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**The relationship of organizational commitment,
job satisfaction and burnout on physicians and nurses?**

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Abstract

Aim/purpose – This study has three main aims; the first aim is determining doctors' and nurses' organizational commitment, vocational satisfaction and burnout levels; the second is analyzing the relations between organizational commitment, vocational satisfaction and burnout levels; and the third aim is analyzing doctors' and nurses' organizational commitment, vocational satisfaction and burnout levels according to their demographical characteristics.

Design/methodology/approach – Data for the cross-sectional study was gathered from a university hospital in Turkey of 735 doctors and nurses. Data was gathered by a four part data gathering medium. The medium consists of a personal data form developed by the researchers, Allen – Meyer organizational commitment scale, Minnesota satisfaction scale and Maslach burnout scale. The gathered data was evaluated with correlation analysis, variance analysis, definitive statistics, meaningfulness test of variance between two averages and averaging methods.

Findings – The evaluated data showed that participants' emotional and normative commitment levels are over average and continuation commitment level is high; their burnout level is high, desensitization level is at average, intrinsic satisfaction level is high because of their personal success; and extrinsic satisfaction level is low and general vocational satisfaction level is close to neutral. Academician doctors' emotional and normative commitment levels; intrinsic and extrinsic vocational satisfaction levels; desensitization and personal success levels are higher than assistants' and nurses'. In our study, it is found out that as emotional and normative commitment levels increase, so does the vocational satisfaction; while the continuation commitment level increases, vocational satisfaction level decreases; and meaningful statistical relation was determined between vocational satisfaction and burnout levels.

Research implications – The limitation of the present study is that it was conducted in one hospital in the province of Sivas, Turkey.

Originality/value/contribution – The originality of this work is to examine job satisfaction, burnout and organizational commitment in health worker.

Keywords: organizational commitment, job satisfaction and burnout, physicians and nurses.

JEL Classification: M100, M0.

1. Introduction

Health care is becoming an increasingly complex issue, due to evolving treatment approaches, and changes in the structure and applications of concepts such as technology, law, regulations and financial management. In the performance of health sector due to its labor-intensive character, effective management of human resources is vital. Problems such as work stress, burnout, high rates of staff turnover and turnover intentions, absenteeism and poor job satisfaction continue to be among the important employee issues experienced by health administrators. Under these difficult conditions, in institutions' success and continuation of their existence, the value of health professionals loyal to their organization is increasing [Bartlett 2007]. Today, for administrators to keep employees, particularly qualified ones, in the organization, to attract other qualified workers to their organization and to encourage them to maintain their commitment to the organization have become increasingly important.

Some researchers agree that, organizational commitment links to employees' job satisfaction [Azeem 2010; Flomi et al. 2014]; burnout levels links to affective commitment [King & Sethi 1997]; job satisfaction links to burnout [Piko 2006; Salehi & Gholtash 2011].

During the literature review, the databases of Web of Science, EBSCOhost, Pubmed, Turkey Citation Index, YÖK National Dissertation Center, Asos Index were screened using separately the keywords 'organizational commitment', 'job satisfaction', 'burnout', 'physician', 'nurse', 'health worker'. The review demonstrated that there were no studies that examined the concepts of organizational commitment, job satisfaction and burnout in physicians and nurses in Turkey. This study is of importance because it is the first study which examined the concepts of organizational commitment, job satisfaction and burnout in physicians and nurses in the Cumhuriyet University sample.

The aims of present study are:

- to investigate organizational commitment, job satisfaction and burnout levels of physicians and nurses included in the study sample,

- to examine the relationship between these three concepts,
- to find out whether socio-demographic characteristics of physicians and nurses affect the levels of these three concepts.

In the subsequent flow of the article, the organizational commitment, job satisfaction and burnout concepts will be examined theoretically and methods, findings, discussions and conclusions sections will be given respectively.

2. Literature review

This section reviews the relevant research on organizational commitment, job satisfaction and burn out.

2.1. Organizational commitment

Commitment is an organizational concept which has important outcomes for organizations. Employees' commitment to the organization has an undeniable, strong effect on the outcomes of a business. These powerful effects in organizational commitment result not from professionals' working for personal expectations but from their working for organizational expectations [Cohen 2000].

Commitment was defined by Kanter [1968] as "the person's attachment to the group with strong emotional bonds", by O'Reilly and Chatman [1986] as "psychological bond that ties the employees to the organization", by Mowday et al. [1979] as "the person's perception of himself as a part of his organization which attaches the identity of the person to the organization", and by Wiener [1982] as "the person's acting in accordance with the organizational goals and interests under normative pressures" [quotations after: Meyer & Allen 1997]. After they reviewed various definitions of commitment, Meyer and Allen [1991] determined that they all had one thing in common: moral obligation to remain with the organization as a result of a psychological condition reflecting the employee's relationship with the organization. As a result, unlike employees disloyal to their organization, loyal employees will remain in the organization whatever the conditions are (despite adverse conditions).

