

## Relationship between Organizational Climate and Nurse Managers' Administrative Creativity

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### Abstract

**Background:** Administrative creativity of the nursing managers is influenced greatly with organizational climate and need to be taken in consideration. **Aim of the study:** The current study aimed to investigate the relationship between organizational climate and nurse managers' administrative creativity. **Subjects and methods:** Descriptive correlational design included 60 nurse managers (30 nurse managers from Ain shams university hospital and 30 nurse managers from El-demerdash hospital). A convenient sample of the available nurse managers (60 nurse managers) assigned to the study. Data collection tools included organizational climate questionnaire for assessment of the organizational climate and administrative creativity questionnaire for determining nurse managers administrative creativity. **Results:** There was slight elevation of the high level of organizational climate in El-demerdash hospital (57%) than Ainshams university hospital (45%). there were similar levels of administrative creativity in both El-demerdash hospital and Ainshams university hospital. **Conclusion:** There was insignificant statistical correlation between total administrative creativity and total organizational climate in Ainshams University hospital. There was insignificant statistical correlation between total administrative creativity and total organizational climate in Eldemerdash hospital. **Recommendations:** Providing sufficient training program for the nurse managers about administrative creativity and Improving nurse managers' coping strategies to overcome organizational limitations.

**Keywords:** Administrative Creativity, Nurse Manager, Organizational Climate.

### 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. 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 (*Giovanni and Daniela, 2018*).

Organizational climate is referred to 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 (*Boyd, 2017*).

Organizational climate factors such as empowerment, job design, organization factor, nurse client relationship, nurse-supervisor relationship and peer to peer evaluation are practiced by nurse managers. Empowerment factor is offers to nurse manager 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 (*Were, 2019*).

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 (*Bahrami et al., 2018*).

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 (*Al-Suhimat, 2019*).

Effective nurse-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 (*Isfahani et al., 2017*).

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. It is the ability of nurse managers 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 (*Tabarestania et al., 2017*).

Nurse Managers' ability to produce of what is unusual, what is the long-term, what is new and extraordinary, and what an intelligent and skillful response is; Intellectual fluency element is their ability of imagination, symbol, reasoning, the capacity of perception and intuition. Mental flexibility element: nurse managers' 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 (*Weiner, 2017*).

Creativity is the act of conceiving something new, whether a variation on a theme or

something wholly new. Innovation is the act of putting something into practice. It's the difference between conceiving of the idea of a craft that could fly through space, and actually building a rocket that people can ride into space. We often even use the terms interchangeably; look at how often a new invention is called both “innovative” and “creative.” Take building that rocket, for example; the “space dividend” from a host of parts and materials created to solve a particular problem yielded research and ideas that allowed people to go to new creative heights, and then put those heights into practice (*Al Shehri et al., 2019*).

Analysis ability: nurse managers' ability to quickly understand a situation and analyze it or solve complex and complicated problems by making decisions using the available information, and nurse managers' ability to take actions which might have unfamiliar ideas or methods and take responsibility for its consequences (*Lukersmitha and Burgess-Limerick, 2017*).

### Significance of the Study

Organizational 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 nurse managers to become autonomous and enrich them with experience. It has a strong positive effect on the nurse manager because it increases their welfare and optimism (*Sudariani and Putra, 2018*).

During my master training period at Ain Shams University Hospital, the researcher observed that nurse managers had low creativity level when dealing with administrative issues that evidenced by low participation in decision making, apply routine works only, and absence of participation in quality improvement. It may be due to negative organizational climate that may affecting their methods of handling problems. So, the current study will be conducted to investigate relationship between organizational climate and nurse managers' administrative creativity.

## **Aim of the Study:**

This study aims to investigate the relationship between organizational climate and nurse managers' administrative creativity

## **Research Question:**

Is there a relationship between organizational climate and nurse managers' administrative creativity?

## **Research Design:**

Descriptive correlational research design was used to achieve the aim of the current study.

## **Research settings:**

This study was conducted at two hospitals which affiliated to Ain Shams University Hospitals namely; Ain Shams University Hospital and El-Demerdash Hospital; these hospitals provide different health care services to large number of patients.

### **1- Ain Shams University Hospital (general medical hospital):**

This hospital contains (835) beds. It provides general and special medical services and its specialties which include : medical 1 (male), medical 2 (male), medical 1 (female) medicale 2 (female), medical 5 (male and female), medical 6 (male and female), medical 9 (male), medical 12 (male and female), medical 13 (male and female), chest male, chest female, cardiac male, cardiac female, ophthalmology male, ophthalmology female, geriatric, neuro-medicine and intensive care services.

### **2- El-Demerdash Hospital (general surgical hospital):**

This hospital contains (559) beds. It provides general and special surgical services and its specialties that include: orthopedic new, orthopedic 2, orthopedic 3, plastic surgery, surgical 5, surgical 6, surgical 7 old, surgical 7 new, surgical 8, surgical 10, urology old, urology

new, urology female, neurosurgery, economical-neuro, burns, ENT, and intensive care services.

