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THE EFFECTS OF LEADERSHIP STYLES OF HEALTHCARE INSTITUTION MANAGERS ON THE JOB SATISFACTION AND ORGANIZATIONAL COMMITMENT OF HEALTHCARE WORKERS

Sağlık Kurumu Yöneticilerinin Liderlik Tarzlarının Sağlık Çalışanlarının İş Tatmini ve Örgütsel Bağlılıkları Üzerindeki Etkileri

Nuran AKYURT[1]
[1]*Marmara University Vocational School of Health Services, Istanbul*

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ABSTRACT

In this study, it is aimed to reveal the effects of the leadership styles of the managers in health institutions on the job satisfaction and organizational commitment of the employees. The data necessary for the research, a survey was conducted among 140 medical professionals working in the administrative departments of hospitals on the Anatolian side of Istanbul with bed capacity of 600 and more. The first section of the study consist of the factor analysis of the measurement instruments of job satisfaction, organizational commitment, and five leadership behaviours. Kaiser-Meyer-Olkin (KMO) test, and the Bartlett's Sphericity test showed that the study sample was appropriate for the factor analysis. The second section includes multivarite regression model and the univarite analysis. The descriptive statistics of the participant characteristics, and the scales were presented with mean and standard deviation, and frequencies and percentage. The statistical significance was at 0.05 level. The exploratory variables were the participant charactersitics, and the leadership behaviours that found to have statistically significant relationship with the dependent variables. As a result, it is supported by our research findings that the organizational commitment of the personnel working in healthcare institutions is related to the concepts of task-oriented leader and people-oriented leader.

Keywords: Health professional, Job satisfaction, Leadership, Organizational commitment.

ÖZ

Bu çalışmada sağlık kurumlarında görev yapan yöneticilerin liderlik tarzlarının çalışanların iş tatmini ve örgütsel bağlılıkları üzerindeki etkilerinin ortaya konulması amaçlanmaktadır. Gerekli verilerin toplanması amacıyla İstanbul Anadolu yakasında yatak kapasitesi 600 ve üzeri olan hastanelerin idari bölümlerinde görev yapan 140 sağlık çalışanı arasında anket çalışması yapıldı. Çalışmanın ilk bölümü iş tatmini, örgütsel bağlılık ve beş liderlik davranışını ölçen araçların faktör analizinden oluşmaktadır. Kaiser-Meyer-Olkin (KMO) testi ve Bartlett Küresellik Testi çalışma örnekleminin faktör analizine uygun olduğunu göstermiştir. İkinci bölümde çok değişkenli regresyon modeli ve tek değişkenli analiz yer almaktadır. Katılımcı özelliklerine ve ölçeklere ilişkin tanımlayıcı istatistikler ortalama, standart sapma, frekans ve yüzde ile sunuldu. İstatistiksel anlamlılık 0,05 düzeyindeydi. İş memnuniyetini ve örgütsel bağlılığı tahmin etmek için çok değişkenli regresyon modelleri uygulandı. Açıklayıcı değişkenler katılımcı özellikleri ve bağımlı değişkenlerle istatistiksel olarak anlamlı bir ilişkiye sahip olduğu tespit edilen liderlik davranışlarıdır. Sonuç olarak sağlık kurumlarında çalışan personelin örgütsel bağlılığının görev odaklı lider ve insan odaklı lider kavramlarıyla ilişkili olduğu araştırma bulgularımız ile desteklenmektedir.

Anahtar Kelimeler: İş tatmini, Liderlik, Örgütsel bağlılık, Sağlık çalışanı.

Nuran AKYURT✉, nakyurt@hotmail.com
Marmara University, Vocational School of Health Services, Istanbul

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INTRODUCTION

Leadership is that a person, under certain conditions, directs the activities of others and motivates them to develop their abilities (Koçel, 2010). Leader, on the other hand, is the person who determines the goals of the group they are affiliated with and influences the group members in line with the goals, and directs them to behaviour.

Leadership styles refer to a leader's methods, characteristics, and behaviours when directing, motivating, and managing their teams. Their leadership style is also the determining factor in how leaders develop their strategy, implement plans, and respond to changes, while managing the expectations of stakeholders and the wellbeing of their team.

Transformational leadership is a leadership style that focuses on change and transformation. Leaders who take this approach strive to inspire their followers to achieve more than they ever thought possible by fulfilling their individual potential. This type of leadership can be extremely effective in organizations seeking major change or transformation. Key characteristics of transformative leadership include a focus on the future, on change, and on people.

Transactional leadership, often referred to as managerial leadership, is a leadership style that relies on rewards and punishments. This leadership style has a clear emphasis on structure, assuming individuals may not possess the motivation needed to complete their tasks. Transactional leaders share the goals that will bring the organization to success with their followers and perform the distribution of tasks. Followers are rewarded for success, and punished if they perform poorly. These types of leaders are leaders who are committed to the rules, emphasize the need to comply with the rules in their employees, and make small changes because of this. The main purpose is to realize organizational goals and reward the employees who will achieve it (Bass & Steidlmeier, 1999; Khan, Bukhari & Channar, 2016; Pusiran & King, 2009). The transformational and transactional leadership styles were measured with the Leadership Practices Inventory (LPI) developed by Posner & Kouzes (1988).

There is a gap between what can be called the "soft" side of leadership (transformational) and the side that is more focussed on "carrots and sticks" (transactional). Although both are important elements of effective leadership, leaders must also know the "nuts and bolts" of the context in which they are leading. Instrumental leadership fills that gap. This leadership style perform functions such as maintaining the balance between the environment and the organization, determining a strategy, putting forward task-oriented activities, and using

organizational resources effectively. Instrumental leadership style is of great importance for achieving sustainable corporate performance (Antonakis & House, 2014).

Organizational Commitment refers to the level of engagement and dedication team members feel toward their individual jobs and the organization. In organizational commitment, the relationship between the organization and its employees is not only one of the important concepts in terms of management and behavioural sciences but also central to studies regarding individual and organizational performance (Swailes, 2002). Porter & Lawler (1968), defines organizational commitment as the employee's willingness to perform at a high level for the organization, to remain in the organization, and to share the organization's values and goals.

The "Three Component Model (TCM)" developed by Allen and Meyer (1990) is generally accepted and remains the most preferred scale feature by researchers (Jackson, Meyer & Wang, 2013). This model is the most comprehensive model that investigates organizational commitment (Allen & Meyer, 1996; Meyer, Allen & Smith, 1993) and has received a lot of empirical support (Allen & Meyer, 1990; Meyer, Stanley, Herscovitch & Topolnytsky, 2002). In the classification of organizational commitment, Allen and Meyer (1990) identified three types of commitments: affective, continuance, and normative commitment.

Affective Commitment is related to organizational behaviour (Meyer et al., 2002) and is defined as the psychological or emotional attachment, identification and participation of the organizational member to the organization (Meyer & Allen, 1997). This means that when members arouse a sense of identification with the organization, they will in turn remain emotionally attached to the organization and become more involved in the goals of the organization.

Continuance Commitment means that the member of the organization continues to stay in the organization because there is no other alternative (Meyer & Allen, 1997). To put it more clearly, the member of the organization believes that he should stay in the organization, considering that leaving the organization will be costly, he will lose his investments made for the organization, and he will lose time. That is, the member of the organization is aware of the costs associated with leaving the organization. Organization members with continuance commitment continue their membership in the organization until they find a better and more suitable organization for them (Meyer & Allen, 1997).

Normative Commitment means that the member of the organization believes that it is moral to stay in the organization with the thought that the organization expects loyalty from him and stays in the organization. Meyer and Parfyonova (2010) consider organizational

commitment as an indicator of organizational members' attitudes and behaviors in the organization. Suspicious members do not want to volunteer in their organizations and do not want to make sacrifices. Job turnover and resignation rates are low in organizations with high commitment of members. The increase in these rates is also an indicator of weak organizational commitment.

