# Leadership Styles of First-line Nursing Managers and Their Relationship to Characteristics of A learning Organization from Nurses prespective.

#### Basma Abd Aallah Abd Ellatief

Training coordinator fawzymoaz hospital ministry of health

#### prof. Fatma Mostafa Baddar

Professor of Nursing Administration Faculty of Nursing, Alexandria University, Egypt

#### Prof. YaldezKhairyZeineldin

Professor of Nursing Administration, Faculty of Nursing, Damanhur University, Egypt.

#### Dr. Amal Diab Ghanem Atalla

Assistant professor of Nursing Administration, Faculty of Nursing, Egypt.

#### **Abstract:**

Background: In highly competitive world healthcare organizations must innovate, provide new services, and adopt innovative applications and new technologies in order to first survive and then grow. To maintain these roles, healthcare organizations need modern leadership styles that have an impact on supporting the characteristics of a learning organization that empowers nurses within and outside the organization to learn as they work and use technology to improve both learning and productivity where creating a supportive learning environment is an essential requirement for building learning. Aim: Explore leadership styles of first-line nurse managers and their relationship with characteristics of learning organization from nurses' perspective. Study design: This crosssectional descriptive correlation study used to conduct. Setting was carried out in all inpatients units at four different hospitals affiliated to the Ministry of Health. Subject: A non-probability quota sampling technique was used to draw the study subjects from the entire population with the inclusion criteria of; a bedside nurse working in a technical position; having completed at least one year experience of service in the selected units, available at the time of data collection and be willing to participate in the current study (N=228)**Tool** Two tools were used in the current study. Tool I, The Learning Organization Assessment Survey The second tool I, Multifactor Leadership Questionnaire. Method The Two tools will be translated into Arabic language, back translation will be done Data were collectedusing self-administered questionnaires, which were hand-delivered to the study subjects at their working settings after explaining the studyaim. Result: Statistical significance correlation was revealed between the multifactor leadership questionnaire and the learning organization assessment, Openness to New Ideas show coefficient (-0.212\*\*)Overall supportive learning environment coefficient(-0.227\*\*)statistically significant, (p=<0.001\*\*), a positive statistically significant correlation was found between appreciation of differences (p=<0.001\*\*), openness to new idea (p=0.001\*\*), overall supportive learning environment (p=0.001\*\*), education and training (p=<0.001\*\*)and information transfer (p=0.026\*\*). Conclusion: : Both transformational and transactional leadership styles have an impact on organizational learning. Recommendation: Establish transactional leadership traits and transformational leadership characteristics as hiring criteria for first-line nurse managers, conduct an organizational-wide Learning Organization Assessment, and determine deficiencies in learning organization leadership training

<u>Keywords:</u> Leadership styles, First-line Nursing Managers, organization: A Nurses' Perspective.

**Introduction:** One of the key elements influencing nursing staff performance in a healthcare company is leadership style (Dieren dock, 2021). Leadership style is the capacity of a leader to direct, influence, encourage, and control followers to carry out tasks and accomplish a particular objective

(Gandalf 2016). Being a successful leader is greatly influenced by a leader's personality and leadership style, as well as by the individual skills of the leader (Geier, 2016). To accomplish organizational goals, nursing staff in healthcare organizations must give their work more serious consideration. Staff

members that are highly motivated at work will put more effort into accomplishing these goals (Harwiki, 2016). The organization's overall strategy and its nursing staff policies can be connected by a leader's leadership style (Freedman, 2016). Additionally, it makes ensuring that leadership initiatives always align with the organization's strategy and objectives (Nasiriya et al., 2016).