## **Subjects and methods:**

A convenient sample of the available nurse managers (60 nurse managers) assigned to work in the above-mentioned settings during data collection period. The subjects included as the following:

### **Inclusion criteria**

Nurse Managers who had more than one year of experience.

### **Tools of data collection:**

Data for this study was collected by using two tools namely; organizational climate questionnaire, and administrative creativity questionnaire.

### **Tool I: Organizational climate questionnaire: (Appendix I)**

This tools aimed to assess organizational climate, it is adapted from (*Martein, 2006*), and it consists of two parts.

**Part one:** This part relating to personal characteristics of nurse managers such as: age, gender, educational level, hospital name, place of work, postion and experience.

**Part two: Organizational climate questionnaire:** It aimed to assess organizational climate as perceived by nurse managers. It included 56 items under ten categories as following:

### **❖ Scoring system:**

The respondents check their answer against five point's Likert scale start from (always=5 to never=1).

The overall score of each items are calculated by taking the average (total score divided by the number of items) of respondents score for each item and multiplying this by 100

to convert it into percent score. In addition calculation of the mean and standard deviation was done. Organizational climate was considered high > 60%, moderate 40%- 60%, low <40% (*Martein, 2006*).

### **Tool 2: Administrative creativity questionnaire (Appendix II)**

This part aimed to assess nurse managers' administrative creativity. It is adapted from (*Kalf, 2010*). It included 30 items under six categories as follows:

#### **❖ Scoring system:**

Nurse managers' response were measured with five Point Likert scale ranging from (Strongly agree=5) to (Strongly disagree=1) The overall score of each items are calculated by taking the average (total score divided by the number of items) of respondents score for each item and multiplying this by 100 to convert it into percent score. In addition calculation of the mean and standard deviation was done. Administrative creativity was considered high > 60%, moderate 40%- 60%, low < 40% (*Kalf, 2010*).

## **II- Operational Design:**

The operational design for this study included three phases namely; preparatory phase, pilot study, and field work.

### **Preparatory phase:**

This phase started with a review of current and past, national and international related literature concerning the subjects of the study, using textbooks, articles, journals, and websites. This review was helpful to the researcher in reviewing and developing the data collection tools, and also the preparation of the training program.

### **Validity:**

Content validity was ascertained by five experts in nursing administration (n=5) (one assistant professor of nursing administration-Faculty of nursing –Assuit University and four assistant professor of nursing administration

Ain Shams University) to review the tools clarity, relevance and comprehensiveness, no modification is required. Their opinions were elicited regarding the format, layout, consistency, accuracy and relevancy of the tools.

### **Reliability**

Study tools were tested for its internal consistency by cronbachs Alpha. It was 0.783 for organizational climate questionnaire, and 0.815 for administrative creativity questionnaire.

### **Pilot study:**

It was done to examine clarity, feasibility and applicability of the tools. (6) Nurse Managers were included in the pilot study that was selected randomly. They represent 10% of the total study subjects. The time estimated to fill organizational climate questionnaire, and administrative creativity questionnaire was ranged from 40 to 50 minutes. This stage conducted in November 2020 and took about one month.

### **Field work:**

Data collection of the study was started at the beginning of February 2021, and completed by the end of April 2021 three days per week from 9am to 3pm. The researcher introduced herself to nurses manager, explained the aim of the study and its implications and how to fill organizational climate questionnaire, and administrative creativity questionnaire, and sought their cooperation. The researcher distributed the questionnaire to nurse's managers in their working settings and was present all the time for any needed clarification.

The time estimated to fill organizational climate questionnaire, and administrative creativity questionnaire was ranged from 40 to 50 minutes. Each participant filled in the questionnaire and handed it back to the researcher in the same day. The researcher attended to mention hospitals three times weekly in the morning shifts. The researcher checked the completeness of each filled sheet after the participation completed it to ensure the absence of any missing data.

### III- Administrative Design

An official letter requesting permission to conduct the study was directed from the dean of the faculty of nursing Ain-Shams University to Ain Shams University Hospital and Eldemerdash Hospital general hospital director and the nursing director to obtain their approval to carry out this study. This letter included the aim of the study and photocopy from data collection tools in order to get their permission and help for collection of data.

### Ethical Consideration

Prior study conduction, ethical approval was obtained from the scientific research ethical committee of the faculty of nursing, Ain Shams University. The researcher met both medical and nursing directors of the pre-mentioned hospitals where the nurses worked to clarify the aim of the study and take their approval. The researcher also met the study subjects to explain the purpose of the study and to obtain their approval to participate. They were reassured about the anonymity and confidentiality of the collected data, which was used only for the purpose of scientific research. The subjects' right to withdraw from the study at any time was assured.

