
 <p>INNOVATIVE JOURNAL ЮНКВАТ МЕДИЦИНСКИ УНИВЕРСИТЕТ</p>	<p>Contents lists available at <a href="http://www.innovativejournal.in">www.innovativejournal.in</a></p> <p><b>INTERNATIONAL JOURNAL OF NURSING DIDACTICS</b></p> <p>homepage: <a href="http://innovativejournal.in/ijnd/index.php/ijnd">http://innovativejournal.in/ijnd/index.php/ijnd</a></p>	 <p>IJND ISSN: 2231-5454</p>
-------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------

## Association between organizational climate and head nurses' administrative creativity

Safaa Mohammed El-Demerdash and Wafaa Mostafa

Assistant Professor and Lecturer, Nursing service Administration, Faculty of Nursing, Tanta University and Zagazig University. Egypt.

DOI: <http://dx.doi.org/10.15520/ijnd.2018.vol8.iss01.268.01-09>

**Abstract: Background:** Today's Hospitals' organizational climate is becoming more important than the past because its impact on administrative creativity. When organization climate ease idea creation; knowledge distribution and creative problem-solving, head nurses in that setting are more likely to produce creative ideas. **Aim:** The aim of the present study is to investigate the association between organizational climate and head nurses' administrative creativity. **Method:** Descriptive design was used. The study was conducted at new surgery Zagazig University Hospital. All (65) head nurses from the above mentioned setting. The data was collected by using (1) Work environment scale and, (2) administrative creativity scale. **Results:** The result of this study showed that high percent (78.5) of head nurses had moderate level of organization climate. Above half (53.9%) of head nurses had moderate level of administrative creativity, significant association at P0.01 was found between total organization climate and head nurses' total administrative creativity. **Conclusion:** High percent of head nurses at new Surgery Zagazig University Hospital had moderate level of organization climate and its factors. Also, they had moderate level of total administrative creativity and its dimensions. Significant association was found between head nurses' total level of organization climate, its factors and their total level of administrative creativity and its dimensions except head nurses' levels of intellectual fluency and mental flexibility dimensions of administrative creativity had no significant association with levels of nurse-client relationship and nurse-supervisor relationship factors of organization climate, also head nurse' level of sensitivity to problems dimension of administrative creativity had no significant association with peer to peer evaluation organization climate. **So,** top nursing management should pay more attention to the vital role of organization climate as a valuable strategy for upgrading head nurses' creative abilities.

**Keyword:** Organization climate, Head nurses, administrative creativity.

### INTRODUCTION

Today, hospital organizations have to give great stress on decreasing cost, delivering good quality of care and client satisfaction. As a result hospital organizations have increased its interest on organizational climate and its outcome<sup>(1)</sup>. Organizational climate is associated with a group of attributes of the work environment that perceived by individuals who work in this surroundings and power work motivation and acts as an effective source to figure and influence behavior<sup>(2)</sup>. In the health care literature, organization climate is referred to as work environment that comprises characteristics of organizations which enable head nurses to function to their full potential, and it is considered as a critical element in achieving their creative behavior, which is imitated in hospital's objectives that intend to raise its nurses by provide them good working setting and state, assisting and supporting them in having job innovation and creativity<sup>(3,4)</sup>.

Empowerment, job design, organization factor, nurse-client relationship, nurse-supervisor relationship and peer to peer evaluation are some organizational climate factors practiced by head nurses<sup>(5)</sup>. Empowerment factor is offers to head nurses a broad autonomy within the hospital organization to make decisions through the expansion of the delegation of authority, increase participation, self-motivation, to emphasize the importance of teamwork, give favorable environment for the development of administrative creativity<sup>(6)</sup>. Nurse-client relationships factor focused on nurses' reaction for the care receiver, patient sense greeted

and relaxed, nurse offer good quality of care to satisfy patient. Job design factor contains the features of the everyday activities that make up a given job that control its latent for generating administrative creativity<sup>(5)</sup>.

Pay, distributive justice, and promotional opportunity are the examples of organizational factor which are vital issues regarding the level of unity and fairness of the policy among nursing staff within hospital. Nurse-client relationships factor of organizational climate is related to nurses' feelings for the care recipients through rapid and resourceful service to satisfy patient. Factor of nurses-supervisors' relationships related to the behaviors in which the supervisor exhibits understanding and honesty toward staff. Effective nurses-supervisors' relationships are where staff nurses experience a high level of motivation to foster administrative creativity, and where staff appears to be liked by their supervisors, irrespective of their performance. Factors of peer to peer relation related to interpersonal connection between nursing groups that is linked with duty, kindness, support, faith and commitment to administrative creativity<sup>(5,7)</sup>.

Recently, hospital organizations need creative and innovative behavior. Further, creativity has become a requirement<sup>(8)</sup>. As a result of fast paced changes in health care, challenges and chances that face head nurses, creativity is essential for the development of nursing practice and organizational success<sup>(2)</sup>. Creativity was defined as 'the formation of novel, appropriate and useful ideas by individuals or small group, to construct hospital

organizations' work better and to meet the needs of patients<sup>(9, 10)</sup>. Administrative creativity has been defined as the creation of new ideas and services or the development of new creative ideas by individuals who interact with each other within the organized manner<sup>(6)</sup>. It is the ability of head nurses to create their ideas which is novel, useful, and understandable, through inspiring administrative creativity elements of originality, intellectual fluency, and mental flexibility, sensitivity to problem, ability analysis and risk-taking<sup>(11,12)</sup>.

