

A comparison of the Levels of Organizational Learning in Hospitals, Based on Ownership Types: A Case Study in Iran

Mülkiyet Türlerine Göre Hastanelerde Örgütsel Öğrenme Düzeylerinin Karşılaştırılması: İran'da Bir Vaka Çalışması

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ABSTRACT

Objective: Learning new skills tremendously increases the self-confidence of employees and helps them attain their organizational targets. This study was done to compare the levels of organizational learning in hospitals with regard to ownership type.

Methods: This cross-sectional study was conducted using an analytical-descriptive approach in 2016. The research community members included 2,162 employees of the nominated hospitals in Lorestan province. The sample consisted of 339 people, who were selected using Cochran's formula with 95% reliability factor. The data collection tools used were the Persian edition of Watkins and Marsick's standard questionnaire (2003). The collected data was analyzed by SPSS 20 software using statistical tests (i.e. Kolmogorov-Smirnov test, t-test, and ANOVA), and $p \leq 0.05$ was considered significant.

Results: The average score of learning variable was 2.77 ± 0.64 for teaching hospitals, 2.57 ± 0.77 for Social Security hospitals, and 3.21 ± 0.94 for private hospitals. Learning variables variances were different in these three types of ownership ($p < 0.001$). Moreover, significant differences were found between learning aspects of individual learning ($p < 0.001$), group learning ($p = 0.007$), and organizational learning ($p = 0.002$). The study was based on the type of hospital ownership.

Conclusion: The level of organizational learning in hospitals has a significant difference with regard to their type of ownership. The level of learning can be improved with the help of staff empowerment initiatives taken toward attaining common goals, creating equal opportunities for continuous learning for all personnel, and an appropriate relationship of the organization with the surrounding environment.

Key Words: Hospitals, organizational learning, individual learning, group learning, Iran

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ÖZET

Amaç: Yeni beceriler öğrenmek, çalışanların özgüvenini büyük ölçüde artırır ve organizasyonel hedeflerine ulaşmalarına yardımcı olur. Bu çalışma, hastanelerdeki örgütsel öğrenme düzeylerinin sahiplik türü açısından karşılaştırılması amacıyla yapılmıştır.

Yöntem: Bu kesitsel çalışma, 2016 yılında analitik-tanımlayıcı bir yaklaşım kullanılarak gerçekleştirilmiştir. Araştırma topluluğu üyeleri, Lorestan eyaletindeki aday hastanelerin 2,162 çalışanını kapsamaktadır. Örnek, Cochran'ın formülünü kullanarak % 95 güvenilirlik faktörü kullanılarak seçilen 339 kişiden oluşuyordu. Veri toplama araçları, Watkins ve Marsick'in standart anketinin (2003) Farsça baskısıydı. Toplanan veriler SPSS 20 yazılımı kullanılarak istatistiksel testler (Kolmogorov-Smirnov testi, t-testi ve ANOVA) kullanılarak analiz edildi ve $p < 0.05$ anlamlı kabul edildi.

Bulgular: Öğrenim ortalamasının ortalama puanı, öğretim hastaneleri için 2.77 ± 0.64 , Sosyal Güvenlik hastaneleri için 2.57 ± 0.77 , özel hastaneler için ise 3.21 ± 0.94 olarak bulunmuştur. Öğrenme değişkenleri varyansları bu üç tipte farklıydı ($p < 0.001$). Ayrıca, bireysel öğrenme ($p < 0.001$), grup öğrenme ($p = 0.007$) ve örgütsel öğrenme ($p = 0.002$) öğrenme yönleri arasında anlamlı farklılıklar bulunmuştur. Çalışma hastane mülkiyeti tipine dayanıyordu.

Sonuç: Hastanelerde örgütsel öğrenim düzeyi, sahip oldukları tür bakımından önemli bir farklılık göstermektedir. Ortak hedeflere ulaşmak için alınan personelin güçlendirilmesi girişimleri, tüm personel için sürekli öğrenim için eşit fırsatlar oluşturulması ve kuruluşun çevreyle uygun bir ilişki kurmasıyla öğrenme düzeyi geliştirilebilir.

