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Correlation of Learning Organization and Intensive Care Nurses'
Organizational Commitment of Educational and Therapeutic Centers of
Hamadan University of Medical Sciences in Iran
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#### 1 University of Medical Sciences, Hamadan, Iran, yousef.torabi@gmail.com ABSTRACT

Introduction: Establishing and identifying of learning organization and its influencing factors is very crucial in therapeutic and educational centers especially in intensive care units. Organizational commitment could be necessary to maintain and promotion of learning organization at context of intensive care units. This study aimed to assess the correlation of learning organization with organizational commitment of intensive care nurses at educational and therapeutic centers of Hamadan University of Medical Sciences in Iran.

Methods: A cross-sectional study was conducted using questionnaire on 277 intensive care nurses of educational and therapeutic centers in 2016. Data gathering tool was included 43-question Marsick and Watkins' learning organization questionnaire and 24-question Meyer and Allen's organizational commitment questionnaire in 5-point Likert scale. Data were analyzed by SPSS software (Version 18) using descriptive and inferential statistics.

Results: Intensive care nurses had  $32 \pm 5.56$  years, 83.4% female, 67.1% married, 71.47% less than 10 years of work experience, and 97.8% bachelor of nursing. Mean score of learning organization and organizational commitment in intensive care units was  $128.30\pm29.18$  and  $75.65\pm10.87$ , respectively which were interpreted at a moderate level. There was a positive and significant moderate correlation (0.489) between learning organization and organizational commitment (P=0.01). Conclusion: Intensive care nurses' organizational commitment has reciprocal correlation with learning organization in intensive care units. Therefore, managers of therapeutic and educational centers should try to maintain and promote learning organization in whole of organization and especially at intensive care units and subsequently could boost intensive care nurses' organizational commitment as well.



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**Keywords:** intensive care unit, nurses, learning organization, organizational commitment, therapeutic and educational centers.

#### 1. INTRODUCTION

Health care systems are expanded and complex organizations with numerous processes and components that have an essential role in maintain and promotion community health (1). Variety of health needs in communities has changed importantly and fundamentally with advances of science, technology and population contexts in developing countries like other countries in the world (2). Some of developing countries such as Iran have achieved spectacular advances in their health care system through restructuring of their public hospitals with educational centers in form of the therapeutic and educational centers (3, 4).

These centers are delivering their updated services effectively as a key health, treatment and educational delivering organization by training medical group human resources and bridging theory and practice gap (5). These educational and therapeutic centers with academic commitment and accountability have fundamentally roles to maintain and promotion of physical, mental, and spiritual health of individuals of community by scientific, research-based, updated and optimal health, therapeutic and educational services (6). Moreover, staff of these centers especially nurses occupies a substantial role to maintain and promotion of quality of educational and therapeutic services with patients' satisfaction (7). Intensive care units are consider to be heart of educational and therapeutic centers because of providing efficient and high-quality medical and nursing services using advanced technologies (8). Intensive care nurses face with work overload, occupational stress, depression and emotional reactions due to critical conditions or death of patients (9). Organizational commitment of intensive care nurses and their units as a learning organization probably could help them to maintain and promote the quality of nursing services and their coping with critical situations (1, 10). Organizational commitment is the link between individual and organization which can be defined as a psychological thought's frame for people which as a positive attitude motivate personnel to work towards organizational goals (11).



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Organizational commitment also has defined as an emotional dependency and loyalty to organization (12) which cause to have work conscience, ethics, accountability and motivation (13). Some models have presented for explanation of organizational commitment by researchers such as Quijano, Chatman and Allen-Meyer (12, 14).