### IV- Statistical Design:

Data entry and statistical analysis were done using (SPSS) statistical software package. Quality control was at the stage of coding and data entry. Data were presented using descriptive statistics in the form of frequencies and percentage for qualitative variables; mean and standard deviation for quantitative variable. Qualitative categorical variables were compared Chi-square ( $X^2$ ) test; the hypothesis that the row and column variables are independent, without indicating strength or direction of the relationship. Statistical significance was considered at (P-value <0.05).

### Results:

**Table (1):** shows that, ( 43.3%, 56.7% ) of the studied nurse managers in both Ainshams university hospital and Eldemerdash hospital respectively were at the age group 40-< 50

years old . (76.7%, 56.7% ) of them respectively were females, more than half (60%, 63.3% ) of them respectively had bachelor degree, in addition that 56.7%, 50% of them respectively were working in critical care units, more than three quarters 83.3%, 76.7% of them respectively were head nurses, and 53.3%, 23.3% of them respectively had experience  $\geq 15$  years.

**Table (2):** concludes that, (53.3%) about organizational climate in Ainshams was about the dimensions (Nurse-physician relationship) & (Compensation), while (66.7%) in Eldemerdash was about the dimensions (Communication) & (Hospital quality).

**Figure (1):** illustrates that there was slight elevation of the high level of organizational climate in Eldemerdash hospital (57%) than Ainshams university hospital (45%).

**Figure (2):** illustrates that there were similar levels of administrative creativity in both Ainshams university hospital and Eldemerdash hospital.

**Table (3):** summarizes that more than one quarters (86.7%) of nurse managers in Ainshams university hospital had agreement response about administrative creativity in the following dimensions (The ability to analyze and relate) & (Risk taking), while the highest agreement (93.3%) in Eldemerdash was about the dimension (Risk taking).

**Table (4):** concludes that there was insignificant statistical correlation ( $r=-0.262$ ,  $p=0.162$ ) between total administrative creativity and total organizational climate in Ainshams hospital.

**Table (5):** reveals that there was insignificant statistical correlation ( $r=-0.034$ ,  $p=0.858$ ) between total administrative creativity and total organizational climate in Eldemerdash hospital.

**Table (6):** indicates that there were significant statistical relationships between total administrative creativity and gender in both Ainshams hospital ( $\chi^2=13.85$ ,  $p=0.003$ ) and Eldemerdash hospital ( $\chi^2=11.87$ ,  $p=0.008$ ).

**Table (7):** indicates that there were insignificant statistical relationships ( $p>0.05$ ) between total organizational climate and participants' demographic characteristics.

**Part I: Demographic Characteristics of the Studied Nurse Managers****Table (1):** Demographic Characteristics of Nurse Managers in the study sample (N=60).

Demographic characteristics	Ainshams (n=30)		Eldemerdash (n=30)		Chi square test	
	%	No.	%	No.	$\chi^2$	P
<b>Age (years)</b>						
- <30 year	9	30	8	26.7		
- 30 -<40 year	6	20	5	16.7		
- 40 -<50 year	13	43.3	17	56.7	8.30	.08
- $\geq 50$ years	2	6.7	0	0		
Mean $\pm$ SD	42.70 $\pm$ 9.8		36.0 $\pm$ 7.7			
Range	30		20			
<b>Gender</b>						
- Male	7	23.3	13	43.3	2.7	.10
- Female	23	76.7	17	56.7		
<b>Educational level</b>						
- Secondary school and below	3	10	31	0		
- Technical nursing institute	5	16.7	7	23.3	2.16	.54
- Bachelor degree	18	60	19	63.3		
- Post graduate education	4	13.3	1	3.3		
<b>Place of work</b>						
- General department	13	43.3	15	50	2.9	.70
- Critical care units	17	56.7	15	50		
<b>Position</b>						
- Nursing director	1	3.3	1	3.3		
- Nursing supervisor	4	13.3	6	20	.28	.60
- Head nurse	25	83.3	23	76.7		
<b>Experience (years)</b>						
- <5 year	6	20	15	50		
- 5 -<10 year	7	23.3	2	6.7		
- 10 -<15 year	1	3.3	6	20	13.7330	.06
- $\geq 15$ years	16	53.3	7	23.3		
Mean $\pm$ SD	14.81 $\pm$ 1.27		11.60 $\pm$ 1.29			
Range	30		30			

Part II: Organizational Climate of the Studied Nurse Managers

Table (2): Organizational climate of nurse managers in the study sample (N=60).

