# MANAGEMENT DEVELOPMENT STRATEGY FOR DEVELOPING NURSE INTERN'S MANAGERIAL SKILLS

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#### ABSTRACT

**Background**: Developing nurse interns' managerial skills is crucial to increase their confidence and satisfaction.

Aim: The current study aimed at developing managerial skills of nurse interns by application of management development strategy through: Assessing nurse interns' knowledge regarding management, Assessing nurse interns' managerial skills, implementing strategy for developing managerial skills, and measuring the effect of management development strategy on nurse interns' managerial skills.

*Methods:* A Quasi experimental design was utilized. This study was conducted at one of the university hospital where the nurse interns spending their internship year. A convenient sample of 180 nurse interns during the academic year 2016-2017 was participated in the study. Data were collected using three tools as follows: Nurse Interns' knowledge questionnaire sheet, Observation of checklist, and training needs assessment questionnaire Sheet.

**Results**: Nurse Interns' total knowledge related to managerial skills was unsatisfactory in the pre intervention phase, and reached at post and follow up phases to satisfactory level. Nurse interns' total performance related to managerial skills was inadequate in the pre intervention phase, and improved significantly at post and follow up phases.

*Conclusions*: Nurse Interns' managerial skills were improved after implementing the management development strategy.

Keywords: Management, Development Strategies, Managerial Skills, Nurse Interns.

#### BACKGROUND

Nurse interns in the university hospitals carry out full work responsibilities that need well-trained nurses. Clinical experience showed that nurse interns have inadequate performance regarding the effective managerial role. The predictors of these inadequacies appear in form of the following: delay of work assignment; inaccurate shift reports; incomplete patient records; and improper nursing rounds during internship year (Saad, 2003; Parson & Stonestreet, 2015; Ebrahem, 2015).

It is assumed that preparation of nurse interns with day to day management skills will help interns to adapt to their role quickly, prevent reality shock, thus can provide effective patient care. The current study was conducted to design, implement and evaluate a training program in nursing management for nurse interns.

## **INTRODUCTION**

Management is known as the art of achieving the best results with least efforts, it aims to achieve the highest success level and more happiness for both employer and workers and provide the public with high quality service. Moreover, management can be defined as the process of achieving institutional goals by working with and through staff and other institutional resources. In another word, management is the process of getting work done through others properly on time and within budget. In fact, management of human and physical resources is the corner stone of management process so more attention should be given to it (Duffield, 2014).

Nurse Manager is responsible for planning, organizing, directing, supervising, and controlling. Nurse Manager coordinates nursing efforts to provide high quality patient care and ensures meeting quality standards. Nurse Managers have a variety of roles supervising as patient care responsibilities, as well as management and leadership functions (Hodges, 2015).

Management Development can be defined as the systematic and long term application of behavioral science, knowledge and theory as a means of improving employees performance as measured by their ability to adapt to the goals, structure, culture of the organization in response to change. The primary focus for academic staff within the University is on teaching, learning and research in their own specialist subject. This focus ensures that many people will identify most closely with other people within their subject (Greenwood, 2016).

Management development strategy aims to meet the requirements outlined in the university training plan and human resources strategies to enhance future individual performance to support the strategic aims of the University and to equip and support staff to be able to respond to the changing demands of their roles. Organizations need a process for developing the skills of their managers as these employees direct and organize the work of other employees. Additionally, if you want to retain your best managers and potential managers, most significant among their needs from work is the opportunity to continue their personal and professional growth (Deana, 2015).

There are two ways to develop as managers; the first is an active and intelligent participation in the formal courses of instructions and management training pro-grams and the second is learning the techniques of management through actual job experiences in a work environment itself. Each organization should provide the training program and opportunities for development to its present as well as potential managers and offer ample scope for taints to conic forward (Tappen, 2015).

The urge for advancement and development must come from within the individual and a manager has to develop himself. In other words, self-motivation is the pivot of management development program. Top management must create an environment in which self-development is encouraged and facilitated (Barker & Ganti, 2013).

The internship program is a transitional stage of a nurse from educational experience to full work responsibilities. It is a crucial step for becoming a registered nurse in future. Nurse interns learn through direct hands-on care of patients and through familiarizing themselves with new skills. Nurse interns carry out the responsibilities of head nurses immediately after graduation as part of their internship training. Thus, they are exposed to a threatening situation where they should control and manipulate different variables (Mabrou, 2013; Henderson, 2014).

Transition of the person from student to newly graduate nurse is very stressful. Actually, reality shock is an experience of newly graduate nurses who find themselves in actual work situations without proper readiness that let them feel inadequately prepared. The period in which nurses need to confirm their knowledge and skills, and adjust their role accordingly is called the

transition period. In the absence of adequate support, nursing staff have been found to search another clinical area or leave the work totally. The potential advantages of facilitating this period are reduction in work stressors and anxiety, increase job satisfaction and improve retention of staff (Padilha, 2015).