In studies conducted on organizational commitment, several models have been used suggesting that this concept should be assessed multi-dimensionally [Angle & Perry 1981; O'Reilly & Chatman 1986; Meyer & Allen 1991; Mayer & Schoorman 1992]. Of these models, the one widely used in the literature is Meyer and Allen's three-dimensional model of commitment (affective, continu-

ance and normative commitment). Affective commitment is the employee's emotional attachment to, identification with and involvement in the organization. Employees who have a strong affective commitment maintain membership in the organization because they want to. Continuance commitment is the awareness of the costs associated with leaving the organization. Employees continue their membership in the organization primarily because they need it. Normative commitment reflects an employee's feeling of obligation to continue employment. Employees with high normative commitment continue their membership in the organization as they deem it necessary [Meyer & Allen 1997]. All the three components of commitment are positively associated with the decision to stay or to leave the organization [Stordeur et al. 2003].

Studies indicate that there is a negative relationship between organizational commitment, an important determinant of staying or leaving the organization, and intention to leave the organization and staff turnover [Payne & Huffman 2005; Meyer et al. 2002] and that particularly affective commitment has a strong impact on the intention to leave [Meyer & Allen 1997; Wasti 2003].

2.2. Job satisfaction

Another important concept affecting the quality of health services is the concept of job satisfaction. In studies, job satisfaction was determined to significantly affect patient care [Norrish & Rundall 2001].

Job satisfaction is one of the individual mechanisms directly affecting organizational commitment and job performance, and is defined as a satisfying emotional state resulting from a person's job and job-related experiences. In other words, job satisfaction is the person's thoughts and feelings related to the job [Locke 1969]. In their job characteristics theory, Hackman and Oldham [1976] stated that the leading characteristics that affect job satisfaction were skill diversity, task identity, task significance, autonomy and feedback.

Several studies determined a positive relationship between job satisfaction, and patient satisfaction and quality of care, however, the same studies determined a negative correlation between employee turnover, intention to leave job and absenteeism [Norrish & Rundall 2001; Siu 2002]. Job satisfaction and organizational commitment are the two important determinants of employee turnover. In their study conducted in 25 countries, Sousa-Poza and Henneberger [2004] found a strong negative correlation between the intention to leave the job and job satisfaction.

In studies examining the relationship between organizational commitment and job satisfaction, a positive correlation was determined between job satisfaction and organizational commitment indicating that as employees' job satisfaction increases so does their organizational commitment [Azeem 2010; Flomi et al. 2014]. According to Meyer, Becker and Vandenberghe [2004], if an employee is happy with his/her colleagues and managers and if his/her job satisfaction is high, his/her affective commitment increases. If he/she feels that he/she is needed at work, his/her normative commitment improves; in other words, there is a positive relationship between normative commitment and job satisfaction.

2.3. Burnout

Burnout is the emotional and psychological distress in the working environment, and it can cause physical and mental problems in health professionals and lead to high turnover and absenteeism [Poghosyan et al. 2010; Gieter, Hofmans & Pepermans 2011]. Because burnout lowers the quality of health care services, it also adversely affects those receiving health care [Adriaenssens, de Gucht & Maesc 2015; Hu, Lukb & Smith 2015].

According to the Maslach Burnout model, burnout is defined as a syndrome which manifests itself as insensitivity displayed towards clients by those who work in occupations where they interact with them face-to-face, feelings of being emotionally exhausted by their work, and reduction in personal achievement and proficiency [Maslach & Jackson 1986]. The Maslach burnout model has three dimensions: emotional exhaustion, depersonalization and reduced personal accomplishment [Maslach, Schaufeli & Leiter 2001].

Emotional exhaustion is an employee's feelings of being tensed and frustrated due to loss of energy and emotional depletion. Emotional exhaustion is characterized by the fear of 'going back to work the next day'. A person with emotional exhaustion minimizes his/her interaction with other people to alleviate the emotional burden [Sonntag, Binnewies & Moiza 2010]. The second dimension, depersonalization, is the advent of negative attitudes such as cynicism and negativism. A person with depersonalization displays unfeeling and impersonal attitudes and behaviors towards people they serve. Personal accomplishment, the third dimension, is the last component of burnout. A person with low level of personal accomplishment experiences feelings of reduction in personal and job-related competence, and in achieving objectives. The person even experiences perception of losing what he/she has at hand [Maslach & Jackson 1981].

Burnout is a multidirectional concept. Studies on the issue have revealed that burnout is closely related with satisfaction with life, health problems, fatigue, depression, sleep problems, low self-esteem, reduced tolerance to frustration, intention to leave, intention to retire early, reduced work performance and reduction in the provision of quality health care [Adriaenssens, de Gucht & Maesc 2015; Hakanen & Schaufeli 2012; Poghosyan et al. 2010; Maslach, Schaufeli & Leiter 2001].

