

Learning Organization and Its Influence on Organization' Resilience and Creativity in Mansoura Oncology Center

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Abstract

Background: Nowadays, all organizations as response to challenges strive to build strong internal and external cooperation through Learning and resilience. These strong alliances and cooperation enable all employees to create new ideas to face these challenges through enhancing and encouraging capabilities of learning & creativity. **Aim:** The purpose of this study was to assess the influence of learning organization on organization resilience and creativity in Mansoura Oncology Center. **Design:** Descriptive correlation design was used. **Setting:** Mansoura Oncology Center which affiliated at Mansoura University. **Subjects:** 125 nurses working at Mansoura Oncology Center **Tools:** Three tools were used: Learning organization questionnaire (DLOQ), organizational resilience scale and creativity audit questionnaire. **Results:** Less than two thirds of staff nurses reported that the learning organization level was moderate; slightly less than two thirds of them reported that the resilience level was high, while more than half of them reported that the level of creativity was moderate. There was significant positive correlation between learning organization, resilience, and creativity in the studied setting. **Conclusion:** Learning organization and resilience plays a significant role in creativity of nurses. **Recommendations:** Organization should provide its nurses with formal or informal learning opportunities as well as team learning, Talent management and planning should be considered for intellectual capital and intellectual property in the organization and the managers need to enhance organizational creativity by understanding the personal demands of its nurses.

Keywords: Learning Organization, Organization' resilience, Creativity, Oncology center

Introduction

The evolutionary processes that arise from world creation influence in the existing climate of organizations. New features that are distinct from previous properties are accomplished daily. If the administration of organizations has not been changed to face these changes, it will lead to serious issues. For survival of an organization adapting to environmental changes is important. If an

organization fails to track environmental developments, it will definitely fail (Steiber, Alänge, 2016).

The best way to manage change is stimulating organizations to learn. In a learning organization, Employees are constantly improving their ability to accomplish the outcomes they actually need, developing new patterns of thought, understanding group desires, and eventually learning how to learn

together on an ongoing basis. The manner an organization learns and adjusts to external changes is often measured by organizational learning. It is described as an organization's ability to adjust its structure, values and objectives in response to changes in the environment. (Miri, Shahabi, Asadipour, 2019)

The pandemic of COVID-19 turned out to be one of the century's highest calamities and disturb each corner of the world. Organizations in every sector have to come to terms with the new realities and discover techniques to manage the quickly changing conditions adequately. Leaders who are capable of addressing the challenges and exploiting the opportunities posed by the crisis and managing change at the level of individuals, communities, and organizations will be the ones who will introduce organizational stability and potential improvement. In addition to making efforts to improve organizational learning and to restructure the crisis system (Chaudhuri, Manikoth, 2020)

According to published research by (Anwar & Niode, 2017) he mentioned that the concept underlying the first learning organization was suggested by Senge (1990) as organizational learning is an institute that concentrate and is dedicated to personnel growth and active learning, aimed at achieving competitive advantage over rivals. All knowledge acquired in the learning organization will added to the learning process and this will further affect the morale of the participants and promote teamwork.

Anwar & Niode (2017) define organizational learning as the institute where individuals can constantly develop

their ability to generate the things they truly need, the place in which novel thoughts can spread and be developed, a institute in which cooperative aspirations can occur openly, and individuals can regularly learn to look from a shared point of view together.

It is necessary for the organizations to support the capabilities of resilience and creativity in their dealing with change. Due to the learning organization is creative, elastic, and adapt to alteration, so the institute's permanence rises by take attention to changes and making creations to understand the ways to learn better (Serrat, 2017)

Organizational resilience is an organization's capability to expect, design, respond and adapt to progressive alteration and unexpected disturbances in order to thrive and prosper. (Denyer, 2017). In a world of transition and confusion, a resilient organization not only succeeds, but also thrives. A critical component of a resilient organization is effective leadership that encourages unified and interdependent teams. Organizational resilience grows over time as management and teams follow to the organization's core values and mission (Southwick, Martini, Charney & Southwick, 2017)