Quijano's four-dimensional model explains organizational commitment with dimensions of value related (congruence of values and objectives), affective (need for affiliation), exchanges (extrinsic rewards), and need (keeping job) (14). The Oreilly and Chatman's three-dimensional model also explain organizational commitment with dimensions of internalization (congruence of values and objectives), identification (desire for affiliation), and compliance (gaining specific rewards) (15). Moreover, Allen and Meyer proposed a three-dimension model which explains organizational commitment with dimensions of affective (emotional attachment, identification, enjoy membership), continuance (leaving costs and benefit), and normative commitment (feeling of obligation) (16). Allen and Meyer's three-dimensional model employed in this study assesses organizational commitment in affective, continuance, and normative commitment dimensions (16). Affective commitment is considered as emotional attachment to organization and cause to decreasing absenteeism and job leave and also increasing of motivation and productivity in employees (17). Continuance commitment is considered as employees' perception of the costs of staying in the organization as investments rather than leaving the organization as alternatives and is related to compensation and reward systems (18). Normative commitment refers to the willingness of employees to stay in the organization based on their feelings, tendencies and judgment of others. (11). Normative commitment is probably when employees' moral obligation find it difficult to reciprocate the organization's investment in them (19) and therefore employees continue to provide their services to the company. Employees' high organizational commitment has a crucial role in predicting concepts such as learning organization in the organization (20).



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In the early 1990s, the idea of learning organization was considered by Senge in five main categories; system thinking, mental models, shared vision, team learning, and individual expression (11). Later, Watkins and Marsick (2004) explained seven dimensions for learning organization in three levels including; individual level (continuous learning and inquiry and dialogue), team level (team learning), and organizational level (embedded system, empowerment, system connection, and strategic leadership) (21).

Learning is the level of social interactions between employees which enhances organizational commitment through information sharing and developing a common vision (22). The open communications in organizations also make employees more amenable to cooperation and thereby increase organizational commitment (23). Bhatnagar states that the practice of learning organization along with educational interventions will enhance organizational commitment (24). Managing and making skillful use of learning organization is an organizational need which can improve the quality of nursing services and decrease nursing errors (25).

Learning organization studies have received little attention in Iran's therapeutic and educational centers; thus, managers specially nursing managers should not only take measures to enhance the organizational level of these centers through managing occupational stress, job burnout, job dissatisfaction, and quitting in intensive care unit nurses, but also keep up with changes and the latest developments. Hence, the present study was conducted to investigate the relationship between learning organization and organizational commitment among intensive care unit nurses in therapeutic and educational centers across the city of Hamadan, Iran.

#### 2. METHODS

A cross-sectional study was carried out in 2016 on 300 randomized intensive care nurses working in five therapeutic and educational centers (Besat, Ekbatan, Shahid beheshti, Farshchian, and Fatemieh) of Hamadan University of Medical Sciences, Hamadan, Iran,. The data gathering tool was a questionnaire consisting of three sections; demographic characteristics, Watkins and Marsick's learning organization (21) and Allen and Meyer's organizational commitment questionnaire (16).



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The questionnaire had three sections including demographic characteristics, learning organization and organizational commitment. Nine questions were about age, gender, marital status, education level, employment status, work experience, work experience in an intensive care unit, unit and educational and therapeutic center. Forty three questions were about learning organization in individual level (7question continuous learning and 6- question inquiry and dialogue); team level (6question team learning) and organizational level (6- question embedded system, 6question empowerment, 6-question system connection, and 6-question strategic leadership). Twenty four questions were about organizational commitment in three dimensions; 8- question normative commitment, 8-question continuous commitment, and 8-question emotional commitment. The questionnaires were measured on a 5point Likert scale ranging from 1 (totally disagree) to 5 (totally agree). Learning organization overall score was interpreted in three levels high (157-215), moderate (101-156) and low (43-100). Organizational commitment overall score also was interpreted in three levels high (89 to 120), moderate (56 to 88) and low (24 to 55). Watkins and Marsick's learning organization questionnaire and Allen and Meyer's organizational commitment questionnaire have been confirmed by numerous studies in terms of content validity and reliability. In the present study, for the learning organization questionnaire Cronbach's alphas was 0.92 and reliability (r=0.78). For the organizational commitment questionnaire Cronbach's alphas was 0.81 and reliability (r=0.79) respectively. Nurses (451 people) were chosen from intensive care units of therapeutic and educational centers by kind permission of Hamadan University of Medical Sciences.

