Impact of Implementing a Talent Management Training Program for First Line Nurse Managers on their Leadership Practices and Nursing Management Creativity

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Abstract:

Background: The success of healthcare organizations relies on the competence of their staff. Effective and efficient employees are seen as a competitive advantage, in which talent serving as a key differentiator that plays a crucial role in the organization's effectiveness (Dalayga & Baskaran, 2019; Elhaddat et al., 2020). Effective talent management offers opportunities for the development and education of managers, which in turn enhances their practices and creativity. Also, improves nurse's performance, quality and satisfaction of patient care, and the overall success of the healthcare organization(Elkady et al., 2019; Chelan et al., 2022). Objective: The study aimed to determine the impact of implementing a talent management training program for first line nurse managers on their leadership practices and nursing management creativity Setting: This study was conducted in all Medical (25units) and Surgical (15units) Inpatient Care Units at Alexandria Main University Hospital Subject :The study subject included all first line nurse managers who are working in the medical and surgical units (N= 40) distributed as follows (25) in medical units and (15) in surgical units Tools: Four tools were used in this study tool (I) talent management practices questionnaire tool (II) leadership practices inventory observation scale tool (III) nursing management creativity questionnaire tool (IV) talent management knowledge questionnaire. In addition, demographic data sheet was developed by the researcher Results: findings of the present study revealed that there was a highly significant improvement of overall talent management, leadership practices as well as nursing management creativity immediately after and after 2month of program implementation than before. Conclusion: talent management training program had large positive effect on talent management practices, leadership practices and talent management knowledge and moderate effect on nursing management creativity Recommendation: The study recommends that The study provide high concern for incorporating talent management strategies into the hospital strategic planning and conducting aperiodic talent management training programs for nursing managers at all levels depending on their job description.

<u>*Keywords*</u>*:* Talent management, training program, leadership practices, nursing management creativity**.**

INTRODUCTION

Human capital consistently considered as the backbone and valuable asset of any organization. Talented nurse play a significant role in the strategic success of healthcare organization (Muriithi & Charles, 2023). In this context, talent management viewed as a rapid-growing concern for health care organizations in a challenging work environment and has a critical role in fostering sustainable organizational performance(Claus, 2019; Younas & Waseem Bari, 2020).Talent management defined as a holistic approach to managing human capital that includes every aspects of employee growth and development. Which required first-line nurse managers who have talent management competencies essentially for effective implementation of the talent management approach.

According to Oehley (2007)and McDonnell et al.,(2017) talent management competencies defined as group of behavioral patterns that are essential for line managers to possess in their position with the aim of attracting, selecting, engaging, developing, and retaining skilled employees in order to achieve the organization's desired goals. They developed eight talent management competencies include a talent management mindset; attracting and recruiting talent; identifying and differentiating talented employees; developing others; building and maintaining positive relationships; providing meaningful and challenging work; remunerating and rewarding fairly, and managing work-life equilibrium. Talent management considered as a code for effective leaders and successful managers at all levels through focusing not only on building individual leadership skills but also on aligning leader behaviors and their leadership practices to organizational goals and objectives (Hosseinzadeh Nojedeh & Sattari Ardabili, 2015).

Leadership practices defined as the capability of an individual to influence a group of others to do something meaningful to them(Baker Maureen and Zomorodi 2018). Kouzes and Posner (2023) asserted that leadership is asset of practices and behaviors rather than a formal position, and developing five key practices of effective leaders namely; inspiring a shared vision, Modeling the way, Challenging the process, Enabling others to act and Encouraging the heart.Wang et al. (2019) emphasized that exemplary leaders are the cornerstone for the creative management processes which, significantly influencing their followers creativity.

Management creativity defined as the ability of first line nurse managers to generate ideas which are new, valuable, and comprehensible through inspiring management creativity elements of intellectual fluency, originality, sensitivity to problem, mental flexibility, risk taking and ability analysis, out of the ordinary (Kalf, 2010;El-Demerdash & Mostafa, 2018).

Aims of the study

Determine the impact of implementing a talent management training program for first line nurse managers on their leadership practices and nursing management creativity.

Research hypotheses:

H1: First line nurse managers who attend talent management training program exhibit higher level of talent management after the program than before it.

H2: First line nurse managers who attend talent management training program exhibit higher level of leadership practices after the program than before it.

