Functions For Depersonalization Levels

Variables	**Structure Matrix**	**Standardized Canonical Discriminant Function Coefficients**	**Classification Function Coefficients**	
	Function 1	**Function 1**	**Group 1**	**Group 2**
Factor 1 (Work Environment)	1.000	1.000	.084	-.741
Factor 2 (Administrative Workload)	-.036		-.110	-2.550
Factor 3 (a) (Academic Workload)	-.028			
Factor 5 (a) (Researh Fund)	-.004			
Factor 4 (a) (Promotion and Evaluation)	-.002			
Constant			-.110	-2.550

a: This variable not used in the analysis.

As indicated in Table 8, there was one function because there were two groups. None of the academician had high level of depersonalization therefore Table 8 did not involve the column of Group 3. The discriminat function for depersonalization levels had positive and significiant correlation with work environment (r=1.000). According to the standardized canonical discriminant function coefficients, the factor of work environment was significant discriminating variables for depersonalization levels. According to the classification function coefficients, work environment was significant predictor for academicians who had low level of depersonalization. But, no factors were found to be significant predictor for academicians who had moderate level of depersonalization.

Table 9 shows the eigenvalue value and the significance level of the discriminant function for depersonalizaiton levels. As seen in Table 9, the discriminant function was found to be statistically significant (Wilks' Lambda=0.944; χ^2=8.433; df=1 and p<0.05). The eigenvalue value indicated

that the discriminant function explained 6% of the total variance and the square of canonical correlation indicated that discriminant function explained 5.6% of the variance in the dependent variable.

Table 9: Eigenvalues and Wilks' Lambda of Discriminant Function For Depersonalization

Function	Eigenvalue	Canonical Correlation	Wilks' Lambda	Chi-square	Df	Sig.
1	.060(a)	.237	.944	8.433	1	.004

a: First 1 canonical discriminant functions were used in the analysis.

Table 10 shows the classification results of discriminant function which was constituted for depersonalization. 100% of the 133 academicians who had low scores of depersonalization were correctly classified. 89.9% of original grouped cases correctly classified in this analysis. This result indicated that the discrimination characteristic of the discriminant function was high level.

Table 10: Classification Results of Discriminant Function For Depersonalization

6.4.1		Predicted Group Membership			
Original	**Count**	**Group**	**1**	**2**	**Toplam**
		133	0	133	133
		15	0	15	15
	%	100.0	.0	100.0	100.0
		100.0	.0	100.0	100.0

4.2.3.3. Discrimination For Personal Accomplishment Levels

As covariance matrixs of groups were equal (Box's M=2.245; F=0.961 and p=0.385), linear dicriminant analysis was used. Table 11 shows structure matrix, standardized canonical discriminant function coefficients and classification function coefficients for variables as predictor of personal accomplishment levels.

Table 11: Structure Matrix, Standardized Canonical Discriminant Function Coefficients and Fisher's Linear Discriminant Functions For Personal Accomplishment Levels

Variables	Structure Matrix	Standardized Canonical Discriminant Function Coefficients	Classification Function Coefficients		
	Function 1	Function 1	Group 1	Group 2	Group 3
Factor 1 (Work Environment)	1.000	1.000	.287	-.185	-1.341
Factor 5 (a) (Researh Fund)	.043				
Factor 4 (a) (Promotion and Evaluation)	-.042				
Factor 2 (a) (Administrative Workload)	-.018				
Factor 3 (a) (Academic Workload)	-.001				
Constant			-.893	-.595	-5.152

a: This variable not used in the analysis.

As seen in Table 11, the discriminant analysis of the five variables yielded one function and this function indicated that work environment was the only discriminating variable for personal accomplishment levels. In other words, only factor of work environment was identified by academicians as being associated with their level of personel accomplishment. According to the classification function coefficients, work environment was significant predictor for academicians who had low level of personal accomplishment. But, no factors were found to be significant predictor for academicians who had moderate and high level of personal accomplishment.

Tablo 12: Eigenvalues and Wilks' Lambda of Discriminant Function For Personal Accomplishment

Function	Eigenvalue	Canonical Correlation	Wilks' Lambda	Chi-square	Df	Sig.
1	.076(a)	.265	.930	10.556	2	.005

a First 1 canonical discriminant functions were used in the analysis.