3. Research methods and procedure

3.1. Design and sample

A quantitative and cross-sectional study conducted at a University Hospital, a state-owned tertiary health institution in Central Anatolia, in Turkey. The hospital has a 1061-bed capacity and provides inpatient and outpatient health services. The study population comprised 408 physicians and 327 nurses working in this hospital. Of the study population, 257 (34%) health personnel (114 nurses, 143 physicians) were included in the sample. The error level and standard deviation used to determine the sample size were 0.01 and 0.10 respectively.

The number of the physicians under the academic titles of Research Assistants, Assistant Professor, Associate Professor and Professor, to whom the survey would be administered, was determined using the simple random sampling method. The analysis conducted to determine organizational commitment, job satisfaction and burnout levels of the participants according to their socio-demographic characteristics revealed statistically significant differences between lecturers (Asst. Prof., Assoc. Prof., Prof.) and research assistants. Therefore, the findings of the study were presented not in two groups (doctors and nurses) but in three groups (lecturers, research assistants and nurses).

3.2. Data collection

The study data were collected between November 2011 and April 2012 by the researchers. While some of the participants answered the survey and handed in the forms immediately, the others requested to fill in the forms later so they were given appointments. They were visited on the days of their appointments, and the survey forms were collected then.

3.3. Survey instruments

Data was collected using four different data collection tools:

1. **The Personal Information Form.** The form prepared by the researchers includes 11 items questioning socio-demographic characteristics of the participants such as age, gender, marital status, income level, professional title, education level, years in profession and years in the current position.
2. **Allen-Meyer Organizational Commitment Scale (OCS).** The scale developed by Allen and Meyer to measure affective commitment, normative commitment and continuance commitment in 1991. The 18-item scale consisting of three 6-item subscales is a 5-point Likert-type scale. The items are rated on a scale ranging from 1 = strongly agree to 5 = strongly disagree. The minimum and maximum possible scores to be obtained from the scale are 18 and 90 respectively. The higher the score is, the higher the commitment is.
3. **Minnesota Satisfaction Questionnaire (MSQ).** This Questionnaire developed by Weiss et al. (1967). The short form of the MSQ consists of 20 items and has two subscales: Intrinsic Satisfaction and Extrinsic Satisfaction. The items are rated on a 5-point Likert scale ranging from 1 = very dissatisfied to 5 = very satisfied. With the questionnaire, scores for General Satisfaction, Intrinsic Satisfaction and Extrinsic Satisfaction are obtained. The minimum and maximum possible scores to be obtained from the scale are 20 and 100 respectively. The general satisfaction score is determined by dividing the sum of the scores obtained from the items by 20.

Intrinsic Satisfaction comprises such items as ability utilization, achievement, activity, advancement, compensation, co-workers, creativity, independence, security recognition and responsibility related to the intrinsic features of the job. The intrinsic satisfaction score is calculated by dividing the sum of the scores obtained from the items comprising intrinsic factors by 12.

Extrinsic Satisfaction comprises such items as authority, company policies, social service, social status, moral values, supervision, human relations, supervision, technical and variety.

The Extrinsic Satisfaction score is calculated by dividing the sum of the scores obtained from the items comprising extrinsic factors by 8. The scale's neutral satisfaction score is 3. Whereas the general satisfaction score less than 3 indicates low job satisfaction, the score higher than 3 indicates high job satisfaction.

4. **Maslach Burnout Inventory (MBI).** The Maslach Burnout Inventory (MBI) developed by Maslach and Jackson [1981] is the first standardized tool used to measure burnout levels and it was used in 90% of the studies until the end

of 1990s, and it is still widely used. In their review of studies conducted on the relationship between burnout and depression in January 2014, Bianchi et al. determined that the MBI was used in 78% of those studies [Maslach, Schaufeli & Leiter 2001; Bianchi, Schonfeldb & Laurenta 2015].

The 22-item inventory consists of three subscales: the 9-item emotional exhaustion (EE) subscale, the 5-item depersonalization (DP) subscale and the 8-item personal accomplishment (PA) subscale. The items are rated on a 5-point Likert scale (1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = always).

There is no cut-off point. High emotional exhaustion and depersonalization scores and low personal accomplishment scores indicate the presence of burnout.

3.4. Reliability and validity

Cronbach's alpha coefficients of the assessment tools and their subscales used in the present study were as follows: Organizational Commitment: 0.81, Affective Commitment: 0.83 Continued Commitment 0.79, Normative Commitment 0.76; Minnesota Satisfaction Questionnaire: 0.88, Intrinsic Satisfaction: 0.84, Extrinsic Satisfaction 0.82; Maslach Burnout Inventory: 0.77, Affective Exhaustion: 0.86, Depersonalization: 0.68, Personal Achievement: 0.65.

3.5. Ethical considerations

Before the study was conducted, the ethical approval for the study was obtained from the Health Ethics Committee of Cumhuriyet University, Sivas, Turkey. A written permission to conduct the study was also obtained from the hospital administration where the study was to be conducted.

3.6. Data analysis

The data were analyzed using the SPSS 14.0 software package. For the analysis, descriptive statistics, Pearson correlation analysis, variance analysis, the test for the significance of the difference between two means and mean values were used.