H3: First line nurse managers who attend talent management training program exhibit higher level of nursing management creativity after the program than before it.

Materials and method

Materials

<u>**Design:**</u> Quasi-experimental research, one group (pre- post-test) design was used in this study

<u>**Settings:**</u> This study was conducted in all Medical (25units) and Surgical (15units) Inpatient Care Units at Alexandria Main University Hospital.

<u>**Subjects:**</u> The study subject included all first line nurse managers who are working in all Medical and Surgical Inpatient Care Units (N= 40) distributed as follows (25) in medical units and (15) in surgical units.

<u>**Tools:**</u> Four tools were used in this study

<u>**Tool I: Talent Management Practices Questionnaire:**</u>

It was developed by Oehley (2007) to assess the talent management practices of first line nurse managers. It consists of 43 items divided into eight dimensions as the following: displaying a talent management mindset (4items); attracting and recruiting talent (5items); identifying and differentiating talented employees (6 items); developing others (6items); building and maintaining

positive relationships (6 items); providing meaningful and challenging work (5 items); remunerating and rewarding fairly (6 items); managing work-life equilibrium (5 items). The responses were measured on 5 Points - Likert scale ranging from (1) never to (5) always. The overall score of talent management practices of first line nurse managers range from (43-215).Validity of the tool (89.3%) reliability of the tool (0.94).

Tool II: The Leadership Practices Inventory Observation Scale

It was developed by Kouzes and Posner (1995) and revised by Kouzes and Posner (2017) to assess leadership practices of the first line nurse managers. It consists of 30 items measuring five key practices of exemplary leaders namely; modeling the way, inspire a shared vision, challenge the process, enables others to act, and encourage the heart each of them include (6 items). For purpose of ease response the scale was adapted from ten-point Likert scale to five -point Likert scale ranging from (1) never to (5) always. The overall score range from (30-150).Validity of the tool(93.0%) reliability of the tool (0.88).

Tool III: Nursing management creativity Questionnaire

It was developed by Yossef and Rakha (2017) to assess management creativity for first line nurse managers. It consists of 21 items and classified into seven dimensions namely; originality, intellectual fluency, mental flexibility, sensitivity to problem, ability analysis, risk- taking, and out of the ordinary each of them include (3 items). The responses was measured on 3 Points - Likert scale ranging from no (1) to always (3).The overall score of nursing management creativity range from (21-63).Validity of the tool (91.6%) reliability of the tool (0.85).

Tool IV: Talent management knowledge questionnaire.

It was developed by the researcher based on review of related literature (Hafez et al., 2017; El Dahshan et al., 2018; Elkady et al., 2019; Luu et al., 2019; Elhaddad et al., 2020) to assess the level of nurse managers'

knowledge about talent management. It included closed and open ended questions. Each correct answer response was given a score of one and the wrong answer was given a score of zero. The scores of the items were summed - up and converted into percentages scores and classified as follows:

Less than 50% = poor level of knowledge

50- less than 75% =fair level of knowledge

More than 75% = good level of knowledge.

In addition, demographic data sheet was developed by the researcher; and included questions related to gender, age, marital status, educational qualification, working unit, years of experience in the units and nursing experience.

Method

- An approval for conducting the study was obtained from the Research Ethics Committee of the Faculty of Nursing, Alexandria University.
- An official permission for conducting this study was obtained from the Dean of Faculty of Nursing, Alexandria University and hospital administrative authorities of Alexandria Main University Hospital after explanation of the aim of the study.
- Tool (I, III) was translated into Arabic and tested for its face and content validity by a panel of five experts in the field of the study they were (two professors and three assistant professor of nursing administration) and the necessary modifications for translation were done as some statement are reworded based on their comments on translation.
- Tool (II) the Leadership Practices Inventory observation scale was tested for its face and content validity.
- Tools (I, II and III) were tested for their reliability. The internal consistency reliability was assessed using Cronbach's alpha coefficient. Reliability of tool (I) was= 89.3%; tool (II) was= 93.0%; tool (III) was=91.6%. That proved the tools were strongly reliable.

- A pilot study was carried out for 10 % of first line nurse mangers (n=4) who weren't included in the study subjects, in order to check and ensure the clarity, applicability and feasibility of the tools; identify obstacles and problems and no modification was done.