Creativity is mainly focused on shared knowledge about the current technology of an institution, the research carried out on it, the design and development unit's activities, and the contact of the organization with the external environment. Therefore, it can be said that these organizations are very elastic in handling the crises produced by organizational competition. The learning organization also encourages novel ideas

and generates new viewpoints. They therefore regularly search for increase their abilities in creativity, innovation, and evolution terms. This institute deliberates learning as a creative and permanent process for its personnel and motivates persons to be creative (Ansoff, Kipley, Lewis, Helm-Stevens, & Ansoff, 2019)

Keller & Yeaple (2013) recommended that organizational creativity handle the appreciated and usable novel products, services, ideas, programs, or procedures that are generated by an individual in the multifaceted social system. Aslam, Haris, Khuram, Aly, & Ramish. (2014) offered that organizational creativity is several features and it is unrestricted to creating new things, as well as involve the innovation of modern management systems. For example, enhancing the way of working and emerging novel functions are all output of creativity. Organizational creativity is an institution's willingness to pursue revolutions and to produce original things. It is accomplished by an individual with inventive ability to deliver new things through using imaginative thinking and consistently adopting creative behaviors with the help and encouragement of institutional structures. (Duan, 2017)

Significance of the study

Every organization is now exposed to its own threats and vulnerabilities; they need to defend their economy from numerous disturbances, such as global risks, cyber-attacks and natural disasters, to survive. For instance, these sudden organizational disturbances may cause the collapse of a key supplier, impurity

on the production line, or unsatisfied employees that prompt chaos. Therefore, a significant objective of any manager to monitor or avoid abrupt changes should be to enhance organizational resilience and creativity. Through learning organization, organizations should develop new and better ways to learn and enhance their performance. It is part of the ongoing process of exchanging knowledge with staff and the environment and sharing and disseminating information. A learning organization is completely dissimilar from a traditional organization as it has the capability to make ongoing changes. So, this study aims to assess the learning organization and its influence on organization resilience and creativity.

Aim of the study

This study purposes to assess the influence of learning organization on organization' resilience and creativity in Mansoura Oncology Center

Research questions

1. What is the level of learning organization in Mansoura Oncology Center?
2. What is the level of organization resilience in Mansoura Oncology Center?
3. What is the level of creativity in Mansoura Oncology Center?
4. What is the role of learning organization on organization' resilience and creativity?

Study design:

To achieve the aim of the study descriptive correlation research design was used

Study setting:

At the Mansoura Oncology Center, which was established in 1994, the study was conducted. The center aims to provide both comprehensive care and advanced preventive services in the provinces of Delta and Channel governorates, In addition to providing clinical services for acute and critical cases in all oncology fields (digestive system - liver - blood - bone - marrow transplant cases) and enhancing the quality of education of doctors in the field of oncology with various treatment approaches and aspects of prevention and early detection.

Subjects & Methods**Subject:**

A convenient sample was used include all available nurses in studied setting

Tools for data collection: one questionnaire was used to gather data of the study. This questionnaire contained four (4) parts.

1st part concerned with participants' demographic data such as age, sex, years of experience.....etc.

2nd part is the dimension of learning organization questionnaire (DLOQ) adopted from **Marsick & Watkins (2003)** and aims to measure learning culture in organizations and intends to capture the employee's perception regarding the seven dimensions. This seven (7) dimensions are namely, Continuous learning, Dialogue and inquiry, Team learning and collaboration, Embedded systems, Empowerment, Systems connections and Strategic leadership each dimension

consist of three (3) items in 5 point Likert Scale ranged from 1(strongly disagree) to 5 (strongly agree).

Scoring systems:

- (<50%) low level of learning organization
- (50-75%) moderate level of learning organization
- (>75%) high level of learning organization.

3rd part is organizational resilience scale developed by **Kantur & Iseri-Say (2015)**. This scale uses a three-dimensional structure: robustness (four items), agility (three items) and integrity (two items). A five-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree) to assess these dimensions was used.

Scoring system:

- (<50%) low level of organization resilience
- (50-75%) moderate level of organization resilience
- (>75%) high level of organization resilience

4th part is creativity audit questionnaire, developed by **creativity development and innovation training package for small and medium size enterprises (2011)**, available at www.icreate-project.eu that covers three dimensions namely, Strategy & Creativity (11 items), Freedom & Creativity (5 items) and Communication & Creativity (8 items).

Scoring system:-

- (<50%) low level of creativity
- (50-75%) moderate level of creativity
- (>75%) high level of creativity

Validity and reliability:

The content validity of the tools was conducted by (5) expertise from academic nursing staff (Nursing administration, Faculty of Nursing, Mansoura University). A necessary modification was done based on their feedback.