There are three types of contemporary leadership: transformative, transactional, and avoidant(Gandolfi&Stone,2017).Transformati onal leadership is one of the most well-liked philosophies. Transformational leadership leadership is the capacity to uplift and encourage subordinates to achieve outcomes that go beyond initial expectations and bring about internal rewards. In order to raise their knowledge of ethical issues and to mobilize their resources to reform healthcare institutions, transformational leadership asks for followers with moral principles(Khalili, 2016). According to Purwanto et al. (2019), transactional leadership has a significant and positive impact on organizational performance because it places a strong emphasis on advancing the individual interests of both leaders and followers in order to fulfill dominant obligations owed by both the leader and followers by setting goals, keeping track of progress, and enforcing consequences. Passive-avoidant leadership is characterized by punishments, and avoidant behaviors' serve as positive role models and offer psychosocial support, so there will probably be a negative association between passiveavoidant leadership and mentoring (Banerjee-Batist et al., 2019). The passive avoidant leader shirks their duties and shows no concern for their staff (Harrison, 2017).

The ability to create a collective vision of the future with other members of the organization appear to be critical action for leaders in learning organization. first-line nurse managers have enough opportunities to practice the leadership style with their subordinates which has an impact on supporting the learning organization characteristics. Leadership in the learning organization involves the ability to coach and teach. (Rowold, 2009). Within a learning organization, there is a supportive learning environment, specific learning processes and practices, and the first line nurse managers as leaders are those who encourage and promote learning (Garvin, Edmondson, and Gino 2008).

Garvin et al. (2008)developing three building blocks that are essential for creating learning namely; supportive organizations. environment, concrete learning processes, and that reinforces learning. leadership supportive learning environment is considered an essential requirement to build learning organization. An environment that supports learning consists of four distinguishing characteristics namely: Psychological safety; Appreciation of differences, Openness to new ideas and Time for reflection. At the same time, it is necessary to create an environment that encourages and motivates the constructive thinking of its members and to seek ways to develop opportunities by using a fundamental rethinking of leadership.

The second requirement is concrete learning processes and practices. learning organization is not cultivated effortlessly. It arises from a series of concrete steps and distributed activities. widely processes involve the generation, collection, interpretation, and dissemination information. The third essential requirement is the appropriate leader who reinforces learning (Barghi, Salehian, Hashem & Ruhani, 2012

Significance of the study: any studies ( Amitay, Popper, and Lipshitz, 2005, Johnson, 2002. Vera, and Crossan, 2004) found that leadership behaviors help create and sustain learning organizational culture, such culture makes it easier for managers and employees to execute concrete learning processes and practices smoothly and efficiently. In the current study, the leadership elements most likely to produce a learning organization will be identified, the dominant organizational leadership style is delineated. By assessing performance on each building block, the organization pinpoint areas improvement, and the organization became closer to the learning organization ideal. In the same line, the relation between leadership styles and learning organization is identified. In government today, it is critical that leaders and their employees continually seek learning experiences and to share that information in an atmosphere where employees work together to meet the ever-changing needs of the organization, work environment and resolve public policy issues.

**AIM OF THE STUDY:** Explore relationship between the leadership style of nurse manager/leader and nurses' perception for the characteristics of learning organization.

#### Research Questions

- How do nurses perceive the characteristics of learning organization?
- What are styles of leadership of nurse managers/ leaders from nurses' perspective?
- Is there a correlation between styles of leadership of nurse managers/ leader and nurses' perception for characteristics of learning organization?

#### Material and Method

#### Material

**Design**:A cross- sectional correlational descriptive design was used.

#### Setting:

The study carried out in different inpatients units at four different hospitals affiliated to the Ministry of Health namely; Fawzmoaz , Algomhorya, Dar Ismaeal for maternity, and KomelShokafa for Chest. These settings are chosen for conducting the current study because they consider as educational organizations in the Ministry of Health.

#### Subjects:

The target population for this study and who benefited from the current study is bedside nurses who work in the previously mentioned settings. However, the accessible population is identified according to criteria that considered based on inclusion criteria which include: (a) a bedside nurse working in a technical position; (b) have completedat least one-year experience of service in

the selected units (to ensure that participants are familiar with the organization), (c)available at the time of data collection and (d)was participated in the current study. Therefore, subjects who met the inclusion criteria was invited to be part of the study population. the total population included 556 nurses distributed in 4 hospitals.