Data collection phases:

Study was implemented through the following three phases for 7 months:

I. Exploratory phase from: (5-7-2023 to7-8-2023)

- Data collection was conducted by the researcher pre–program implementation through two methods:

(a) Self-administered questionnaire namely; tool (I) talent management practices questionnaire, tool (III) nursing management creativity questionnaire that was hand delivered to the study subjects at the study setting to assess first line nurse manager perceptions of talent management and management creativity .

(b) Observation was undertaken by the researcher using tool (II) the leadership practices inventory observation scale for (40) first line nurse manager six working days per week , 2 hours per day for each first line nurse manager (12 hours/week for each first line nurse manager) to collect data concerning leadership practices using the observation sheet.

II. Development and implementation of talent management training program: (from 8/8 to 21/9/2023)

A. Development of the program

Based on the result of the exploratory phase and the review of related literature (Hafez et al., 2017; El Dahshan et al., 2018; Elkady et al., 2019; Luu et al., 2019; Santhanalaxmi & Chandramohan, 2019).The training program was developed, as well as teaching sessions and time schedule .

- Nurses were classified into two groups based on their working days. The program was conducted for 6 working days/ week for 4 hours per day for each group (24 hours per week for each group). The

training program had a total of 48 hours training for the two groups.

- The training program was implemented twice one working week for each group and for four hours / day.

B. Implementation of training program

Before the conduction of training program for first line managers, needs assessment questionnaire was distributed to first line managers to collect data related to their previous training and their desires for talent management training program.

- Tool (IV) talent management knowledge questionnaire (pre- test) was administered to first line managers to collect data related to their level of knowledge. It consists of questions related to talent management such as (the concept and importance of talent management, causes of poor talent management, the principles and factor affecting talent management….etc.). The test was completed in 15 minutes.

- The training program was implemented for first line nurse managers at the studied hospital, included general and specific objectives, relevant content, educational methods and evaluation technique.

- Content of the program was developed by the researcher based on review of literature (Hafez et al., 2017; El Dahshan et al., 2018; Luu et al., 2019; Santhanalaxmi & Chandramohan, 2019) and included: the concept of talent management, importance of talent management, conditions of successful talent management, causes of poor talent management, principles of talent management, factor and component of talent management, talent management process, training and improving talented staff in the organization.

- The following suitable teaching strategy was utilized such as: lectures, discussions, brainstorming and role play; educational materials as PowerPoint presentations, chalk and white boards, and flip charts and printed materials as handouts and worksheets was used as teaching media and instructional resources.

III. Evaluation of the training program (23/9 to 27/1/2024)

Evaluation of the program was carried out immediately after and program implementation using the following steps :
- Participants' reaction questionnaire: that includes questions to measure strong and weak points related to program implementation, such as: objectives, time period, content, time schedule, of the program and methods of teaching used.
- The knowledge test (post-test), which was used at the beginning of the program, was applied again to the first line nurse managers at the end of the program and after two months to evaluate the retention of knowledge in comparison with the pre-test.
- Self-administrated questionnaire using tools (I, III) talent management practices questionnaire and nursing management creativity questionnaire that were used in the exploratory phase of the study, were used immediately at the end of the program and after 2 months later from program implementation to reveal the changes in the nurse manager's perceptions of talent management and management creativity.
- Observation, which undertaken by the researcher using tool (II) leadership practices inventory observation scale was used immediately at the end of the program and after 2 months later from program implementation to assess changes in the first line nurse managers behavior regarding leadership practices

Ethical considerations
- Written informed consent from the study subjects was obtained after explaining the aim of the study
- Witness consent from the first line nurse managers to conduct the observation
- Confidentiality of the data was maintained
- Anonymity and privacy of subjects was maintained
- The subjects' voluntary participation and their right to withdrawal from the study at any time was emphasized

Results

Table (1): illustrates that, mean age of first line nurse managers was 50.35±5.79, the highest percentage (65.0%) of first line nurse managers had 50 and more years old and less percentage (2.5%) of them in the age group from 30 to less than 40 years old. Regarding gender; all the first line nurse managers (100%) were female. Concerning level of education; the highest percentage (75.0%) of first line nurse managers holding baccalaureate degree of nursing science. Whereas7.5% of them had Diploma of Technical Institute of Nursing. In relation to years of experience in nursing profession; the mean score was 22.60±6.05, the vast majority (87.5%) of first line nurse managers had more than 15 years of experience in nursing profession. While, the minority (12.5%) had from10 to less than 15 years of experience in nursing profession. Regarding years of experience in the unit; the mean score was 15.65±4.04, more than half of first line nurse managers (65.0%) had more than 15 years of experience in the unit. Whereas 10.0% of them had from 5 to less than 10 years of experience in the unit.