Table 12 shows the eigenvalue value and the significance level of the discriminant function for personal accomplishment levels. The discriminant function was found to be statistically significant (Wilks' Lambda=0.930; χ^2=10.556; df=2 and p<0.05). The eigenvalue value indicated that the discriminant function explained 7.6% of the total variance and the square of canonical correlation indicated that discriminant function explained 7% of the variance in the dependent variable.

Table 13 shows the classification results of discriminant function for personal accomplishment levels. As seen Table 13, 31.7% of the 63 academicians who had low scores of personal accomplishment were correctly classified and 72.3% of the 83 academicians who had moderate scores of personal accomplishment were correctly classified. The function correctly classified 54.1% of the academicians. This result indicated that the discrimination characteristic of the discriminant function was high level.

Table 13: Classification Results of Discriminant Function For Personal Accomplishment

Predicted Group Membership					
Orginal Count	**Grup**	**1**	**2**	**3**	**Toplam**
	1	20	43	0	63
	2	23	60	0	83
	3	0	2	0	2
%	1	31.7	68.3	.0	100.0
	2	27.7	72.3	.0	100.0
	3	.0	100.0	.0	100.0

4.2.3.4. Discrimination For General Burnout Levels

As covariance matrixs of groups were equal (Box's M=.682; F=.675 and p=0.411), linear dicriminant analysis was used. Table 14 shows the results of

discrimiant analysis which was constituted according to the general burnout levels.

There was one discriminat functions in the structure matrix. The discriminant function which was constituted according to the general burnout levels had positive and significiant correlation with work environment (r=1.000). According to the standardized canonical discriminant function coefficients, the factor of work environment were found to significantly influence the general burnout in the first discriminant funtion.

Table 14: Structure Matrix, Standardized Canonical Discriminant Function Coefficients and Fisher's Linear Discriminant Functions For General Burnout Levels

Variables	**Structure Matrix**	**Standardized Canonical Discriminant Function Coefficients**		**Classification Function Coefficients**		
	Function 1		**Function 1**	**Group 1**	**Group 2**	**Group 3**
Factor 1 (Work Environment)	1.000	Factor 1	1.000	.299	-.871	-3.013
Factor 2 (Administrative Workload)	-.092					
Factor 4 (Promotion and Evaluation)	-.081					
Factor 3 (Academic Workload)	-.050					
Factor 5 (Researh Fund)	-.015					
Constant				-.315	-1.749	-8.666

According to the Fisfer's discriminant functions, in Group 1 column, the coefficients of work environment were positive and statistically significant. Therefore, work environment was the most significant predictor for academicians who were in Group 1. But, no factors were found to be significant predictor for academicians who had moderate and high level of general burnout.

Tablo 15: Eigenvalues and Wilks' Lambda of Discriminant Functions For General Burnout

Function	Eigenvalue	Canonical Correlation	Wilks' Lambda	Chi-square	Df	Sig.
1	.255(a)	.450	.797	32.881	2	.000

a: First 1 canonical discriminant functions were used in the analysis.

Table 15 shows the eigenvalue of discriminant functions and the significance level of the eigenvalue for each discriminant function which was constituted according to the general burnout. The first discriminant function was found to be statistically significant (Wilks' Lambda=0.797; χ^2=32.881; df=2 and $p<0.05$). The eigenvalue value indicated that the discriminant function explained 25.5% of the total variance and the square of canonical correlation indicated that discriminant function explained 20% of the variance in the dependent variable.

Table 16 shows the classification results of discriminant function which was constituted for general burnout. As seen in Table 93.8% of the 112 academicians who had low scores of general burnout were correctly classified, 31.4% of the 35 academicians who had moderate scores of general burnout were correctly classified. The correct classification ratio was 78.4% in this analysis. This result indicated that the discrimination characteristic of the discriminant function was high level.

Table 16: Classification Results of Discriminant Function for General Burnout

Predicted Group Membership					
Orginal Count	**Group**	**1**	**2**	**3**	**Total**
	1	105	7	0	112
	2	24	11	0	35
	3	0	1	0	1
%	1	93.8	6.3	.0	100.0
	2	68.6	31.4	.0	100.0
	3	.0	100.0	.0	100.0

5. CONCLUSIONS

Burnout levels of academicians and the factors that affect burnout levels of academicians were investigated in this study. The population for this study comprised of academicians from 78 universities in Turkey. But this study only

comprised of academicians who have been working in accountant and finance sub-department in Faculties of Economics and Administrative Sciences. For the aim of the study, three questionnaires were used (sosciodemographic data form, Maslach Burnout Inventory and the scale of "work and work environment") and these questionnaires sent to 400 academic staff through electronic mail. 160 academicians responded the questionnaires. The response rate was 40%. In the analysis of data, descriptive statistic (mean and standard deviation), correlation analysis, factor analysis and discriminant function analysis were used.