	Ainshams (n=30)						Eldemerdash (n=30)						Chi square test	
	Low		Moderate		High		Low		Moderate		High		$\chi^2$	P
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		
Work facilities	5	16.7	11	36.7	14	46.7	3	10.0	8	26.7	19	63.3	2.35	.97
Concern for nurses	9	30.0	10	33.3	11	36.7	9	30.0	9	30.0	12	40.0	1.42	.99
Team building	3	10.0	14	46.7	13	43.3	2	6.7	9	30.0	19	63.3	3.20	.74
Decision making	6	20.0	14	46.7	10	33.3	7	23.3	10	33.3	13	43.3	2.90	.71
Participation	7	23.3	10	33.3	13	43.3	9	30.0	9	30.0	12	40.0	4.01	.79
Communication	4	13.3	11	36.7	15	50.0	3	10.0	7	23.3	20	66.7	2.32	.78
Customer Service	4	13.3	13	43.3	13	43.3	4	13.3	7	23.3	19	63.3	1.89	.21
Hospital quality	4	13.3	12	40.0	14	46.7	2	6.7	8	26.7	20	66.7	2.09	.08
Nurse-physician relationship	5	16.7	9	30.0	16	53.3	3	10.0	8	26.7	19	63.3	1.28	.83
Compensation	6	20.0	8	26.7	16	53.3	7	23.3	5	16.7	18	60.0	4.21	.70
Total organizational climate	5	17.7	17	56.7	17	56.7	1	3.3	7	23.3	13	43.3	1.30	.69

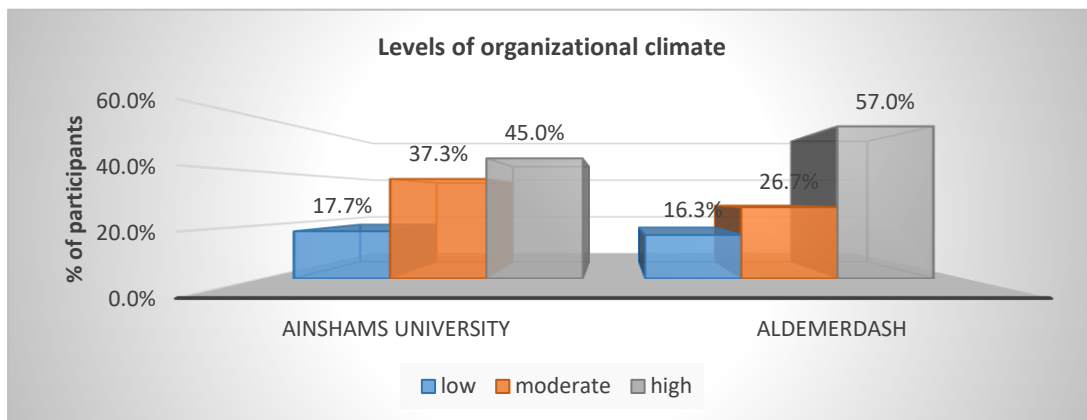
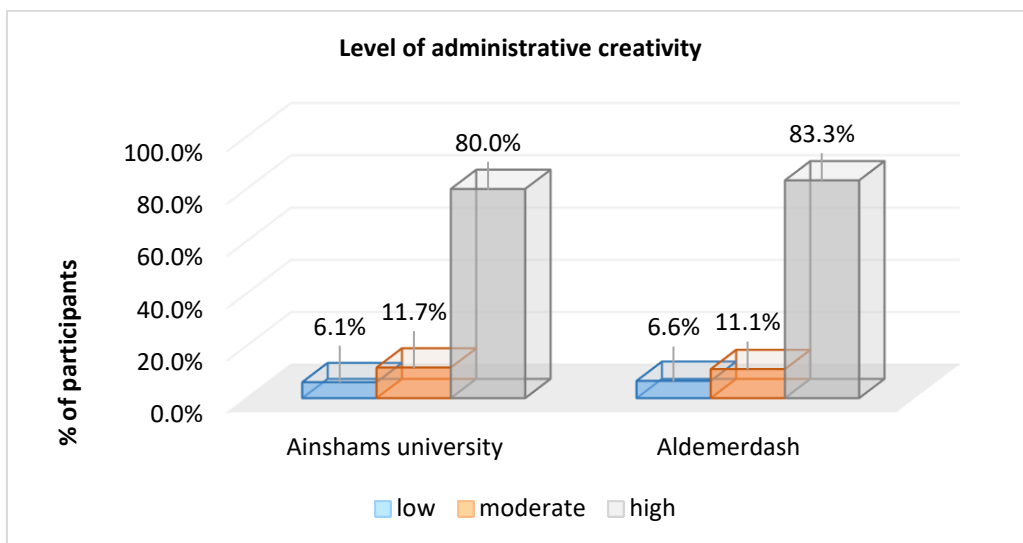


Figure (1): Total organizational climate levels in both Ainshams university hospital and Eldemerdash hospital.