Pilot study

Before starting data collection, a pilot study was carried out on (10 percent of the total study sample) selected randomly to ensure the clarity, feasibility and applicability of the instrument and to measure the time needed by each participant to fill in the items of the tool. Before starting data collection, appropriate changes were made. Data obtained from the pilot analysis were omitted from the study result.

Field work:

Sufficient questionnaires were printed and distributed by the researchers from 1st to 30th January, 2020 at each unit where staff nurses were working. Notices were placed in nurses' locations explaining the nature of the survey with contact details. The completed surveys were collected in a large folder by the researchers from the participants at their units by hand in the morning and afternoon shifts. Answering the questionnaire took about 20 to 25 minutes.

Ethical considerations

Ethical approval was obtained before gathering data of the study from the ethical research committee-faculty of nursing- Mansoura University. The aim of the study was explained to the nurses, acceptance to participate in the study was

voluntary and unsigned. In addition to, their rights to refuse or withdraw from the study without giving reasons. They were reassured that any obtained information will be confidential, and will be used only for the purpose of the study. Filling and returning back the questionnaire were an indication of acceptance to participate in the study.

Statistical analysis

The collected data were organized tabularized and statistically analyzed using SPSS software (Statistical Package for the Social Sciences, version 22, SPSS Inc. Chicago, IL, USA).

Relationship between variables was evaluated using Pearson's correlation coefficient (r). Significance was adopted at $p < 0.05$ for explanation of results of tests of significance. For qualitative data, comparison between two groups and more was done using Chi-square test (2). For comparison between means of two groups of parametric data of independent samples, student t-test was used. For similarity between means of two groups of non-parametric data of independent samples, Z value of Mann-Whitney test was used. For quantitative data, the range, mean and standard deviation were calculated.

Results

Table (1): Personal characteristics of the studied sample (n=125).

Variables	No	%
Age years:		
▪ 20-25	58	46.4
▪ 26-30	28	22.4
▪ 31-35	36	28.8
▪ >35	3	2.4
Unit of work		
▪ Medical	21	16.8
▪ Surgical	46	36.8
▪ Chemo	15	12.0
▪ ICU	6	4.8
▪ Blood disease	8	6.4
▪ Blood bank	10	8.0
▪ Pediatric	19	15.2
Experience years:		
▪ < 5	59	47.2
▪ 5-10	26	20.8
▪ >10	40	32.0
Level of education		
▪ BSc degree	30	24.0
▪ Technical degree	94	75.2
▪ Diploma degree	1	0.8

Table (2): Mean scores of learning organization, resilience, and creativity as perceived by studied sample (n=125).

Variables	Min-max	Mean±SD
Total learning organization	43.0- 93.0	76.93±10.57
• Continuous learning	5.0 – 15.0	11.54±2.11
• Dialogue and inquiry	6.0 – 15.0	11.69±1.74
• Team learning and collaboration	3.0 – 14.0	10.81±2.17
• Embedded systems	5.0 – 14.0	10.35±2.50
• Empowerment	4.0 – 13.0	10.62±1.86
• Systems connections	4.0 – 14.0	10.41±2.21
• Strategic leadership	6.0 – 15.0	11.51±2.45
Total resilience	23.0- 42.0	34.54±4.48
• Robustness	11.0 – 19.0	15.53±2.11
• Agility	3.0 – 14.0	11.42±2.34
• Integrity	4.0 – 10.0	7.58±1.65
Total creativity	38.0 – 11.0	81.74±17.08
• Strategy & Creativity	19.0 – 50.0	16.16±7.90
• Freedom & Creativity	5.0-25.0	27.38±4.4
• Communication & Creativity	14.0-36.0	81.74±5.94

Figure (1): Levels of learning organization, resilience, and creativity as perceived by nurses (n=125).