According to the means and standard deviations of burnout subscales, levels of burnout on academicians were found lower than our expectation. The mean scores for emotional exhaustion, depersonalization and personal accomplishment are 10.2 (SD=6.10), 2.92 (SD=2.64) and 11.6 (SD=3.45), respectively. Özdemir et al. (1999) found that the mean scores on emotional exhaustion were 11.93 (SD=0.84) for academicians in Faculty of Density and 12.78 (SD=0.94) for academicians in Faculty of Economic and Administrative Sciences. They found that the mean scores on depersonalization were 4.11 (SD=0.14) for Faculty of Density and 5.26 (SD=0.69) for academicians in Faculty of Economic and Administrative Sciences. The mean scores on personal accomplishment were 21.86 (SD=0.73) and 22 (SD=0.78). Barut and Kalkan (2002) found that the mean scores on emotional exhaustion, depersonalization and personal accomplishment were 11.80 (SD=6.17), 3.6 (SD=3.44) and 21.7 (SD=4.9), respectively. When the mean score on emotional exhaustion was similiar to the results of two studies, the scores on depersonalization and personal accomplishment were lower than the other studies. Particularly, the level of personal accomplishment was rather low. The low score on personal accomplishment indicated that academicians who have been working in accounting and finance discipline perceived low competence and success about their achievements.

The factor analysis of the 13 items which have possible effect on burnout among academicians revealed five factors: Work environment, administrative workload, academic workload, promotion and evaluation and research fund. These five factors explained 68.12% of the total variance. After the factor analysis, for determining the possible influence of factors which were revealed by factor analysis upon general burnout levels and burnout subscales, a discriminant function analysis was used. In general, the results showed that all of the factors had an effect on burnout levels of academicians, but work environment was identified by academicians as being strongly associated with their burnout levels. According to the discriminant function of emotional exhaustion, while the factors of work environment and promotion and evaluation were the significant predictors for academicians who had low level

of emotional exhaustion, no factors were found to be significant predictor for academicians who had moderate and high level of emotional exhaustion. Discriminant function of depersonalization indicated that work environment was significant predictor for academicians who had low level of depersonalization, but no factors were found to be significant predictor for academicians who had moderate level of depersonalization. Discriminant function of personal accomplishment indicated that work environment was significant predictor for academicians who had low level of personal accomplishment, but no factors were found to be significant predictor for academicians who had moderate and high levels of personal accomplishment. According to the discriminant function of general burnout, work environment was the strongest significant predictor of burnout among academicians who had low level of general burnout. no factors were found to be significant predictor for academicians who had moderate and high level of general burnout. In general, the factors that have possible effect on burnout are divided into two groups: Personal (demographics) factors and environmental (organizational and work) factors. In this study, only possible effects of environmental factors were investigated. The effects of demographic factors on burnout are potential areas for future research. In our study, work environment items and promotion and evaluation items were found to be more significant predictors of burnout than academic workload items, research fund items and administrative workload items.

Academicians do complex work in an increasingly demanding environment. Universities are the only organizations focussed on dual core functions of knowledge creation and knowledge transmission through the processes of research and teaching. But academicians have faced some problems such as heavy teaching loads, unsatisfactory reward structure, high number of students, budget concerns and insufficient research funds, low salaries and long working hours. Therefore, academicians may experience burnout at some point in their careers. Also, burnout is a costly and distressing phenomenon, which damages both individuals and organizations. Because burnout is associated with decreased job performance and reduced job commitment, and predicts stress-related health problems and low job satisfaction. For this reason, university administrators and academicians are aware of burnout syndrome and deal with it openly. The studies related to burnout among academicians can help and guide to both university administrators and academicians.

References

BAILEY, Smith (2006), "Burnout Harms Workers' Physical Health Through Many Pathways," *Monitor on Psychology* (Volume: 37, No. 6): 11, http://www.apa.org/monitor/jun06/burnout.html, 12.07.2006.