**Figure (2):** Total administrative creativity level in both Ainshams university hospital and Eldemerdash hospital.

**Table (3):** Administrative Creativity dimensions of Nurse Managers in the study sample (N=60).

	Ainshams (n=30)						Eldemerdash (n=30)						Chi square test	
	Low Creativity		Moderate Creativity		High Creativity		Low Creativity		Moderate Creativity		High Creativity		$\chi^2$	P
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		
Originality	2	6.7	4	13.3	24	80.0	1	3.3	5	16.7	24	80.0	4.32	.80
Intellectual fluency	1	3.3	5	16.7	24	80.0	1	3.3	6	20.0	24	80.0	4.08	.76
Mental flexibility	2	6.7	3	10.0	25	83.3	2	6.7	3	10.0	25	83.3	3.89	.69
Sensitivity to problems	3	10.0	4	13.3	23	76.7	2	6.7	4	13.3	24	80.0	2.85	.64
The ability to analyze and relate	2	6.7	2	6.7	26	86.7	2	6.7	2	6.7	26	86.7	.00	1.0
Risk taking	1	3.3	3	10.0	26	86.7	1	3.3	1	3.3	28	93.3	3.27	.90
Total administrative creativity	2	6.1	4	11.7	24	80.0	2	6.6	3	11.1	25	83.3	3.07	.78



**Table (4):** Correlation between organizational climate and administrative creativity dimensions in Ainshams University (N=60).

Ainshams	Pearson correlation	Originality	Intellectual fluency	Mental flexibility	Sensitivity	Ability analysis	Risk taking	Total creativity
<b>Work facilitation</b>	r	.090	.252	.358	.122	.146	-.150	.215
	p	.637	.180	.052	.519	.442	.430	.255
<b>Concern for employees</b>	r	.133	.404*	.347	.154	.150	.030	.289
	p	.483	.027	.061	.418	.429	.877	.121
<b>Team building</b>	r	-.311	-.277	-.284	-.142	-.272	-.073	-.305
	p	.094	.138	.129	.455	.146	.701	.101
<b>decision making</b>	r	-.645**	-.237	-.574**	-.474**	-.318	.055	-.514**
	p	.000	.208	.001	.008	.087	.773	.004
<b>Participation</b>	r	-.438*	-.257	-.436*	-.554**	-.311	-.082	-.480**
	p	.015	.170	.016	.001	.094	.668	.007
<b>Communication</b>	r	-.503**	-.201	-.427*	-.356	-.063	-.085	-.374*
	p	.005	.288	.019	.053	.739	.654	.041
<b>Customer service</b>	r	-.243	-.164	-.241	-.220	-.175	-.237	-.276
	p	.196	.387	.199	.243	.356	.206	.139
<b>Quality of the organization</b>	r	.106	.189	.152	-.080	-.241	-.388*	-.020
	p	.576	.317	.422	.675	.200	.034	.916
<b>Staff-physician relationships</b>	r	-.227	.050	-.020	-.214	-.133	-.293	-.161
	p	.227	.792	.916	.256	.483	.117	.397
<b>Compensation</b>	r	-.425*	-.264	-.376*	-.534**	-.243	-.310	-.476**
	p	.019	.159	.040	.002	.195	.095	.008
<b>Total organizational climate</b>	r	-.311	-.060	-.188	-.293	-.180	-.184	-.262
	p	.095	.754	.320	.117	.342	.331	.162

**Table (5):** Correlation between organizational climate and administrative creativity dimensions in Eldemerdash University (N=60).

Aldemerdash	Pearson correlation	Originality	Intellectual fluency	Mental flexibility	Sensitivity to problems	Ability analysis	Risk taking	Total creativity
work facilitation	r	.282	.599**	.591**	.484**	.422*	.251	.591**
	p	.131	.000	.001	.007	.020	.181	.001
concern for employees	r	.328	.645**	.592**	.436*	.303	.146	.559**
	p	.077	.000	.001	.016	.104	.440	.001
team building	r	-.092	-.010	-.062	.064	-.212	.009	-.065
	p	.630	.958	.746	.735	.261	.961	.735
decision making	r	-.547**	-.046	-.473**	-.386*	-.224	.063	-.372*
	p	.002	.808	.008	.035	.234	.740	.043
Participation	r	-.521**	-.363*	-.510**	-.627**	-.362*	-.257	-.580**
	p	.003	.049	.004	.000	.049	.171	.001
Communication	r	-.550**	.112	-.292	-.146	.232	.272	-.102
	p	.002	.557	.117	.443	.218	.146	.592
customer service	r	-.094	.209	-.008	.049	.087	.049	.067
	p	.620	.267	.965	.795	.649	.796	.725
quality of the organization	r	.353	.447*	.325	.174	-.074	-.159	.261
	p	.056	.013	.080	.357	.699	.400	.163
staff-physician relationships	r	-.219	.320	.034	-.044	.067	-.028	.045
	p	.245	.085	.859	.816	.726	.882	.814
Compensation	r	-.262	-.167	-.368*	-.421*	-.149	-.159	-.340
	p	.162	.379	.046	.020	.434	.400	.066
Total organizational climate	r	-.271	.266	-.078	-.124	.002	.027	-.034
	p	.148	.155	.680	.514	.993	.885	.858

**Part IV: Relations and correlations between the study variables**

**Table (6):** Relations between Total Administrative Creativity and Demographic Characteristics among Nurse Managers (N=60).

