

Educational Management Program on Enforcement Autonomous Decision Making among Novice Graduate Nurses

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Abstract

Background: autonomous decision making (DM) is a positive concept for novice graduate nurses (NGNs) influencing job satisfaction, retention and quality of care. They have to exercise judgments and DM skills through learning DM process to act independently and autonomously. **Aim:** to assess, design, implement, and evaluate an enforcement educational management program on autonomous clinical and managerial decision making for novice graduate nurses. **Setting:** study was conducted at Tanta University and El Menshawy Hospital. **Subjects:** all (90) novice graduate nurses working in above mentioned setting. **Tools:** Three tools were used including decision making autonomy assessment scale, decision making and principles of autonomy knowledge test and educational enforcement program on decision making and autonomy principles. **Results:** Pre programs, all NGNs have low level of DM autonomy in clinical and managerial decisions and had poor level of knowledge about DM autonomy principles. Post program, (95.5%) of NGNs had good level of knowledge. NGNs (12.3% and 24.4%) had moderate level of managerial and clinical DM autonomy respectively. **Conclusion:** NGNs at two hospitals not having the authority and autonomy for making clinical and managerial decisions. Additionally, had lacking knowledge about decision making autonomy principles and facing organizational obstacles that limit their autonomy in DM. Post program, NGNs' knowledge and skills about autonomous DM improved. **Recommendations:** updating the structure of NGNs' job description including their involvement in decision making. Stress active managerial support to NGNs to improve their decision-making skills and become independent in clinical and managerial decisions.

Introduction

Novice graduate nurses (NGNs) are baccalaureate prepared registered nurses with less than three full years of experience in the profession ^(1,2). Technology and research advances, greater workloads, diminishing resources, and complexity of nursing care requirement overwhelm novice graduate nurses ^(3,4). All of these phenomena increased the challenge for decision making by nurses ⁽⁵⁾. For novices, this challenge is even greater and call for effective, independent, and competent decision maker ⁽⁶⁾. To assume new and independent roles in their practice NGNs need to develop their abilities to problem solving, making decisions, acting independently to function and decide safely ⁽⁷⁾.

Basically, novice graduate nurses (NGNs) as professionals are accountable for patients with more complex care require close observation and specialized treatment ⁽⁸⁾. They face legal, complex, and educational problems dictate the demand for professionally prepared autonomous nurses to fulfill their professional role and move the profession forward ⁽⁹⁾. Although nurse specialists expected to make independent clinical and managerial decisions, Eid (2009) ⁽¹⁰⁾ revealed that nurses specialist not have the authority and autonomy in making

decisions that govern nursing practice and practice environment. Absence of educational program to support their decision making skills was the first managerial barriers for their decisional involvement.

Autonomous decision making considered an important element for novice nurses' professional identity and source of power in their clinical practice ⁽¹¹⁻¹³⁾. Autonomous decision making not involve the exercise of routine tasks or the unquestioning enactment of physician orders ⁽¹⁴⁾. For novice nurses, autonomous decision making means acting and decide independently without being restricted by bureaucratic rules of hospitals and receiving orders or permission from others based on complex body of knowledge and skills ^(15,16). Autonomy is an essential attribute for achieving professional status by using the power to determine what needs to be done in providing patient care, to act on assessments and to accept accountability for independent decisions ⁽¹⁷⁾. It manifested through communication of mutual respect and trust both intra and interprofessionally in clinical settings ⁽¹⁸⁾. Autonomy in clinical and managerial decisions is required by NGNs when assessing the information about patient needs, putting nursing diagnose and judgment about the patient's health

problems. Adding that, when deriving the outcomes of nursing care provided, developing and planning the nursing procedures, implementing the plan of care and evaluating the care provided against the standard of care ⁽¹⁹⁻²¹⁾. Variety of independent managerial decisions needed about resources affecting patient care including staffing, budgeting, equipment, supplies, time, and patient assignment to staff. Moreover, planning, organizing, collaboration, and quality of professional practice decisions ^(22, 23).

The nature of novice nurses' clinical decision making is linear, based on limited knowledge and experience in the profession and focused on single tasks or problems ^(5,24,25). They tend to view decision making as responding to patient complaints, and following protocols or documented care plans. As they make decisions; their focus leans toward doing, rather than on thinking and reflecting, make them rely excessively on more experienced nurses and avoid situations that require them to make decisions ⁽²⁶⁾. Consequently, the Institute of Medicine (2008) ⁽²⁷⁾ stressed that a higher level of clinical decision making autonomy have to be given to NGNs and that they be trusted and supported to make autonomous decisions about patient's care and unit operations.

To deal with these concerns NGNs need to be enforced to be autonomous decision maker ⁽²⁸⁾. They need to be trained to incorporate an educational framework that supports their development. Prerequisite intellectual and cognitive skills are needed in order to manage complex information and to make judgments ⁽²⁹⁾. In addition, they need to be trained to exercise discretionary decision making by using the critical concise to select a course of action consistent with client and unit needs. Self direction and intellectual flexibility are required to negotiate and compromise ⁽¹⁸⁾. Enforcement of educational management program on autonomous decision making for NGNs is very important to teach them how to make effective decisions by investing their knowledge about decision making process and supporting them in both successful and unsuccessful decisions for increasing their autonomy and control over nursing practice. Designing and implementing program for novice graduate nurses they will become autonomous, they will able to choose a specific course to respond to both the problem and the opportunities that confront them, make judgments about the care that they provide to patients and management issues ⁽³⁰⁾.

Aim of the study: Assess, design, implement, and evaluate an enforcement educational management program on

autonomous clinical and managerial decision making for novice nurses.

Research hypothesis: Improvement of knowledge and skills of autonomous decision making among novice graduate nurses.

Materials and Method

Material

Study design: Quasi experimental research design was used to achieve the aim of present study. Such design fits the nature of the problem under investigation.

Setting: The study was conducted at Tanta University Hospitals and El Menshawy Hospital. **Subject:** The study subjects consisted of all (90) novice graduate nurses up to 3 years of experience at Tanta University Hospital and El Menshawy Hospital. The subject was 25 novice graduate nurses at Tanta University Hospital and 65 at El Menshawy Hospital.

Tools: To achieve the aim of the study the following tools were used.

Tool I: Decision making autonomy assessment scale consisted of three parts:

Part (1): Characteristics of subject such hospital name, age, years of experience, unit name and marital status.