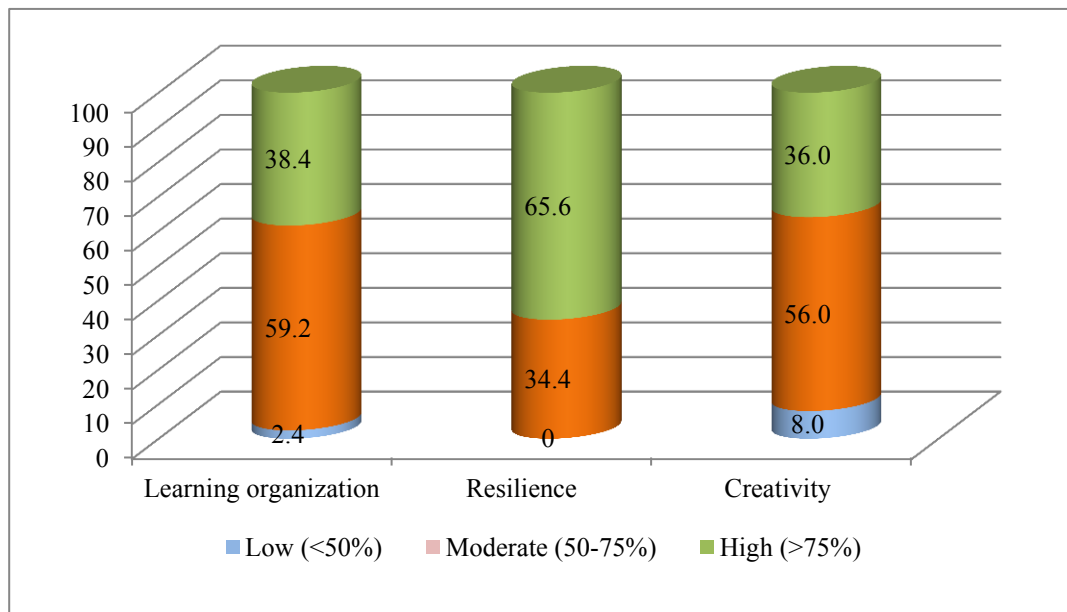


Figure (2): Correlation between learning organization, and resilience as perceived by the nurses (n=125).

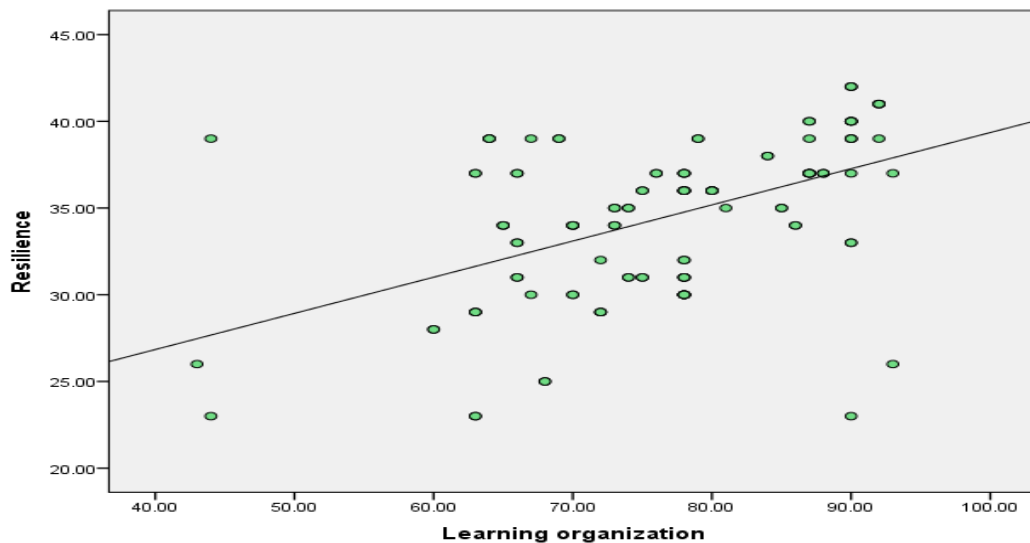


Figure (3): Correlation between learning organization, and creativity as perceived by the nurses (n=125).