BARUT, Yaşar/KALKAN, Melek (2002), "Ondokuz Mayıs Üniversitesi Öğretim Elemanlarının Tükenmişlik Düzeylerinin İncelenmesi," *Ondokuz Mayıs Üniversitesi Eğitim Fakültesi Dergisi*, 14: 66-77.

BAUER, Joachim/Axel STAMM, Katharina VIRNICH, Karen WISSING, Udo MÜLLER, Michael Wirsching/SCHAARSCHMIDT, Uwe (2006), "Correlation Between Burnout Syndrome and Psychological and Psychosomatic Symptoms Among Teachers," *International Arch. Occupation Environment Health*, 79: 199-204.

BİLİCİ, Mustafa/Fatma METE, Cengiz SOYLU, Mehmet Bekaroğlu/KAVAKÇİ, Önder (1998), "Bir Grup Akademisyende Depresyon ve Tükenme Düzeyleri," *Türk Psikiyatri Dergisi*, 9/3: 181-189.

BRISCOE, Marry L. (1984), "Reflections On Academic Burnout," *ADE Bulletin*, 079/Winter: 1-7, http://www.mla.org/ade/bulletin/n079/079001.htm, 05.06.2006.

CHALMERS, Anna (1998), Workload And Stress In New Zealand Universities In 1998: A Follow-Up To The 1994 Study (Wellington: New Zealand Council for Educational Research and The Association of University Staff of New Zealand).

DOYLE, Christine/HIND, Patricia (1998), "Occupational Stress, Burnout and Job Status in Female Academics," *Gender, Work and Organization*, Vol. 5: 67-83.

EASTBURG, Mark C./Mike WILLIAMSON, Richard Gorsuch/ RIDLEY, Charles (1994), "Social Support, Personality and Burnout in Nurses," *Journal of Applied Social Psychology*, 24/14: 1233–1250.

ENGİN, Canan (1992), "Doktor ve Hemşirelerde Tükenmişlik ve Maslach Tükenmişlik Ölçeğinin Uyarlanması," *7. Ulusal Psikoloji Kongresi Bilimsel Çalışmaları*: 143-154.

EVERS, Will/TOMIC, Welko (2003), "Burnout Among Dutch Reformed Pastors," *Journal of Psychology and Theology*, Vol. 31, No. 4: 329-338.

FACULTY RECRUITMENT & RETENTION COMMITTEE (1999), "Assessment of Burnout Among Southern Utah University Faculty," *Faculty Recruitment & Retention Committee Report, 1998-1999*, http://www.suu.edu/academics/provost/word/frr-98-99-report.doc, 05.06.2006.

FREUDENBERGER, N.J. (1974), "Staff Burnout," *Journal of Social Issues*, 30: 159-165.

HOUSTON, Don/Luanna H. Meyer/PAEWAI, Shelley (2004), *Academic Staff Workloads and Job Satisfaction: Expectations and Values in Academie* (New Zealand: Massey University).

ING-CHUNG, Huang/Chuang Chih-Hsun Jason/HAO-CHIEH, Lin (2003), "The Role of Burnout in the Relationship Between Perceptions of Organizational Politics and Turnover Intentions," *Public Personnel Management*.

JACKSON, Susan E./MASLACH, Christina (1982), "After-Effects of Job-Related Stress: Families as Victims," *Journal of Occupational Behavior*, 3: 63-77.

JACOBS, Jerry A./WINSLOW, Sarah E. (2004), "Overworked Faculty: Job Stresses and Family Demands," *Annals, AAPSS*, 596: 104-129.

JASCHIK, Scott (2005), "Stress and the Female Faculty Member," http://www. insidehighered. com/ news/2005/08/23/stress, 10.07.2006.

JOHNSON, Tanya (1989), "A Study of Full-Time Faculty Burnout at Evergreen Valley College," ED308905, www.eric.ed.gov/sitemap/html_0900000b80042aa9.html, 05.06.2006.

KAÇMAZ, Naciye (2005), "Tükenmişlik (Burnout) Sendromu," İstanbul *Tıp Fakültesi Dergisi*, Vol. 68, No:1: 29-32.

KIRILMAZ, Ayşe Y./Ümit Çelen/SARP, Nilgün (2003), İlköğretimde Çalışan Bir Öğretmen Grubunda Tükenmişlik Durumu Araştırması," *İlköğretim-Online*, 2/1: 2-9.