#### Tools:

Two tools were used in the current study.

Tool I: The Learning Organization Assessment (LOA)The Learning Organization Assessment Survey (LOA), it was initially developed and validated by Garvin, Edmondson, & Gino. (2008). It geared toward determining "the degree to which the respondent believes his / her organization possesses the characteristics of a Learning Organization" (Garvin, Edmonson & Gino, 2008). The survey comprises three building blocks. namely: "Supportive Learning Environment", "Concrete Learning Processes and and "Leadership That Reinforces Practices" Learning". For the first block "Supportive Learning Environment", it includes 16 statements divided among four subscales. These subscales are Psychological Safety (4 statements); Appreciation of Differences (4 statements); Openness to New Ideas (3 statements) and Time for Reflection (5 statements). For the second block "Concrete Learning Processes and Practices", it includes 29 statements divided among five subscales. These subscales are Experimentation (4 statements); Information Collection (6 statements); Analysis (5 statements); Education and Training (6 statements) and Information Transfer (8 statements). Regarding the third block "Leadership That Reinforces Learning", it includes 8 statements.

## The second tool is: Multifactor Leadership Questionnaire (MLQ)

This questionnaire was developed by Rowold (2005) and was used and adapted by the researcher. The (MLQ) is used to measure leadership behaviors in three different styles as perceived by nursing personnel namely.

1) Transformational leadership behavior measured by 20 item questions, it is divided into five main sub items, namely: idealized influence (attributed), idealized influence (behavior),

inspirational motivation, intellectual stimulation and individualized consideration.

- 2) transactional leadership measured by 8 item questions. It is divided into two main types, namely: contingent reward and, management by exception (active).
- 3) passive/avoidant behavior was grouped into two sub items also, namely: management by exception (passive) and, laissez-faire. The last two types was also measured by 8 item questions. Each question assessed by likert rating scale ranging from 0 Not at all, 1 Once in a while, 2 Sometimes, 3 Fairly often, 4 Frequently, if not always. The validity and reliability MLQ have been proven ranged from 0.74 to 0.94. Rowold (2005)
- 4) The researcher was modified the scoring system. The five-point Likert scale will be converted into three-point Likert scale. In this new scale, 0 "Not at all", and 2 which is "Once in a while" was grouped into 1 "Once in a while "and 2 which is "Sometimes" was the same 2 "Sometimes" and 3, 4 which are "Fairly often" and "Frequently, if not always" was grouped into 3 "Frequently, if not always".

#### **Ethical considerations:**

- -A written informed consent from the study subjects was obtained after explaining the aim of the study.
- -Privacy of the study participants was asserted.
- -Confidentiality of the collected data was assured.
- -Anonymity of the study participants was maintained.
- -The subjects had the right to withdraw at any time from the study assured.

#### Data collection:

Data were gathered by the researcher through self-administered questionnaire, it was hand delivered to the study subjects at their working settings, the subject was asked to return it back to the researcher after definite period of time at the study setting. The time needed to fill out the questionnaire was 15-20 minutes. Data collection and tabulation took a period of six months from 28 June to 30 December 2022.

#### Statistical analysis

Data were fed to the computer and analyzed using IBM SPSS software package version 20.0. (Armonk, NY: IBM Corp) Qualitative data were described using number and percent. The Kolmogorov-Smirnov test was used to verify the normality of distribution Quantitative data were described using range (minimum and maximum), mean, standard deviation, median. Significance of the obtained results was judged at the 5% level.

The used tests were.

#### 1 - Mann Whitney test

For abnormally distributed quantitative variables, to compare between two studied groups.

#### 2-Kruskal Wallis test

For abnormally distributed quantitative variables, to compare between more than two studied groups.