**Originality element :** head nurses' ability to produce of what is unusual, what is the long-term, what is new and extraordinary, and what is an intelligent and skillful response; **Intellectual fluency element** is their ability of imagination, symbol, reasoning, the capacity of perception and intuition. **Mental flexibility element:** head nurses' ability to a change of a particular type and sees the problem from different angles and changes in meaning or interpretations, understand the task, choose strategy or a change in the direction of thinking that could mean a new interpretation of the goal. **Analysis ability:** head nurses' ability to quickly understand a situation and analyze it or solve complex and complicated problems by making decisions using the available information, and head nurses' ability to take actions which might have unfamiliar ideas or methods and take responsibility for its consequences<sup>(6,12-15)</sup>.

Boosting a climate for administrative creativity will effectively result in increased innovative activities and achievements. Administrative creativity in hospital setting will improve efficiency and dedication, while it'll alleviate stress and unnecessary red tape. Creativity will heighten the cohesion and productivity of a team, as well ease time management. It has a motivating effect; it will encourage nurses to become autonomous and enrich them with experience. It has a strong positive effect on the head nurses because it increases their welfare and optimism<sup>(16, 8)</sup>.

## AIM OF THE STUDY

This study aimed to investigate the association between organizational climate and head nurses' administrative creativity.

### **Research question:**

What is the association between organizational climate and head nurses' administrative creativity?

### **Subject and method:**

**Design:** Descriptive design was used.

**Setting:** This study was conducted at new surgery Zagazig University hospital that id divided into unites and this is: New surgery ICU unite, operation room, general surgery department, urology department, orthopedic department, ENT department, - neurosurgery department, gyna - surgery department and reception department.

### **Subject:**

The sample size is estimated to determine. The estimated sample size is 65 head nurse, according to solving formula ( $n=N/1+N(e)$ )  $n$ =sample size,  $N$ =population and  $e$ =margin error.

**Tools:** To fulfill the aim of the present study the following tools were operated.

### **Tool I: Work environment scale had two parts.**

**Part one:** Head nurses' characteristics such as :age, qualification, years of experience, marital status and department

**Part two: Work environment scale by Zayan (2010)<sup>(7)</sup>** to assess head nurses' organizational climate. It includes 86 items distributed into sex categories: empowerment (22 items), job design (30 items), organizational factors (13 items), nurse-client relationships (5 items), nurse-supervisor relationship (12 items) and peer to peer relationship (4 items).

### **Scoring system:**

Head nurses' response were measured on five Point -Likert scale, which ranged from (1= None, to 5= Much), or frequency (1=Strongly disagree, to 5=Strongly agree), or frequency (Never to Always) or frequency (Very false to Very much) and frequency (Very poor to Very Good). The questionnaire total scores were divided into three levels high  $\geq 75\%$ , moderate 74%-50 and, low  $< 50\%$ .

**Tool 2: Modified administrative creativity questionnaire by Kalf (2010)<sup>(12)</sup>** to assess head nurses' administrative creativity. It contained 25 items are clustered into sex dimensions: originality (3items), intellectual fluency (5 items), and mental flexibility (4 items), sensitivity to problem (4 items), ability analysis (4 items) and risk- taking (5 items)

**Scoring System:** Head nurses' response were scored on three Points - Likert Scale ranged from (1-3) ranging from no(1), sometime (2), always(3)The total scores of head nurses creativity were classified into three levels : high  $\geq 75\%$ , moderate 74%-50 and, low  $< 50\%$ .

## METHOD

1. The researchers obtained official permission from responsible authorities at Zagazig University Hospital to conduct this study.
2. Ethical consideration : All head nurses' consent for participation were obtained after clearance of the nature and the purpose of the study, confidentiality of the information's obtained from them and they have right to withdrawal.
3. Content validity of the tools was performed by nine experts in the field of nursing administration.
4. Pilot study was conducted on 10% of head nurses (who were excluded from the study population), to know the barriers and issues that may be meet in data collection. Answers and comments by head nurses were considered.
5. Cronbach's alpha was used to test reliability of the tools tool (1) was .831 and tool (2) was .982
6. The researchers meeting head nurses ( $n=65$ ) individually to collect data. Responding times were in tool 1 (20) minute and tool 2(15) minute. Duration of data collection was 3 months started in the beginning of October to December 2014.

**Statistical analysis:**

Results were tabulated and statistical analysis was performed with Statistical Package for Social Science (SPSS version 16). Descriptive measures, including frequency,

percentage were presented. Chi-square test was operated to determine differences between variables. P values of 0.01 and 0.05 were considered statistically significant.

**RESULTS:**

Table (1): Head nurses' characteristics

Head nurses' characteristics.	Head nurses (N= 65)				
	No	%		No	%
<b>Age</b>			<b>Marital status</b>		
30>	17	26	Married	60	92.3
30- 40	41	63	Single	5	7.7
>40	7	11	<b>Department</b>		
<b>Mean ± SD</b>	33.8± 5.62		New surgery ICU unite	4	6.1
<b>Years of experience</b>			Operation room	3	4.6
10>	24	37	General Surgery department	16	24.6
10-15	26	40	Urology department	10	18.4
>15	15	23	Orthopedic department	8	12.3
<b>Mean ± SD</b>	11.6 ± 5.38		ENT department	5	7.7
<b>Qualifications</b>			Neurosurgery department	7	10.8
bachelor degree			Gyna- surgery department	7	10.8
	60	92.3	Reception department	5	7.7
Bachelor + post graduate diploma degree	5	7.7			

Table (1): Describes head nurses' characteristics. Concerning, high percent (74) of head nurses were in age group 30- 40 years with mean age 33.8± 5.62. Forty (40%) of head nurses had 10-15 and 10> years of experience with mean years of experience 11.6 ± 5.38. All head nurses had bachelor degree of nursing and majority (92.0%) of them was married. Regarding departments study subjects working

in general surgery department were 24.6%, urology department 18.4%, orthopedic department 12.3%, equal percent (10.8% ) in neurosurgery department and gyna-surgery department, equal percent (7.7%) in ENT department and reception department, new surgery ICU unite 6.1%, and operation room 4.6%.