Anahtar Sözcükler: Hastaneler, örgütsel öğrenme, bireysel öğrenme, grup öğrenimi, İran

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INTRODUCTION

Organizational learning is a collection of dynamic, complicated, and holistic processes (1), based on existing knowledge and experience within the organization. It helps create fundamental qualifications and common experience alignments, and reduces issues, and also increases potential solutions among employees in reaching organization goals (2). It is well known that Competent employees may effect the efficiency and profit of the organization(3).

Organizational learning is a crucial factor undergoing fast environment changes (4). Failing to do so is a major cause of organization loss (1). Therefore, organizations attempt to provide workspaces that promote and enrich learning (5). Organizational learning is a resource that helps distinguish between organizations strategically, form a basis to create competitive advantages (6, 7), and take better functional and financial decisions (8). The formation of new organizations, based on learning, is one of their essential characteristics (9). Successful managers use the learning capacity of the organization to turn threats into opportunities (9). Studies show that the understanding of the organizational learning culture is low among high-level, middle, and executive managers, with no significant difference among them (10).

Organizational ownership affects organizational learning culture, and subsequently influences the performance of the top management team (11). Satisfaction and performance desirability will be low in the organization if its structure does not encourage learning (10, 12). Therefore, accomplishing scientific work and improving performance are disrupted in an organization such as hospitals (13). A change in behavior and improvement in organizational performance can determine the existence of all the three levels of learning in the organization (14).

A two-year study by Wilson and Hartang investigated leaders of non-competing international companies and demonstrated that organizational learning occupied only 35% of the entire scenario. However, 13% of the learning took place through the group and 11% at the individual level. Operational and empirical kinds of learning were 29% effective, while it was merely 12% for knowledge-based learning (15). On the other hand, learning takes place in two cycles. First is the individual learning, which is the foundation of learning in organizations (16). The institutionalization of individual learning is important to boost learning in the organization (17, 18). The second refers to the social phases of individual learning that are coupled with group learning in order to manifest into organizational learning. This process includes direct understanding (in individual learning), interpretation and convergence (in group learning), and formalization (in organizational learning) (16).

Several researches inside and outside Iran have studied individual, organizational, and group learning. Some Iranian studies were carried out by: Farzianpour et al. (13) on the level of organizational learning in Bandar Abbas; Bahadori and colleagues on the learning capacities of Iranian nurses (19); Mirkamali et al. (20) on the role of transformational leadership on organizational learning in SAIPA. Furthermore, some foreign studies have also been conducted, which are as follows: Kaçmaz and Serinkan conducted a research on levels of organizational learning in Turkish private and public educational institutions (21); Hasson et al. studied improvements in organizational learning through leadership training (22); Tomayo et al. researched on organizational learning and innovation as sources of strategic fit for high-tech manufacturing factories in Spain (23); Lim studied the relationships among organizational commitment, job satisfaction, and learning organization culture in one Korean private organization (24); and Cheung et al. studied the organizational learning at the shop-floor level in a manufacturing company (25). According to the referred articles, in order for hospitals to face rapid changes in environmental conditions, they should be based on organizational learning so that they can compete with other hospitals. No research was carried out on staff learning in hospitals, based on the types of ownership of the hospital (educational, social affairs, and private). This research was conducted with the aim of comparing the levels of organizational learning in a hospital, based on the types of ownership, so that we can compare the levels of learning in hospitals.