Part (2): Decision making autonomy assessment questionnaire contained clinical and managerial decisions subscale.

a) Clinical decisions subscale was used to assess novice graduate nurses' autonomy in

clinical decisions, it consisted of 34 items divided into clinical decision in patient assessment, nursing diagnosis outcome identification, care planning, care implementation and care evaluation. b) Managerial decisions subscale was used to assess novice graduate nurses' autonomy in managerial decisions. It consisted of 38 items divided into managerial decisions related to quality of professional practice, quality of support staff practice, professional nursing staff development, collaboration, unit governance and leadership decisions, unit staffing decisions, planning, and organizing the work unit decisions. The response for questionnaire was measured by 3 points scaling as follows:-

Never =1 Rarely =2 Always =3

Part (3): Modified organizational obstacles for autonomy in making clinical and managerial decision making (19) questions related to general organizational and managerial support obstacles affect novice graduate nurses autonomy in making their decisions. The responses for questionnaire was measured on three points likert scaling ranging from (3) strongly agree to (1) disagree. Levels of response were high, moderate and low.

Tool II: Decision making and principles of autonomy knowledge test. It consisted

of 66 questions in forms of true & false (32 items), multiple choice (28 items) and apply (6 items). These questions were classified into 5 categories. Items related to decision making basic concepts and IDEALS model, items related to autonomy principles and its dimensions, items related to autonomous nursing practice and characteristics of autonomous nurse, items related to implementation of decision making process, and items related to organizational obstacles for novice graduate nurses' decision making autonomy. Each item of the knowledge test was allotted score of (1) for correct answer and (0) for wrong answer. Level of novice graduate nurses' knowledge was as follows:

- Low level knowledge < 60% of total scores.
- Fair level knowledge = 60% -<80% of total scores
- High level knowledge >80% of total scores.

Method:

* An official permission was sent for responsible authorities at two hospitals (Tanta University Hospitals and El Menshawy Hospital) to obtain the approval and assistance in data collection.

* Tool I & II were presented to a jury of 7 experts in nursing administration to check

content validity of its items. The experts responses were represented in four points rating score ranging from (4-1); 4= strongly relevant, 3= relevant, 2= not relevant, and 1= strongly not relevant. Necessary modifications were done, included clarification, omissions of certain questions and adding others. The content validity was 94% for novice graduate nurses' decision making autonomy in clinical and managerial decisions and 95.5% for decision making autonomy obstacles.

* **Ethical consideration:** Nurses consent to participate in the study was obtained (nurses were informed about the privacy of information obtained from them, nature of the study, their rights to withdraw, and the confidentiality of their names).

* A pilot study was conducted on ten novice graduate nurses. They are randomly selected from the two hospitals and excluded from the sample. The first time implemented after the development of the tools and second time implemented before starting the actual data collection to test the clarity of its items, applicability, and relevance of the questions. The administration time for filling questionnaire sheet was approximately 30 minutes for assessment tool (I) and approximately 45 minute for knowledge

test tool (II). Reliability of tools was 0.824 for clinical and managerial decision making autonomy, and .816 for obstacles for novice nurses' decision making autonomy.

*** Data collection phase:** assessment sheet was distributed by researcher to all novice nurses in two hospitals to assess novice graduate nurses' autonomy in clinical and managerial decisions and assess obstacles affect their autonomy in making their decisions. The appropriate time for data collection was according to workload of each unit.

*** Development of the enforcement educational program.**

Educational enforcement program on decision making and autonomy principles was developed by the researcher based on review of relevant recent literature and results of novice graduate nurses' knowledge test scores on decision making and autonomy principles and decision making autonomy scale responses.

The first step in the construction of this program was the statement of general and specific instructional objectives.

General instructional objectives

The main objectives of the program is to enforce novice graduate nurses with knowledge and skills about decision making and autonomy principles to be able

to make clinical and managerial autonomous decisions.

Selection and organization of program content

After determining the objectives of program, the content was specifically designed, method of teaching, and evaluation was identified. Simple scientific language was used. The content designed to provide knowledge and skills related to decision making and autonomy principles. The program contents included 5 sessions about:

- 1- Decision making basic concepts and IDEALS model developed by Facione (2006)⁽³¹⁾.
- 2- Autonomy principles and dimensions.
- 3- Autonomous nursing practice and characteristics of autonomous nurse.
- 4- Examples of clinical situations to train the novice graduate nurses how to implement the decision making process and make better clinical and managerial decision.
- 5- Organizational obstacles for novice decision making autonomy.

Teaching- learning g strategies

Selection of teaching method was governed by studying the subjects themselves and content of the program. The methods used were lecture, group discussion, case study and examples from

work situations.

Teaching aids

The teaching aids used in the program were data show, flow sheet handouts, pen and papers.

Implementation of the program

- The study was carried on 90 novice graduate nurses. Novice graduate nurses will be divided into ten groups. The program time was 10 hours for each group. One session every day for 5 days, every session 2 hours. They preferred to start the session after finishing necessary work at 11 a.m -1 p.m.
- The program theoretical sessions were held in the conference room and head nurse room at El Menshawy Hospital and in wards at Tanta University Hospitals.
- The novice graduate nurses were informed about the general instructional objectives of program and of each session. The researcher builds good relationship and gave a simple form of motivation to enhance their participation and more involvement in the program activities.

Evaluation of the program

The program was evaluated using the decision making and autonomy principles knowledge test as follows;

- a- Pre implementation of the program pre-testing of novice nurses' level of knowledge.
 - b- Post testing novice graduate nurses level of knowledge immediately after implementation of the program.
 - c- Difference in level of autonomy of decision making using tool (1).
- * The duration of data collection about 12 months.

Statistical analysis

The collected data were organized, tabulated and statistically analyzed using SPSS software version 16.

For quantitative data, the range, mean and standard deviation were calculated. For qualitative data, comparison between two groups and more was done using Chi-square test (χ^2) and Fisher Exact test (FE).

Results

Table (1) shows characteristics of novice graduate nurses (NGNs). The age of novice graduate nurses were ranged from 24-27 years, with mean age 25.10 ± 0.90 . High percent (67.8%) of novice graduate nurses were in the age group 24-25 years, and the rest (32.2%) were in the age group 26-27 years.

High percent (72.22%) of NGNs were worked in El Menshawy Hospital and

(27.78%) worked at Tanta University Hospitals.

Equal percent (47.8%) of NGNs were married and single. Their mean years of experience were 1.46 ± 0.86 . Over forty percent (46.7%) of NGNs get very good in graduation level, (37.8%) their grades were good, and (15.6%) their grades were excellent. No one of them attend any educational programs about decision making.