Table (2): Head nurses' levels of organization climate factors.

Organization climate factors	Head nurses(N= 65)					
	High		Moderate		Low	
	No	%	No	%	No	%
1-Empowerment	5	7.7	36	55.3	24	37.01
2-Job design	11	16.9	50	76.9	4	6.2
3-Organization factors	10	15.2	54	83.1	5	7.7
4-Nurse-client relationship	20	30.8	40	61.5	5	7.7
5-Nurse- supervisor relationship	20	30.8	38	58.4	7	10.8
6-Peer to peer relationship	36	55.4	26	40.0	3	4.6
Total	1	1.5	51	78.5	13	20.0

Table (2): portrays head nurses' levels of organization climate. High percent (78.5) of head nurses had moderate level of organization climate but, 20.0% and 1.5% of them had low and high level of organization climate. Majority (95.4%) of head nurses had high and moderate level of peer to peer evaluation. From the table, it was noticed that, high percent (83.1%, 76.9% and 61.5) of head nurses had

moderate level of organization climate regarding organization factors, job design and nurse-client relationship respectively, above half (58.4% and 55.3%) of head nurses had moderate level of organization climate concerning nurse-supervisor relationship and empowerment respectively.

Table (3): Head nurses' levels of administrative creativity

Administrative creativity elements	Head nurses(N=65)					
	High		Moderate		Low	
	No	%	No	%	No	%
1-Originality	14	21.5	38	58.5	13	20.0
2- Intellectual fluency	15	23.1	37	56.9	13	20.0
3- Mental flexibility	12	18.5	40	61.5	13	20.0
4- Sensitivity to problems	12	18.5	39	60.0	13	20.0
5-Ability analysis	13	20.0	38	58.5	14	21.5
6-Risk taking	13	20.0	40	61.5	12	18.5
<b>Total</b>	17	26.1	35	53.9	13	20

Table (3): reveals head nurses' levels of administrative creativity. The table revealed that above half(53.9%) of head nurses had moderate level of administrative creativity, also, almost sixty(61.5% , 60.0%,58.5% and 56.9%)of them had

moderate level in mental flexibility, risk taking , sensitivity to problems, originality, ability analysis and intellectual fluency dimensions of administrative creativity.

Table (4): Association between head nurses' levels of organization climate and their levels of administrative creativity.

Head nurses' administrative creativity dimensions	Originality	Intellectual fluency	Mental flexibility	Sensitivity to problems	Ability analysis	Risk taking	Total of creativity
Organization Climate	$\chi^2$ P	$\chi^2$ P	$\chi^2$ P	$\chi^2$ P	$\chi^2$ P	$\chi^2$ P	$\chi^2$ P
<b>Total of organization Climate</b>	2.000 0.017*	2.608 0.001*	2.470 0.000**	2.303 0.031*	3.111 0.000**	3.167 0.000**	1.973 0.000**
<b>1-Empowerment</b>	1.863 0.000**	2.111 0.000**	1.933 0.000**	2.588 0.000**	2.111 0.000**	2.957 0.000**	5.884 0.000**
<b>2-job design</b>	1.558 0.001*	1.811 0.003*	1.880 0.000**	2.258 0.000**	2.016 0.000**	2.480 0.000**	4.820 0.000**
<b>3-Organization factors</b>	1.183 0.053*	1.702 0.001*	1.445 0.001*	1.895 0.000**	1.459 0.024*	1.944 0.000**	4.320 0.000**
<b>4-Nurse client relationship</b>	76.946 0.027*	76.768 0.172 ns	67.546 0.119 ns	91.712 0.020*	1.068 0.001*	82.852 0.304 ns	2.278 0.005*
<b>5-Nurse -supervisor relationship</b>	88.865 0.003*	92.241 0.018*	65.341 0.160ns	98.044 0.006*	1.123 0.000**	1.023 0.028*	2.375 0.001*
<b>6-Peer - peer evaluation</b>	63.510 0.095*	66.452 0.262 ns	77.599 0.007*	71.778 0.142 ns	75.508 0.086*	92.208 0.039*	2.371 0.000**

\*\* - Significant at the 0.01 level

\*. Significant at the 0.05 level

Table (4): displays association between head nurses 'levels of organization climate and their levels of administrative creativity. From the table, it was observed that, there was significant association between head nurses' total level of organization climate , its factors and their total level of administrative creativity and its dimensions at (P 0.01 &0.05)except, head nurses 'levels of intellectual fluency and

mental flexibility dimensions of administrative creativity had no significant association with levels of nurse -client relationship and nurse - supervisor relationship factors of organization climate , also head nurse ' level of sensitivity to problems dimension of administrative creativity had no significant association with peer to peer evaluation organization climate.

Table (5): Correlation between head nurses age, experience with organization climate and their administrative creativity

Subject characteristics	Organization climate	Head nurses' administrative creativity
<b>Age</b>		
<b>R</b>	0.162	0.285
<b>P</b>	0.177	0.021*
<b>Experience</b>		
<b>R</b>	.205	0.284
<b>P</b>	.101	0.025*

Significance: \* P<0.05

Table (5): presents correlation between head nurses age, experience with organization climate and their administrative creativity. According to this table, significant correlation was found between head nurses` age, experience and their administrative creativity at P<0.05, but they had no significant correlation with organization climate p <0.05.