#### 3 - Spearman coefficient

To correlate between two distributed abnormally quantitative variables.

#### Results

## Table (1): Distribution of the studied nurses' according to socio-demographic data (n = 228).

Table 1 denotes that 40.8 % of the studied nurses were in the age group that ranged less than 30 years, while 42.5% of them from the age of 30 years to less than 40 years, and 14.9% were from 40 years to less than 50 with (Mean. 33.39).

#### Table (2) Descriptive analysis of the studied nurses according to score for Multifactor leadership survey

Table 2 explain that Transactional leadership highly score(62.25) with mean (17.96), while Transformational score was(60.82) with mean(44.33), on the other hand Overall Passive/Avoidant score show lowest from nurses' perspective (48.14) with mean(15.70).

## Table (3) Correlation between multifactor leadership questionnaire and the learning organization assessment Survey:

reveals correlation between multifactor leadership questionnaire and the learning organization assessment, Openness to New Ideas show coefficient (-0.212\*\*)Overall supportive learning environment coefficient(-0.227\*\*)statistically significant, (p=<0.001\*\*), as illustrated in this table, high a statistically significant correlation was found between appreciation of differences (p=<0.001\*\*), openness to new idea (p=0.001\*\*), overall supportive learning environment (p=0.001\*\*), education and training (p=<0.001\*\*)and information transfer (p=0.026).

#### Table (4): Descriptive analysis of the studied nurses according to score for the supportive learning environment and concrete learning processes and practices (Leadership That Reinforces Learning):

Denotes that overall supportive learning environment with score (47.43  $\pm$  47.43), Mean  $\pm$  high score, while Overall concrete learning Mean (19.58), Leadership That Reinforces Learning score (36.18) Mean and Overall organization totally score (41.97) with, Mean (144.64).

#### Discussion:

Today's health care work places are more complex and sophisticated. requiring knowledgeable health care especially nurse leaders. Owing to global economic competitiveness, nurse leaders are confronted with unpredictable challenges, which require different types of leadership behavior. Therefore, effective management of nursing staff achievable through effective leadership behavior, which is very important in improving nursing staff performance, increasing the chance to achieve organizational goals, and increasing nursing staff engagement with the organization, thus increasing organizational productivity (Babalola, 2016).

Learning organization occurs when the health care organization help nursing staff group to learn, interact and to share knowledge to other members so that combined capacity of the group has increased, and members gain the ability of understanding and effective action. Leadership has the key role to enable organizational learning (Alsabbagh& Khalil,2016).

Regarding relation between score overall organizational and socio- demographic data of nurse's score: aging not statistically significant (p=0.320), relation score of gender (p=0.108), experience in current hospital (p=0.720), score of staff nurse planning to change your job at this hospital within next twelve months (p=0.956). There statistically significant in the workplace in hospital l(p=0.035), and highly significant in work in current hospital (p=0.001),

In the study of Abd EL Aliem et al., 2021, illustrated a strong, positive significant correlation between the leadership practices of staff nurses' organizational resilience (r = .418, p < .001) and job involvement (r = .566, p < .001).

According to Mousa et al., 2019, there was a highly strong significant positive correlation between both transformational and transactional leadership styles of unit nurse manager and staff nurses' WE (transformational: r=0.325\*\* and P=0.000, and transactional: r=0.260\*\* and P=0.000), whereas there were negative significant correlations between laissez-faire leadership style of unit nurse manager and staff nurses' WE (r=-0.125)and P=0.040).Moreover, Essays, 2018 found a positive relationship between each of transformational transactional leadership style and nursing staff engagement.