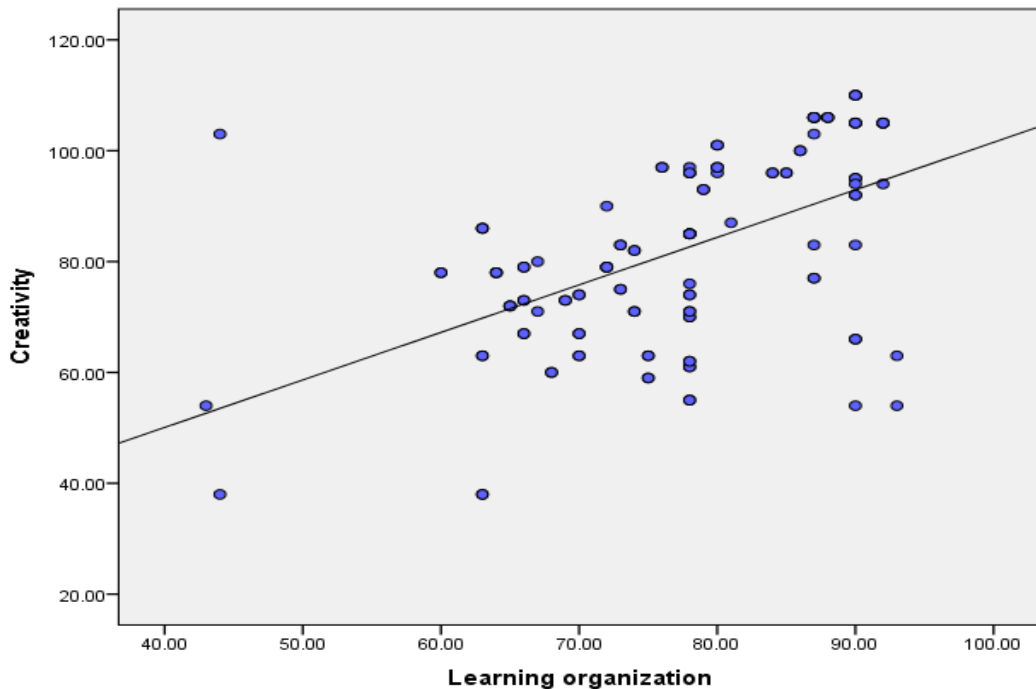


Table (1) shows that 46.4% of studied sample aged from 20-25 years old, 36.8% work at surgical units, 47.2% of them had less than 5 years of experience and 75.2% of them had technical degree of nursing education.

Table (2) shows that nurses reported their high mean scores for total creativity (81.74 ± 17.08) followed by total learning organization (76.93 ± 10.57). As regard to learning organization, the item of nurses' dialogue and inquiry had the highest mean score (11.69 ± 1.74), while the least item was embedded systems (10.35 ± 2.50). According to organization resilience robustness domain had the highest mean score (15.53 ± 2.11), while integrity was the lowest mean score (7.58 ± 1.65). Concerning creativity dimensions. Communication & creativity had the highest mean score (81.74 ± 5.94),

while strategy & creativity was the lowest (17.32 ± 3.85).

Figure (1) illustrates that 59.2% of staff nurses reported that the learning organization level was moderate, 65.6% of them reported that the resilience level was high while the level of creativity was moderate (56%) at the studied setting.

Figure (2) demonstrated that there is a highly significant positive correlation between learning organization, and resilience in studied setting.

Figure (3) illustrated that there is a highly significant positive correlation between learning organization, and creativity in studied setting.

Discussion

The organization's learning and creativity help to improve the

organization's productivity and enhance the organizational capacity to respond to the evolving environment. The activities of learning organizations seem to be essential for healthcare organizations because they have the ability to contribute to, effectiveness, resilience and creativity.

To accomplish the purpose of the study, and answer the research questions, the research findings will be illustrated as:

Regarding learning Organization level, the study result revealed that learning organization level in oncology center as reported by less than two thirds of sample was moderate. This result may be due to effective strategic leadership, leaders guide and train their employee's, leaders are actively searching for ways to learn their nurses and confirm that the activities of the organizations are aligned with their values.

This result in accordance with the study of **Miri, et al (2019)** who reported learning organization at moderate level and more than the average score. Also, this result supported by the study of **Azizinejad & Abbaszadeh (2010)** who studied relationship between creativity learning organization and innovation, found that learning organization at moderate level.

Regarding organization resilience level, the research findings revealed that organization' resilience level as reported by slightly less than two thirds of studied sample was high. This may be due to the hospital preserves its position and stands straight, effective in creating various solutions according to the situation and develops replacements in order to

advantage from undesirable conditions. This was in the same line with **Sajko & Boone (2020)** who study chief executive officer greed, organizational resilience and corporate social responsibility to systemic shocks, stated that organizational resilience to systemic shocks was high. While, this result disagreed with the study of **El-Gilany, et al (2020)** who reported resilience domain was low.