4. Results

The socio-demographic data obtained from this study and analyzed in detail in Table 1 demonstrated that of the lecturers, 73.8% were in the 41 years and over age group, 70.8% were male, 84.6% were married, 87.7% had a monthly income of \geq \$1500 and 52.4% had a \geq 16 years of experience in profession. Of the research assistants, 66.7% were in the age group of 21-30, 55.1% were male, 75.6% were single, 87.7% had a monthly income ranging between \$ 900 and \$ 1200, and 83.3% had a 1-5 years of experience in profession. Of the nurses, 49.1% were in the age group of 21-30, 95.6% were female, 50.9% were married, 87.7% had a monthly income ranging between \$ 550 and \$ 900, and 85.1% had a 1-5 years of experience in profession.

Table 1. Distribution of lecturers, research assistants and nurses in terms of their socio-demographic characteristics

Specification	Lecturer [N = 65]		Research Assistant [N = 78]		Nurse [N = 114]		Total
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	
<i>Age</i>							
21-30 years	1	1.5	52	66.7	56	49.1	109
31-40 years	16	24.6	26	33.3	48	42.1	90
\geq 41 years	48	73.8	0	0	10	8.8	58
<i>Gender</i>							
Female	19	29.2	35	44.9	109	95.6	163
Male	46	70.8	43	55.1	5	4.4	94
<i>Marital Status</i>							
Married	55	84.6	19	24.4	58	50.9	132
Single	10	15.4	59	75.6	56	49.1	125
<i>Education</i>							
High school	0	0	0	0	3	2.6	3
Undergraduate	0	0	0	0	107	94.8	107
Masters	0	0	78	100.0	3	2.6	81
Doctorate	65	100.0	0	0	0	0	65
<i>Income</i>							
\$ 550-\$900	0	0	0	0	113	99.1	113
\$ 901-\$1200	0	0	46	59.0	1	0.9	47
\$ 1201-\$1500	8	12.3	32	41.0	0	0	40
\geq \$ 1501	57	87.7	0	0	0	0	57
<i>Length of employment</i>							
< 1 year	0	0	13	16.7	13	11.4	26
1-5 years	0	0	65	83.3	97	85.1	162
6-10 years	6	9.2	0	0	4	3.5	10
11-15 years	25	38.5	0	0	0	0	25
16-20 years	17	26.2	0	0	0	0	17
\geq 21 years	17	26.2	0	0	0	0	17

In Table 2, the results of correlation analysis conducted to determine the relationship between the participants' organizational commitment, job satisfaction and burnout levels are given. According to the results, there is a positive rela-

relationship between job satisfaction, and affective commitment (0.421) and normative commitment (0.405), and a negative relationship between job satisfaction and continuance commitment (-0.393).

Table 2. Correlations between the organizational commitment, job satisfaction and burnout variables, and reduced personal accomplishment

Variables	Correlation coefficient	AC	NC	CC	OCT	IS	ES	JS	EE	DP	PA	BT
	r	1										
NC	r	-	1									
CC	r	-	-	1								
OCT	r	-	-	-	1							
IS	r	0.317**	0.394**	-0.385**	0.155*	1						
ES	r	0.328**	0.496**	-0.347**	0.155*	-	1					
JS	r	0.421**	0.405**	-0.393**	0.160*	-	-	1				
EE	r	-0.157*	-0.143*	0.227**	-0.009	-	-	-	1			
DP	r	-0.087	0.107	-0.060	0.002	-	-	-	-	1		
PA	r	-0.087	0.068	-0.160*	-0.013	-	-	-	-	-	1	
BT	r	-0.103	-0.040	0.083	-0.013	-	-	-	-	-	-	1

Note:

AC – affective commitment; NC – normative commitment; CC – continuance commitment; OCT – organizational commitment total; IS – intrinsic satisfaction; ES – extrinsic satisfaction; JS – job satisfaction; EE – emotional exhaustion; DP – depersonalization; PA – personal accomplishment; BT – burnout total.

Variables with no relationships were excluded from the table.

** Correlation at level 0.01 [2-tailed] is also important.

* Correlation at level 0.05 [2-tailed] is also important.

Job satisfaction increases as the affective commitment and normative commitment increase, but it decreases as the continuance commitment increases. No statistically significant relationship was detected between job satisfaction and the subscales of the MBI. There was a weak negative relationship between organizational commitment and burnout (-0.013).

In Table 3, the mean scores the participants obtained from the OCS, MSQ and MBI are given. Table 3 shows descriptive statistics of all subscales. Descriptive statistics were calculated for all continuous scaled variables. The mean score the participants obtained from the OCS was 58.70 (SD = 5.049). The mean scores the participants obtained from the Affective Commitment, Normative Commitment and Continuance Commitment subscales were 18.39, 18.64 and 21.66 (SD = 2.37, 4.40, 4.30) respectively. The JSS mean score was 2.98 (SD = 0.42), and the range was 2.10 to 4.25 and its Intrinsic Satisfaction and Extrinsic Satisfaction subscales were 3.17, 2.70 (SD = 0.43, 0.61) respectively. The mean scores the participants obtained from the Emotional Exhaustion, Depersonalization and Personal Achievement Subscales of the MBI were 32.29, 9.24 and 34.10 (SD = 3.11, 1.56, 1.89) respectively.