Demographic characteristics	Total administrative creativity			
	Ainshams university hospital		Aldemerdash	
	χ <sup>2</sup>	P	χ <sup>2</sup>	P
Age	1.84	.18	.08	.77
Gender	13.85	.003	11.87	.008
Educational level	0.08	.77	2.67	.10
Position	4.04	.26	2.64	.45
Experience	15.36	.006	4.34	.11

**Table (7):** Relation between Total Organizational Climate and Demographic Characteristics among Nurse Managers (N=60).

Demographic characteristics	Total organizational climate			
	Ainshams university hospital		Aldemerdash	
	$\chi^2$	P	$\chi^2$	P
Age	2.78	0.10	0.11	0.74
Gender	3.45	0.33	7.26	0.06
Educational level	0.001	0.98	0.03	0.87
Position	4.13	0.25	6.31	0.10
Experience	1.26	0.74	3.96	0.14

## Discussion

Organizational climate is the perception of the people to their working environment with regard to caring and friendliness. In other words, the interaction of workers and management should create a healthy organizational environment. Organizational climate became necessary to integrate the climate research into the broader field of organizational studies, and focused on distinguishing climate from similar topics such as satisfaction and organizational structure. In addition, researchers reached consensus about the approaches to studying organizational climate distinguishing between psychological climate and organizational climate (*Lan et al., 2020*).

Creativity is “the ability to bring something new into existence”. Amabile views creativity as “the production of novel and useful ideas by an individual or small group of individuals working together”. Creativity were putting a relationship between novelty and creativity and states that a creative process must bring forward something new. Organizations should realize the importance of creativity for higher levels of performance, which requires a supportive work environment (*Darvishmotevali et al., 2020*).

So, the current study aimed to investigate the relationship between, organizational climate and nurse managers' administrative creativity

### Part I: Demographic characteristics of the studied nurse managers

Regarding nurse's manager age, the current study revealed that around half of the studied nurse managers were at the age group

40-< 50 years old in Ainshams and Eldemerdash hospital. This may be due to their experience which makes them more confident in decision making. This result was in agreement *Frahsa et al. (2021)* who conducted a study entitled “I Trust in Staff's Creativity”—The Impact of COVID-19 Lockdowns on Physical Activity Promotion in Nursing managers through the Lenses of Organizational Sociology” and found that more than one third of nurse managers had less than 30 years. Conversely, this result was in disagreement *Mohamed & Gaballah (2018)* who conducted a study entitled “The relationship between organizational climate and nurses' performance” and found that majority of nurses had ages ranged from 30:40 years.

Regarding nurse's manager gender, the current study showed that more than three quarters of Ainshams university hospital were female and more than half in Eldemerdash hospital This may be due to the nature of nursing profession worldwide and in Egypt, where the predominance is for females, also females were found empathic and more flexible as well as stronger in interpersonal skills than males. This result was supported *Moslehpour et al. (2019)* who conducted a study entitled “Organizational climate and work style: The missing links for sustainability of leadership and satisfied nurse managers” and found that majority of nurse managers were female.

Regarding nurse's manager qualification, the current study showed that more than half of nurse's manager had bachelor degree in nursing science and were working in critical care units. This may be due to the nurses managers who had high level of education work more creativity and participation in solving work problems.

This result was in agreement *Alzghoul et al. (2018)* who conducted a study entitled “Knowledge management, workplace climate, creativity and performance: The role of authentic leadership” and found that more than half of nurse’s manager had bachelor degree in nursing science. Conversely, this result was in disagreement *Olsson et al. (2019)* who conducted a study entitled “Organizational climate for innovation and creativity—a study in Swedish retail organizations” and found that more than one third of nurse’s manager were working in critical care units.

Regarding nurse’s manager position, the current study showed that majority of the participants was head nurses. This result was supported *Alzghoul et al. (2018)* who conducted a study entitled “Knowledge management, workplace climate, creativity and performance: The role of authentic leadership” and found that majority of participants was head nurses.

Regarding nurse’s manager experience, the current study showed that more than one third of them had experience more than 15 years. This may be due to they have more knowledge and skills to take responsibilities, decisions related to their past experiences and become more familiar with the unit activities and establish good relationship with peer and other health care group.

This result was in agreement *Frahsa et al. (2021)* who conducted a study entitled “I Trust in Staff’s Creativity” The Impact of COVID-19 Lockdowns on Physical Activity Promotion in Nursing managers through the Lenses of Organizational Sociology” and found that more than one third of nurse managers had experience less than 5 years. Conversely, this result was in disagreement *Mohamed & Gaballah (2018)* who conducted a study entitled “The relationship between organizational climate and nurses’ performance” and found that more than half of nurse managers had experience more than 10 years.