Table (2): clarifies that, there were highly statistical significant differences between mean score of overall talent management practices and its dimensions in the three phases of evaluation (before, immediately after and after 2months of training program implementation) where p<0.001*. Also, the highest mean score of overall talent management was found immediately after the program (172.98±25.40) while, decreased after 2 months of the program implementation than immediately after (163.0±16.22).

Table (3): explains that, there was a highly statistical significant difference between mean score of overall leadership practices and its dimensions in the three phases of evaluation (before, immediately after and after 2month of program implementation) where P <0.001*. Moreover, the highest mean score of overall leadership practices was found immediately after program implementation (90.78±10.73).

while, decreased after 2 months of the program implementation than immediately after (80.68±6.65).

Table (4): reveals that, there was a highly statistical significant differences between mean score of overall nursing management creativity and its dimensions in the three phases of evaluation (before, immediately after and after 2months of training program implementation) where p<0.001* and the highest mean scores of overall nursing management creativity were found immediately after the program implementation (69.48±7.70) while, decreased after 2 months of the program implementation than immediately after (62.90±5.85).

Discussion

The findings of the present study revealed that there was a highly statistical significant improvement in overall mean scores of talent management practices and its dimensions before, immediately after and after two months of training program implementation this supported the hypothesis 1of the study that may be attributed to the effect of comprehensive talent management program which built on the findings of the initial assessment which expanded nurse managers knowledge and awareness about the significance of talent management in improving nursing practice. This was supported by Ogbari et al. (2018) who stated that nurse managers' talent management practice can be enhanced through teaching and training program. The result of this study is consistent with Mohammed et al. (2020), Abdel Azem Mostafa et al. (2021), Asaad et al. (2022), who concluded that there was a highly statistically significant improvement in the talent management practice of the nurse managers immediately after and after three months from implementation of the program.

The findings of the present study proved that there was a significant positive improvement regarding leadership practices &its dimensions immediately after and after two months of program implementation than before this supported the hypothesis 2 that may be attributed to the effect of the training program which enhances their awareness about culture

development to improve their knowledge, skills and practices and encourage them to be effective leaders. This is supported by Gad and El-Demerdash (2014) and Aqtash et al. (2022) who revealed that nurse managers' practices can be improved through educational program. In this respect, Oehley (2007), Elnaga and Imran (2013) asserted that the most significant function of talent management is construct culture of development and developing employee through providing proper training programs, and workshops which consequently enhance their knowledge and practices. The result of the study is consistent with Nirmal Kumar (2014) who stated that in order to enhance nurse managers leadership practices it is imperative to link leadership with talent management. In this respect Ali et al. (2022) asserted that talent management training has positive significant improvement of effective leadership practice. Furthermore Wahba (2016), Hamzah and Shamsudin (2017) revealed that there was strong positive significant relation between talent management practice and leadership practice.

The present study revealed that there was a significant positive improvement regarding nursing management creativity & its dimensions immediately after and after two months of program implementation than before this supported the hypothesis 3 that may be attributed to the good effect of the training program. Offering talent management programs to nurse managers can enhance their capabilities to think creatively and strategically to managing their teams. Furthermore, there was strong effective relation with their staff which encourages nurse mangers to engage and provide creative ideas and solutions to organizational challenges and foster their management creativity. This is supported by Othman and Khalil (2018) who reported that talent management is an innovative strategy fostering creativity and work-life balance. In the same line, Williams and McMurray (2004), Zayan et al. (2013) reported that effective nurse-managers' relationships characterized by a high level of trust and motivation considered as critical factor fostering nursing management creativity and affect the nurse managers' ability to demonstrate innovative and creative

behaviors in the workplace. The study result is consistent with the result of Budbous (2023), Qureshi and Muhammad (2023) who confirmed that talent management had a positive significant effect on management creativity and innovativeness of the study subject. Furthermore Jehangir and Khan (2019), Derby (2022), stated that there is a strong significant positive relation between talent management practices and creativity practices.