## DISCUSSION

Today's Hospitals' organizational climate is becoming more important than the past because its impact on administrative creativity<sup>(17)</sup> .When organization climate ease idea creation; knowledge distribution and creative problem-solving, head nurses in that setting are more likely to produce creative ideas<sup>(9)</sup>. They are more expected to feel their own needs being met and inspired in their work, they

also feel that their jobs are significant and demanding <sup>(18)</sup>. Recently, nursing experts have been insistently heartening nurses to pursue creativity in nursing in order to acquire better nursing outcomes <sup>(10)</sup>. Exciting and supporting of head nurses' administrative creativity will also assist hospitals' organizations to maintain services, productivity and growth as well as provide quality services in an increasingly cost-saving of health care <sup>(19)</sup>. Hence, the present study aimed to investigate the association between organizational climate and head nurses' administrative creativity.

The present result showed that high percent of head nurses had moderate level of organization climate. This may be explained by that top management succeeded in establishing good climate among coworker that is characterized by sharing in decision making, adequate opportunities to gain new skills and knowledge, rewards for creativity and good communication with others. As well as, challengeable jobs, proper feedback about performance and recognition for work done well. The best working climate that generates the greatest productivity maintained through promotion of an open, non frightening setting, allocate information, keep staff informed and encourage them to discuss issues.

This result is compatible with previous result of (Askari et al 2017 <sup>(20)</sup>, Sudariani and Putra (2015) <sup>(21)</sup>, Kassem and Gaber 2015 <sup>(22)</sup>, Muñiz et al, 2014 <sup>(23)</sup>, Ahamed et al, 2014 <sup>(24)</sup>, Al-Saude 2012 <sup>(25)</sup>, Abdul Latif et al , 2010 <sup>(26)</sup> and Abd El-Salam et al, 2008 <sup>(27)</sup>) whose revealed that organizational climate was evaluated at the moderate level. In contrast, this result is in contradicted with previous results of (Gholami et al, 2015 <sup>(28)</sup>, Anchala and Judie 2015 <sup>(29)</sup>, El - Bardeny 2009 <sup>(30)</sup>, Abudahi, 2012 <sup>(31)</sup>) whose declared that head nurses had positive responses about their total of organization climate . Results indicate that their subject perceived their hospital climate positively, highly satisfied with their working environment -above average.

The present result revealed that majority of head nurses had high and moderate level of peer to peer relationship. This finding might be due to the reasons that the top management fosters good interpersonal relationships among head nurses by creating an atmosphere of mutual trust and open-minded environment for creativity, problem solving and new ideas. So, they feel welcomed and understood in their concerns. They also feel positive about their individuality, their job as well as about being a part of their organization.

On contrary, Zayan et al (2010) <sup>(7)</sup> who's reported that the high percent of total nurses including head nurses were seen peer - peer relationship occurring sometimes. Elsayad (2016) (32 ) found that high percent of nurse managers were high in interaction with their peer and also, found that more than sixty of staff nurse agree that communication between them and their colleagues and nurse manager at work is good, and communications seem good within this organization. As well as, they agree that they like the people they work with and they enjoy with their coworker. Warshawsky et al (2012) <sup>(33)</sup> found that nurse managers' mean score for interpersonal relationships were highest as well as their peers, followed by interpersonal relationships with nurse administrators, and lowest-- and most variable--

with physicians). In this regard, Alshaer(2002) <sup>(34)</sup> peer relation is necessary for support and usually involves reciprocity expectations

The present result revealed that above half of head nurses had moderate level of organization climate concerning nurse- supervisor relationship. This result may perhaps the most attribute to that supervisors create atmosphere of friendship and support of head nurses. They treat them with respect and have confidence in their abilities. They usually willing to help them and rarely show temper. But, El-Bakashwan (2004) <sup>(35)</sup> found that high percent of nurse supervisors have high proficient of interpersonal connection and mentioned that interpersonal relations are the manner in which nursing managers respond emotionally and verbally to public, other employee, and staff nurses Zayan et al (2013) <sup>(5)</sup> who's reported that the nurses had low perception of nurse-supervisor relationships.

In this respect, frequent studies conducted among healthcare professionals point to the importance of interpersonal relationships, and that relations leads to improve in patient safety, quality of care and greater patient satisfaction as well as encourage nurses' creativity <sup>(32)</sup>. The present study result showed that high percent of head nurses had moderate level of organization climate regarding nurse-client relationship. This result may be due to that hospital management teams promote organizational climate that enhance nurse-client relationship. This result is disagreeing with result of Zayan et al (2010) <sup>(7)</sup> who reported that the high percent of total nurses including head nurses were seen nurse-client relationship occurring sometimes.

The present study result displayed that high percent of head nurses had moderate level of organization climate regarding job design, organization factors and above half of head nurses had moderate level of organization climate concerning empowerment. This result may be attributed to that top management facilitates head nurses' access to information, resources and professional development opportunities and participation in decision making. Because in such climate that facilitate satisfaction in the execution of jobs, head nurses may be able to use their creativity as they perform their duties. So, they may be tended to see their work as a challenge and then experience satisfaction when performing it thoroughly. This result is similar to result by El-Demerdash and Obied (2016) <sup>(36)</sup> who revealed that nurses had a moderate level of structural empowerment. But, Zayan et al (2010) <sup>(7)</sup> who's reported that the high percent of total nurses including head nurses were seen job design, organization factors and empowerment occurring sometimes.

The present study result displayed that above half of head nurses had moderate level of total administrative creativity, also, almost sixty of them had moderate level in mental flexibility, risk taking, sensitivity to problems, originality, ability analysis and intellectual fluency dimensions of administrative creativity. This result may be related to moderate organization climate which are organizational encouragement, empower of head nurse, and challenge their work that contribute to administrative creativity. They have having authority as a head nurse that include the formation of new thoughts and resources as well as creating change.