Table (2) represents correlation between scores of clinical and managerial decision making autonomy, scores of organizational obstacles of decision making autonomy and total knowledge score of novice nurses' pre program implementation. Total scores of autonomy in making clinical & managerial decisions differ statistically significant according to NGNs' age and years of experience at ($P=0.0001$), Moreover, statistical significant correlation found between total scores of autonomy in clinical & managerial decisions and scores of general organizational obstacles of decision making autonomy at ($P=0.0001$). Statistical significant correlation between total scores of autonomy in managerial decisions and scores of managerial support obstacles of decision making autonomy at ($P=0.0001$), Besides that, total knowledge scores have statistical significant effect on

NGNs' autonomy in making clinical and managerial decisions at ($P=0.0001$).

Figure (1) shows levels of novice nurses' total knowledge pre and post program implementation. Pre program, no one of novice nurses had good level of knowledge compared to post program, most of them were at good level of knowledge.

Table (3) represent difference between mean percent of improvement of novice graduate nurses' knowledge about decision making and principles of autonomy at Tanta University and El Menshawy hospitals post than pre program implementation. The table shows significant improvement of novice nurses' knowledge at two hospitals post than pre program implementation at ($p=0.018$). Mean percent of improvement was $250.26\% \pm 76.67$ at Tanta university hospitals while $208.41\% \pm 58.85$ at El Menshawy hospital.

Figure (2) shows novice graduate nurses' level of actual managerial decision making autonomy pre and post program implementation. Pre program, none of novice nurses had high or moderate level compared to few of them post program had moderate level of managerial decision making autonomy.

Figure (3) shows novice nurses' levels of

actual total clinical decision making autonomy pre and post program implementation. Pre program, none of novice nurses had high or moderate level of clinical decision making autonomy compared to about quarter of them post program had moderate level of clinical decision making autonomy.

Table (4) represents mean scores of organizational obstacles for novice nurses' decision making autonomy at Tanta University hospitals pre and post program implementation. Pre program, item of "physician only take decision making" was ranked the first general organizational obstacle for NGNs' decision making autonomy with mean score 2.80 ± 0.41 while the item of "increase in non nursing duties" was ranked the least obstacle with mean score 1.20 ± 0.41 . Item of "absence of educational program to support decision making skills" was ranked the first managerial support obstacle for NGNs' decision making autonomy with mean score 2.84 ± 0.41 while the item of "nurse manager transfer you suddenly without preparation" was ranked the least obstacle with mean score 1.00 ± 0.00 .

Total rank pre program showed that items of "absence of educational program to support decision making skills" , "physician only take decision making" , "nurse manager only retain the

responsibility for decision making", and "no support from nurse manager when any problem happen" were ranked 1,2,3,4 organizational obstacles that limit NGNs' decision making autonomy with mean score >2 . However, item of "nurse manager transfer you suddenly without preparation" was the least obstacle for NGNs' decision making autonomy with mean score =1.

Post program, item of "physician only take decision making" was the first general organizational obstacle for novice nurses' decision making autonomy with mean score 2.80 ± 0.41 , while item of "increase in non nursing duties" was the least obstacle with mean score 1.20 ± 0.41 . Item of "nurse manager only retain the responsibility for decision making" was the first managerial support obstacle for NGNs' decision making autonomy post program with mean score 2.80 ± 0.41 . While, item of "absence of educational program to support decision making skills" was the least obstacle with mean score =1. Total rank post program showed that items of "physician only take decision making" , "nurse manager only retain the responsibility for decision making", "no support from nurse manager when any problem happen", and "no response from nurse manager to NGNs' problems" ranked 1,2,3,4 organizational obstacles that

limit NGNs' decision making autonomy with mean score >2 . However, item of "absence of educational program to support decision making skills" become the least obstacle for NGNs' decision making autonomy with mean score =1.

Table (5) represents mean scores of organizational obstacles for novice nurses' decision making autonomy at El Menshawy hospitals pre and post program implementation. Pre program, item of "lack of supplies and equipment in unit" was ranked the first general organizational obstacle for NGNs' decision making autonomy with mean score 2.31 ± 0.75 . While item of "increase in non-nursing duties" was ranked the least obstacle with mean score 1.23 ± 0.42 . Item of "absence of educational program to support decision making skills" was ranked the first managerial support obstacles for NGNs' decision making autonomy with mean score 2.54 ± 0.50 . While item of "nurse manager insist to heart you" ranked the least obstacle with mean score 1.00 ± 0.00 . Total rank pre program showed that items of "absence of educational program to support decision making skills", "nurse manager only retain the responsibility for decision making", "the way of nurse manager in conflict resolution is in equity" and "lack of supplies and equipment in the unit" were ranked 1,2,3,4 organizational

obstacles that limit NGNs' decision making autonomy with mean score >2 . However, item of "the nurse manager insist to heart novice nurses" was the least obstacle for NGNs' decision making autonomy with mean score =1.

Post program, item of "absence of rules that indicate the freedom in unit decision making" was the first general organizational obstacle for novice nurses' decision making autonomy with mean score 2.31 ± 0.75 , while item of "increase in non nursing duties" was the least obstacle with mean score 1.23 ± 0.42 . Item of "nurse manager only retain the responsibility for decision making" was the first managerial support obstacle for NGNs' decision making autonomy post program with mean score 2.54 ± 0.50 . While, item of "nurse manager insist to heart you" was the least obstacle with mean score =1.

Total rank post program showed that items of "nurse manager only retain the responsibility for decision making", "no response from nurse manager to NGNs' problems", "the way of nurse manager in conflict resolution is in equity" and "absence of rules that indicate the freedom in unit decisions" were ranked 1,2,3,4 organizational obstacles that limit NGNs' decision making autonomy with mean score >2 . However, items of "nurse manager insist to heart you" and "absence

of educational program to support decision making skills" become the least obstacles for NGNs' decision making autonomy with mean score 1.00 ± 0.00 , 1.18 ± 0.39 respectively.

Table (6) shows correlation between scores of clinical & managerial decision making autonomy and scores of organizational obstacles of decision making autonomy of novice nurses post program implementation. Significant correlation found between age & years of experience of novice nurses and total scores of autonomy in clinical & managerial decisions post program at ($p < 0.05$). Also, significant correlation found between total scores of clinical decision making autonomy and total score of organizational obstacles to decision making autonomy at ($p < 0.05$). Furthermore, the table shows significant effect of general organizational obstacles on clinical and managerial decision making autonomy. While, significant correlation found between total scores of managerial support obstacles and total scores of managerial decision making autonomy. Where managerial support obstacles had an effect on NGNs' managerial decision making autonomy

Table (1): Characteristics of novice graduate nurses (n=90).