MATERIALS and METHODS

This cross-sectional study was conducted using an analytical-descriptive approach in selected hospitals, located in Lorestan province, Iran. Our main hypothesis is that organizational learning levels in hospitals vary according to hospital ownership. It included two teaching, one private, and one social affair (social security) hospitals in 2016. This study was approved by the Ethical Committee of Islamic Azad Sari Branch (IR.IAU.SARI.REC.1395.21). The statistical population of the study consisted of all the administrative, financial, and therapeutic staff members 2,162 (N=2162). A total of 339(S=339) participants were determined as the Sample size (124, 78, and 50 employees from the teaching, social security, and private hospitals respectively). The sample size was specified in accordance with Cochran formula, with 95% confidence interval. The sample size calculated by Cochran's formula is as follows:

$$n = \frac{Z^2 pq}{d^2} \left(1 + \frac{1}{N} \left(\frac{z^2 pq}{d^2} - 1 \right) \right)$$

The clustering technique was utilized in randomized classification clusters in order to select the samples. Accounting, staffing, physician, nurse, operating room, radiology, and laboratory groups were selected as classes, and the samples were chosen within the classes using simple randomized sampling. The main tools used in this study comprised a Persian edition of questionnaire that included two parts of demographic information (gender, level of education, age, occupational background, and occupation level), and a specific Watkins and Marsick's questionnaire (2003) for organizational learning levels(26).

The Watkins and Marsick's questionnaire included 17 questions, The questionnaire was designed at three levels—individual, group, and organizational—marked from very low (1) up to very high (5) on the Likert scale. The learning areas comprised of individual, group, and organizational spheres.

In this study, 30 questionnaires were distributed, filled in, and collected to evaluate the reliability of the questionnaire (as a pre-test step). After entering the data into the system, the coefficient of reliability (Cronbach's alpha) was calculated using the SPSS-20 software, and it was found to be 0.82.

The data collected was analyzed by the SPSS-20 software at a significance level of $P < 0.05$. The multi-statistics tests were run for various purposes: Kolmogorov–Smirnov test was conducted to investigate the normality of data of quantitative variables; ANOVA test was run to scrutinize the differences between the research variables; the one sample t-test verified the status of the research variables; Levene's test assessed the equality of variances; and Welch's test was conducted to identify differences between variables.

RESULTS

The highest frequency in this study was 143 males (42.2%) in gender distribution, 184 nurses (54.3%) in occupational distribution, and 310 therapeutic staff (91.4%) in the type of professional services distribution. Our sample size was 211 (23.2%) teaching hospitals, 78 (23%) social security hospitals, and 50 (14.7%) private hospitals.

Based on the K-S test, research data distribution was normal ($Z = 0.74$, p -value = 0.64). The study of the status of variables of research, with one sample t-test and a constant value of 3 (mean and median), showed that the mean of learning variables was 2.77 ± 0.64 ($p < 0.001$), 3.21 ± 0.94 ($p = 0.16$), and 2.57 ± 0.77 ($p < 0.001$) in the teaching, private, and social security hospitals of Lorestan province respectively (Chart 1 and Table 1).