Job Satisfaction

Locke (1976) defines job satisfaction as "the emotional pleasure that the employee gets after the evaluations of his/her job", Imparota (1972) as "the degree of positive or negative feelings of the employees about the work they do", Spector (1997) as "how much the person likes or dislikes his/her job", Oshagbemi (1999) defines it as "the positive feelings of an individual towards a particular job".

One concept frequently emphasized to increase the productivity of healthcare workers, vital stakeholders in the health sector, and to control staff turnover rates job satisfaction. The most important factor for businesses operating in the health sector to gain superiority over their competitors is the human factor. In fact, patients (clients) who are served by productive staff with high job satisfaction are expected to tend to prefer the same hospital again. Employees with low job satisfaction, on the other hand, pose various risks for businesses. Behavioral disorders of the employees, their resignation and the emergence of intra-organizational conflicts may cause the company to lose customers and have to pay compensation. As well as the prolongation of the treatment process of the patients and the possibility of receiving the wrong treatment. In the research part of our study, it was aimed to investigate the relationship between leadership styles and organizational commitment variable, which includes the dimensions of continuous and normative commitment as well as emotional commitment.

MATERIAL AND METHOD

The aim of this study is to reveal the effects of the leadership styles of the managers in health institutions on the job satisfaction and organizational commitment of the employees. For the research, necessary permissions were obtained from the relevant institutions.

This cross-sectional study aims to examine the leadership behaviours related to the job satisfaction and the organizational commitment of healthcare workers. The first section of this study includes the exploratory and confirmatory factor analysis of the measurements tools for job satisfaction, organizational commitment, and five leadership behaviours. The second section of this study consists of multivariate regression, and univariate analyses.

Universe and Sample

The study universe a total of 140 healthcare workers who gave consent were included on a voluntary basis in the cross-sectional questionnaire based survey conducted between February 2019 and June 2019.

The research universe consists of healthcare personnel working in the administrative units of hospitals on the Anatolian side of Istanbul with 600 or more bed capacity. In determining the sample size, administrative unit employees of hospitals on the Anatolian side of Istanbul with 600 or more bed capacity were taken into account. There are 200 healthcare professionals working in the administrative units of hospitals on the Anatolian side of Istanbul with 600 or more bed capacity. The simple random sampling method of the probability sampling methods, was used for sample selection in the research. In the simple random sampling method, the characteristics of the universe units related to the research subject must be homogeneous, and each unit forming the universe has the same probability of being included in the sample (Ural & Kılıç, 2006).

Using the simple random sampling method, the number of samples required to be reached from a universe of 200 people was calculated with the formula below (İslamoğlu, 2009) and found to be at least 132 at a 95% confidence level.

$$n = \frac{Z^2PQ}{E^2 + \frac{Z^2PQ}{N}} = \frac{1.96^2 * 0.5 * 0.5}{0{,}05^2 + \frac{1.96^2 * 0.5 * 0.5}{200}} = 132$$

The meanings of the parameters given in the formula are as follows:

Z: 1.96 (Standard normal variable = 95% confidence level)

N: Universe size

P: Main mass ratio = (50%) 0.5 margin of deviation (Taken as maximum error),

Q: 1-P = 0.5

E: Default error (5%) = 0.05

Data Collection Tools

In the research, survey method was used as data collection technique. The study was conducted in accordance with ethical principles stated in the “Declaration of Helsinki”, and participant’s informed consent was obtained electronically in advance of the data collection through the informed consent page presented two options (yes/no). The participants filled a 2 sectioned form, the first part was questioning age, gender, education, type of health facility they work for, their profession, department they work in, service years in their current workplace,

and their job title. The second part of the form included seven scales measuring job satisfaction, organizational commitment, task-oriented leadership, people-oriented leadership, transformational leadership, transactional leadership, and instrumental leadership.

As job satisfaction measurement instrument, Minnesota Satisfaction Questionnaire (MSQ) developed by Weiss, Dawis, England, and Lofquist (1967), has been used. The questionnaire consists of 20 items measuring satisfaction associated with the task and non-task characteristics of the job and the overall job satisfaction level. The respondents are required to rate each item based on the extent to which the respondent is satisfied with that aspect of the job on a five-point Likert scale (1=strongly disagree, and 5=strongly agree). Bilgiç (1998), adapted the questionnaire to Turkish culture, reported alpha coefficients as above 0.80. The overall job satisaction was calculated as the total of all items, and the total score categorized as low job satisfaction (score below 26), normal job satisfaction (score between 26 and 74), and high job satisfaction (score above 74).

The organizational commitment level was measured using the organizational commitment questionnaire developed by Meyer, Allen and Smith (1993), and translated into Turkish by Wasti (1999). The scale adapted by Wasti is “highly reliable” for affective and normative commitment and “very reliable” for continuance commitment.

The scale has total of 18 items and three dimensions which are affective commitment (items 1-6), continuance commitment (items 7-12), and normative commitment (items 13-18). The participants rated each item based on their degree of agreement on a five-point likert scale (1=strongly disagree, and 5=strongly agree). The organizational commitment was computed as the mean item score.

Leadership opinion questionnaire (LOQ) of Fleishman (1953) was used to measure the leadership orientation of the managers. The scale measures both task-oriented behaviours and people-oriented behaviours, each having 20 items. The ratings are done on a five-point Likert scale (1=never, and 5=always). The questionnaire was translated into Turkish by Sümer & Bilgiç in an unpublished work. In their study, alpha coefficients were found to be above 0.70 for both task-orientation, and the people-oriented leadership behaviour.

The transformational and transactional leadership styles were measured with the Leadership Practices Inventory (LPI) developed by Posner & Kouzes (1988). The transformational leadership is measured with 18 items, the transactional leadership with 12 items. The scales’ ratings are on a five-point Likert scale (1=never, and 5=always). This inventory was translated into Turkish and its reliability was established by Ergin and Kozan

(2004), with alpha coefficients of 0.82 for transformational, and 0.80 for transactional leadership.

The instrumental leadership was measured using Antonakis's (2004) measure with 16 items rated on a five-point Likert scale (1=never, and 5=always).

Statistical Analysis

The first section of this study consist of the factor analysis of the measurement instruments of job satisfaction, organizational commitment, and five leadership behaviours. Kaiser-Meyer-Olkin (KMO) test, and Bartlett's test of sphericity were conducted to examine the adequacy of the sample for the factor analyses. Exploratory factor analysis was conducted with Principal component analysis, and Varimax rotation method with Kaiser Normalization. The internal reliability of the scales, and factors were analyzed with Cronbach's alpha coefficient. The confirmatory factor analysis results were reported with chi-square test, relative chi-square index, residual mean square error of approximation (RMSEA), root mean square residual (RMR), and Comparative Fit Index (CFI). In addition, structural equation models' were presented in figures.

Section 2 of the study includes multivarite regression model and the univarite analysis. Descriptive statistics of the participant characteristics, and the scales were presented with mean and standard deviation, and frequencies and percentage. The normal distribution assumption was examined with Kolmogorov-Smirnov test. The participant characteristics related to the scale scores were analyzed with Mann-Whitney U test, Kruskal Wallis test, and correlation analysis. The association between the scales and the factors were analyzed with Spearman's rank correlation. The statistical significance was at 0.05 level.

Multivariate regression models were performed for predicting the job satisfaction, and the organizational commitment. The exploratory variables were the participant charactersitics, and the leadership behaviours that found to have statistically significant relationship with the dependent variables. The variables of age and gender were included in both model, and having high job satisfaction was added to the model predicting the organizational commitment mean score. Bootstrap with simple sampling (1000 samples) method was performed for the multivariate regression model, enter method. The bootstrap method was conducted since the normality assumption was not met for all the continuous variables in the model. The unstandardized beta coefficients, and bias-corrected accelerated (BCa) 95% confidence interval (CI) were reported. The analysis were performed using IBM SPSS Statistics and AMOS for Windows, version 26.0 (IBM Corp., Armonk, NY, USA).