KOKKINOS, Constantinos M. (2007), "Job Stressors, Personality and Burnout in Primary School Teachers," *British Journal of Educational Psychology*, Vol. 77, No. 1: 229-243.

LACKRITZ, James R. (2004), "Exploring Burnout Among University Faculty: Incidence, Performance, and Demographic Issues," *Teaching and Teacher Education:An International Journal of Research and Studies* (Vol. 20, No.7): 713-729.

LAU, Patrick S. Y./Man Tek Yuen/CHAN, Raymond M. C. (2005), "Do Demographic Characteristics Make A Difference To Burnout Among Hong Kong Secondary School Teachers?," *Social Indicators Research*, 71: 491–516.

LECROY, C. Winston/RANK, Mark R. (1987), "Factors Associated with Burnout in the Social Services An Exploratory Study," *Journal of Social Service Research*, Vol. 10, No. 1: 23-39.

MARCHIORI, Dennis M./HENKIN, Alan B. (2004), "Organizational Commitment of A Health Profession Faculty: Dimensions, Correlates and Conditions," *Medical Teacher*, Vol. 26, No. 4: 353–358.

MASLACH, Christina (1993), "Burnout: A Multidimensional Perspective," SCHAUFELI, W. B./Christina MASLACH/MAREK, T. (eds.), *Professional Burnout: Recent Developments in Theory and Research* (Washington DC: Taylor & Francis): 19-32.

MASLACH, Christina/JACKSON, Susan E. (1984), "Burnout in Organizational Settings," *Applied Social Psychology Annual*, 5: 133-153.

MASLACH, Christina/JACKSON, Susan E. (1985), "The Role of Sex and Family Variables in Burnout," *Sex Roles*, Vol. 12, No. 7-8: 837–851.

MASLANKA, H. (1996), "Burnout, Social Support and AIDS Volunteers," *AIDS Care*, *8*/2: 195-206.

MCDONALD, Tracy/SIEGALL, Marc (1998), "Burnout and Expectancies About Alcohol Use: Drinking Behavior in a Sample of University Professors," http://www.westga.edu/~bquest/2004/burnout.htm, 20.05.2006.

MO, Kim-Wan (1991), "Teacher Burnout: Relations with Stress, Personality, and Social Support," *CUHK Education Journal*, Vol. 19, No l: 3-11.

NEIDLE, E.A. (1984), "Faculty Approaches to Combating Professional Burnout," *Journal of Dental Education*, 48: 86-90.

NOWACK, K. M./ A. Hanson/GIBBONS, J. (1985), "Factors Affecting Burnout & Job Performance in Resident Assistants," *Journal of College Student Personnel*, 26: 137-142.

ÖZDEMİR, Kemal/Akın COŞKUN, Deniz Özdemir/ÇINAR, Ziynet. (1999), "Dişhekimliği Fakültesi Öğretim Elemanlarında Mesleki Tükenmişlik Ölçeğinin Değerlendirilmesi," *Cumhuriyet Üniversitesi Dişhekimliği Fakültesi Dergisi*, Cilt: 2, Sayı: 2: 98-104.

PAGEL, I./WITTMANN M. E. (1986), "Relationship of Burnout to Personal and Job-related Variables in Acute-care Pediatric Settings," *Issues Compr, Pediatr Nurse*, 9/2: 131-143.

PIKO, Bettina F. (2006), "Burnout, Role Conflict, Job Satisfaction and Psychosocial Health Among Hungarian Health Care Staff: A Questionnaire Survey," *International Journal of Nursing Studies*, 43: 311–318.

POULIN, J./WALTER, C. (1993), "Social Worker Burnout: A Longitudinal Study," *Social Work Research and Abstracts*, 29/4: 5-11.

ROCCA, Ana Della/KOSTANSKI, Marion (2001), "Burnout and Job Satisfaction Amongst Victorian Secondary School Teachers: A Comparatıve Look at Contract and Permanent Employment," *ATEA Conference*, 24-26 September, Melbourne.

SANDOVAL, Jonathan (2006), "Personality and Burnout Among School Psychologists," *Psychology in the Schools*, 30/4: 321-326.

SARI, Hakan (2004), "An Analysis of Burnout and Job Satisfaction Among Turkish Special School Headteachers and Teachers, and the Factors Effecting their Burnout and Job Satisfaction," *Educational Studies*, Vol. 30, No. 3.