Characteristics	The novice graduate nurses	
	No	%
Age		
24-25	61	67.8
26-27	29	32.2
Mean \pmSD	25.10 \pm 0.90	
Hospital		
Tanta university hospitals	25	27.78
El Menshawy hospital	65	72.22
Department		
Anesthesia ICU	15	16.7
Neurology ICU	10	11.1
Medical ICU	15	16.7
Neonatal ICU	20	22.2
Cardiology ICU	11	12.2
Pediatric ICU	9	10.0
Renal Dialysis	10	11.1
Marital status		
Single	43	47.8
Married	43	47.8
widowed	4	4.4
Years of experience		
0.5-<2	67	74.4
2	8	8.9
3	15	16.7
Mean \pmSD	1.46 \pm 0.86	
Graduation level		
Excellent	14	15.6
Very good	42	46.7
Good	34	37.8
Attendance of training programs about decision making		
Attend	0	-
Not attend	90	100

Table (2): Correlation between scores of clinical and managerial decision making autonomy and scores of organizational obstacles of decision making autonomy of novice nurses pre program implementation (n=90).

Variables	Novice graduate nurses (n=90)							
	Total scores of autonomy in making clinical decision		Total scores of autonomy in making managerial decision		Total scores of Obstacles to autonomy of decision making		Total knowledge scores	
	r	p	R	p	r	p	r	p
Age	0.749	0.0001*	0.591	0.0001*	0.143	0.180	0.017	0.875
Experience years	0.825	0.0001*	0.614	0.0001*	0.186	0.079	-0.030	0.777
Total scores of autonomy in making clinical decision	-	-	-	-	0.285	0.006*	-	-
Total scores of autonomy in making managerial decision	0.063	0.557	-	-	-0.173	0.102	-	-
Total scores of general organizational obstacles	0.628	0.0001*	0.237	0.024*	-	-	-0.086	0.418
Total scores of managerial support obstacles	0.163	0.125	-0.488	0.0001*	-	-	-0.145	0.172
Total knowledge scores	0.606	0.0001*	0.327	0.0001*	-0.150	0.158	-	-

*Significant (P<0.05)

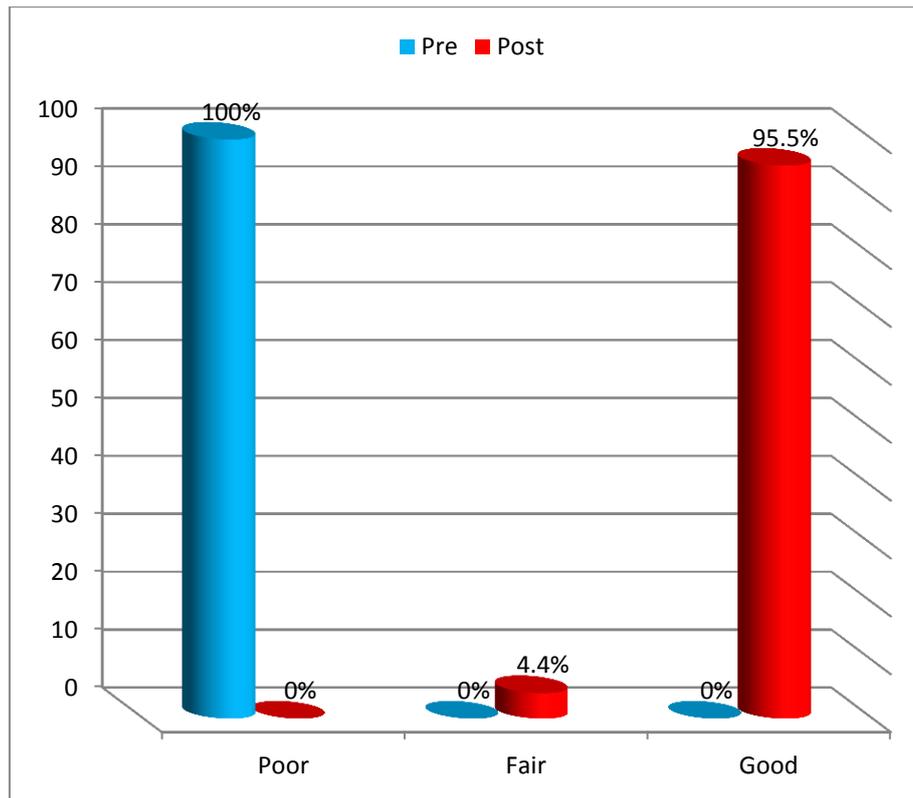


Figure (1): Levels of novice nurses' total knowledge pre and post program implementation (n=90).

Table (3): Difference between mean Percent of improvement of novice graduate nurses' knowledge about decision making and principles of autonomy at Tanta University and El Menshawy hospitals post than pre program implementation (n=90).

Knowledge subitems about decision making and principles of autonomy	Mean % of improvement of novice nurses' knowledge (n=90)			Z test P
	Tanta University hospital (n=25)	El Menshawy hospital (n=65)	Total (n=90)	
Basic concepts and IDEALS model of decision making.	211.03%±120.63	156.92%±90.49	172.12%±102.12	2.237 0.025*
Decision making autonomy principles and dimensions	190.83%±136.17	163.62%±114.73	171.18%±120.89	0.913 0.361
Autonomous nursing practice and characteristics of autonomous nurse	216.88%±139.17	134.44%±69.6	157.34%±100.44	2.839 0.005*
IDEALS model application in clinical practice of decision making	240.00%±73.54	615.33%±311.90	427.66±186.22	6.000 0.0001*
Organizational obstacles for novice decision making autonomy:	190.70%±138.80	256.63%±292.26	238.31%±259.80	0.641 0.522
Total Knowledge	250.26%±76.67	208.41%±58.85	220.04%±66.56	2.374 0.018*

*Significant (P<0.05)