Our study showed that Transactional leadership highly over than score. Transformational, Passive/Avoidant score show lowest from nurses' perspective ,Whereas Abd-EL Aliem et al., 2021, revealed a moderate mean score of FLNM' self-rating of leadership practices. The highest mean score was associated with the enabling others to act dimension followed by modeling the way, challenging the process, and encouraging the heart). Inspiring a shared vision had the lowest score among the five dimensions. While, in the study of Alsabbagh & Khalil, 2016, there is no

significant difference in transactional leadership practice between public and private universities in Damascus. For transformational leadership part, the results also showed that the mean of transformational leadership of the private sector was a bit greater than its counterpart in the public sector. The difference between the two means was also not statistically significant as assessed by the independent samples t- test (pvalue =0.31 > 0.05). Hence, there is no significant difference in transformational leadership practice between public and private universities in Damascus.

Regarding correlation between multifactor leadership questionnaire and the learning organization assessment, Openness to Ideas show coefficient supportive learning environment coefficient statistically significant, as illustrated in this high statistically significant a correlation was found between appreciation of differences, openness to new idea, overall supportive learning environment, education and training and information transfer.

Our results were supported by study of confirmed that Sahaya, 2012, transformational and transactional leadership styles are positively related to various learning organization dimensions. Their study also confirmed that transformational leaders have more profound influence in cultivating a organization environment learning transactional leaders do. This may be attributed to transformational leaders create a supportive work environment, which is an important requisite for employees to become more engaged in their work.

Also, Zagoršek et al., 2009, found that transformational and both transactional leadership styles have a strong impact on organizational learning. Specifically, both transformational and transactional leadership demonstrated a strong direct impact on organizational learning. However, the direct of transactional leadership behavioral and cognitive changes is even transformational stronger than with leadership.

The Descriptive Research Method was used to analyze existing conditions in selected operating departments. This method was selected to identify and describe the opinions of staff within those departments and to report the findings on what was occurring at the time of the study.

A Learning Organization Assessment Survey (LOA) was used to determine if staff of the selected departments considered that they worked in a learning organization. The Leadership Profile Survey (LPS) was then used to determine the leadership styles of the department heads in the selected departments. The results were then compared to determine if there was a relationship between the leadership style of the department and their success at promoting and maintaining a learning organization .Moreover, the same table indicates that there was a statistically not significant relationship between the overall level of studied nurse and work in different unit in different hospital. Experience in your current hospital and show high statistically significant at the place of work they are currently working at respectively.

#### **CONCLUSION:**

From findings of the present study, we can conclude that there was high statistically significant positive association between multifactor leadership survey and the place of work they are currently working at and work place in different hospital and work inside units in hospital. There was statistically significant association between score overall organizational and the workplace in hospital and highly significant in work in current hospital.

#### Recommendations:

Nurse Managers should be educated on the various leadership styles and how to use the style that best suits the institution's goals. Clinical leadership practice and various leadership styles should be included in the nursing curriculum to improve students' educational opportunities. Nursing should learn about several leadership styles in the clinical setting, and they should be aware of the advantages and cons of each and the predicted influence on patient and nurse satisfaction. In terms of research, more studies are needed to examine the influence of culture on nurse managers' adoption of specific leadership styles.

Managers in nursing should frequently feedback solicit on their leadership performance and make any necessary adjustments. In order to generate a shared vision for the implementation of optimal leadership, hospital administrations should provide additional support to nursing managers through training in effective leadership, enculturation, and team building

Table (1): Distribution of the studied nurses' according to socio- demographic data (n = 228)

Socio- demographic dataof nurses	No.	%
Age (years)		
<30	93	40.8
30-<40	97	42.5
40-<50	34	14.9
≥50	4	1.8
Min. – Max.	22.0 -	- 56.0
Mean $\pm$ SD.	$33.39 \pm 7.15$	
Median	32.50	
Gender		
Male	22	9.6
Female	206	90.4
Current working unit		
ICU	86	37.7
NICU	48	21.1
Inpatient	36	15.8
Emergency	58	25.4
Experience in current working hospital		
<10	168	73.7
10-<20	50	21.9
≥20	10	4.4
Min. – Max.	1.50 - 25.0	
Mean $\pm$ SD.	$7.95 \pm 5.31$	
Median	7.0	
Name of current working hospital		
Fawzymoaz	42	18.4
Al gomhorya	93	40.8
Dar ismeal	50	21.9
Sadrkomelshoafa	43	18.9
Planning to change your job at this hospital within next twelve months?		
Yes	50	21.9
No	178	78.1