Limitations of the Research

It was accepted that the healthcare professionals participating in the study reflected their own thoughts and filled out the survey according to the working environment conditions. This situation constitutes the uncontrollable limit of the research. The research was conducted on personnel working in the administrative units of a health institutions with a bed capacity of 600 or more located on the Anatolian side of Istanbul. It reflects the opinions and thoughts of healthcare professionals before Covid-19 pandemic.

RESULTS

Table 1 shows the characterisitcs of 140 healthcare workers. Female healthcare workers represented the 53.6% of the study group. The mean age of the participants was 34.71 (7.49). Majority (57.86%) of the participants had associate degree, while 36.43% of them had graduate degree, and the remaining 5.71% had Master's degree. More than half (55%) of the participants were working in public hospitals, while 36.4% of them were working in private hospitals, 6.4% of them working in private medical centers, and the remaining 2.1% work in universty hospitals. Health technicians represented 75% of the study group, while administrative staff was 19.3%, and remaining 2.9% of them represented the doctors and nurses. The most (52.8%) of the participants were working in radiology department, while the one's working in information technology, operational room, and nuclear medicine departments were 20%, 15.7%, and 11.4%, respectively. The mean length of service was 3.21 (2.01) years. Technician title was the most common by 90.7%, while 8.6% of them were clinical chiefs, and there was one chief physian in the study group (0.7%). The participants with high job satisfaction score represented 38.6% of the study group.

Table 1. Participant Characteristics (n=140)

		Mean	SD	N	%
Age (years)		34.71	7.49		
Gender	Male			65	46.43
	Female			75	53.57
Education	Associate degree			81	57.86
	Graduate degree			51	36.43
	Master's degree			8	5.71
Facility	Public Hospital			77	55.00
	University Hospital			3	2.14
	Private Medical Center			9	6.43
	Private Hospital			51	36.43
Profession	Doctor			4	2.90

	Nurse			4	2.90
	Health Technician			105	75.00
	Administrative staff			27	19.30
Department	Radiology			74	52.86
	Information Technology			28	20.00
	Operational Room			22	15.71
	Nuclear Medicine			16	11.43
Length of service (years)		3.21	2.01		
Job title	Chief physician			1	0.71
	Clinical chiefs			12	8.57
	Technician			127	90.71
Job Satisfaction level	High			54	38.6
	Normal or low			86	61.4

The findings of the exploratory factor analysis for all scales are presented in Table 2. Kaiser-Meyer-Olkin (KMO) test, and the Bartlett's Sphericity test showed that the study sample was appropriate for the factor analysis. Factors were extracted with the Principal component analysis, and Varimax rotation with Kaiser Normalization.

Table 2. Exploratory Factor Analysis and Factor Correlations with Scale Score

Scale and Factors	No. of Items	Cronbach's alpha	KMO	Bartlett's test	Eigen-values	% of variance	Correlation with scale score
Job Satisfaction	20	0.91	0.876	1043.91		49.77	
F1	13	0.89			7.25	36.24	0.95
F2	3	0.72			1.61	8.03	0.66
F3	4	0.70			1.10	5.50	0.77
Organizational Commitment	18	0.88	0.848	874.18		56.71	
F1	7	0.82			6.08	33.76	0.85
F2	5	0.76			1.79	9.94	0.83
F3	3	0.66			1.23	6.81	0.75
F4	3	0.66			1.12	6.20	0.66
Task-oriented Leadership	20	0.85	0.798	746.33		54.33	
F1	5	0.71			5.35	26.77	0.81
F2	4	0.70			1.78	8.88	0.72
F3	5	0.67			1.36	6.80	0.80
F4	3	0.65			1.26	6.31	0.72
F5	3	0.54			1.11	5.56	0.64
People-oriented Leadership	20	0.86	0.815	837.07		51.30	
F1	5	0.76			5.63	28.13	0.71
F2	4	0.63			1.91	9.55	0.71
F3	5	0.76			1.53	7.66	0.86
F4	6	0.69			1.19	5.96	0.76
Transformational Leadership	18	0.89	0.849	908.75		56.80	

F1	6	0.80			6.30	35.00	0.79
F2	5	0.73			1.49	8.29	0.79
F3	5	0.79			1.31	7.29	0.76
F4	2	0.65			1.12	6.21	0.56
Transactional Leadership	12	0.86	0.865	521.11		49.49	
F1	6	0.80			4.78	39.85	0.91
F2	6	0.75			1.16	9.64	0.88
Instrumental Leadership	16	0.89	0.869	752.34		45.55	
F1	9	0.83			6.05	37.82	0.93
F2	7	0.81			1.24	7.73	0.88

Factor extraction with Principal Component Analysis, and rotation with Varimax with Kaiser Normalization. Sample adecuacy is significant at 0.0001 level.

The job satisfaction scale had a high interal relability with cronbach's alpha value of 0.91. The study sample was found to be adequate for the factor analysis (KMO=0.88, Bartlett's test=1043.91, $p<0.0001$), and 3 factors were identified. These factors explained 49.8% of the variance in the model. The variance explained for factors 1, 2 and 3 were 36.24%, 8.03% and 5.50%, respectively. The factor internal reliability was high, ranging between 0.70-0.89. The factor scores had relatively high correlation with the total scale score, correlation coefficients ranging between 0.66-0.95 ($p<0.05$). The factor loadings are presented in Table 3. Factor 1 includes 13 items (items 1, 2, and 10-20) with loadings ranging between 0.48-0.69. The factor 2 consists of items 5, 6, and 7 with loadings of 0.68, 0.80, and 0.68, respectively. The factor 3 includes 4 items (items 3, 4, 8, and 9) with factor loadings ranging between 0.41-0.65.

Table 3. Factor Loading of Job Satisfaction Scale

	F1	**F2**	**F3**
Item 1	0.59		
Item 2	0.57		
Item 10	0.59		
Item 11	0.58		
Item 12	0.62		
Item 13	0.69		
Item 14	0.64		
Item 15	0.48		
Item 16	0.52		
Item 17	0.49		
Item 18	0.58		
Item 19	0.69		
Item 20	0.60		
Item 5		0.68	
Item 6		0.80	
Item 7		0.68	
Item 3			0.57

Item 4	0.41
Item 8	0.64
Item 9	0.65

Rotation Method: Varimax with Kaiser Normalization.

The organizational commitment scale showed a high internal relability with 0.88 Cronbach's alpha value. The stusy sample was found to be adequate for the factor analysis (KMO=0.85, Bartlett's test=874.18, $p<0.0001$), and four factors were identified. The factors explained 56.7% of the variance, the respective explained varience of the factors were 33.76%, 9.94%, 6.81%, and 6.20%. The internal reliability of the first two factors were above 0.75, while 0.66 for the factors 3 and 4. The factor scores had relatively high correlation with the scale score, correlation coefficients ranging between 0.66-0.85 ($p<0.05$). The factor loadings are presented in Table 4. The factor 1 includes 7 items (items 10, 11, and 14-18) with loadings ranging between 0.54-0.75. The factor 2 consists of 5 items (items 1 and 7-9) with loadings ranging between 0.49-0.70. The factor 3 includes 3 items (items 2, 3, and 6) with factor loadings ranging between 0.47-0.82. The factor 4 includes item 4, 5, and 13 with respective factor loadings of 0.64, 0.75, and 0.68.

Table 4. Factor Loading of Organizational Commitment Scale

	F1	F2	F3	F4
Item 10	0.56			
Item 11	0.57			
Item 14	0.75			
Item 15	0.65			
Item 16	0.62			
Item 17	0.70			
Item 18	0.54			
Item 1		0.49		
Item 7		0.70		
Item 8		0.64		
Item 9		0.73		
Item 12		0.59		
Item 2			0.82	
Item 3			0.47	
Item 6			0.67	
Item 4				0.64
Item 5				0.75
Item 13				0.68

Rotation Method: Varimax with Kaiser Normalization.