**Oldham and Cummings (1996)** <sup>(37)</sup> indicate that creative people are reactive to climate variables. **Also, Basadur (1997)** <sup>(38)</sup> and **Schneider et al (1994)** <sup>(39)</sup> reported that organizational climate is useful basis in motivating creativity and innovation. The present study result is agree with result of **Yossef and Rakha (2017)** <sup>(40)</sup> whose showed that administrative leaders had an intermediate level of administrative creativity, they also found that their respondents are sensitive to problems with a high level, followed by flexibility, and analysis capability. **Saleh et al (2013)** <sup>(41)</sup>, **Alkolaibi (2012)** <sup>(42)</sup> and **Qudsiat & Ibrahim (2010)** <sup>(43)</sup> whose found that more than half of the leaders were in average level of creativity.

On contrary, **Alanezi (2017)** <sup>(44)</sup> indicates that the teaching staff in public education in Kuwait enjoys a high degree of administrative creativity. **Shehadeh(2016)** <sup>(45)</sup> revealed that evaluation level of creative behavior was high among their respondents. **kasasbeh et al (2014)** <sup>(46)</sup> their respondents showed that high perception of administrative creativity. **Yossef and Rakha (2017)** <sup>(40)</sup> found that their responds are sensitive to problems with a high level, followed by a high level of flexibility, and the analysis capability. In general, **Tabaresani et al (2014)** <sup>(47)</sup> stated that more than sixty of nurses had highest level of creativity related to solve problem in collaboration with others and in fluency dimension of creativity. Also, in the research by **Ahmadian et al (2012)** <sup>(48)</sup> found that more than fifty of nurses had desirable level of creativity. **Daemi and Barforoosh (2004)** <sup>(49)</sup> in their study concluded that greatest amount of creativity is related to fluency; medium creativity is related the flexibility.

So, the present study shows that significant association was found between head nurses' total level of organization climate, its factors and their total level of administrative creativity and its dimensions. This result may be related to that organization climate is characterized by good interpersonal relationships, understandable work procedures and work policies direct the head nurses' administrative creativity. Although, head nurses' levels of intellectual fluency and mental flexibility dimensions of administrative creativity had no significant association with levels of nurse-client relationship and nurse-supervisor relationship factors of organization climate, also head nurse' level of sensitivity to problems dimension of administrative creativity had no significant association with peer to peer evaluation organization climate, reflecting the needs for further attention to upgrading creative abilities of head nurses especially intellectual fluency, mental flexibility and sensitivity to problems. They also needs proper atmosphere to feel they have a healthy relationship with their colleges and they have a feel of belonging to a unified and rewarding group.

This result is similar to result of **Taha et al (2016)** <sup>(50)</sup> who revealed that organizational creativity climate had positive significant impact on both individual employee creativity and workplace innovative orientation. **Moghimi and Subramaniam (2013)** <sup>(51)</sup> study indicates that there is positive relationship between organizational climate and employees' creative behavior. **Al-Shmoot (2011)** <sup>(52)</sup> showed

that a statistically significant between organizational structure and administrative creativity. **Al-Zouabi (2009)** <sup>(53)</sup> study shows that there is a statistically significant between each dimension of the organizational culture and the ability of the employees on creativity.

The study result found that significant correlation between head nurses' age, experience and their administrative creativity. This result may be attributed to that maturity of head nurses because they had 30- 40 years. They are able to challenge their work, filter their knowledge and skills for idea generation and seeking for opportunities to be creative and provide a framework to work with others. This result is go in the same line with result of **Nekooi et al (2010)** <sup>(54)</sup> whose get significant correlation between age and creativity. **Al-Srouf and Al-Oweidi (2013)** <sup>(55)</sup> showed that the creative dimensions was correlated with age group (25 – 35years).

But, **Al sayaydeh (2015)** <sup>(56)</sup> found that personal characteristics of the workers not correlated with the level of administrative creativity. The present result found that age and experience of head nurses not correlated with organization climate. These findings are agree with the result of **Ninan et al (2017)** <sup>(57)</sup> who's revealed that subject demographic variables not associated with perceived organizational climate. **Bahrami et al (2013)** <sup>(58)</sup> who's found that age and professional experience don't have relationship with the perception of organizational climate. **Fouladv and (2007)** <sup>(59)</sup> in her study among the employees of public hospital of Ilamcity showed the same results. **Mahdavi et al (2011)** <sup>(60)</sup> in their research among the employees of Iranian sport organization have indicated that the age of employees don't have statistical relationship with their perception of organizational climate. This finding is contradicted with **Gunaraja et al. (2015)** <sup>(61)</sup>, and **Dargahi et al (2013)** <sup>(62)</sup> declared that significant relationship was found between organizational climate and age ( $p = 0.01$ ). **Anchala and Judie (2015)** <sup>(29)</sup> study result revealed that demographic factor (job experience) of workers significantly associated with organizational climate

## CONCLUSION

High percent of head nurses at New Surgery Zagazig University Hospital had moderate level of organization climate and its factors (empowerment, job design, organizational factors, nurse-client relationships, nurse-supervisor relationship, and peer-peer relationship). Also, they had moderate level of total administrative creativity and its dimensions (originality, intellectual fluency, and mental flexibility, sensitivity to problem, ability analysis and risk-taking)

Significant association was found between head nurses' total level of organization climate, its factors and their total level of administrative creativity and its dimensions at ( $P 0.01$  &  $0.05$ ) except, head nurses' levels of intellectual fluency and mental flexibility dimensions of administrative creativity had no significant association with levels of nurse-client relationship and nurse-supervisor relationship factors of organization climate, also head nurse' level of sensitivity to problems dimension of administrative

creativity had no significant association with peer - peer evaluation organization climate.

**On light of the obtained results it was recommended that:**

1. The top nursing management should pay more attention to the vital role of organization climate as a valuable strategy for upgrading head nurses' administrative creative abilities.
2. The top nursing management should focus on in-service training programs to develop administrative creativity abilities among head nurses
3. Nursing educators must consider creativity training among nursing students.
4. The results of this study can be used as the data base for further research in this area of administrative creativity among head nurses.