Table 3. The distribution of the mean scores the participants obtained from the OCS, MBI and MSQ

Specification		Possible Values	Observed Values	
		Min-Max	X ± S	Min- Max
<i>Meyer-Allen OCS</i>	<i>AC</i>	6-30	18.39 ± 2.37	13-25
	<i>NC</i>	6-30	18.64 ± 4.40	11-27
	<i>CC</i>	6-30	21.66 ± 4.30	8-28
	<i>OCT</i>	18-90	58.70 ± 5.04	44-72
<i>MBI</i>	<i>EE</i>	9-45	32.29 ± 3.11	19-45
	<i>DP</i>	5-25	9.24 ± 1.56	6-13
	<i>PA</i>	8-40	34.10 ± 1.89	29-38
<i>MSQ</i>	<i>IS</i>	12-60	3.17 ± 0.43	27-53
	<i>ES</i>	8-40	2.70 ± 0.61	12-32
	<i>JS</i>	20-100	2.98 ± 0.42	42-80

Note:

AC – affective commitment; NC – normative commitment; CC – continuance commitment; OCT – organizational commitment total; EE – emotional exhaustion; DP – depersonalization; PA – personal accomplishment; IS – intrinsic satisfaction; ES – extrinsic satisfaction; JS – job satisfaction.

In Table 4, the distribution of the mean scores the participants obtained from OCS, MSQ and MBI and their subscales in terms of their sociodemographic characteristics is given. As is seen in the table, of the participants, those who were in the 41 years and over age group, those who were male and those who were married obtained statistically significantly higher scores from the affective and normative commitment subscales than did the other participants. Those who were in the 21-30 age group, female and single obtained statistically significantly higher scores from the continuance commitment subscale than did the other participants ($p < 0.05$). While there was no relationship between organizational commitment, and age and marital status variables, there was a significant relationship between organizational commitment and gender ($p < 0.05$).

The analysis of the subscales of the MBI revealed that single participants and the participants in the 21-30 age group obtained statistically significantly higher scores from the Emotional Exhaustion and Personal Achievement subscales than did the other participants, and that the male participants' depersonalization scores were significantly higher than were those of the other participants ($p < 0.05$). According to the analysis of the MSQ and its subscales, of the participants, those who were in the 41 years and over age group and who were male obtained statistically significantly higher scores from the intrinsic, extrinsic and job satisfaction scales than did the other participants. Those who were married obtained statistically significantly higher scores only from the intrinsic satisfaction subscale than did the other participants ($p < 0.05$).

Table 4. The distribution of the mean scores of the participants obtained from the Meyer–Allen OCS, MSQ and MBI and their subscales in terms of their sociodemographic characteristics

Age	n	AC X ± S	NC X ± S	CC X ± S	OCT X ± S	EE X ± S	DP X ± S	PA X ± S	IS X ± S	ES X ± S	JS X ± S
21-30 years	109	17.92 ± 2.51	17.73 ± 3.64	23.66 ± 2.47	59.33 ± 4.97	32.78 ± 2.62	9.04 ± 1.62	33.68 ± 1.88	3.08 ± 0.36	2.63 ± 0.60	2.90 ± 0.37
31-40 years	90	17.84 ± 2.21	17.95 ± 4.63	22.66 ± 3.59	58.46 ± 5.03	32.60 ± 3.84	9.26 ± 1.59	34.11 ± 1.75	3.06 ± 0.33	2.59 ± 0.59	2.87 ± 0.34
≥ 41 years	58	20.13 ± 2.51	21.41 ± 4.29	16.36 ± 3.67	57.91 ± 5.13	30.91 ± 2.21	9.58 ± 1.36	34.86 ± 1.92	3.52 ± 0.49	3.01 ± 0.58	3.32 ± 0.46
Result		F = 23.70 p = 0.001*	F = 16.70 p = 0.001*	F = 101.31 p = 0.001*	F = 1.05 p = 0.192	F = 7.89 p = 0.001*	F = 2.28 p = 0.104	F = 7.64 p = 0.001*	F = 30.31 p = 0.001*	F = 10.37 p = 0.001*	F = 28.31 p = 0.001*
<i>Gender</i>											
Female	163	18.02 ± 1.98	17.17 ± 4.35	20.80 ± 3.67	58.00 ± 5.33	32.44 ± 3.36	9.08 ± 1.59	34.00 ± 1.78	3.04 ± 0.33	2.50 ± 0.55	2.83 ± 0.35
Male	94	19.04 ± 2.83	21.19 ± 3.16	19.70 ± 4.60	59.93 ± 4.25	32.05 ± 2.62	9.52 ± 1.48	34.26 ± 2.06	3.35 ± 0.49	3.04 ± 0.55	3.25 ± 0.40
Result		t = 3.07 p = 0.001*	t = 8.51 p = 0.001*	t = 5.92 p = 0.001*	t = 3.00 p = 0.003*	t = 0.96 p = 0.337	t = 2.15 p = 0.032*	t = 1.01 p = 0.310	t = 6.22 p = 0.001*	t = 7.48 p = 0.001*	t = 8.90 p = 0.001*
<i>Marital status</i>											
Single	125	17.61 ± 1.98	17.93 ± 4.05	23.23 ± 3.23	58.78 ± 4.91	33.12 ± 3.54	9.22 ± 1.52	33.70 ± 1.87	3.08 ± 0.38	2.67 ± 0.60	2.91 ± 0.36
Married	132	19.13 ± 2.48	19.31 ± 4.63	20.18 ± 4.68	58.63 ± 5.18	31.51 ± 2.41	9.26 ± 1.61	34.47 ± 1.83	3.25 ± 0.46	2.74 ± 0.62	3.05 ± 0.46
Result		t = 5.43 p = 0.001*	t = 2.53 p = 0.001*	t = 5.04 p = 0.001*	t = 0.23 p = 0.081	t = 4.28 p = 0.001*	t = 0.21 p = 0.834	t = 3.33 p = 0.001*	t = 3.28 p = 0.001*	t = 0.91 p = 0.359	t = 2.53 p = 0.120