Conclusion

The results of the present study concluded that there was a significant positive improvement of overall talent management and its dimensions, leadership practices and its dimensions as well as nursing management creativity and its dimension immediately after and slightly decline after 2months of training program implementation. Also, the program had large effect on talent management, leadership practices and talent management knowledge and moderate effect on nursing management creativity and declined slightly after two months of implementation.

Recommendations

Based on the findings of the present study, more efforts still needed to improve talent management competencies of the nurse managers through;
- Incorporate talent management strategies into their hospital strategic planning to stay competitive in the today healthcare market.
- Nursing directors conduct aperiodic talent management training programs for nursing managers at all levels depending on their job description as a course of refreshment.

First line nurse manager should:
- updated their knowledge and frequently develop their skills to be talented leaders
- Attain training programs that focus on talent management competencies.

Table (1): Demographic characteristics of first line nurse managers in both medical and surgical units

	medical unit (n = 25)		Surgical unit (n = 15)		Total sample (n = 40)	
	No	%	No	%	No	%
Age						
20-	0	0.0	0	0.0	0	0.0
30-	1	4.0	0	0.0	1	2.5
40-	6	24.0	7	46.7	13	32.5
≥50	18	72.0	8	53.3	26	65.0
Mean ± SD	50.40±6.01		50.27±5.61		50.35±5.79	
Gender						
Male	0	0.0	0	0.0	0	0.0
Female	25	100.0	15	100.0	40	100.0
Level of education						
Nursing Bachelor	20	80.0	10	66.7	30	75.0
Technical Institute of Nursing	2	8.0	1	6.7	3	7.5
Diploma of Secondary School of Nursing	3	12.0	4	26.7	7	17.5
Years of experience in the nursing profession						
< 1	0	0.0	0	0.0	0	0.0
1- <5	0	0.0	0	0.0	0	0.0
5- <10	0	0.0	0	0.0	0	0.0
10- < 15	4	16.0	1	6.7	5	12.5
≥15	21	84.0	14	93.3	35	87.5
Mean ± SD	22.58±6.32		22.62±5.79		22.60±6.05	
Years of experience in the unit						
< 1	0	0.0	0	0.0	0	0.0
1- <5	0	0.0	0	0.0	0	0.0
5- <10	2	8.0	2	13.3	4	10.0
10- < 15	8	32.0	2	13.3	10	25.0
≥15	15	60.0	11	73.4	26	65.0
Mean ± SD	15.76±3.95		15.47±4.32		15.65±4.04	

Table (2): First line nurse managers mean score of talent management practices &its dimensions before, immediately after and after 2months of training program implementation

Items	Total (n=40)			Test of Significance
	Pre	Post 1	Post 2	
	Mean ± SD	Mean ±SD	Mean ±SD	
Displays a Talent Management mindset				
Mean ± SD	11.25±1.71	18.10±2.10	17.50±2.24	$t_1 < 0.001^*$, $t_2 < 0.001^*$, $t_3 = 0.475$
	F = 167.078* P<0.001*			
Attracts and recruits talent				
Mean ± SD	12.18±1.82	18.38±5.41	17.93	$t_1 < 0.001^*$, $t_2 < 0.001^*$, $t_3 = 1.000$
	F = 33.155* P<0.001*			
Identifies and differentiates talented employees				
Mean ± SD	13.98±1.76	26.30±3.71	24.90±2.75	$t_1 < 0.001^*$, $t_2 < 0.001^*$, $t_3 = 0.055$
	F =233.273* P<0.001*			
Develops others				
Mean ± SD	15.88±3.63	24.83±4.17	22.55±3.53	$t_1 < 0.001^*$, $t_2 < 0.001^*$, $t_3 = 0.018^*$
	F= 63.440* P <0.001*			
Establishes and maintains positive relationships				
Mean ± SD	14.15±2.48	26.55±3.71	24.68±2.71	$t_1 < 0.001^*$, $t_2 < 0.001^*$, $t_3 = 0.029^*$
	F=187.017* P<0.001*			
Provides meaningful and challenging work				
Mean ± SD	11.68±2.30	20.65±3.36	19.58±2.90	$t_1 < 0.001^*$, $t_2 < 0.001^*$, $t_3 = 0.255$
	F=140.923* P<0.001*			
Remunerates and rewards fairly				
Mean ± SD	14.85±3.98	22.08±6.12	22.28±5.05	$t_1 < 0.001^*$, $t_2 < 0.001^*$, $t_3 = 1.000$
	F=38.0* P<0.001*			
Manages work-life balance				
Mean ± SD	11.48±1.96	19.85±4.56	17.40±3.07	$t_1 < 0.001^*$, $t_2 < 0.001^*$, $t_3 = 0.016^*$
	F=66.748* P<0.001*			
Total Talent Management practice				
Mean ± SD	105.43±8.40	172.98±25.40	163.0±16.22	$t_1 < 0.001^*$, $t_2 < 0.001^*$, $t_3 = 0.040^*$
	227.115* P<0.001*			