**REFERENCES**

[1]. **Giovanni S and, Daniela C.** Organizational Climate as Performance Driver: Health Care Workers' Perception in a Large Hospital. *Journal of Health Management.* (2014); 16 (4). p. 583-594. [ualresearchonline.arts.ac.uk/.../1/2014-15\\_JournalofHealthManagem](http://ualresearchonline.arts.ac.uk/.../1/2014-15_JournalofHealthManagem).

[2]. **Were K J.** Early Career Nurses: The relationship between organizational climate and job satisfaction and burnout .Master of Applied Psychology .The University of Waikato Hamilton, New Zealand.. 2016; p12. <https://waikato.researchgateway.ac.nz/handle/10289/10616>.

[3]. **Boyd D R.** Investigating and measuring certified registered nurse anesthetist organizational climate. Doctoral Degree of Philosophy Graduate School of Arts and Sciences Columbia University.2017;p6-7.

[4]. **Bahrami M A , Barati O, Ghoroghchian M, Montazeralfaraj Rand Ezzatabadi R M.** Role of organizational climate in organizational commitment: The Case of Teaching Hospitals. *Osong Public Health Res Perspect* 2016; 7(2): p96-100. <http://dx.doi.org/10.1016/j.phrp.2015.11.009>.

[5]. **Zayan N M, Reizian A E and Hamouda G M.** Relationship between organizational climate and nurses' outcomes. *J Am Sci* 2013; 9(5): p 184-192. <http://www.jofamericanscience.org>

[6]. **Al-suhimat S A M.** The Impact of the administrative empowerment in organizational creativity: an analytical study from the perspective of employees in University of Mutah in Jordan. *Imperial Journal of Interdisciplinary Research (IJIR)* 2016; 2(10):p70-78. <http://www.onlinejournal>.

[7]. **Zayan N M.** Relationship between Organizational Climate and Nurses' Outcomes. Unpublished, Master Thesis. Faculty of nursing, Alexandria university.(2010);p 61,Appendex

[8]. **Paprika Z Z and Derecskei A.** What means 'creativity' for the hr managers? *Forum Scientiae Oeconomia* Volume (2014); 2 (1): p1-22. [www.wsb.edu.pl/.../FORUM%20SCIENTIAE/forum%2014%20nr%201/forum-201](http://www.wsb.edu.pl/.../FORUM%20SCIENTIAE/forum%2014%20nr%201/forum-201).

[9]. **Gupta R and Anerjee P.** Antecedents of Organizational Creativity: A Multilevel Approach *Business: Theory and*

*Practice.* (2016); 17(2): p 167–177. [10.3846/btp.2016.624http://www.btp.vgtu.lt](http://10.3846/btp.2016.624http://www.btp.vgtu.lt).

[10]. **Isfahani S S , Hosseini M A, Khoshknab M F , Peyrovi H and Reza K H.** nurses' creativity: advantage or disadvantage. *Iran Red Crescent Med J.* (2015); 17(2): p1-6.10.5812/ircmj.20895.

[11]. **Mishra L K and Singh AP.** **Creative behavior questionnaire: assessing the ability of managers to produce creative ideas** .*Journal of the Indian Academy of Applied Psychology* .(2010); 36(1):p 115-121

[12]. **Kalf H.** The Relationship between transformational leadership and the creative management among academics heads departments at the Islamic University in Gaza. Published Master Thesis. Faculty of Commerce, Islamic University.(2010):Appendex

[13]. **Tabarestania M A, Shooridehb F A, Jahanic M.A, Poord M N, Majde H A.** Creativity and effective factors on hospital nurses creativity. *Scientific Journal of Pure and Applied Sciences* (2014) ; 3(8): 741-747 . [10.14196/sjpas.v3i8.1563](http://10.14196/sjpas.v3i8.1563).

[14]. A nurse's world - blog by nursinguniforms.Net [www.nursinguniforms.net/blog/qualities-desired-in-a-head-nurse](http://www.nursinguniforms.net/blog/qualities-desired-in-a-head-nurse)

[15]. **Dzاهر A.** important qualities looked for in head nurse, 02 Aug 2016. [today.mims.com/5-important-qualities-looked-for-in-head-nurse](http://today.mims.com/5-important-qualities-looked-for-in-head-nurse).

[16]. **Analytical skill - Wikipedia.** [https://en.wikipedia.org/wiki/Analytical\\_skill](https://en.wikipedia.org/wiki/Analytical_skill)

[17]. **Jallad S and Sayej S** .Effects of selected organizational climate factors on nursing performance and patient satisfaction in renal dialysis units in West Bank Hospitals. *Journal of Health, Medicine and Nursing.* (2016); 29, p 72-86. [www.iiste.org](http://www.iiste.org)

[18]. **Weiner E** .How building a climate for creativity can promote innovative activities-A Case study .Master of Science: Innovation and Industrial Management School of Business, Economics and Law, University of Gothenburg, Vasagatan Gothenburg, Sweden. (2015); p 12-15.

[19]. **Lukersmitha S and Burgess-Limerick R.** The perceived importance and the presence of creative potential in the health professional's work environment. *Ergonomics*, 2013Vol. 56, No. 6, 922–934, <http://dx.doi.org/10.1080/00140139.2013.779033>.

[20]. **Askari R, ZarehT, Tayefi E, Sepaseh F and Bahrami. M A.A.** case study in iran .*Bali Medical Journal (Bali Med J)* 2017, Volume 6, Number 1: P 1-5 .[www.balimedicaljournal.organd](http://www.balimedicaljournal.organd) [ojs.unud.ac.id/index.php/bmj](http://ojs.unud.ac.id/index.php/bmj) .