The task-orientated leadership scale had high internal relability with 0.85 Cronbach's alpha value. The study sample was found to be adequate for factor analysis (KMO=0.80,

Bartlett's test=746.33, p<0.0001) and 5 factor were identified. The factors explained 54.3% of the variance, and the respective explained variences of the factors were 26.77%, 8.88%, 6.80%, 6.31%, and 5.56%. The internal reliability of factors 3-5 were moderate with values ranging between 0.67-0.54. The factor scores had realtively high correlation with the scale score, correlation coefficients ranging between 0.64-0.81 (p>0.05). The factor loadings are presented in Table 5. The factor 1 includes 5 items (items 8-10, 17, and 18) with loadings ranging between 0.54-0.74. The factor 2 consists of items 2-5 with respective loadings of 0.67, 0.70, 0.77, and 0.42. The factor 3 includes 5 items (items 6, 11-13, and 19) with factor loadings ranging between 0.40-0.76. The factor 4 includes items 1, 14, and 15 with respective loadings of 0.65, 0.67, and 0.73. The factor 5 had items 7, 16, and 20 with respective factor loadings of 0.73, 0.61, and 0.51.

Table 5. Factor Loading of Task-oriented Leadership Scale

	F1	**F2**	**F3**	**F4**	**F5**
Item 8	0.60				
Item 9	0.57				
Item 10	0.54				
Item 17	0.74				
Item 18	0.66				
Item 2		0.67			
Item 3		0.70			
Item 4		0.77			
Item 5		0.42			
Item 6			0.47		
Item 11			0.76		
Item 12			0.52		
Item 13			0.64		
Item 19			0.40		
Item 1				0.65	
Item 14				0.67	
Item 15				0.73	
Item 7					0.73
Item 16					0.61
Item 20					0.51

Rotation Method: Varimax with Kaiser Normalization.

The people-orientated leadership scale had a high Cronbach's alpha value of 0.86. The study sample was found to be adequate for performing factor analysis (KMO=0.82, Bartlett's test=837.07, p<0.0001) and 4 factors were identified. The total variance explained by the four factors was 51.3%. The respective explained variances for the factors were 28.13%, 9.55%, 7.66%, and 5.96%. The internal reliability of this model was 0.76 for the factors 1 and 3, while

lowest for the factor 2 with 0.63. The factor scores were highly correlated with the scale score, correlation coefficients ranging between 0.71-0.86 ($p>0.05$). The factor loadings are presented in Table 6. The factor 1 includes 5 items (items 8 and 16-19) with loadings ranging between 0.53-0.74. The factor 2 consists of 4 items (items 9, 10, 13 and 15) with factor loadings ranging between 0.44-0.72. The factor 3 includes 5 items (items 5-7, 11 and 14) with factor loadings ranging between 0.53-0.71. The factor 4 includes 6 items (items 1-4, 12 and 20) with factor loadings ranging between 0.46-0.69.

Table 6. Factor Loading of People-oriented Leadership Scale

	F1	**F2**	**F3**	**F4**
Item 8	0.53			
Item 16	0.55			
Item 17	0.68			
Item 18	0.74			
Item 19	0.71			
Item 9		0.72		
Item 10		0.62		
Item 13		0.44		
Item 15		0.68		
Item 5			0.67	
Item 6			0.71	
Item 7			0.46	
Item 11			0.53	
Item 14			0.60	
Item 1				0.56
Item 2				0.60
Item 3				0.69
Item 4				0.46
Item 12				0.57
Item 20				0.41

Rotation Method: Varimax with Kaiser Normalization

The transformational leadership scale had a high internal reliability estimate of 0.89. The study sample was found to be adequate for performing factor analysis (KMO=0.85, Bartlett's test=908.75, $p<0.0001$) and 4 factors were identified. The total variance explained by the model was 56.8%. The respective explained variances for the factors were 35.0%, 8.29%, 7.29%, and 6.21%. The internal reliability was ranging between 0.73-0.80 for the first three factors, while the factor 4's Cronbach's alpha was 0.65. The factor scores were moderately correlated with the scale score, the coefficients ranging between 0.56-0.79 ($p>0.05$). The factor loadings are presented in Table 7. The factor 1 consists of item 1-3 and 7-9 with factor loadings ranging between 0.55-0.75. The factor 2 includes 5 items (items 12 and 15-18) with factor loadings

ranging between 0.46-0.74. The factor 3 includes 5 items (items 4-6, 10 and 11), and the factor loadings were ranging between 0.59-0.79. The factor 4 included items 13 and 14 with respective factor loadings of 0.74 and 0.71.

Table 7. Factor Loading of Transformational Leadership Scale

	F1	F2	F3	F4
Item 1	0.63			
Item 2	0.68			
Item 3	0.64			
Item 7	0.55			
Item 8	0.75			
Item 9	0.57			
Item 12		0.51		
Item 15		0.55		
Item 16		0.74		
Item 17		0.73		
Item 18		0.46		
Item 4			0.71	
Item 5			0.79	
Item 6			0.63	
Item 10			0.59	
Item 11			0.59	
Item 13				0.74
Item 14				0.71

Rotation Method: Varimax with Kaiser Normalization

The transactional leadership scale had a high internal reliability with Cronbach's alpha value of 0.86. The study sample was found to be adequate for performing factor analysis (KMO=0.87, Bartlett's test=521.11, $p<0.0001$) and 2 factors were identified. The factors explained 49.5% of the variance, the factor 1 explained 39.85% of the variance. The internal reliability was moderatly high for both of the factors with Cronbach's alpha values of 0.80 for factor 1 and 0.75 for factor 2. The scale score was highly correlated with both factor 1 ($r=0.91$, $p<0.05$) and factor 2 ($r=0.88$, $p<0.05$). The factor loadings are presented in Table 8. The factor 1 includes 6 items (items 4, 7 and 9-12) with loadings ranging between 0.56-0.80. The factor 2 also consists of 6 items (items 1-3, 5, 6 and 8) with factor loadings ranging between 0.47-0.79.

Table 8. Factor Loading of Transactional Leadership Scale

	F1	F2
Item 4	0.57	
Item 7	0.56	
Item 9	0.70	
Item 10	0.80	

Item 11	0.74	
Item 12	0.62	
Item 1		0.55
Item 2		0.62
Item 3		0.47
Item 5		0.70
Item 6		0.79
Item 8		0.48

Rotation Method: Varimax with Kaiser Normalization.

The instrumental leadership scale showed a high Cronbach's alpha value of 0.89. The study sample was found to be adequate for performing factor analysis (KMO=0.87, Bartlett's test=752.34, $p<0.0001$). Two factors were identified and 45.6% of the variance was explained by the model. The factor 1 explained 37.82%, while factor 2 explained 9.64% of the variance. The instrumental scale factors had high internal reliability with alpha coefficients above 0.80. The scale score was highly correlated with both factor 1 ($r=0.93$, $p<0.05$) and factor 2 ($r=0.88$, $p<0.05$). The factor loadings are presented in Table 9. The factor 1 includes 9 items (items 5-7 and 10-15) with loadings ranging between 0.44-0.78. The factor 2 consists of 7 items (items 1-4, 8, 9, and 16) with factor loadings ranging between 0.44-0.78.

Table 9. Factor Loading of Instrumental Leadership Scale

	F1	**F2**
Item 5	0.45	
Item 6	0.65	
Item 7	0.61	
Item 10	0.46	
Item 11	0.65	
Item 12	0.78	
Item 13	0.70	
Item 14	0.60	
Item 15	0.44	
Item 1		0.70
Item 2		0.78
Item 3		0.76
Item 4		0.56
Item 8		0.51
Item 9		0.52
Item 16		0.44

Rotation Method: Varimax with Kaiser Normalization

Table 10 presents the Confirmatory factor analysis findings for the structural equation models (SEM), and the models were presented in Figures 1-7. The measures of chi-square test, relative chi-square index, RMSEA, RMR, and CFI were reported for evaluating the goodness of fit of SEM. The acceptable goodness of fit values are insignificant chi-square test statistic at 0.05 level, 0-5 for the relative chi-square index, 0.05-0.08 for RMSEA, 0-0.10 for RMR and 0.95-1.0 for CFI (Schermelleh-Engel, Moosbrugger & Müller (2003). The chi-square test statistic was significant at 0.05 level for all the models, showing a lack of fit which might due to deviation from normality assumption of the test (Hooper, Coughlan & Mullen, 2008). The relative chi-square index is a measure that adjusts the chi-square test statistic to minimize the effect of sample size (Wheaton, Muthen, Alwin & Summers, 1977). The all seven SEM had a good fit in terms of relative chi-square index ranging between 1.45-1.78. Similarly RMSEA and RMR measures of the all models were in the acceptable fit thresholds. However CFI values were below the goodness of fit value of 0.95, the CFI measure of SEM ranged between 0.84-0.93. These findings showed that SEM of seven scales had a good fit according to the measures of relative chi-square, RMSEA and RMR.