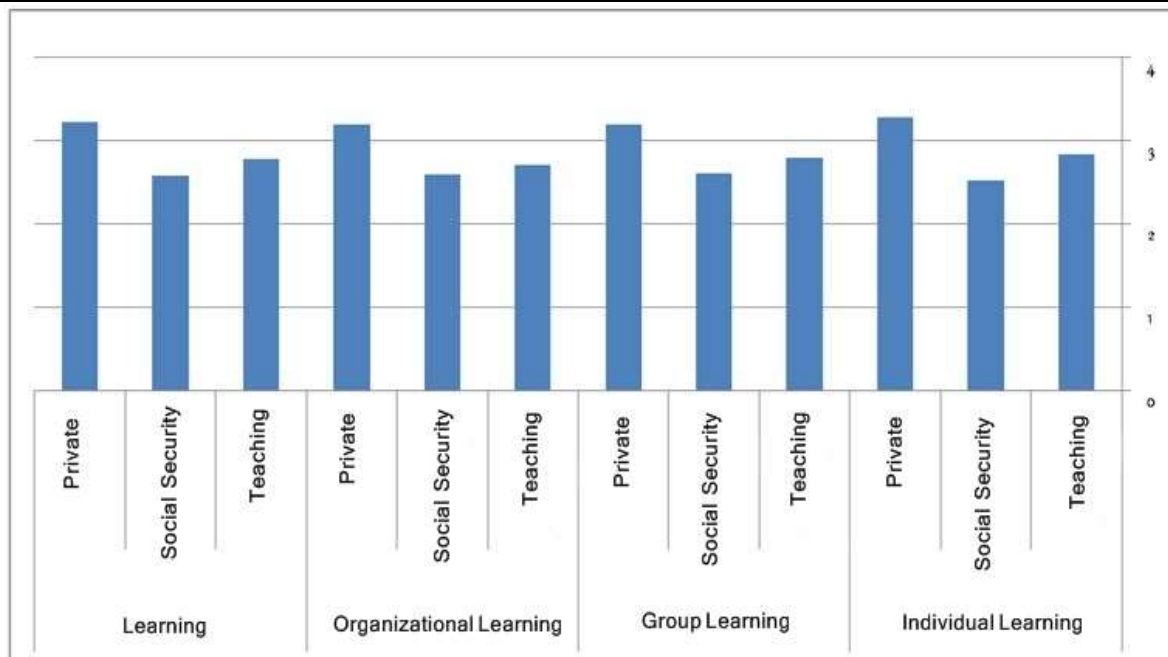


Chart 1: The mean of learning and its levels in the hospitals, based on ownership type, 20

Table 1: Comparative study of learning status in hospitals, based on ownership type

Variable	Teaching				Social Security				Private			
	Mean±SD	t	f	p-value	Mean±SD	t	f	p-value	Mean±SD	t	f	p-value
Individual Learning	2.83 ±0.69	-3.67	210	0.000	2.52±0.82	-5.14	77	0.000	3.27±0.97	1.94	49	0.058
Group Learning	2.78±0.78	-4.12	210	0.000	2.60±0.92	-3.80	77	0.000	3.19±1.04	1.29	49	0.204
Organizational Learning	2.70±0.69	-6.19	210	0.000	2.59±0.84	-4.30	77	0.000	3.18±0.95	1.38	49	0.174
Learning	2.77±0.64	-5.25	210	0.000	2.57±0.77	-4.87	77	0.000	3.21±0.94	1.60	49	0.116

Levene's test was conducted to find out the equality of variances. However, it was concluded that the variance of learning variables was not equal among the three types of hospital ownership—teaching, social security, and private hospitals ($p < 0.001$). Therefore, the results of Welch's test were used to check the mean difference between the groups.

There was a significant difference between organizational learning variables, based on the ownership of hospitals ($p < 0.001$). Moreover, a considerable distinction was found among the individual ($p < 0.001$), group ($p = 0.007$), and organizational learning aspects, based on the ownership of hospitals ($p = 0.002$) (Table 3).

Table 2: One-way Variance Analysis (ANOVA), learning variable, and its dimensions in the studied hospitals, 2016

Variable	Ownership	Frecuancy	Mean±SD	welch Statistics	p-value
Individual learning	Teaching	211	2.825 ^a ± 0.691	10.274	0.000
	Social Security	78	2.524 ^b ± 0.819		
	Private	50	3.267 ^c ± 0.972		
Group learning	Teaching	211	2.780 ^a ± 0.776	5.253	0.007
	Social Security	78	2.603 ^a ± 0.924		
	Private	50	3.190 ^b ± 1.044		
Organizational learning	Teaching	211	2.705 ^a ± 0.694	6.920	0.002
	Social Security	78	2.593 ^a ± 0.836		
	Private	50	3.184 ^b ± 0.946		
Learning	Teaching	211	2.770 ^a ± 0.637	8.000	0.001
	Social Security	78	2.573 ^a ± 0.774		
	PRIVATE	50	3.214 ^b ± 0.944		