Z test =Test of proportions

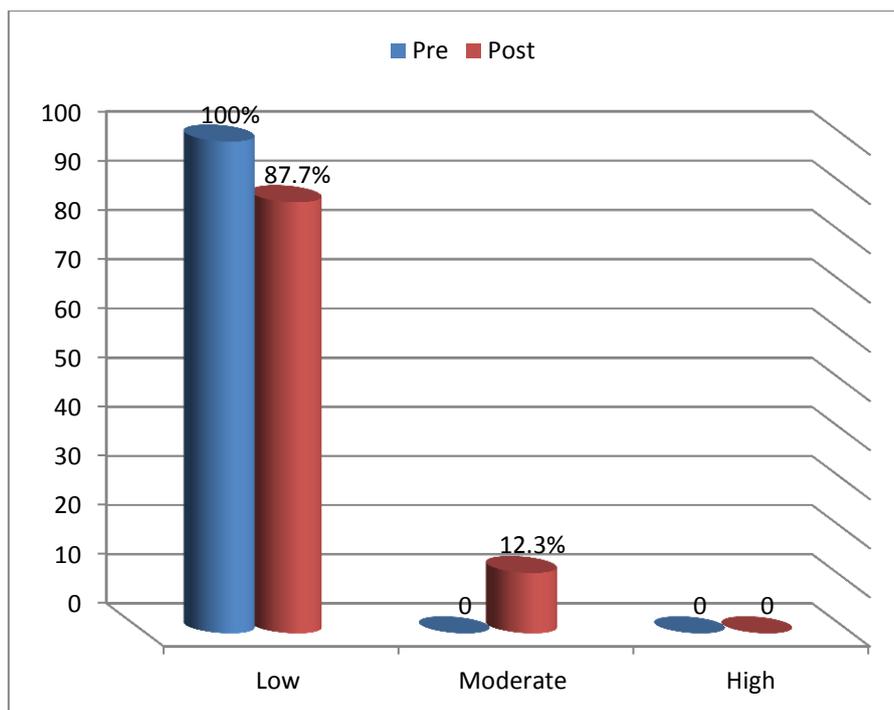


Figure (2): Novice nurses' levels of actual total managerial decision making autonomy pre and post program implementation (n= 90).

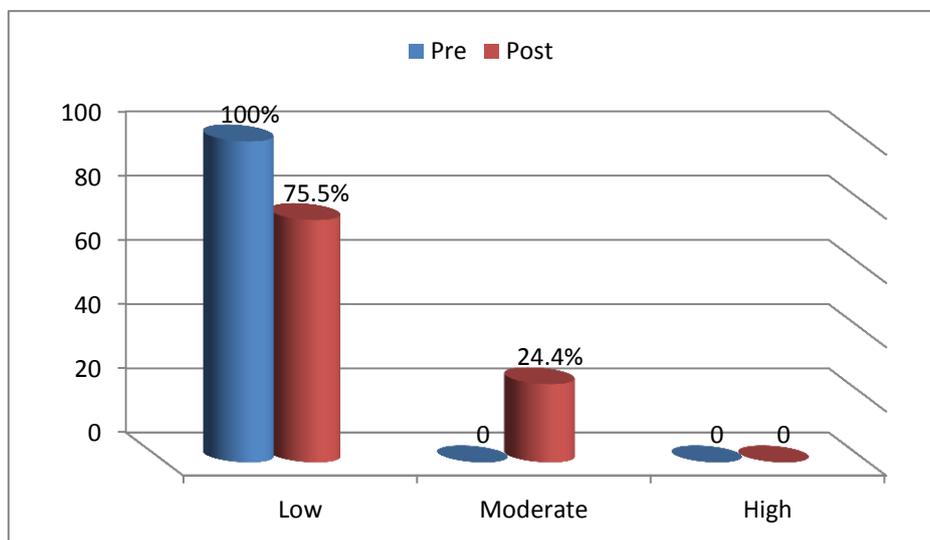


Figure (3): Novice nurses' levels of actual total clinical decision making autonomy pre and post-program implementation (n=90).

Table (4): Mean scores of organizational obstacles for novice nurses' decision making autonomy at Tanta University hospitals pre and post program implementation (n=25).

Organizational obstacles of decision making autonomy items			Mean score of organizational obstacles			
			Mean \pm SD	Rank	Total rank pre	Total rank post
General organizational obstacles	Absence of rules that indicate the freedom in unit decision making,	Pre	1.40 \pm 0.50	6	15	13
		Post	1.56 \pm 0.51	5		
	Increasing the numbers of critical patients in the unit	Pre	1.56 \pm 0.51	5	13	11
		Post	1.64 \pm 0.86	3		
	Unclear work responsibilities to you	Pre	1.56 \pm 0.77	4	14	14
		Post	1.56 \pm 0.77	4		
	Lack of supplies and equipment to do the work	Pre	1.80 \pm 1.00	2	8	8
		Post	1.80 \pm 1.00	2		
	Shortage in nursing staff in the unit	Pre	1.64 \pm 0.86	3	11	15
		Post	1.40 \pm 0.50	6		
	Increase in non nursing duties	Pre	1.20 \pm 0.41	7	17	17
		Post	1.20 \pm 0.41	7		
	Physician only take decisions without your involvement	Pre	2.80 \pm 0.41	1	2	1
		Post	2.80 \pm 0.41	1		
Managerial support obstacles	No response from nurse manager to novice graduate nurses problems.	Pre	2.32 \pm 0.48	5	6	4
		Post	2.44 \pm 0.92	3		
	Absence of educational programs to support decision making skills.	Pre	2.80 \pm 0.41	1	1	19
		Post	1.00 \pm 0.00	12		
	Nurse manager transfer you suddenly from unit to unit without preparation.	Pre	1.00 \pm 0.00	12	19	18
		Post	1.12 \pm 0.33	11		
	Nurse manager only retains the responsibility for decision making.	Pre	2.76 \pm 0.43	2	3	2
		Post	2.80 \pm 0.41	1		
	Nurse manager refuses the head nurse decisions.	Pre	1.68 \pm 0.90	8	10	6
		Post	2.32 \pm 0.48	5		
	No support from nurse manager when any problems happen.	Pre	2.44 \pm 0.92	3	4	3
		Post	2.76 \pm 0.43	2		
	Nurse manager biased to some of you than others.	Pre	1.60 \pm 0.50	9	12	10
		Post	1.68 \pm 0.90	8		
	Nurse manager insist to heart you.	Pre	1.12 \pm 0.33	11	18	16
		Post	1.40 \pm 0.50	10		
	No encouragement of excellent nurses in the unit.	Pre	2.00 \pm 0.76	6	7	7
		Post	2.00 \pm 0.76	6		
	Nurse manager biased to guilty physician.	Pre	1.76 \pm 0.66	7	9	9
		Post	1.76 \pm 0.66	7		
Nurse manager refuse to give your vacations when you need it.	Pre	1.40 \pm 0.50	10	16	12	
	Post	1.60 \pm 0.50	9			
The way of nurse manager in conflict resolution is inequity	Pre	2.40 \pm 0.50	4	5	5	
	Post	2.40 \pm 0.50	4			

Table (5): Mean scores of organizational obstacles for novice nurses' decision making autonomy at El Menshawy hospital pre and post program implementation (n=65).