Note:

AC – affective commitment; NC – normative commitment; CC – continuance commitment; OCT – organizational commitment total; IS – intrinsic satisfaction; ES – extrinsic satisfaction; JS – job satisfaction; EE, emotional exhaustion; DP – depersonalization; PA – personal accomplishment.

Table 5. Distribution of the mean scores of the lecturers, research assistants and nurses obtained from the Meyer–Allen OCS, MSQ and MBI

Title	n	AC X ± S	NC X ± S	CC X ± S	OCT X ± S	EE X ± S	DP X ± S	PA X ± S	IS X ± S	ES X ± S	JS X ± S
Lecturer	65	20.52 ± 2.25	22.93 ± 2.60	15.66 ± 2.71	59.12 ± 4.49	30.63 ± 2.16	9.61 ± 1.51	35.04 ± 1.76	3.57 ± 0.41	3.25 ± 0.34	3.44 ± 0.27
Research Assistant	78	17.52 ± 2.31	19.64 ± 2.44	23.75 ± 1.64	60.92 ± 3.48	33.94 ± 2.26	9.33 ± 1.57	33.28 ± 1.91	3.19 ± 0.41	2.96 ± 0.51	3.10 ± 0.33
Nurse	114	17.78 ± 1.65	20.50 ± 3.85	23.66 ± 2.84	56.95 ± 5.60	32.12 ± 3.51	8.97 ± 1.55	34.12 ± 1.70	2.93 ± 0.24	2.22 ± 0.39	2.64 ± 0.21
Result		F = 47.97 p = 0.0001*	F = 118.25 p = 0.0001*	F = 249.55 p = 0.0001*	F = 16.35 p = 0.0001*	F = 24.09 p = 0.0001*	F = 3.72 p = 0.026*	F = 17.33 p = 0.0001*	F = 70.22 p = 0.0001*	F = 143.08 p = 0.0001*	F = 190.25 p = 0.0001*

Note:

AC – affective commitment; NC – normative commitment; CC – continuance commitment; OCT – organizational commitment total; IS – intrinsic satisfaction; ES – extrinsic satisfaction; JS – job satisfaction; EE – emotional exhaustion; DP – depersonalization; PA – personal accomplishment.

As it is seen in Table 5, the scores the lecturers obtained from the affective commitment, normative commitment, intrinsic satisfaction, extrinsic satisfaction, job satisfaction and depersonalization were statistically significantly higher than those obtained by the other participants ($p < 0.05$). On the other hand, the research assistants' continuance commitment, organizational commitment and depersonalization scores were significantly higher than were those of the other participants whereas their personal achievement scores were lower than were those of the other participants ($p < 0.05$).

5. Discussion

The analysis of the mean scores obtained from the Meyer and Allen OCS revealed that while the participants' affective and normative commitment levels were moderate, their continuance commitment levels were high. The analysis of the mean scores obtained from the MBI indicated that the participants' emotional exhaustion and personal achievement levels were high whereas their depersonalization levels were moderate. According to the analysis of the mean scores obtained from the MSQ, the participants' intrinsic, extrinsic and general job satisfaction levels were high, low and close to neutral respectively.