Table 10. Confirmatory Factor Analysis Results (n=140)

Scale	x^2	df	p-value	x^2/df	RMSEA	RMR	CFI
Job Satisfaction	255.79	167	<0.0001	1.53	0.062	0.066	0.90
Organizational Commitment	230.06	129	<0.0001	1.78	0.075	0.091	0.87
Task-oriented Leadership	231.79	160	<0.0001	1.45	0.057	0.075	0.88
People-oriented Leadership	276.90	164	<0.0001	1.69	0.070	0.087	0.84
Transformational Leadership	221.69	129	<0.0001	1.72	0.072	0.075	0.89
Transactional Leadership	89.74	53	0.001	1.69	0.071	0.069	0.92
Instrumental Leadership	149.46	103	0.002	1.45	0.057	0.069	0.93

The following section includes univariate tests for the multivarite regression model predicting the job satisfaction, and organizational commitment. Table 11 shows the descriptives, and Spearman's rank correlation analysis of the scales. The mean scale scores were modertly high, 68.36 for the job satisfaction, 3.31 for the organizational commitment and the leadership behaviour scores were between 3.35-3.42. All of the scales had statistically significant relationships with each other, and correlation coefficients were ranging from 0.60 to 0.83 ($p<0.01$).

Table 11. Correlation Analysis and Descriptives of the Scales (n=140)

Scale	Spearman correlation coefficients							Mean±SD
	1	2	3	4	5	6	7	
1. Job Satisfaction		0.80	0.70	0.68	0.64	0.71	0.82	68.36±12.63
2. Organizational Commitment			0.63	0.60	0.62	0.66	0.70	3.31±0.65
3. Task-oriented leadership				0.82	0.75	0.74	0.76	3.35±0.53
4. People-oriented leadership					0.77	0.83	0.80	3.35±0.57
5. Transformational leadership						0.76	0.77	3.36±0.63
6. Transactional leadership							0.82	3.42±0.67
7. Instrumental leadership								3.37±0.67

Correlation coefficients are significant at the 0.01 level. The scale scores are computed as mean item score, excluding Job Satisfaction which was computed as total of items.

Table 12a and 12b present the relationship between the participant characteristics and the scales scores. There were no statistically significant differences in terms of gender, education level (associate vs graduates and master's), facility they work in (public vs private), profession (doctor or nurse vs health technician vs administrative) ($p>0.05$). The nuclear medicine department employees had slightly higher organizational commitment scores than the radiology department employees ($p<0.05$). Chiefs scored slightly better than the technicians for all the scales, and the differences were statistically significant ($p<0.05$). There were no statistically significant relationships between the participants age and the job satisfaction ($r=0.05$, $p>0.05$), and the organizational commitment scores ($r=0.09$, $p>0.05$). Similarly the healthcare workers' service year had no significant relationship with the job satisfaction ($r=-0.03$, $p>0.05$), and the organizational commitment ($r=0.05$, $p>0.05$).

Table 12 a. Scale Score Comparisons (n=140)

Characteristics	JS	OC	Task-oriented L.	People-oriented L.
	Mean ± SD	Mean±SD	Mean±SD	Mean±SD
Gender				
• Male	68.28±12.93	3.37±0.64	3.37±0.56	3.31±0.61
• Female	68.44±12.45	3.25±0.65	3.32±0.52	3.39±0.54
Education				
• Associate	68.93±11.89	3.34±0.63	3.36±0.54	3.37±0.59
• Graduate or Master's	67.46±13.79	3.26±0.67	3.32±0.52	3.33±0.55
Facility				
• Public	68.73±11.75	3.32±0.63	3.36±0.51	3.39±0.53
• Private	67.88±13.79	3.28±0.67	3.33±0.57	3.31±0.62
Profession				
• Doctor or nurse	74.5±9.37	3.67±0.38	3.73±0.37	3.69±0.57
• Health Technician	68.32±11.92	3.26±0.64	3.33±0.52	3.34±0.55

• Administrative	66.70±15.67	3.39±0.71	3.31±0.60	3.31±0.65
Department				
• Radiology	67.15±13.37	**3.21±0.61**	3.30±0.56	3.31±0.61
• IT	67.04±12.85	**3.30±0.77**	3.26±0.52	3.11±0.56
• Operational Room	70.27±11.14	**3.40±0.58**	3.48±0.53	3.38±0.57
• Nuclear Medicine	73.69±9.51	**3.64±0.57[1]**	3.51±0.36	3.58±0.37
Job title				
• Chief	**76.46±7.98**	**3.69±0.48**	**3.73±0.37**	**3.76±0.45**
• Technician	**67.54±12.74[2]**	**3.27±0.65[2]**	**3.31±0.53[2]**	**3.31±0.57[2]**

[1]Kruskal Wallis test p<0.05, [2]Mann-Whitney U test, p<0.05

Table 12 b. Scale Score Comparisons (n=140)

Characteristics	**Transformational L.**	**Transactional L.**	**Instrumental L.**
	Mean±SD	**Mean±SD**	**Mean±SD**
Gender			
• Male	3.41±0.60	3.45±0.66	3.34±0.67
• Female	3.32±0.66	3.39±0.69	3.39±0.68
Education			
• Associate	3.38±0.65	3.45±0.67	3.38±0.67
• Graduate or Master's	3.33±0.61	3.38±0.68	3.35±0.69
Facility			
• Public	3.33±0.68	3.44±0.67	3.39±0.64
• Private	3.41±0.57	3.40±0.69	3.34±0.72
Profession			
• Doctor or nurse	3.56±0.56	3.57±0.64	3.69±0.49
• Health Technician	3.34±0.65	3.40±0.68	3.64±0.65
• Administrative	3.39±0.62	3.46±0.67	3.29±0.80
Department			
• Radiology	3.27±0.72	3.43±0.72	3.33±0.75
• IT	3.44±0.55	3.34±0.71	3.30±0.68
• Operational Room	3.42±0.54	3.37±0.60	3.38±0.50
• Nuclear Medicine	3.58±0.37	3.62±0.51	3.64±0.47
Job title			
• Chief	**3.74±0.45**	**3.86±0.52**	**3.78±0.42**
• Technician	**3.33±0.64[1]**	**3.38±0.67[1]**	**3.33±0.68[1]**

[1]Mann-Whitney U test, p<0.05

Table 13 shows the multivariate regression analysis with 1000 bootstrap samples method for the participant characteristics, and leaderhip styles related to the job satisfaction and the

organizational commitment. The variables age and gender were included in both regression models despite having statistically not significant relationships with the dependent variables. The multivariate regression model predicting the job satisfaction has the exploratory variables of gender, age, job title, and all five leadership styles. The model shows that the only variable related to the job satisfaction was the instrumental leadership scale (β=17.01, Bca 95% CI 13.81-20.00). The exploratory variables of the model predicting the organizational commitment were gender, age, job title, department, having high job satisfaction, and the leadership behaviour scales. The model shows that having high job satisfaction (β=0.40, Bca 95% CI 0.17-0.61), and instrumental leadership behaviour (β=0.37, Bca 95% CI 0.13-0.58) were related with the organizational commitment.