Organizational obstacles of decision making autonomy items			Mean score of organizational obstacles			
			Mean \pm SD	Rank	Total rank pre	Total rank post
General organizational obstacles	Absence of rules that indicate the freedom in unit decision making,	Pre	1.35 \pm 0.48	5	15	4
		post	2.31 \pm 0.75	1		
	Increasing the numbers of critical patients in the unit	Pre	1.35 \pm 0.48	4	14	15
		post	1.35 \pm 0.48	5		
	Unclear work responsibilities to you	Pre	1.29 \pm 0.46	6	16	7
		post	1.66 \pm 0.75	2		
	Lack of supplies and equipment to do the work	Pre	2.31 \pm 0.75	1	4	14
		post	1.35 \pm 0.48	4		
	Shortage in nursing staff in the unit	Pre	1.37 \pm 0.72	3	13	16
		post	1.29 \pm 0.46	6		
	Increase in non nursing duties	Pre	1.23 \pm 0.42	7	17	17
		post	1.23 \pm 0.42	7		
	Physician only take decisions without your involvement	Pre	1.66 \pm 0.75	2	7	13
		post	1.37 \pm 0.72	3		
Managerial support obstacles	No response from nurse manager to novice graduate nurses problems.	Pre	2.23 \pm 0.55	4	5	2
		post	2.48 \pm 0.50	2		
	Absence of educational programs to support decision making skills.	Pre	2.54 \pm 0.50	1	1	18
		post	1.18 \pm 0.39	11		
	Nurse manager transfer you suddenly from unit to unit without preparation.	Pre	1.37 \pm 0.60	10	12	12
		post	1.37 \pm 0.60	10		
	Nurse manager only retains the responsibility for decision making.	Pre	2.48 \pm 0.50	2	2	1
		post	2.54 \pm 0.50	1		
	Nurse manager refuses the head nurse decisions.	Pre	1.38 \pm 0.49	9	11	6
		post	2.09 \pm 0.76	5		
	No support from nurse manager when any problems happen.	Pre	2.09 \pm 0.76	5	6	5
		post	2.23 \pm 0.55	4		
	Nurse manager biased to some of you than others.	Pre	1.55 \pm 0.50	7	9	9
		post	1.55 \pm 0.50	7		
	Nurse manager insist to heart you.	Pre	1.00 \pm 0.00	12	19	19
		post	1.00 \pm 0.00	12		
	No encouragement of excellent nurses in the unit.	Pre	1.58 \pm 0.50	6	8	8
		post	1.58 \pm 0.50	6		
Nurse manager biased to guilty physician.	Pre	1.18 \pm 0.39	11	18	11	
	post	1.38 \pm 0.49	9			
Nurse manager refuse to give your vacations when you need it.	Pre	1.43 \pm 0.75	8	10	10	
	post	1.43 \pm 0.75	8			
The way of nurse manager in conflict resolution is inequity	Pre	2.40 \pm 0.49	3	3	3	
	post	2.40 \pm 0.49	3			

Table (6): Correlation between scores of clinical and managerial decision making autonomy and scores of organizational obstacles of decision making autonomy of novice nurses post program implementation (n=90).

Variables	Novice nurses at Tanta University and El Menshawy hospitals post program implementation (n=90)							
	Total scores of autonomy in making clinical decision		Total scores of autonomy in making managerial decision		Total scores of Obstacles to autonomy of decision making		Total knowledge scores	
	r	p	r	p	r	p	r	p
Age	0.777	0.0001*	0.774	0.0001*	0.143	0.180	0.010	0.868
Experience years	0.706	0.0001*	0.595	0.0001*	0.186	0.079	-0.033	0.727
Total scores of autonomy in making clinical decision	-	-	-	-	0.350	0.002*	-	-
Total scores of autonomy in making managerial decision	0.676	0.0001*	-	-	-0.173	0.102	-	-
Total scores of general organizational obstacles	0.628	0.0001*	0.237	0.024*	-	-	-0.089	0.421
Total scores of managerial support obstacles	0.180	0.146	-0.488	0.0001*	-	-	-0.124	0.168
Total knowledge scores	0.074	0.615	0.1612	0.279	-0.141	0.161	-	-

*Significant (P<0.05)

Discussion

Decision making autonomy is a basic benchmark of professionalism and tool for protecting and reinforcing the novice nurses' professional identity and status in nursing practice⁽³²⁾. Assessment of novice graduate nurses' level of performance and knowledge about autonomy in clinical and managerial decisions making revealed that pre program , all novice nurses showed low level in making autonomous decisions and poor level of knowledge about principles of decision making autonomy. This might be explained by the fact that all novice nurses were young aged and not attended training programs about decision making. As well as the high percent of them their experience was less than two years. Beside the high level of obstacles they were facing either for managerial support or general organizational which limit their autonomy in decision making. Department for International Development (2010)⁽³³⁾ support present results and revealed that nurses have not any autonomy in decision making and not involved in any decisions affecting their practice. Also, Eid (2009)⁽¹⁰⁾ support present study results and mentioned that nursing experience had an effect on nurses' decision making autonomy and that nurses need more autonomy in decisional involvement in their work setting.

Analysis of present study novice graduate nurses poor level of knowledge pre program revealed that they lack of sufficient knowledge about how to gather information for patient assessment, lack clinical judgment skills to expect potential health problems to make actual nursing diagnosis. They don't know how to decide plan of action to implement and evaluate the patient's status and can't evaluate the effectiveness of nursing care provided. This result indicates that those novice graduate nurses have minimum clinical experiences; they are beginning practice need training to increase their experience. Most probably the high professional registered nurse vacancy rates increased the pressure on novice nurse and induced them to work as soon as possible while still not prepared to handle patient care situations.

Amini et al (2015)⁽³⁴⁾ revealed that nurses in teaching hospitals have moderate professional decision making autonomy because they don't perceive enough power nor receive an adequate amount of managerial support and feel barriers in obtaining their rights and have lower legal authority in decision making as well as they clarified that decision making autonomy influenced by nurse's age and experience that makes their voice heard.

Shamsi and Akbari (2011)⁽³⁵⁾ support the finding and discussed the barriers to inability of staff nurses to make patient assessment, nursing diagnosis, care planning, implementation and evaluation are related to lack of experience, lack of trained nurses to do it, insufficient information and skills, lack of managerial support in implementing these decisions, lack of enough time and excessive number of patients which make the nurses unable to make these decisions independently. Novice graduate nurses are required to have strong knowledge base and integrate available evidence, clinical judgment, decision making and patient preference as they plan, implement, and evaluate patient care outcome⁽³⁶⁾.