The analysis of the subscales of the Allen–Meyer OCS revealed that the lecturers' and research assistants' affective and normative commitment levels were higher but continuance commitment levels were lower than were those of the nurses. The mean scores the research assistants and the nurses obtained from the affective, continuance and normative commitment were close to each other. Whereas affective and normative commitment levels of the research assistants and nurses were somewhat above moderate, their continuance commitment levels were high. The reason why the research assistants' continuance commitment levels were high was that they had to stay in the institution during their residency training. As for the nurses, they were appointed by the public personnel selection examination (an examination taken by those who want to work in the public sector in Turkey) and they had limited alternative employment opportunities in other sectors. In short, the reason for the research assistants' and nurses' high levels of continuance commitment was obligation not willingness. Nurses' organizational commitment levels were high in Lu, While and Barriball's [2007] and Gould and Fontenla's [2006] studies, moderate in Ferreira's [2007] studies and low in Eti İçli and Eti Aslan's [2010] studies.

While the lecturers' affective and normative commitment levels were high, their continuance commitment levels were moderate. That the lecturers', research assistants' and nurses' affective and normative commitments were high

($p < 0.01$) can be interpreted as something expected. It is a fact that affective and normative commitment levels develop parallel to the level of authority and responsibility a person has gained in the organization over time. Therefore, in the present study, that the lecturers had been working for a long time in the same institution, that they adopted the institution's values and norms, that they actively participated in the decision-making process, that they had managerial and educational roles and that they had higher professional status can account for their high affective and normative commitment levels. The lecturers' lower continuance commitment levels can be accounted for by the fact that they had no economic concerns because they had the highest level of income, that they had alternative employment opportunities, and that they preserved their professional status and could work in similar or higher positions when they changed the work place. For managers and organizations, the continuance commitment is less important than the affective commitment, because employees can leave work when they find the same or better working conditions [Meyer & Allen 1997].

In the present study, the mean scores the participants obtained from the subscales of the MBI were high for the emotional exhaustion subscale and personal accomplishment subscale, and moderate for the depersonalization subscale. In Poghosyan et al.'s study [2010] conducted with nurses in several countries including the USA, Germany and Japan. Japanese nurses obtained the highest mean scores from the emotional exhaustion, depersonalization and personal accomplishment subscales, all of which were lower than the mean scores obtained in the present study. While in Abdulghafour et al.'s study [2011] conducted with physicians in Kuwait, the participants' burnout levels were lower, in De la Fuente et al.'s [2015] and Adriaenssens, de Gucht and Maesc's [2015] studies conducted with nurses, in Kluger, Townend and Laidlaw's study [2003] conducted with anesthetists in Australia and New Zealand and in Ogundipe et al.'s study [2014] conducted with physicians in Africa, the participants' burnout levels were higher.

In the present study, the lecturers suffered from depersonalization more than did the research assistants and nurses ($p < 0.05$), the research assistants suffered from emotional exhaustion and depersonalization more than did the nurses, and the nurses perceived themselves more successful and competent than did the research assistants ($p < 0.01$). Similar to the present study, in Ogundipe et al.'s [2014] study conducted with younger physicians, their burnout levels were higher.

According to the results obtained from the MSQ in the present study, the lecturers' and research assistants' satisfaction levels were moderate whereas the nurses' satisfaction levels were low. In Tyssen et al.'s study [2013] conducted with Canadian, Norwegian and the American physicians, and in Wu et al.'s study

[2014] conducted with Chinese physicians, and in Khuwaja et al.'s study [2004] conducted with Pakistani physicians, the participants' job satisfaction levels were low.

Among the reasons for the low job satisfaction levels of the nurses in the present study were their heavy workload, inflexible working hours, role conflicts, dissatisfaction with income levels, limited career opportunities, multiplicity of routine tasks, excess of functional dependence, lack of resources, and dissatisfaction with the social status of the profession. However, in contrast to our findings, in Xue's [2015] and Lu, While and Barriball's [2007] studies, the majority of the nurses were satisfied with their job.

In the present study, as the participants' affective and normative commitment levels increased so did their job satisfaction levels. However, there was a negative correlation between the participants' continuance commitment levels and job satisfaction levels; the higher the continuance commitment levels the lower the job satisfaction levels. The findings of Rodwell and Mundro [2013], Azeem [2010], Al-Hussami [2008] were supportive of the findings of the present study. They all found a positive relationship between organizational commitment and job satisfaction. While a study conducted in the United Arab Emirates determined correlation between organizational commitment and job satisfaction, a study conducted in Ireland and New Zealand found a significant relationship between job satisfaction and affective commitment [Latham 2012]. In Freebom's study [2011], a negative relationship was determined between job satisfaction and organizational commitment.

In the present study, although no statistically significant relationship was detected between job satisfaction and burnout, in Salehi and Gholtash's [2011], and Piko's [2006] studies, a negative relationship was detected between job satisfaction and burnout.

In the present study, a weak negative correlation was determined between organizational commitment and burnout. According to Leiter and Maslach [1988], high levels of burnout are associated with low levels of organizational commitment. While in some studies, burnout levels of those with high levels of affective commitment were low [King & Sethi 1997], in some studies no significant relationship was detected between burnout and organizational commitment [Hakanen, Schaufeli & Ahola 2008; Griffin et al. 2010]. In their study, Garland et al. [2014] determined a negative relationship between affective commitment and emotional exhaustion, and between depersonalization and personal accomplishment, and a positive correlation between continuance commitment and the three subscales of the MBI.