[21]. **Sudariani PW and Putra ENP.** The correlation of organizational climate with job satisfaction of nurses at the general hospital of mataram .Master Student of Nursing, Universitas Airlangga, Indonesia. (2015) p1-5 .[eprints.ners.unair.ac.id/.../THE%20CORRELATION%20OF%20ORGANIZATIONAL](http://eprints.ners.unair.ac.id/.../THE%20CORRELATION%20OF%20ORGANIZATIONAL)

[22]. **Kassem A H and Gaber H** .Organizational climate and its impact on nurse's job empowerment at Main Mansoura University Hospital and Urology and Nephrology Center.

- IOSR Journal of Nursing and Health Science (IOSR-JNHS). (2015); 4 (2) : P 40-48 .[www.iosrjournals.com](http://www.iosrjournals.com).
- [23]. **Muñiz J , Peña-Suárez, EL , Yolanda D, Fonseca-Pedrero, E, Ángel LC and García-Cueto, E.** Organizational climate in spanish public health services: administration and services staff International Journal of Clinical and Health Psychology, mayo-agosto. (2014); 14(2): p. 102- 110. [www.elsevier.es/ijchp](http://www.elsevier.es/ijchp).
- [24]. **Ahmed A S, EL Molla M, and Abed F.** Effect of organizational climate on job satisfaction of clinical instructors at the faculty of nursing, Cairo University. Med. J. Cairo Univ. (2014);82( 2) :p 17-21 [www.medicaljournalofcairouniversity.net](http://www.medicaljournalofcairouniversity.net).
- [25]. **Al-Saudi & Mousa A.** Impact of organizational climate upon the innovative behavior at jordanian private universities as perceived by employees: A field study, International Business and Management, (2012). 5(2): p14-27.
- [26]. **Abdul Latif, Thiangchanya P and Nasaie T.** Relationship between Organizational Climate and Nurses' Job Satisfaction in Bangladesh The 2nd International Conference on Humanities and Social Sciences April 10th, 2010 Faculty of Liberal Arts, Prince of Songkla University Health – Development-006.
- [27]. **Abd El-Salam, G, Ibrahiim, M.M, Mohsen, M.M. and Hassanein, S.E.** Relationship between organizational climate and empowerment of nurses in Menoufyia Hospital, Egypt, Eastern Mediterranean Health Journal, (2008); 14(5):p 1173-84.
- [28]. **Gholami S , Keykale M S, Tir M, Ramandi F D, Karimi M, and Rajaei R.** Investigation the relationship between organizational climate and organizational citizenship behavior among staff in hospital. International Journal of Public Health, Pharmacy and Pharmacology. (2015); 1(1): p.14-22. [www.eajournals.org](http://www.eajournals.org).
- [29]. **Anchala A.M & and Judie. A.** A study to assess the organizational climate as perceived by the staff nurses in SRM General Hospital at kattankulathur. International Journal of Pharmacy and Biological Sciences. (2015);5(1):p42-49.[www.ijpbsonline.com](http://www.ijpbsonline.com)
- [30]. **El - Bardeny E E.** Organizational climate versus commitment among nurses working in Tanta University Hospital. Unpublished M.D. Thesis. Faculty of Nursing. Ain Shams University. 2009. P135 -138.
- [31]. **Abudahi A H.** Relationship between perceived organizational climate and conflict management strategies among nurses in Cairo University Hospitals: piloting a conflict management approach. Doctoral Degree. Faculty of Nursing Cairo University. (2012). p1. [www.cu.edu.eg/data\\_journals/2/articles/4549/submission/.../4549-8923-1-CE.pdf](http://www.cu.edu.eg/data_journals/2/articles/4549/submission/.../4549-8923-1-CE.pdf)
- [32]. **Elsayad N M E.** Motivational factors and its effect on job satisfaction among nurses at General Mahalla Hospital. Unpublished Master thesis. Faculty of Nursing. Tanta University. 2016, p44.
- [33]. **Warshawsky N E, Havens D S and Knafel G.** The influence of interpersonal relationships on nurse managers' work engagement and proactive work behavior .J Nurs Adm. (2012) ; 42(9): p 418–425. doi:10.1097/NNA.0b013e3182668129.
- [34]. **El-Shaer AM.** Staff nurses perception of job empowerment and organizational commitment at Mansoura University Hospital. Master Thesis, Cairo University, Faculty of nursing.(2002):p 32.
- [35]. **El-Bakshawan Z.M.A.** Emotional intelligence leadership skill among nursing supervisor. Master thesis. Faculty of nursing. Tanta University, (2004): p 21, 32, 95.
- [36]. **EL-Demerdash S M and Obied H K .** Influence of empowerment on nurses' participation in decision making. IOSR Journal of Nursing and Health Science. (2016);5(5): P 66-72 .
- [37]. **Oldham, G. R., & Cummings, A.** employee creativity: Personal and contextual factors at work. Academy of Management Journal. (1996); 39,p 607-634. <http://dx.doi.org/10.2307/256657>
- [38]. **-Basadur, M.** Organizational development interventions for enhancing creativity in the workplace.*Journal of Creative Behavior*, (1997); 31,p 59-72. <http://dx.doi.org/10.1002/j.2162-6057.1997.tb00781.x>
- [39]. **-Schneider, B., Gunnarson, S. K., & Niles-Jolly, K.** Creating the climate and culture of success. *Organizational Dynamics*, (1994); 17-29. [http://dx.doi.org/10.1016/0090-2616\(94\)90085-X](http://dx.doi.org/10.1016/0090-2616(94)90085-X)
- [40]. **Yossef S A M and Rakha A H H .** Efficiency of personal and administrative skills for managerial leadership on administrative creativity at Najran University. Journal of Education and Practice. (2017); 8(6): p 113-122. [www.iiste.org](http://www.iiste.org).
- [41]. **Saleh NMA, Al-Sayed NM, Ghallab SA and Abd AlaaSM.** Nurse leaders' behaviors, and its effect on Nurses creativity at Main Assiut University Hospital. J Am Sci. (2013);9(12):p 906-912. <http://www.jofamericanscience.org>.
- [42]. **Alkolaibi SM.** Administrative creativity of general managers and department managers in the general departments: an applied study of a selected sample in Ministries, Republic of Yemen **A Doctor of Philosophy (General Administration) (2012):p1**
- [43]. **Qudsiat & Ibrahim R.** The organizational culture and its impact on the administrative creativity from the perspective of the employees in nursing profession at hospital of the founder of king Abdullah University. Master Thesis (Unpublished), University of Yarmouk, Jordan. (2010).
- [44]. **Alanezi A.** The relationship between shared leadership and administrative creativity in Kuwaiti schools Management in Education 2016, Vol. 30(2) p50–56.
- [45]. **Shehadeh HK.** Impact of the Organizational Culture on Creative Behavior: A Field Study on a Sample of Commercial Banks Operating in Jordan. European Scientific Journal. (2016); 12(25): p 214-235. <https://ejournal.org/index.php/esj/article/download/8014/7710>.
- [46]. **Kasasbeh E A , HaradaY, Osman AB and Md Noor I.** The impact of the transformational leadership in the administrative creativity: An Applicative Study on.