After the necessary permission from Hamadan University of medical sciences was obtained, 300 samples were selected from the intensive care units of therapeutic and educational centers on stratified random sampling basis. Nurses were selected accidentally from the monthly shift program in every intensive care unit, then, informed consent was obtained from each of the nurses before they filled out the questionnaire in the presence of the researcher. Data were extracted from questionnaires and subsequently fed into the computer, where the SPSS software



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(Version 18) was run to conduct statistical analyses, that is, to find descriptive statistics (frequently distribution, mean, Standard deviation), inferential statistics (Pearson's correlation coefficient).

#### 3. RESULTS

Out of the 300 nurses who had been provided with the questionnaire, 277 returned it (response rate = 92.3%). The subjects in this study had a mean age of 32 years, 83.4% of them were female (the rest were male), and 67.1% of them were married (the others were single). A substantially large proportion (97.8%) of the nurses had a bachelor's degree, with the rest holding a master's degree in nursing. Their total work experience and work experience in intensive care units were on average 8.59 and 5.3 years, respectively. Most of the nurses (31.4%) worked in the ICU, while only small minorities of them were employed in the burn care unit (1.8%). Slightly more than half (56.65%) of the subjects were permanent employees, and the rest were on a fixed-term contract (Table 1).

Table 1: Demographic characteristics of intensive care nurses according to their organizational commitment and learning organization mean scores

Demographic characteristic variable		Numb er (%)	Organizational commitment	Learning organization	
			Mean(SD)	Mean(SD	
Age	24-30	76 (27.4)	76.03 (10.40)	133.02 ( 32.14)	
	31-35	83 (30)	75.75 ( 11.91)	120.59 ( 27.29)	
	36-40	84 (30.3)	75.27 ( 10.65)	128.33 ( 24.40)	
	41-45	19 (6.9)	73.21 ( 11.80)	123 ( 24.56)	
	46-50	15 (5.4)	78.40 ( 7.089)	137.50 ( 25.79)	
Gender	Female	231 (83.4)	75.74 ( 10.84)	129.19 ( 28.98)	
	Male	46 (16.6)	75.11( 11.22)	129.59 ( 30.18)	
Marital status	Married	186 (67.1)	74.24 ( 10.73)	124.13 ( 29.28)	
	Single	91 (31.8)	78.62 ( 10.74)	137.1 ( 27.37)	
Education Level	Bachelor	271 (97.8)	75.69 ( 10.88)	128.21 ( 29.09)	
	Master	6 (2.2)	73.83 ( 11.514)	132.33 ( 35.89)	