Regarding creativity level, the results of the present study showed that the level of creativity as reported by more than half of studied sample was moderate. This finding may be due to the hospital encourage open communication among nurses as exchange new ideas, hospital use creativity techniques such as brainstorming and accomplishment of the leader in creating various solutions in emergency situation and the manager takes rapidly action when required.

This result was congruence with the study of **Miri, et al (2019)** who studies the relationship between creativity and learning organization in teaching hospital and found the average score of creativity variable was moderate. These findings were disagreed with **Azizinejad & Abbaszadeh (2010)** who found that the hospitals were undesirable in creativity and learning. This may be due to weaknesses in factors such as organizational culture, management and leadership and organizational structure.

The results of the present study revealed that there is a highly significant positive correlation between learning organization, and resilience in studied setting. In the same respect, **Mousa, et al (2020)** mentioned that learning organization depicts a positive

relationship with level of organizational resilience.

Also, come in line with **García-Morales et al. (2012)** who affirm that learning organization develops and knowledgeable human capital which subsequently works as a resilient block against untoward events. In this context, **Linnenluecke and Griffiths (2010)** point out that influential organizational resilience relies mainly on routines, values and capabilities that organizational members acquire through OL to wisely and quickly act against uncertain events.

Additionally, **Lewis (2013)** recommend building a resilient culture includes nothing important than having a pool of updated employees open to debate and negotiated scenarios for facing any upcoming threat. This result was supported by **Mousa et al. (2018)** who detailed that the knowledge employees attain from professional training and development opportunities is a key step toward developing an organization's culture of resilience.

Findings of the present study revealed that there was a highly significant positive correlation between learning organization and creativity in studied setting. This is agreed with **Aslam et al. (2014)** who suggested that a learning organization can transfer and exchange information so that, the staff of this organization can learn from each other and trip their only thinking. The organization reputation can be improved and valuable talents can be preserved by being a company with imagination and empowering its members to create new thought. Finally, it is evident that a learning organization is able to enhance

creativity of an organization and changing the altitude of the personnel.

Generally, **Lars & Thomas (2012)** suggested that modifying the management practices of an organization by the learning organization to adapt to the external environment is not only advantageous in influencing the creativity of the organization, but can also increase the work efficiency and employee satisfaction.

This result congruence with **Duan, (2017)** who study of the influence of learning organization on organizational creativity and organizational communication, mentioned that the influence of a learning organization on organizational creativity is positive. Also, agree with **Rakhsh & Ahmadai (2011)** who study the creativity, organizational learning, and operation, and concluded that strong positive relationship between organizational learning and both operation and creativity.

In the same line **Ghadimi, Enayati, & Salehi (2018)** found that, in a system that effective education and transfer of knowledge are considered as one of the most important stimuli of creativity, with the purposeful transfer of knowledge and skills, the capabilities of managers and employees are promoted; and people are introduced to creative thinking and the innovation and creativity of the staff is increased and the quality of individuals can be effective.

Conclusion

This study displays that more than half of studied sample showed moderate level of learning organization, nearly two thirds of them revealed high level of

resilience and more than half of them demonstrated moderate level of creativity. There was statistical significant positive correlation between learning organization, resilience, and creativity. So, from the above we concluded that learning organization and resilience plays a significant role in creativity of nurses. Therefore, whenever staff understand their talents and begin to refine them, they are continuously creative and such individuals trigger a learning organization.

Recommendations

- 1- Adequate rewards and necessary resources should be considered for the presentation and implementation of creative ideas
- 2- Objectives should be clearly expressed and the new ideas of the nurses should be applied.
- 3- Talent management and planning should be considered for intellectual capital and intellectual property in the organization.
- 4- The nurses who try to implement innovative ideas should be supported, especially if they have failed to implement their ideas.
- 5- Managers should encourage nurses for personal growth, giving them opportunity to learn new things and allowing them variety at work.
- 6- The managers need to enhance organizational creativity by understanding the personal demands of their nurses.
- 7- Organization should provide its employees with formal or informal learning opportunities as well as team learning

Conflict of interest

The authors state that they have no conflict of interest

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