Regarding total Organizational Climate Level, the current study showed that there was slight elevation of the high level of organizational climate in Eldemerdash hospital than Ainshams

University hospital. This may be due to nurses’ manager were interested with organizational climate to enhance rules and regulation of hospital.

This result was accordance *Sönmez & Yıldırım (2018)* who conducted a study entitled “The mediating role of autonomy in the effect of pro-innovation climate and supervisor supportiveness on innovative behavior of nurses” and found that majority of nurses’ manger had good organizational climate level. Conversely, this result was congruent *Berberoglu (2018)* who conducted a study entitled “Impact of organizational climate on organizational commitment and perceived organizational performance” and found that one quarter of nurses’ manger had bad organizational climate level.

Regarding total administrative creativity level, the current study showed that majority of nurses’ manger had high administrative creativity level. Also, minority of nurses’ manger had moderate administrative creativity level. There were similar levels of administrative creativity in both Eldemerdash hospital and Ainshams University. This may be due to enhance performance of nurses’s manager and applying standard of quality in hospital.

This result was accordance *Olsson et al. (2019)* who conducted a study entitled “Organizational climate for innovation and creativity—a study in Swedish retail organizations” and found that majority of nurses’ manger had high administrative creativity level. In contrast, this result was congruent *Hassi (2019)* who conducted a study entitled “Empowering leadership and management innovation in the hospitality industry context” and found that more than half of nurses’ manger had low administrative creativity level.

Regarding relation between personal characteristics of the nurse managers and total administrative creativity, the current study showed that there were significant statistical relationships between total administrative creativity and gender in both Ainshams university hospital and Eldemerdash hospital.

This result was accordance *Afsar & Masood (2018)* who conducted a study entitled “Transformational leadership, creative self-efficacy, trust in supervisor, uncertainty avoidance, and innovative work behavior of nurses” and found that there is a highly statistically significant relation between nurse managers' total administrative creativity and their sex. Conversely, the result was congruent *Duan et al. (2018)* who conducted a study entitled “Mediating influences of ethical leadership on employee creativity” and found that there is no statistically significant relation between nurse managers' total administrative creativity and their ages.

Regarding relation between personal characteristics of the nurse managers and total organizational climate, the current study revealed that there were insignificant statistical relationships between total organizational climate and participants' demographic characteristics such as age, gender, educational level, position, and experience.

This result was accordance *Hung et al. (2018)* who conducted a study entitled “The Moderating Effects Of Salary Satisfaction And Working Pressure On The Organizational Climate, Organizational Commitment To Turnover Intention” and found that there is no statistically significant relation between nurse managers' total organization climate and their demographic characteristics. Conversely, this result was in disagreement *Kohan et al. (2018)* who conducted a study entitled “Friendship, transformational leadership and organizational climate” and found that there is a statistically significant relation between nurse managers' total organization climate and their demographic characteristics

Regarding correlation between total administrative creativity and total organizational climate, the current study clarified that there was insignificant statistical correlation between total administrative creativity and total organizational climate in Aldemerdash hospital.

This result was in agreement *Alzghoul et al. (2018)* who conducted a study entitled “Knowledge management, workplace climate,

creativity and performance: The role of authentic leadership” and found that there is no correlation between total administrative creativity and total organizational climate. Conversely, this result was in disagreement *Olsson et al. (2019)* who conducted a study entitled “Organizational climate for innovation and creativity—a study in Swedish retail organizations” and found that there is a positive correlation between total administrative creativity and total organizational climate.

### **Conclusion:**

The current study concluded that, there was slight elevation of the high level of organizational climate in Aldemerdash hospital than Ainshams University. Also, there were similar levels of administrative creativity in both Aldemerdash hospital and Ainshams University. There was insignificant statistical correlation between total administrative creativity and total organizational climate in Ainshams hospital.

There was insignificant statistical correlation between total administrative creativity and total organizational climate in Aldemerdash hospital. Additionally, there were significant statistical relationships between total administrative creativity and gender in both Ainshams hospital and Aldemerdash hospital. Moreover, there were insignificant statistical relationships between total organizational climate and participants' demographic characteristics.

### **Recommendations:**

**In the light of results of this study, the following recommendations were suggested:**

- Assessment of the administrative creativity for nurse managers periodically.
- Providing sufficient training program for the nurse managers about administrative creativity.
- Monitoring the organizational climate to ensure suitable creative environment.
- Reviewing organizational rules, polices, and procedures to improve nurse managers administrative creativity.

**Further researches are recommended:**

- Finding the appropriate balance between organizational commitment, administrative creativity and satisfaction.
- Relation between organizational climate, autonomy and empowerment.