Table (3): First line nurse managers mean score of leadership practices and its dimensions before, immediately after and after 2months of training program implementation.

Items	Total (n=40)			Test of Significance
	Pre	Post 1	Post 2	
	Mean ±SD	Mean ±SD	Mean ±SD	
Model the Way				
Mean ±SD	9.45±3.49	13.75±3.18	11.43±3.27	$t_1<0.001^*$, $t_2=0.029^*$, $t_3<0.001^*$
	F=30.620* P <0.001*			
Inspire a Shared Vision				
Mean ±SD	8.58±2.43	14.30±2.90	11.80±3.33	$t_1<0.001^*$, $t_2<0.001^*$, $t_3=0.001^*$
	F=42.483* p <0.001*			
Challenge the Process				
Mean ±SD	8.08±1.90	15.73±1.90	14.58±3.29	$t_1<0.001^*$, $t_2<0.001^*$, $t_3=0.176$
	F=107.021* p <0.001*			
Enable Others to Act				
Mean ±SD	17.70±1.47	25.0±3.84	21.10±4.20	$t_1<0.001^*$, $t_2<0.001^*$, $t_3=0.001^*$
	F=44.739* p <0.001*			
Encourage the Heart				
Mean ±SD	12.78±2.30	22.43±2.67	21.78±2.25	$t_1<0.001^*$, $t_2<0.001^*$, $t_3=0.843$
	F =191.997* p <0.001*			
Total Leadership Practices				
	56.58±6.20	90.78±10.73	80.68±6.65	$t_1<0.001^*$, $t_2<0.001^*$, $t_3=0.001^*$
	F=238.404* P <0.001*			

Table (4): First line nurse managers mean score of nursing management creativity and its dimensions before, immediately after and after 2months of training program implementation.

Items	Total (n=40)			Test of Significance
	Pre	Post 1	Post 2	
	Mean ±SD	Mean ±SD	Mean ±SD	
Originality				
Mean ±SD	6.08±0.47	7.80±0.94	7.48±1.26	$t_1<0.001^*$, $t_2<0.001^*$, $t_3=0.543$
	F= 42.202* p <0.001*			
Fluency				
Mean ±SD	6.23±1.40	8.23±1.12	7.10±1.06	$t_1<0.001^*$, $t_2=0.006^*$, $t_3=0.001^*$
	F= 25.378* p<0.001*			
Flexibility				
Mean ±SD	6.18±1.22	7.70±1.22	6.42±1.39	$t_1<0.001^*$, $t_2<0.001^*$, $t_3=0.023^*$
	F= 27.215* P<0.001*			
Risk- taking				
Mean ±SD	5.90±1.26	7.30±1.32	7.20±1.26	$t_1<0.001^*$, $t_2<0.001^*$, $t_3=1.000$
	F=22.693* P<0.001*			
Analysis capability				
Mean ±SD	6.13±1.34	7.55±1.26	7.48±1.43	$t_1<0.001^*$, $t_2<0.001^*$, $t_3=1.000$
	F=17.619* P<0.001*			
Sensitivity to problems				
Mean ±SD	5.78±1.03	7.58±1.26	6.82±1.04	$t_1<0.001^*$, $t_2<0.001^*$, $t_3=0.045^*$
	F=39.038* P<0.001*			
Out of the ordinary				
Mean ±SD	5.30±1.09	8.0±1.26	7.18±1.60	$t_1<0.001^*$, $t_2<0.001^*$, $t_3=0.056$
	F=13.058* P<0.001*			
Total Nursing Management Creativity				
Mean ±SD	51.98±5.22	69.48±7.70	62.90±5.85	$t_1<0.001^*$, $t_2<0.001^*$, $t_3<0.001^*$
	F=44.555* P<0.001*			

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