Rafi and Hezaveh (2014)⁽³⁷⁾ assumed that one of the major problems of novice nurses is the lack of the necessary ability to act as administrator and coordinator of the care team in the various shifts. According to the current status of severe nursing shortage, the novice nurse forcefully became the shift manger and because of her lack of required competency and experience she involved trouble. These deficiencies are in the area of monitoring and controlling tasks, decision making, planning and prioritizing, coordination, accountability, unit governance, time management and

delegating tasks. However, novice nurses' experiences three main themes "functional disability" includes complex and specialized skills; "communicative problems" includes communication with physician and colleagues, and "managerial challenges".

Novice nurses in present study face general organizational obstacles that limit their decision making autonomy and have statistically significant effect in making clinical and managerial decisions. At Tanta University hospital the first ranked obstacle was physicians make decisions without nurses' involvement. Physicians often serve as a dean and medical faculty hold higher posts and nurses under supervision of them. Furthermore, university hospitals are largest healthcare systems and have hierarchies that promote a top-down management system with many levels and nursing considered a lower position within the bureaucratic structure which lead to feeling impaired authority and powerless among nurses.

The same result found by Liu et al (2015)⁽³⁸⁾ reported that physician centered atmosphere in decision making, lack of care facility, structure of rules that determine limits of authority, unclear work responsibilities, shortage of nursing staff and heavy workload are important factors affecting nurses decision making

autonomy. Elizabeth and Maria et al (2015) ⁽³⁹⁾ also support present study result and revealed lower level of nurse autonomy associated with lower perceived nurse - physician collaboration.

Der (2011) ⁽⁴⁰⁾ suggests that to improve the relationships among novice nurses and physician various approaches are implemented. Unit based program to improve communication and use of multidisciplinary rounds. Team work training and open communication to reduce the differences to the point that both sides could work amicably for the benefit of the patients ⁽⁴¹⁾. While lack of communication and collaboration among novice nurses and physician has significantly poor patient outcome, lower perceived ability to meet patients' needs and lower perceived technical quality of care exist in the unit ⁽⁴²⁾.

At El Menshawy hospital the first ranked obstacle was lack of supplies and equipment. This result means that those novice nurses can't make autonomous decisions due to insufficient supplies or equipment needed in the intensive care. Ministry of Health and Population (2012) ⁽⁴³⁾ confirm this finding and reported that most governmental hospitals have poor physical facilities and lack supplies and equipment that affect health care provider's decision making and difficulty in

achieving goals and health plan targets. Lack of care facilities caused novice nurses stressed and frustrated because they unable to meet their patient needs, indecisiveness which negatively affect their autonomy in such decisions and giving the feeling of inability to have control over the work ⁽⁴⁴⁾.

Novice nurses in present study showed that the shortage of staff in ICU ranked high among obstacles for their decision making autonomy. They assumed that the nursing shortage considers from the highest obstacles for the novice nurses' clinical and managerial decision making autonomy. Yet critical care patients were totally dependent on availability of sufficient number of trained novice nurses staff to ensure continuous care and constant bedside attention. Novice nurses play vital role in provision of basic and advanced life support. So there must be at least one trained novice nurse per patient at all times ⁽⁴⁵⁾.

The fact that for novices, the actual causes for nursing shortage, where the vacancy rate of professional registered nurse in the same time of high patient and work acuity, lack of placement program and support for newly trained nurse. Consequently, their responsibilities increased and experience workload in their

job that affects their clinical and managerial decision making autonomy⁽⁴⁶⁾.

Carayon and Gureses (2011)⁽⁴⁷⁾ reported that lack of time and heavy workload negatively affected decision making autonomy because novice nurses can't comprehend patient's requirements.

Unclear work responsibility among novice nurses constituted as high rank obstacle for their decision making autonomy in present study. The fact is that the over workload and increasing responsibility in ICU make the novice nurses have limited time to perform tasks that have a direct effect on patient care and limit their autonomy to make independent decisions to perform various procedures. About half of novice nurses implement care without assessment, planning, and evaluation of it . Workload make those nurses have lack of time to gather information about patient's needs and use physical technique as inspection, palpation when making patient assessment. Moreover, less time to analyze patient' assessment data and not to establish priorities for nursing diagnosis and document it. Consequently, they can't make effective care planning.

Present result consistent with the result of Kumari and De (2015)⁽⁴⁸⁾ they revealed that (65%) have less time available to deliver care and to interact with their patients and other healthcare professionals

to plan and govern the unit, (35%) reported high in nursing errors and expressed both tasks delayed and tasks not completed.

So, it is important for nurse manager to be good observer of the work situations, direct management of the work environment and workstation and make interviews, focus group, and survey of novice nurses to meet the challenges of creating a patient driven healthcare system and decrease their sense of stress caused by workload in their job⁽⁴⁹⁾.

Finding of the current study showed correlation between total scores of autonomy in managerial decisions and scores of managerial support obstacles of decision making autonomy. This means that managerial support obstacles limit novice nurses' decision making autonomy in managerial decisions. Actually those novice nurses lack managerial support that ruling over them and lead them reluctant to assume responsibility of independent decision making. They never make managerial decisions because there is no educational program to support their decision making skills and knowledge and nurse manager retain to her self the responsibility of decision making.

Lack of managerial support make the novice nurses ignored about certain issues and decisions that are essential to their

practice because they are separated from making these decisions. They were not involved to set and evaluate standards of nursing practice and ignored to decide when developing nursing staff. Adding that they were overlooked about how to make scheduling, planning and organizing their units.

This result consistent with the result of Eid (2009)⁽¹⁰⁾ who revealed that staff nurses in intensive care units at Tanta university hospitals perceived lack of managerial support and reported absence of educational programs was the highest managerial support barrier for nurses' decisional involvement.

The same result was found by Dorgham and Al Mahmoud (2013)⁽²⁸⁾ reported low level of decision making autonomy as a result of leadership style and centralized decision making.

Result of present study post program implementation revealed that there was significant improvement in novice nurses' level of knowledge about principles of decision making and autonomy. The fact is that the knowledge and skills level were poor pre program implementation at two hospitals , but it was significantly increased to become at good level post program. This could direct the attention that the implementation of current educational program was succeed as a

mean for improving present study novice nurses' knowledge and skills.