Table (2): Descriptive analysis of the studied nurses according to score for Multifactor leadership survey (n = 228)

	Total score				Rank	Rank
Mulstifactor leadership survey	Min. – Max.	Mean ± SD.	Median	% Score	sub domain	domain
Transformational Leadership						
Idealized influence	9.0 – 24.0	18.19 ± 3.48	19.0	$63.71 \pm 21.73$	1	
Attribute	4.0 - 12.0	$9.32 \pm 1.96$	9.0	$66.50 \pm 24.52$		
Behavior	4.0 - 12.0	$8.87 \pm 1.95$	9.0	$60.91 \pm 24.43$		
Inspirational motivation	4.0 - 12.0	$9.09 \pm 2.22$	9.0	$63.60 \pm 27.79$	2	
Intellectual stimulation	4.0 - 12.0	$8.54 \pm 1.80$	9.0	$56.74 \pm 22.55$	3	
Individual Consideration	4.0 - 12.0	$8.51 \pm 2.02$	9.0	$56.36 \pm 25.21$	4	
Overall Transformational Leadership	23.0 – 60.0	44.33 ± 8.21	46.0	$60.82 \pm 20.53$		2
Transactional Leadership						
Contingent Reward	4.0 - 12.0	$9.23 \pm 2.02$	9.00	$65.41 \pm 25.31$	1	
Management by Exception (Active)	4.0 – 12.0	$8.73 \pm 1.87$	9.0	$59.10 \pm 23.42$	2	
Overall Transactional Leadership	8.0 – 24.0	17.96 ± 3.06	18.00	62.25 ± 19.14		1
Passive/Avoidant						
Management by Exception (Passive)	4.0 – 12.0	7.61 ± 1.99	8.00	$45.07 \pm 24.90$	2	
Laissez-Faire	4.0 - 12.0	$8.10 \pm 1.77$	8.00	$51.21 \pm 22.10$	1	
Overall Passive/Avoidant	8.0 - 24.0	$15.70 \pm 3.09$	16.00	48.14 ± 19.33		3
Overall Mulstifactor leadership	41.0 – 108.0	77.99 ± 11.76	80.00	58.32 ± 16.33		

Table (3): Correlation between multifactor leadership questionnaire and the learning organization assessment Survey (n = 228)

	Multifactor leadership questionnaire		
	r <sub>s</sub>	P	
Psychological Safety	-0.118	0.076	
Appreciation of Differences	-0.259*	<0.001**	
Openness to New Ideas	-0.212*	0.001**	
Time for Reflection	-0.046	0.489	
Overall supportive learning environment	-0.227*	0.001**	
Experimentation	-0.090	0.174	
Information Collection	0.009	0.898	
Analysis	-0.124	0.061	
Education and Training	$0.410^{*}$	<0.001**	
Information Transfer	0.147*	0.026**	
Overall concrete learning processes and practices	0.129	0.052	
Leadership That Reinforces Learning	0.011	0.874	
Overall organizational	-0.023	0.728	

r<sub>s</sub>: Spearman coefficient

#### test

p: p value for Relation between overall organizationl and socio- demographic data of nurses

Table 4): Descriptive analysis of the studied nurses' according to score for supportive learning environment and concrete learning processes and practices (n=228)