Table 13. Multivariate Regression Analysis (n=140)

Variables		**Bootstrap**					
Dependent	**Independent**	**Un-standardized**				**Bca 95% CI***	
		B	**Bias**	**Std. Error**	**Sig. (2-tailed)**	**Lower**	**Upper**
Job Satisfaction	(Constant)	8.17	0.24	5.02	0.103	-2.11	18.69
	Gender	-0.02	-0.02	1.23	0.978	-2.63	2.19
	Age	0.10	-0.01	0.08	0.210	-0.04	0.24
	JobTitle	-0.10	0.08	1.88	0.952	-4.01	3.81
	Task-oriented	4.75	0.05	2.49	0.057	-0.22	9.58
	People-oriented	-2.13	0.06	2.37	0.370	-6.77	2.98
	Transformational	-1.97	-0.04	1.50	0.166	-4.60	0.72
	Transactional	-0.81	0.02	1.95	0.657	-4.76	3.37
	Instrumental	17.01	-0.07	1.69	0.001	13.81	20.00
Organizational Commitment	(Constant)	1.16	-0.02	0.42	0.008	0.26	1.94
	Gender	-0.08	0.00	0.09	0.351	-0.27	0.09
	Age	0.00	0.00	0.01	0.498	-0.01	0.02
	JobTitle	-0.02	-0.02	0.18	0.896	-0.42	0.27
	Department	0.01	0.00	0.05	0.815	-0.09	0.11
	High Job Satisfaction	0.40	0.00	0.11	0.001	0.17	0.61
	Task-oriented	0.16	0.00	0.13	0.203	-0.10	0.44
	People-oriented	-0.13	-0.01	0.16	0.384	-0.41	0.12
	Transformational	0.12	0.00	0.13	0.324	-0.13	0.38
	Transactional	0.03	0.02	0.14	0.800	-0.23	0.38
	Instrumental	0.37	-0.01	0.13	0.005	0.13	0.58

Bootstrap results are based on 1000 samples *Bias-corrected and accelerated 95% Confidence Interval

The structural equation models are presented in Figures 1 - 7.

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The Effects of Leadership Styles of Healthcare Institution Managers on the Job Satisfaction and Organizational Commitment of Healthcare Workers.
Nuran AKYURT