**References:**

- Afsar, B., & Masood, M. (2018).** Transformational leadership, creative self-efficacy, trust in supervisor, uncertainty avoidance, and innovative work behavior of nurses. *The Journal of Applied Behavioral Science*, 54(1), 36-61.
- Al Shehri, O., AlHarthi, A. & Al-Khatib, J. (2019):** Patterns of Creativity Trends among Health Managers in Health Sector of Saudi Arabia, Riyadh Region, *European Scientific Journal*; (12): 234:246.
- Al-suhimat, S. A. M. (2019):** 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)* 2019; 2(10): p70-78.
- Alzghoul, A., Elrehail, H., Emeagwali, O. L., & AlShboul, M. K. (2018).** Knowledge management, workplace climate, creativity and performance: The role of authentic leadership. *Journal of Workplace Learning*.
- Bahrami M.A., Barati O., Ghoroghchian M., Montazeralfaraj R. and Ezzatabadi R.M. (2016):** Role of organizational climate in organizational commitment: The Case of Teaching Hospitals. *Osong Public Health Res Perspect*; 7(2): 96-100.
- Berberoglu, A. (2018).** Impact of organizational climate on organizational commitment and perceived organizational performance: empirical evidence from public hospitals. *BMC health services research*, 18(1), 1-9.
- Boyd, D.R. (2017):** Investigating and measuring certified registered nurse anesthetist organizational climate. Doctoral Degree of Philosophy Graduate School of Arts and Sciences Columbia University; 6-7.
- Darvishmotevali, M., Altinay, L., & Köseoglu, M. A. (2020).** The link between environmental uncertainty, organizational agility, and organizational creativity in nursing. *International Journal of Hospitality Management*, 87, 102499.
- Duan, S., Liu, Z., & Che, H. (2018).** Mediating influences of ethical leadership on employee creativity. *Social Behavior and Personality: an international journal*, 46(2), 323-337.
- Frahsa, A., Altmeier, D., John, J. M., Gropper, H., Granz, H., Pomiersky, R., & Thiel, A. (2021).** "I Trust in Staff's Creativity"—The Impact of COVID-19 Lockdowns on Physical Activity Promotion in Nursing through the Lenses of Organizational Sociology. *Sports and Active Living during the Covid-19 Pandemic*, 11215.
- Giovanni S. and Daniela C. (2014):** Organizational Climate as Performance Driver: Health Care Workers' Perception in a Large Hospital. *Journal of Health Management*; 16 (4): 583-594.
- Hung, L. M., Lee, Y. S., & Lee, D. C. (2018).** The Moderating Effects Of Salary Satisfaction And Working Pressure On The Organizational Climate, Organizational Commitment To Turnover Intention. *International Journal of Business & Society*, 19(1).
- Isfahani, S., Hosseini, M. A., Khoshknab, M. F., Peyrovi, H. and Reza, K. H. (2017):** nurses' creativity: advantage or disadvantage. *Iran Red Crescent Med J*, 17(2): p16.10.
- Kalf, H. (2010):** 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; Appendix.
- Kohan, N. A., Safari, A., & Teimouri, H. (2018).** Friendship, transformational leadership and organizational climate. *Human Systems Management*, 37(3), 319-331.

- Lan, Y. L., Huang, W. T., Kao, C. L., & Wang, H. J. (2020).** The relationship between organizational climate, job stress, workplace burnout, and retention of nurse's managers. *Journal of occupational health*, 62(1), e12079.
- Lukersmitha, S. and Burgess-Limerick, R. (2017):** The perceived importance and the presence of creative potential in the health professional's work environment. *Ergonomics*, Vol. 56, No. 6, 922–934,
- Martein P. (2006):** The Relationship between nurses perception of the Organizational work climate and their job empowerment, unpublished Master thesis, faculty of nursing, Alexandria university, 1-4.
- Mohamed, H. A., & Gaballah, S. (2018).** Study of the relationship between organizational climate and nurses' performance: A University Hospital Case. *American Journal of Nursing Research*, 6(4), 191-197.
- Moslehpour, M., Altantsetseg, P., Mou, W., & Wong, W. K. (2019).** Organizational climate and work style: The missing links for sustainability of leadership and satisfied nurse managers. *Sustainability*, 11(1), 125.
- Olsson, A., B. Paredes, K. M., Johansson, U., Olander Røese, M., & Ritzén, S. (2019).** Organizational climate for innovation and creativity—a study in Swedish retail organizations. *The International Review of Retail, Distribution and Consumer Research*, 29(3), 243-261.
- Sönmez, B., & Yıldırım, A. (2018).** The mediating role of autonomy in the effect of pro-innovation climate and supervisor supportiveness on innovative behavior of nurses. *European Journal of Innovation Management*.
- Weiner, E. (2017):** 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; p 12-15.
- Were, K.J. (2019):** Early Career Nurses: The relationship between organizational climate and job satisfaction and burnout .Master of Applied Psychology .The University of Waikato Hamilton, New Zealand.; p12.