In the present study, it was found that the male participants' organizational commitment levels were higher than were those of the female participants ($p < 0.05$), that age and marital status did not affect organizational commitment ($p > 0.05$). As for the subscales, a relationship was determined between variables such as age and marital status and affective, normative and continuance commitment. In their studies, Kluger, Townend and Laidlaw [2003], Meyer et al. [2002] found a relationship between age and three subscales of the Allen–Meyer OCS.

In the current study, emotional and normative commitment levels of the participants in the 41 years and over age group were significantly higher than were those of the other participants whereas their continuance commitment levels were lower. With the advancing age, a person has a longer length of service and thus has more in common with the institution, which leads to the development of stronger emotional and psychological ties between the person and the institution.

In the present study, the analysis of such variables as the socio-demographic and job characteristics affecting the three sub-dimensions of burnout showed that emotional exhaustion decreased and personal accomplishment increased as the age increased ($p < 0.01$). In studies by Maslach, Schaufeli and Leiter [2001] and TMA (Turkish Medical Association) [2005], burnout levels were determined to be lower in older employees but higher in younger employees. Reduction in burnout levels with the advanced age can be explained by improved coping methods these people gained through their experience. In the present study, the single participants suffered emotional exhaustion more and had lower levels of personal achievement than did their married counterparts ($p > 0.01$), which can be explained by the fact that familial and social support the married ones received may have helped them to cope with stress better and to suffer from burnout less. Some other studies also indicated that having a family prevented a person from suffering burnout [Maslach, Schaufeli & Leiter 2001]. In the present study, the male participants suffered more depersonalization than did the female participants ($p > 0.05$), which was in line with the findings of other studies in the literature indicating that women suffered emotional exhaustion more, while men suffered depersonalization more [Maslach, Schaufeli & Leiter 2001; De la Fuente et al. 2015].

The comparison of the participants in our study demonstrated that general job satisfaction levels of the participants in the 41 years and over age group and of the male participants were higher than were those of the other participants ($p < 0.01$).

In Wu et al.'s [2014] study, a significant relationship was determined between age and job satisfaction too. The increase in the job satisfaction with the increase in the length of employment and in age may have been due to the fact that adaption to the work environment increases with the advancing age. In the present study, the male participants' job satisfaction levels were higher than were

those of the female participants. However, in the literature, the results differed from one study to another. For instance, while Erigüç's [2000] findings supported our findings, in Wu et al.'s [2014] studies, no significant relationship was determined between gender and job satisfaction. On the other hand, unlike our findings, in Bensing et al.'s study [2013] conducted in 10 countries, female participants' job satisfaction levels were higher than were those of male participants.

6. Conclusions

Like organizational motivation, absenteeism, staff turnover and prosocial behavior, commitment is an organizational concept which has important outcomes for organizations.

This study was carried out in order to determine the levels of organizational commitment, burnout and job satisfaction of physicians and nurses. The study examined the relationships between these concepts and was performed with a 10% sample error. In our study, it is found out that as emotional and normative commitment levels increase, so does the job satisfaction; while the continuation commitment level increases, job satisfaction level decreases; and meaningful statistical relation was determined between job satisfaction and burnout levels.

It was determined that participants' emotional and normative commitment level is over average and continuation commitment level is high; their emotional burnout level is high, desensitization level is at average, as their personal success level is high so is their intrinsic satisfaction level, extrinsic satisfaction level is low and general vocational satisfaction level is close to neutral.

In our study it was found out that males' organizational commitment level is higher than females' and general vocational satisfaction level of those who are 41 years old or over and male is higher than other groups. It was also determined that emotional burnout level decreases and personal success increases with age; single people suffer from emotional burnout more than the married people do and their personal success level is lower than married people, too; and the males experience desensitization more severely than the females do.

6.1. Research contribution

Relations between organizational commitment, job satisfaction and burn out were determined. Future research is required to be conducted to identify other factors which contribute to organizational commitment, job satisfaction, burn out and other variables.

6.2. Implications for research and practitioners

The presented research results may be constitute a source of several practical advices for health care organization. In order to ensure the generalizability of the results obtained in this study, it is recommended that further studies should be conducted with different, larger sample groups not only from university hospitals but also from other hospitals. Considering the fact that the burnout and job satisfaction levels of the participants of the present study were moderate, it is also recommended that further research is needed to find out how to enhance health professionals' organizational commitment and job satisfaction levels.

6.3. Limitations and suggestions for future research

The limitation of the present study is that it was conducted in one hospital in the province of Sivas in Turkey. Therefore, the results obtained from this study are applicable only to the participants surveyed.

In order to increase the level of organizational commitment which is an important determinant of staying in the institution:

- employees should create an organizational culture that supports their feelings of trust, justice, respect, equality,
- employees attend trainings, demonstrate their talents and fulfill their roles, and responsibilities required are established,
- the understanding and adoption of the mission, goals and objectives of the organization should be supported by employees.

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