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Employment	Tenure	157	74.50 ( 10.59)	128.5 ( 28.59)	
status		(56.6)			
	Non-	120	76.92 ( 11.08)	133.92 ( 28.08)	
	Tenure	(43.3)			
Total work	0-5	83	75.90 ( 9.96)	130.29 ( 30.40)	
experience		(55.2)			
	6-10	115	75.66 ( 12.24)	127.96 ( 32.74)	
		(36.1)	<b>77.00</b> (40.00)	100 05 (00 01)	
	11-15	46	75.22 ( 10.08)	130.07 ( 22.21)	
	16.20	(6.1)	72 41 (0 45)	117.00 (20.10)	
	16-20	22	73.41 (9.45)	117.90 ( 20.19)	
	21.25	(0.7)	70.20 (0.15)	120.00 ( 15.70)	
	21-25	11	79.30 (8.15)	130.90 ( 15.79)	
Work	0-5	(1.8) 153	75 20( 10 99)	127 92 (20 26)	
	0-3		75.39( 10.88)	127.83 ( 30.36)	
experience in intensive care	6-10	(31.4) 100	75.15 ( 10.75)	128.62 ( 28.03)	
units	0-10	(17.7)	73.13 (10.73)	120.02 ( 20.03)	
units	11-15	17.7)	80.24 ( 11.08)	137.56 ( 24.91)	
	11-13	(10.5)	00.24 (11.00)	137.30 (24.71)	
	16-20	2 (3.2)	75.00 ( 19.79)	93.5 ( 5.20)	
	21-25	5 (1.8)	78.20 (10.01)	120.80 ( 6.68)	
Intensive care	ICU	87	74.28 (11.03)	135.78 ( 37.13)	
units		(30.1)	, 1.20 (11.03)	155.75 (57.15)	
GIII	CCU	49	74.18 ( 10.95)	119.98 ( 27.60)	
		(41.7)	, (10,50)	119.90 (27.00)	
	N-ICU	29	75.48 ( 13.23)	117.28 ( 24.12)	
		(16.7)	,	,	
	Angiograp	9 (8)	79.00 (7.365)	119.67 ( 13.48)	
	hy				
	Burn	5 (3.6)	74.40 (2.881)	138.20 (14.18)	
	Emergency	50	76.60 ( 10.435)	127.29 ( 21.57)	
		(18.1)			
	ICU-OH	16	80.38 ( 10.30)	140.88 ( 23.28)	
		(5.8)			
	Dialysis	32	77.19 ( 10.26)	127.34 ( 22.47)	
		(11.6)			
Therapeutic	Besat	81	76.72 ( 8.34)	140.27 ( 30.39)	
and treatment		(29.2)			
centers	Beheshty	54	73.39 ( 11.74)	122.54 ( 28.78)	
		(19.5)			
	Farshchian	37	77.81 (11.04)	131.73 ( 26.37)	
		(13.4)		44=00.4	
	Fathemieh	33	76.39 ( 13.95)	117.88 (	
	TI I	(11.9)	74 (0 (10 00)	24.26)	
	Ekbatan	72	74.69 ( 10.96)	122.24 ( 27.53)	
		(26)			

The maximum mean scores of learning organization were obtained for: the 46-50 years age group; males; singles; subjects holding an M.Sc.in nursing; nurses on a fixed-term contract; those who had total work experience between 21 and 25 years;



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nurses with 11-15 years of work experience in intensive care units; cardiac surgery ICU nurses, and those working at Besat educational and therapeutic center (Table 1). The highest mean scores of organizational commitment were obtained for: the 46-50 years age group; females; singles; subjects with a bachelor's degree in nursing; nurses on a fixed-term contract; those having total work experience between 21 and 25 years; nurses with 11-15 years of work experience in intensive care units; cardiac surgery ICU nurses, and subjects working at Farshchian educational and therapeutic center (Table 1).

Table 2: Correlation of intensive care nurses' organizational commitment with learning organization and its seven dimensions

Organizational commitment	Affective commitment	Continues commitment	Normative commitment	Organizational commitment
Continuous	0.307	0.135	0.244	0.313
learning				
Inquiry and	0.272	0.135	0.248	0.296
dialogue				
Team learning	0.355	0.232	0.362	0.427
Embedded	0.334	0.308	0.360	0.451
system				
Empowerment	0.311	0.185	0.351	0.379
System	0.347	0.232	0.388	0.433
connection				
Strategic	0.472	0.279	0.459	0.546
leadership				
Learning	0.413	0.259	0.414	0.489
organization				

In the present study, learning organization and organizational commitment had a significant positive correlation of 0.489, which is considered a moderate correlation. Besides, strategic leadership was found to be positively correlated to both organizational commitment (0.546) and affective commitment (0.472), (P= 0.01) (Table 2).

Table 3: Correlation of intensive care nurses' organizational commitment with learning organization and its three dimensions

Organizational commitment	Affective commitment



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Learning organization	1		Continues commitment	Normative commitment	Organizational commitment
Individual	Continuous learning Inquiry and dialogue	0.314	0.147	0.266	0.330
Team or group	Team learning	0.355	0.232	0.362	0.427
Organizational	Embedded system Empowerm ent System connection Strategic leadership	0.411	0.281	0.437	0.508

Results also revealed that the organizational dimension of learning organization was positively correlated to organizational commitment (0.508) and affective commitment (0.411) (Table 3).