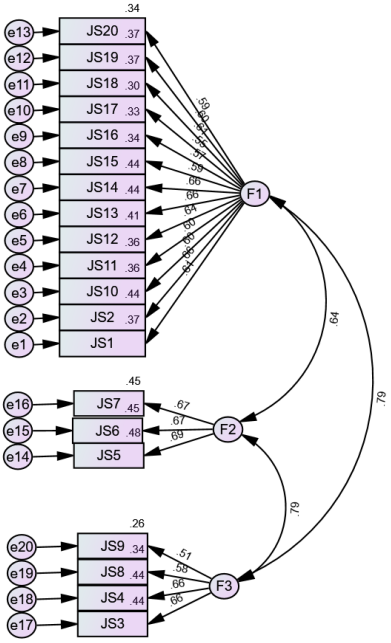

Figure shows standardized regression weight estimates

Figure 1. Confirmatory Factor Analysis of Job Satisfaction Scale

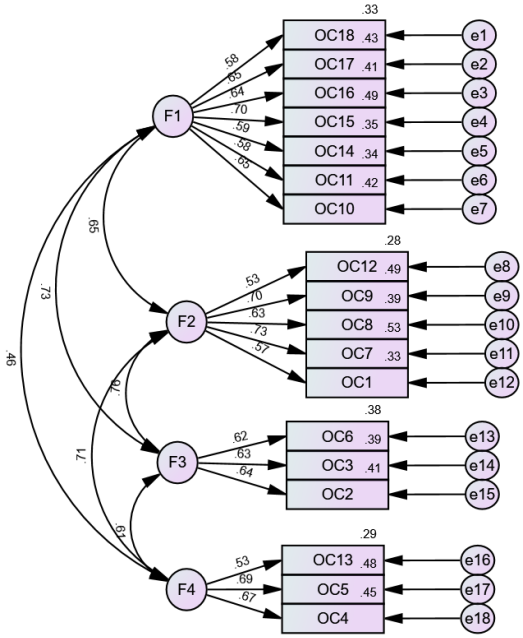

Figure shows standardized regression weight estimates

Figure 2. Confirmatory Factor Analysis of Organizational Commitment Scale

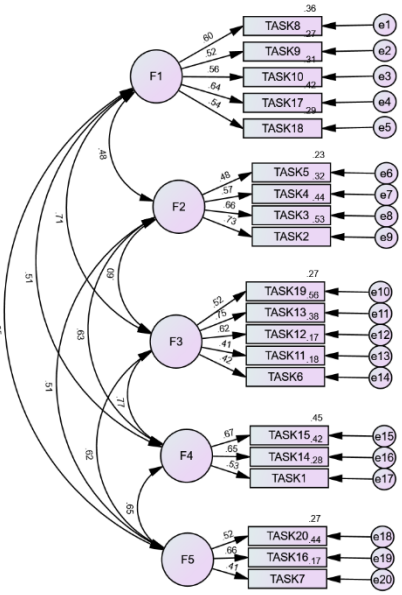

Figure shows standardized regression weight estimates

Figure 3. Confirmatory Factor Analysis of Task-oriented Leadership Scale

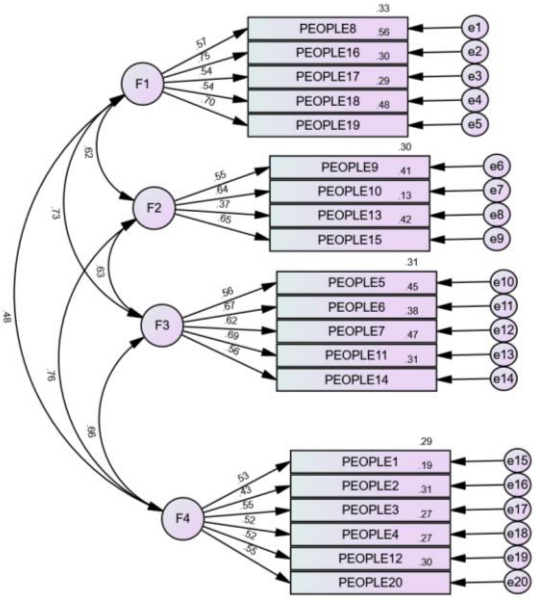

Figure shows standardized regression weight estimates

Figure 4. Confirmatory Factor Analysis of People-oriented Leadership Scale

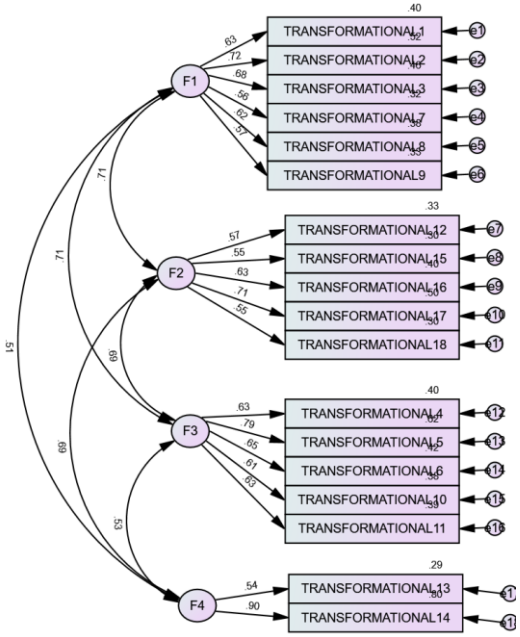

Figure shows standardized regression weight estimates

Figure 5. Confirmatory Factor Analysis of Transformational Leadership Scale

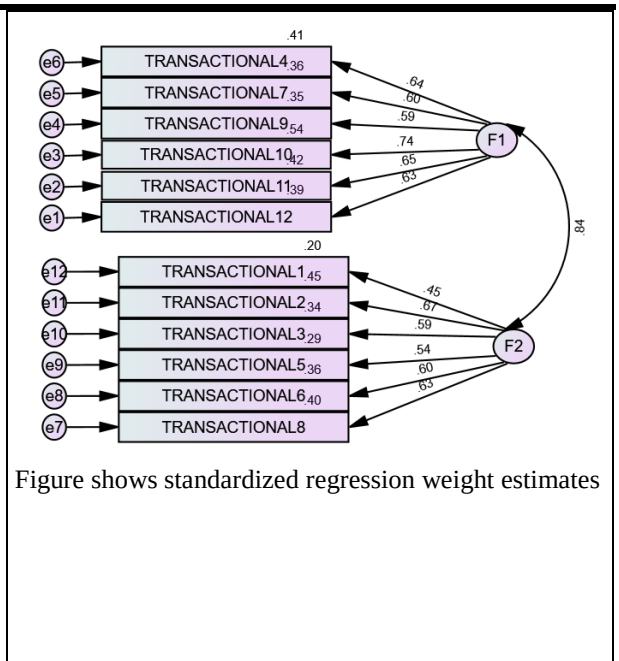

Figure shows standardized regression weight estimates

Figure 6. Confirmatory Factor Analysis of Transactional Leadership Scale

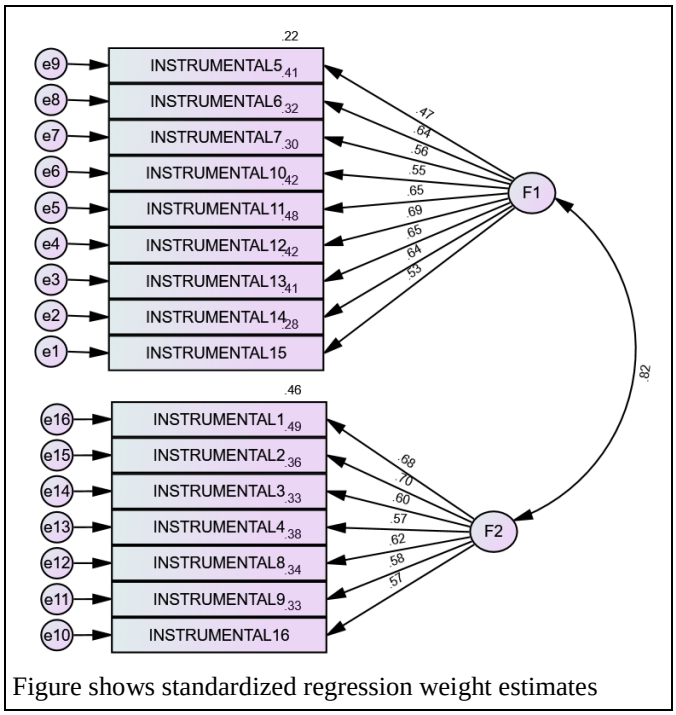

Figure shows standardized regression weight estimates

Figure 7. Confirmatory Factor Analysis of Instrumental Leadership Scale

DISCUSSION

When looking at the research conducted to determine the relationship between the leadership styles of healthcare managers and organizational commitment, it is seen that most

studies are conducted on transformational leadership and emotional commitment, and there are almost no studies on normative or continuous commitment. This may be due to the fact that continuous commitment, by definition, means that the employee stays in the organization for compulsory reasons, whereas transformational leadership refers to a transformation process in which the values and goals of the employees are harmonized with the organizational goals and values.

Since normative commitment is related to the sense of obligation that the employee feels towards the organization, the relationship between transformational leadership and normative commitment, because the employee feels indebted to this social system due to the effort and dedication of the transformational leader for the employee, the leader's efforts may be limited to certain behaviors to integrate the employee to the social system.

In the health sector, which has a very complex structure, where many different professional groups work together, and whose budget is much larger than other service sectors, the leadership behaviors of managers are important. When looking at the relationship between managers' leadership behaviors and organizational commitment in the literature, it is seen that there is a strong link between transformational leadership and organizational commitment (Kırkpınar & İşcan, 2018). It has been determined that managers who exhibit transactional leadership behavior have a positive effect on employees' organizational commitment (Akyurt, Alparslan & Oktar, 2015; Parseyhan 2014).

The inference that can be made from the findings is that the characteristics of the profession are risky, difficult, stressful and tiring. A manager who is transformational, that is, instills a vision (in the context of the items in the scale), creates wishes for the future, reveals their wishes and tries to create commitment to their wishes, offers them the opportunity for development and thinks long-term, has a positive impact on healthcare workers. This sample shows that healthcare workers need a manager who meets their immediate needs, can provide direct support in difficult moments, solves their problems, tends to correct mistakes, explains tasks and goals in detail, and observes task-oriented leadership styles.

Cowden, Cummings, and Profetto-Mcgrath (2011) found that the transformational leadership style positively affects the intention to stay in the organization and the level of organizational commitment. Cansoy and Polatcan (2019) found that the transformational leadership style is perceived more than other leadership styles and has a positive effect on organizational commitment. Meyer et al. (2002) found in their study that there is a strong positive relationship between organizational commitment and transformational leadership. It is

thought that the transformational leadership style is the leadership style that is more admired among the employees in general and leads to positive effects, and it is due to the expectations of today's people.

Transformational leadership style is not an appropriate approach in the context of this sample, considering the characteristics of the job. The same is true of the effect on organizational commitment. The explanatory nature of job satisfaction to organizational commitment is quite high, because this is an example where clearly defined rules and procedures make employees feel comfortable and feel safe when faced with great difficulties and risks.

As a result of a research conducted on a total of 148 assistant health personnel working in Tunceli and Malatya public hospitals to determine the leadership style perceptions and organizational commitment of the employees, it was determined that the leadership styles exhibited by the managers affected the employees' commitment to the institution, and that among the leadership styles, especially transformational leadership, had a strong effect on organizational commitment (Çakınberk & Demirel, 2010).

In the study conducted by Akyurt et al. (2015) on 1785 healthcare workers, it was observed that leadership styles were perceived the same way on average, but the instrumental leadership style had the most impact on organizational commitment. It has been determined that transactional leadership and organizational commitment are interrelated and that transactional leadership behaviors have a positive effect on organizational commitment (Akyurt et al., 2015; Parseyhan 2014).

While healthcare organizations aim to produce quality healthcare services with a unique set of challenging conditions, such as needing intensive use of technology in service production, producing services in teams with employees with a wide range of expertise, and providing the service uninterruptedly, they also strive to have employees who are satisfied with their jobs and loyal to their organizations. In healthcare facilities, where teamwork is common, alongside advanced technology, professionals from different disciplines work together. It is very important to develop the leadership skills of the managers so that the qualified employees of the healthcare facilities are committed to the organization, satisfied in their work and the collaboration is effective (Öztürk & Çankaya, 2021). At this point, organizational managers' relationships with employees and employees' perceptions of leadership come to the fore.

CONCLUSION AND RECOMMENDATIONS

The open and clear transmission of the corporate vision by the managers to the employees ensures that this vision is adopted by the employee and the employee identifies her/himself with the organization. The employee, whose individual needs, feelings and thoughts are taken into account, will continue her/his membership in the organization together with the emotional bond she/he feels towards the organization. Organizational commitment is the driving force behind organizational success, because organizational commitment can increase the individual's feeling and interest in staying in the organization. In this context, the leader's attitudes and behaviors are important.

Leadership styles that allow subordinates to participate in decisions and support them continuously should be seen as desirable leadership styles in terms of job satisfaction. It is important to increase satisfaction levels in order to positively affect the motivation of personnel working in healthcare institutions. Job satisfaction levels of healthcare employees should be monitored by their managers at regular intervals, and necessary efforts should be made to keep employees' job satisfaction levels high.

As a result, it is supported by our research findings that the organizational commitment of the personnel working in healthcare institutions is related to the concepts of task-oriented leader and people-oriented leader.