DISCUSSION

The findings showed that organizational learning in private hospital was higher than the average. However, in the teaching and social security hospitals, it was less than average. The results of this research were aligned with the study performed by Farzianpour et al. (13). His study showed that the organizational learning capacity of private hospitals was much higher than social security and teaching hospitals. Moreover, this study is in tune with that of Mirkamali (20). According to him, the mean organizational learning in SAIPA was higher than the average. The results of this research are consistent with those of Kaçmaz et al. (21) and Aparicio et al. (27). They found a higher-than-average level of organizational learning for private educational institutions, as compared to public education institutions. The same was expressed moderately by Raj and colleagues (28). They suggested that organizational learning had a direct effect on innovation variables.

The findings of the current study are in contradiction with the results of Bahadori et al. (19). Their study indicated a moderate mean of organizational learning for nurses of a teaching hospital affiliated to Tehran University of Medical Sciences. It seemed like the hospital was undergoing a series of training courses for employees at that time. Hampton et al. (29) showed that online training courses had a positive impact on the effective learning outcomes of nursing students in the United States. Moreover, the study of Montgomerie et al. (30) positively evaluated the impact of online education on personnel professional development in New Zealand. The study of Heidari et al. in Iran (31) investigated the role of organizational learning on patient care quality in Kerman's public hospitals. The study showed that organizational learning plays a crucial role in respecting the rights and satisfaction of the patient. Lim's study in Korea (24) appraised a positive but average correlation between variables of learning culture in private companies. However, his results were inconsistent with the current research findings.

The results of the study showed that there was a significant difference between the levels of organizational learning, evaluated on the basis of types of hospital ownership. The level of individual, group, and organizational learning in private hospitals is higher among all types of assessed ownership styles. The results of this study were consistent with Xin's research (32). He stated that there was a significant difference in terms of quality and cost between public and private hospitals in the United States. Beyene et al. (33) concluded that the ownership type of manufacturing organizations affected innovation performance. In their opinion, private manufacturing organizations had better performance indicators as they were investing more on R & D, as compared to government and public firms.

Furthermore, the investigation of Zhou et al. (34) in Chinese private firms showed a positive correlation between organizational learning levels and financial performance and creativity in the organization. Private firms provided more training for their workforce. This was because profitability and optimal financial turnover were important for the organization's continuity and survival. On other hand, managers were hiring their own human resources in private hospitals. Therefore, only those individuals who were closer to the organization's goals were selected. However, they were recruited in teaching and social security hospitals by conducting public tests through recruitment.

The results of this study showed the highest organizational and the lowest individual learning in private hospitals, as compared to teaching and social security hospitals. The top executives of an establishment, characterized by a low level of organizational learning, do not utilize learning as a strategy for convergence and achievement of organizational goals. Yan et al. (35) believed that organizational learning was very important at both high and low levels in order to respectively determine organizational strategy and execute activities. Further, Tamayo et al. (23) found that in dynamic organizations, organizational learning positively affected decision-makers to adapt to change. Hospital executives should create a proper place to motivate their staff to learn in their areas of responsibilities. Hasson et al. (22) stated that educational intervention in leadership training had positive effects on the perceptions of the personnel as regards the aspects of organizational learning levels and on the understanding of managers about the level of individual learning. In an organization with a low level of individual learning, the personnel do not have the capacity to listen to and ask for other people's point of views. In such an environment, organizational culture should be supported by the spirit of inquiry, feedback, and experimentation.

CONCLUSION

The results of the study demonstrated that the level of organizational learning among private hospital staff was significantly higher than that of social security and teaching hospitals. Therefore, it is recommended that managers of teaching and social security hospitals should improve the learning level. This can be attained by increasing employees' participation, establishing working teams, and empowering personnel toward common goals. Furthermore, it is suggested that equal opportunities be provided to all personnel on continuous learning, and the organization should maintain proper relationships with the surrounding environment.

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Conflict of interest

No conflict of interest was declared by the authors.

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