#### 4. DISCUSSION

The nurses had a mean age of 32 years; they were predominantly female and married; most of them had a B.Sc. in nursing; they had on average 8.59 and 5.3 years of total work experience and work experience in intensive care units, respectively; a majority of them were employed in an ICU while a small proportion of them worked in burn care units, and slightly more than half of them were permanent employees. Results demonstrated that the level of learning organization among the nurses was moderate, which is consistent with other studies (11, 26). It seems that managers should pay special attention to the practice of learning organization because it can help the organization recognize its vision, mission, strategy, and actions. On the other hand, understanding the functions of learning organization can inspire the staff to come up with innovative ideas to solve organization problems.

Organizational commitment among the studied nurses turned out to be at a moderate level, which is in agreement with other studies (26, 23). A high level of organizational commitment causes all personnel to accept organization's values and objectives, do their best for the organization, and have a desire for staying (11, 23). It seems crucially important that the organizational commitment of intensive care



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nurses should be increased to have their sense of loyalty and devotion to the organization sharpened and subsequently make them provide sustained high-quality health care services.

In this study, learning organization had a significant correlation with organizational commitment, which is consistent with Iranian and foreign studies (11, 23, 27). The relationship between the two constructs is reciprocal (11). Group and organizational dimensions of learning organization had a correlation with organizational commitment, which is consistent with the study conducted by Wahba (28). Organizational commitment of the nurses in this study has an organizational process that is related to the group and organizational dimensions of learning organization. According to Watkins and Marsick's theory, learning processes might be the same, organizational learning is the result of interactions between individuals. In the organizational learning model, a dynamic organization environment will be known through new regulation, new competition, using new technology, customer dissatisfaction, new organizational demands, and so on, which are all considered as organizational learning activators. The strategy's success is due to the organization's ability to act cohesively (21).

Organizational commitment is a thought frame that motivates the staff to pursue organizational goals and serves as a link between individuals and the organization (11). It is obvious that, among other staff members, committed intensive care nurses occupy a distinctive role in improving learning organization and organizational commitment. Therefore, the moderate-level learning organization and organizational commitment in this study don't seem to be satisfactory to managers. As a result, therapeutic and educational centers need to motivate and sensitize their intensive care nurses through new competition, using new technology, customer dissatisfaction, and new organizational demands in order to achieve their goals (Amin Foroughi and Esfahani, 2012). According to the findings, group and organizational dimensions of learning organizational commitment, suggesting the staff with high emotional commitment and those with a sense of loyalty and



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devotion tend to stay and continue working in the organization (Aleksandrovna Maximova and Aleksandrovich Belyaev, 2017). High workload, critical and stressful situations, and a high risk of death in ICU patients seem to cause intensive care nurses to lose interest in work and therefore respond to organizational matters such as competitiveness and dynamism less interactively (30). Hence, to ensure that nurses have the necessary ability to adapt to changes, nursing managers should provide nurses with continual education and training to enhance their ability to provide patients with a consistent quality of nursing care (31, 32).

There was a relationship between the leadership dimension of learning organization and organizational commitment. It seems that strategic leadership has an effective role in increasing organizational commitment, so managers should focus on suitable managerial learning strategies to improve organizational commitment.

#### 5. CONCLUSION

A moderate-level learning organization is related to moderate organizational commitment, so it is highly recommended that managers should involve their intensive care nurses in decision making so as to improve the staff's commitment by creating a sense of responsibility and expanding organizational capacity for learning. Limitations of the study

First, the results couldn't be generalized to all intensive care nurses in Iran because only a small number of educational and therapeutic centers were studied herein. Second, the intensive care nurses didn't seem to have an accurate, clear perception of each educational and therapeutic center as an organization.

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