- International Journal of Academic Research in Business and Social Sciences. (2014); 4(5): p 382-394.<http://dx.doi.org/10.6007/IJARBS/v4-i5/870>.
- [47]. **Tabarestani MA, Shoorideh FA., JahaniM.A., Poor M Nand Majd HA.** Creativity and effective factors on hospital nurses creativity. Scientific Journal of Pure and Applied Sciences .(2014); 3(8): p 741-747. [www.Sjournals.com](http://www.Sjournals.com)
- [48]. **Ahmadian, Z., Ashghale farahane, M., Bastane, F., Haghane, h.,** Organizational culture of hospitals nurses Tehran University of Medical Sciences. Journal of Nursing and Midwifery. Tehran Univ. Med. Sci. ( 2012); 3(1):p 76-89.
- [49]. **Daemi, H and barforosh FM.** Creative test standardization. New Cognit. Sci. (2004); 4(3): p 1-8.
- [50]. **Taha AV., Sirková M., Ferencová M.** the impact of organizational culture on creativity and innovation Polish Journal of Management Studies . (2016) ;14 (1):p7-17.
- [51]. **Moghim S & Subramaniam I D .** Employees' Creative Behavior: The Role of Organizational Climate in Malaysian SMEs. International Journal of Business and Management. (2013);8 (5): p1-12.
- [52]. **Al-Shmoot & Ahmed Saad.** Impact of the Work Environment on the Administrative Creativity, An Applied Study on Academy of Saad Al-Abed Allah for Security Sciences in Kuwait, Master Thesis (Unpublished), University of the Middle East, Faculty of Business, Jordan. (2011).
- [53]. **Al-Zouabi & Hassan Ali .**Impact of the Organizational Culture in the Creativity: An Applied Study in the Jordanian pharmaceutical Companies, Master Thesis (Unpublished), Umm Al-Qura University, Saudi Arabia. (2009).
- [54]. **Nekoye moghadam, M., Taghaverad, A., Hakimepor, S., Shafie, M., Ghodarze, G.h.,** 2010. The relationship between conflict management styles and creativity in teaching hospitals in Kerman .(2008); 9(4):p 29-37.
- [55]. **Al-Srouf N H and Al-Oweidi A .** The Level of creativity among management employees, academic staff and artistes and its relationship with gender, practical experience and age.(2013);4(3):p 185-188
- [56]. **Al sayaydeh AA.** The impact of prevailing leadership styles on the level of administrative creativity of the staff of the intermediate colleges of balqa applied university. European Journal of Business and Management. (2015); 7(15): p 76-85. [www.iiste.org](http://www.iiste.org) .
- [57]. **Ninan G S, Jose A, John T, Baral R, Solomon J and Vijayalakshmi R..**A Study to assess the organizational climate of selected hospital, chennai as perceived by staff nurses. International Journal of Current Trends in Science and Technology. (2017); 7(11): p20376-20178 .[www.currentsciences.info](http://www.currentsciences.info).
- [58]. **Bahrami MA, hasem Taheri G, Montazeralfaraj R and Tafti AD.** The relationship between organizational climate and psychological well-being of hospital employees. World Journal of Medical Sciences (2013);9 (1): p 61-67. 10.5829/idosi.wjms.
- [59]. **Fouladvand, K.H.,** The study of relation Organizational creativity and psychological well-being: Contextual aspects on organizational creativity and psychological well-being from an open systems perspective relationship between organizational climate and psychological well-being among employees of public hospitals of Ilam City. Scientific Journal of Ilam Medical University. (2007); 15(1): p 44-50.
- [60]. **Mahdavi, F., A.R. Mahdipour, P. Shafinia and M.R. Dustan,** The relationship between organizational climate and psychological well-being among professionals of Iranian sport organization. The proceedings of 6th national congress of Iranian Sports Sciences Students. Iran. 2011.
- [61]. **Gunaraja T.M, Venkatramaraju Dand Brindha G.** Organizational climate-pharmaceutical professional. International Journal of Pharmacy & Technology. (2015); 7 (2 ): p8924-8929.
- [62]. **Dargahi H , Musavi M, Shaham,G Molaizadeh .** A organizational climate of hospitals at tehran university of medical sciences. Journal of Health Administration. jha (2013); 15(50):p 31-40 .<http://jha.iuims.ac.ir/article-1-952-en.html>.