In order to increase the number of satisfied and committed employees in the organizations of the future corporate trainings that will improve the leadership skills of managers working in health institutions has to organized, as a principle of competence in manager appointments leadership qualities has to be taken, and beyond this, course contents that explain the types of leadership valid in the business life of the 21st century in the educational curricula of higher education institutions that train the health managers of the future has to be included.

REFERENCES

Akyurt, N., Alparslan, A. M. & Oktar, Ö. F. (2015). Sağlık çalışanlarında liderlik tarzları-iş tatmini-örgütsel bağlılık modeli. Süleyman Demirel Universitesi. *Vizyoner Dergisi*, 6(13), 50-61.

Allen, N. J. & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal Of Occupational And Organizational Psychology*, 63(1), 1-18.

Allen, N. J. & Meyer, J. P. (1996). Affective, continuance, and normative commitment to the organization: An examination of construct validity. *Journal of Vocational Behavior*, 49(3), 252-276.

Antonakis, J. & House, R. J. (2014). Instrumental leadership: Measurement and extension of transformational–transactional leadership theory. *The Leadership Quarterly*, 25(4), 746-771.

Bass, B. M. & Steidlmeier, P. (1999). Ethics, character and authentic transformational leadership behavior. *Leadership Quarterly*, 10(2), 181-217.

Bilgiç, R. (1998). The Relationship Between Job Satisfaction and Personal Characteristics of Turkish workers. *The Journal of Psychology*, 132(5), 549–557.

Cansoy, R. & Polatcan, M. (2019). The relationship between school principals' leadership and teachers' organisational commitment: A systematic revie". *Bartın University Journal of Faculty of Education*, 8 (1), 1-31.

Cowden, T., Cummings, G. & Profetto-McGrath, J. (2011). Leadership practices and staff nurses' intent to stay: a systematic review. *Journal of Nursing Management*, 19, 461-477.

Çakınberk, A. & Demirel, E. T. (2010). Örgütsel bağlılığın belirleyicisi olarak liderlik: sağlık çalışanları örneği. *Selçuk Üniversitesi Sosyal Bilimsel Enstitüsü Dergisi*, 24, 103-119.

Ergin, C. & Kozan, M. K. (2004). Çalışanların temel değerleri dönüşümsel ve etkileşimsel liderlerin çekiciliği. *Türk Psikoloji Dergisi, 19*(54), 37–51.

Fleishman, E. A. (1953). The description of supervisory behavior. *Journal of Applied Psychology*, 37, 181-210.

Hooper, D., Coughlan, J. & Mullen, R. M. (2008). Structural equation modelling: Guidelines for determining model fit. *The Electronic Journal of Business Research Methods*, 6(1), 53-60.

Imparota, N. (1972). Relationship between porter's need satisfaction questionnaire and the job descriptive ındex. *Journal of Applied Psychology*, 56(4), 301-304.

İslamoğlu, A. H. (2019). Sosyal bilimlerde araştırma yöntemleri (SPSS Uygulamalı). Beta Basım, İzmit.

Jackson, T. A., Meyer, J. P. & Wang, X.-H. (2013). Leadership, commitment, and culture: A meta-analysis. *Journal of Leadership & Organizational Studies*, 20(1), 84–106.

Khan, R., Bukhari, A. & Channar, Z. A. (2016) Effects of Leadership Style on Health Care Organizational Performance: A Survey of Selected Tertiary Care Hospital in Karachi, Pakistan. *International Journal of Economics & Sciences*, 5(3).

Kırkpınar, S. & İşcan, Ö. F. (2018). Liderlik tarzlarının iş tatmini ve örgütsel bağlılığa Etkileri. *Hacettepe Sağlık İdaresi Dergisi*; 21(1), 65-85.

Koçel, T. (2010). İşletme yöneticiliği. Beta Basım, İstanbul.

Locke, E. A. (1976). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), Handbook of industrial and organizational psychology (pp. 1297-1343). Chicago, IL: Rand McNally.

Makanjee, C. R., Hartzer, Y. F. & Uys, I. L. (2006). The effect of perceived organizational support on Organizational Commitment of diagnostic Imaging radiographers. *Radiography*, 12(2), 118-126.

Meyer, J. P. & Allen, N. J. (1984). Testing the "side-bed" theory of organizational commitment: Some methodological considerations. *Journal of applied psychology*, 69(3), 372-378.

Meyer, J. P. & Allen, N. J. (1997). Commitment in the Workplace: Theory, Research, and Application. Sage Publications, Inc.

Meyer, J. P. & Parfyonova, N. M. (2010). Normative commitment in the workplace: A theoretical analysis and re-conceptualization. *Human Resource Management Review*, 20(4), 283-294.

Meyer, J. P., Allen, N. J. & Smith, C. A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology*, 1993. 78(4), 538-551.

Meyer, J. P., Stanley, D. J., Herscovitch, L. & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the Organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior*, 61(1), 20-52.

Öztürk, N. & Çankaya, M. (2021). Psikolojik sermayenin örgütsel bağlılığa etkisinde dönüştürücü liderliğin aracılık rolü. *Journal of Business Research-Turk*, 13(2), 1082–1092. https://doi.org/10.20491/isarder.2021.1185

Oshagbemi, T. (1999). Overall job satisfaction: How good are single versus multiple-item measures? *Journal of Managerial Psychology*, 14(5), 388-403.

Parseyhan, B. G. (2014), Etkileşimci ve dönüşümcü liderlik Davranışları İle Örgütsel Bağlılık İlişkisinde Örgüt Kültürünün Rolü: Sağlık Kuruluşunda Bir Uygulama. PhD Thesis. İstanbul Aydın University, İstanbul.

Polatcan, M. & Cansoy, R. (2019). Examining studies on the factors predicting teachers' job satisfaction: A systematic review. *International Online Journal of Education and Teaching (IOJET)*, 6(1), 116-134.

Porter, L. W. & Lawler, E. E. (1968). Managerial attitudes and performance. Richard D. Irwin, Inc. Homewood, Illinois.

Posner, B. Z. & Kouzes, J. M. (1988). Development and validation of the Leadership Practices Inventory. *Educational and Psychological Measurement, 48*(2), 483–496.

Pusiran, A. K. & King, B. E. M. (2013). Transactional and transformational leadership: a comparative study of the difference between tony fernandes (Airasia) and Idris Jala (Malaysia Airlines) Leadership Styles from 2005-2009. *International Journal of Business and Management*, 8(24), 108.

Schermelleh-Engel, K., Moosbrugger, H. & Müller, H. (2003). Evaluating the fit of structural quation models: tests of significance and descriptive goodness-of-fit measures. *Methods of Psychological Research Online*, 8(2), 23-74.

Spector, P. E. (1997). Job satisfaction: Application, assessment, cause, and consequence. Thousands Oaks, California: Sage Publications.

Sümer, H. C. & Bilgiç, R. (1997). Translation of Leadership behavior description questionnaire into Turkish. Unpublished study. Middle East Technical University, Ankara.

Swailes, S. (2002). Organizational commitment: A critique of the construct and measures. *International Journal of Management Reviews*, 4(2), 155–178.

Ural, A., Kılıç, İ. (2006). Bilimsel araştırma süreci ve SPSS ile veri analizi. Detay Yayıncılık, Ankara.

Wasti, S. A. (1999). Organizational commitment in a collectivist culture: The case of Turkey, Urbana-Champaign: University of Illinois, Unpublished Doctoral Dissertation.

Weiss, D. J., Dawis, R. V., England, G. W. & Lofquist, L. H., (1967), Manual for the Minnesota Satisfaction Questionnaire, Minnesota Studies in Vocational Rehabilitation, No. 22, Minneapolis: University of Minnesota.

Wheaton, B., Muthen, B., Alwin, D. F. & Summers, G. (1977). Assessing reliability and stability in panel models. *Sociological Methodology*, 8 (1), 84-136.

Zagoršek, H., Dimovski, V. & Škerlavaj, M. (2009). Transactional and transformational leadership impacts on organizational learning. *Journal of East European Management Studies*, 14(2), 145.