	Total score			0/ C	
	Min. – Max.	Mean ± SD.	Median	% Score	
Psychological Safety	5.0 - 25.0	$13.23 \pm 4.15$	13.0	$41.16 \pm 41.16$	
Appreciation of Differences	4.0 - 20.0	$10.96 \pm 3.07$	11.0	$43.53 \pm 19.19$	
Openness to New Ideas	5.0 - 19.0	$11.30 \pm 2.62$	11.0	$45.61 \pm 16.37$	
Time for Reflection	5.0 - 25.0	$16.65 \pm 3.37$	17.0	$58.27 \pm 58.27$	
Overall supportive learning environment	31.0 - 82.0	$52.15 \pm 8.53$	51.0	$47.43 \pm 47.43$	
Experimentation	4.0 - 20.0	$9.32 \pm 4.19$	8.0	$33.25 \pm 26.18$	
Information Collection	6.0 - 30.0	$12.96 \pm 5.46$	12.0	$29.02 \pm 22.74$	
Analysis	5.0 - 22.0	$13.24 \pm 3.30$	13.0	$41.18 \pm 16.48$	
Education and Training	6.0 - 30.0	$21.51 \pm 5.20$	23.0	$64.64 \pm 21.65$	
Information Transfer	7.0 - 35.0	$15.88 \pm 6.20$	15.0	$31.72 \pm 22.14$	
Overall concrete learning processes and practices	39.0 – 132.0	72.92 ± 16.79	69.0	40.10 ± 14.99	
Leadership That Reinforces Learning	11.0 - 36.0	$19.58 \pm 4.53$	19.0	$36.18 \pm 14.17$	
Overall organization	82.0 – 250.0	144.64 ±25.05	138.0	41.97 ± 11.60	

<sup>\*:</sup> Statistically significant at  $p \le 0.05$ 

<sup>\*:</sup> Statistically significant at  $p \le 0.05$ 

#### **References:**

- Alsabbagh, M., & Khalil, A. (2016). The impact of leadership styles on organizational learning (an empirical study on the education sector in Damascus city). International Journal of Academic Research in Business and Social Sciences, 6, 2222-6990.
- Amitay, M., Popper, M., & Lipshitz, R. (2005). Leadership Styles and Organizational Learning in Community Clinics. The Learning Organization, 12, 57-70. https://doi.org/10.1108/09696470510 57 4269.
- Babalola, S. (2016). The effect of leadership style, job satisfaction and employeesupervisor relationship on performance organizational and commitment. Journal of Applied Business Research, 32, 935. https://doi.org/10.19030/jabr.v32i3.9 https://doi.org/10.6007/ IJARBSS/v6i5/2126.
- Barghi, MJ, Salehian MH, Hashem AR, Ruhani DN, Euro J of Exp BiO, 2012, 2 (3):769.
- Ellinger, A.D., Ellinger, A.E., Yang, B. &Howton, S.W. (2002). The relationship between the learning organization concept and firms' financial performance: an empirical assessment. Human Resource Development Quarterly, 13(1), 5–21.
- Garvin, D. A., Edmondson, A. C., & Gino, F. (2008). Is yours a learning organization? Harvard business review, 86(3), 109.
- Harrison, C. (2017). Leadership Theory and Research: A Critical Approach to New and Existing Paradigms. Springer International Publishing.
- Rowold, J. (2009). Multifactor Leadership Questionnaire Psychometric properties of the

- German translation [Master Thesis Thesis]. University of Muenster Germany.
- Rowold, J. (2009). Multifactor Leadership Questionnaire Psychometric properties of the German translation [Master Thesis Thesis]. University of Muenster Germany
- Sahaya, N. (2012). A learning organization as a mediator of leadership style and firms' financial performance. International Journal of Business and Management, 7, 96. https://doi.org/10.5539/ijbm.v7n14p9 6.
- Zagoršek, H., Dimovski, V., & Skerlavaj, M. (2009). Transactional and transformational leadership impacts on organizational learning. Journal for East European Management Studies, 14, 145-145. https://doi.org/10.5771/0949-6181-2009-2-144.