Really the present study program maximized the novice nurses' knowledge and skills about autonomous decision making because it was the first educational program about decision making they attend in their employment. The program was planned and implemented according to their pre assessed needs. Furthermore the simplification of educational matter of the autonomous decision making program and the well-presented information by suitable educational aids increase novice nurses' interest and desire to acquire needed principles and knowledge as well as try to apply it.

The result revealed significant improvement of novice nurses' knowledge at Tanta University Hospital than El Menshawy Hospitals . This may be due to that the experienced novice nurses (25%) who had two years of experience or more were working at Tanta university hospitals in which experience in work place increase the ability to integrate knowledge and reaching to the reasoning level . Bakr et al (2013)⁽⁵⁰⁾ implies that clinical experience prepares novice nurses to be able of "doing" as well as "knowing" the clinical principles of decision making.

In fact, statistical significant improvement found post program between total levels of

actual managerial decision making autonomy as well as autonomy regarding professional nursing staff development decisions, unit governance and leadership, unit staffing, and organizing the work unit decisions .

About one third of them post program become always monitor of support staff performance against standards, identify nurses' educational needs, recognize appropriate and available services to address patient's health care, and group the activities to be done in the unit. Moreover, more than half always delegate some aspects of work to others and evaluate the effectiveness of the current mode of patient care delivery.

Beside managerial decisions, quarter of novice nurses had moderate level of clinical decision making autonomy compared to none of them had high or moderate level pre program. Statistical significant improvement found between all items of clinical decisions post program. Also about half of novice nurses always make decision making about care implementation and nursing diagnosis compared to low percent pre program. Moreover, considerable percent of them become always make decisions about care planning, patient assessment and outcome identification compared to low percent pre program .

Present study post program result revealed that there was still significant correlation between age & years of experience of novice nurses and their total scores of autonomy in clinical & managerial decisions. This means that practicing decision making is more than the simple application of theoretical knowledge or performing technical skills but it requires integrating knowledge, skills and experience to make a deep understanding of surrounded environment and make effective independent autonomous decisions.

Current study result also showed significant correlation between total scores of clinical decision making autonomy and total score of organizational obstacles to novice nurses' decision making autonomy post program . It means that novice nurses still face general organizational obstacles that limit their decision making autonomy in spite of improving their level of knowledge about principles of decision making and autonomy. Novice nurses as a health care professional provides direct care need to be trusted and valued for creating the context for high level of autonomy and control over nursing practice ⁽¹⁰⁾. They have to possess the autonomy and decision making skills needed to provide quality and cost effective care ⁽¹⁸⁾.

Dorgham and Al Mahmoud (2013) ⁽²⁸⁾ support the finding and reported that despite nurses being equipped with the necessary knowledge and skills to make decisions regarding patient care, they still feel their autonomy in clinical decision making is being constrained as a result of restricted organizational structure and support from physician.

Present study revealed significant correlation between total scores of managerial support obstacles and total scores of managerial decision making autonomy post program . This means that managerial support obstacles still had an effect on novice nurses' managerial decision making autonomy. Actually, post program novice nurses at the two hospitals understudy ranked high organizational obstacles for limiting their decision making autonomy and make high percent of them had low level of decision making autonomy and unable to make the other clinical and managerial decisions.

Novice nurses at Tanta University hospitals post program reported that items of "physician only take decisions", "nurse manager retain the responsibility for decision making", "no support from nurse manager in problems" and "no response from nurse manager to novice nurses problems" are the highest organizational obstacles for their decision making

autonomy. At El Menshawy hospitals novice nurses reported that items of "nurse manager retain the responsibility for decision making", "no response from nurse manager to novice nurses problems", "the way of nurse manager in conflict resolution is in equity", and "absence of rules that indicate the freedom in unit decisions" are the highest organizational obstacles for their decision making autonomy. But, "absence of educational program to support decision making skills" become the least obstacles for novice nurses' decision making autonomy at two hospitals because the knowledge level about decision making were improved through the educational program .

Therefore, novice nurses have to be supported and encouraged from both the structure itself by given authority for decision making and their nurse manager in their setting to use relational autonomy to be independent when making decisions. Managerial support to novice nurses through interviewing them to determine their needs and verbalize their problems that are being ignored or frustrated and make recognition ⁽⁴⁴⁾.

So, novice nurses at Tanta university hospitals and El Menshawy hospitals need to be provided and enforced with periodical autonomous decision making program to assist them to develop their

personal and professional decision making skills, use decision making structures at the workgroup, organizational and professional level of practice, increase their professional profile which facilitate development of new knowledge and skills that needed for making autonomous decisions.

Conclusion

Novice graduate nurses at Tanta University Hospitals and El Menshawy Hospitals had low decision making autonomy for clinical and managerial decisions and they were lacking knowledge about decision making and autonomy principles as well as their ranked high organizational obstacles aggravated to limit their autonomy in clinical and managerial decisions.

Those nurses have great need to attend educational to enforce them to be autonomous decision maker in their professional role.

Recommendation

Based on the finding of the current study the following recommendations are suggested for:

- 1- Decision making should be facilitated with decentralization of control and non hierarchical structure to support NGNs autonomy in decision making.
- 2- Prim importance the existence of rules support NGNs autonomy in decision making.
- 3- Improve team working relationships and collaborate of NGNs and physicians by gently sharing their knowledge, thoughts, abilities and active participation in decision making.
- 4- Prim importance the availability of sufficient supplies and equipment for carrying out different process to give NGNs the feeling of ability to have control over nursing practice.
- 5- Prim importance the availability of adequate number of professional registered nurse to decrease NGNs' workload and to have enough time not only for concentration in solving patient's problems but involve with administration to make efficient effective critical decisions.
- 6- Provide learning environment for novice nurses that support both formal and informal continuing education programs and learning provides for autonomous clinical practice.
- 7- Orient novice nurses about their job description.

Nurse manager

8-Training activities to nursing supervisors to promote their clinical, decisional, an emotional support to novice graduate nurses

9- Periodic conducting training program and workshop about decision making for novices to support their decision making skills. .

10- Nurse manager have to encourage participate management and shared governance to enhance NGNs' autonomy in decision making.

11- Encourage novice nurses to be actively involved in different types of decisions about quality of professional practice, unit staffing, quality of support staff practice, unit governance and leadership, unit planning, collaboration, staff development and organizing the unit decisions.

At NGNs personal level.

12- Build culture for self-learning and self professional improvement.

Recommendation for further Research

13- Developing program for nurse supervisors for improving their managerial skills and toward novice nurses.

14- Unit based programs for physicians on effective nurse-physician collaboration to improve communication and enhance

novice nurses autonomy in decision making.

15-Orientation program for novice nurses on organizational policy, rules and their job description .

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