SCHAUFELI, Wilmar/JANCZUR, Beata (1994), "Burnout Among Nurses: A Polish-Dutch Comparison," *Journal of Cross-Cultural Psycholog*, 25: 95-113.

SCHWAB, Richard /Susan E. Jackson/SCHULER, Randall S. (1986), "Educator Burnout: Sources And Consequences," *Educational Research Quarterly*, Vol. 10, No. 3: 14-30.

SEILER, Robert E./PEARSON, Della A. (1984), "Stress Among Accounting Educators in the United States," Research in Higher Education, Vol. 21, No. 3: 301–316.

SIEBERT, Darcy C. (2006), "Personal and Occupational Factors in Burnout Among Practicing Social Workers Implications for Researchers, Practitioners, and Managers," Journal of Social Service Research. Vol. 32, No. 2: 25-44.

SIEGALL, Marc/MCDONALD, Tracy (2004), "Person-Organization Value Congruence, Burnout and Diversion of Resources," *Personnel Review*, Vol. 33, No. 3: 291-301.

SINGH, S. N./S. Mishra/KIM, D. (1998), "Research-related Burnout Among Faculty in Higher Education," *Psychological Reports*, Vol. 83, No. 2: 463-73.

SUCUOĞLU, Bülbin/KULOĞLU, Neslihan, "Özürlü Çocuklarla Çalışan Öğretmenlerde Tükenmişliğin Değerlendirilmesi," *Türk Psikoloji Dergisi*, 10/36: 44-60.

SÜNTER, A. Tevfik/Sevgi CANBAZ, Şennur DABAK, Hatice Öz/PEKŞEN, Yıldız (2006), "Pratisyen Hekimlerde Tükenmişlik, İşe Bağlı Gerginlik ve İş Doyumu Düzeyleri," *Genel Tıp Dergisi*, 16/1: 9-14.

TALBOT, Laura A. (2000), "Burnout And Humor Usage Among Community College Nursing Faculty Members," *Community College Journal of Research and Practice*, 24: 359–373.

TAYCAN, Okan/Leman KUTLU, Selma Çimen/AYDIN, Nurcan (2006), "Bir Üniversite Hastanesinde Çalışan Hemşirelerde Depresyon ve Tükenmişlik Düzeyinin Sosyodemografik Özelliklerle İlişkisi," *Anatolian Journal of Psychiatry*, 7: 100-108.

TODD-MANCILLAS, William R./JOHNSON, Pam (1987), "Academic Burnout: One Perspective," ED282495, www.eric.ed.gov/sitemap/html_0900000b80112cc8.html, 12.06.2006.

TOPPINEN-TANNER, Salla/Anneli OJAJARVI, Ari VAANANEN, A., Raija Kalimo/JAPPINEN, Paavo (2005), "Burnout as a Predictor of Medically Certified Sick-Leave Absences and Their Diagnosed Causes," *Behavioral Medicine*, Spring.

TYTHERLEIGH, M. Y./C. WEBB/C. L. Cooper/RICKETTS, C. (2005), "Occupational Stress in UK Higher Education Institutions: A Comparative Study of All Staff Categories," *Higher Education Research and Development*, Vol. 24, No.1: 41-61

UNIVERSITY OF PLYMOUTH, INSTITUTE OF HEALTH STUDIES (2003), "Occupational Stress in Higher Education Institutions: Phase I Results For All HEIsl," http://www.ihs.plymouth.ac.uk/~stresshe/worddoc/51077.doc, 05.07.2006.

USKUN, Ersin/Mustafa ÖZTÜRK, Ahmet Nesimi Kişioğlu/KİRBİYİK, Sema (2005), "Burnout and Job Satisfaction Amongst Staff in Turkish Community Health Services," *Primary Care and Community Psychiatry*, Vol. 10, No. 2: 63-69.

ZELLARS, Kelly L./Pamela L. Perrewe/HOCHWARTER, Wayne A. (2000), "Burnout in Health Care: The Role of the Five Factors of Personality," *Journal of Applied Social Psychology*, Vol. 30, No. 8: 1570.

ZELLARS, Kelly L./Wayne A. HOCHWARTE R, Pamela PERREWE, Nicole Hoffman/FORD, Eric W. (2004), "Experiencing Job Burnout: The Roles of Positive and Negative Traits and States," *Journal of Applied Social Psychology*, Vol. 34, No. 5: 887-911.