Reality shock consists of four phases as the following: Honeymoon phase in which newly graduate nurses become very happy to work in their clinical area and may say "*everything is very nice*"; Shock phase where the newly graduate nurses begin to tolerate weaknesses and inconsistencies in their work area and their new colleagues; Recovery phase: as the newly graduate nurses begin to perceive the realities of the work environment and understand negative and positive aspects of their roles; and finally, Resolution phase: in this phase newly graduate nurses adopt some ideal values or beliefs to overcome the conflict of values and find ways communicate with their coworkers. Reality shock experienced by the new graduate can be prevented with preparation for the role transformation (Armstrong, 2016).

Therefore, educational training program is crucial to enhance newly graduate nurses' confidence, autonomy, and satisfaction that result in improved quality of the provided patient care and achieve patient safety. Nurse Interns are trained throughout the program to improve their personal and professional abilities. Besides, helps in developing leadership and managerial abilities (Henderson, 2014).

The nursing graduate roles as head nurses embrace being confident, care providers and managers; implementing policy and procedures, guiding and leading staff members. Head nurses roles encompasses constantly developing and improving patient care, being proficient at time management, being able to train and lead staff nurses and others, engaging in actual practice, and finally acting as a role model. So nurse internes should be trained on the managerial role to perform their role effectively in the future (Lucia & Lepsinger, 2015).

## **OPERATIONAL DEFINITION**

## **Management Development Strategy**

It is a training program designed for developing nurse interns' managerial skills based on the management process that includes planning, organizing, directing, and controlling.

## METHODS

#### **Study Design**

A quasi experimental design was utilized to achieve the aim of the current study.

## Sample

A convenient sample of 180 nurse interns who spent the internship year at a university hospital during the academic year 2016-2017 who agreed to participate constituted the study sample.

#### **Data Collection and Techniques**

The data was collected through using three main tools as follows:

1. Nurse Interns' knowledge questionnaire sheet which was used to assess nurse interns' managerial knowledge. It consists of two parts; part one aimed at collecting data related to the demographic characteristics of the study subjects such as: age, gender, marital status, cumulative grade and attending training program related to management before internship year program. This tool was developed by the researcher based on (Saad, 2003; Abd Elaziz, 2008; Ebrahem, 2015). While part two constructed in form of total of (60 items) multiple-choice questions, that included 6 aspects follows: management related concepts (7 items); planning (13 items); organizing (9 items); directing (13 items); controlling & coordinating (9 items); and documentation (9 items).

2. An Observation Checklist for Nurse Interns' Managerial Skills, this tool aimed to assess nurse interns' performance regarding managerial skills. It was developed by the researcher based on (Abd Elaziz, 2008; Mamdouh, 2011; Ebrahem, 2015). The tool consisted of two parts: part one which included data related to nurse interns' code, unit name, time, and date of observation. While part two consisted of total of 83 items that grouped into 5 related aspects as follow: planning (34 items); organizing (10 items); directing (12 items); controlling and coordinating (10 items); and documentation (17 items).

3. Nurse Interns' Needs Assessment Questionnaire Sheet which aimed to determine managerial skills that needed from the nurse interns' point of view. It was developed by the researcher based on (Mamdouh, 2011; Ebrahem, 2015), the tool consisted of (22) items.

#### **Procedure for Data Collection**

Data collection of the study was started at the beginning of September 2016, and completed by the end of October 2017. The field work of this study was carried out through assessment, planning, implementation, and evaluation phases.

**1**. **Assessment phase**: In this phase the researcher introduced self to the nurse interns; explained the aim of the study and its implications; and explained how to fill in the knowledge questionnaire. Firstly, the researcher distributed the knowledge questionnaire tool to the nurse interns in their training setting. Each participant filled in the questionnaire and handed it back to the researcher. The questionnaire sheet was distributed three times through the study phases: pre phase, post phase, and three months after the intervention. The first distribution was at the beginning of September 2016.

Secondly, the researcher observed nurse interns performance of managerial skills using the observation checklist. Each nurse intern was observed in the training place three times in each phase of the study. The observation was done during morning shift. The observation was taken within 75 to 90 min.

**2. Planning phase**: Based on the analysis of the data obtained through the assessment phase, and according to literature review, the researcher designed a program about managerial skills for nurse interns. A schedule was set and the place to carry out the program was booked, after consultation with the nursing director, and coordination with the head of staff development department. The audiovisual aids as data show also booked.

**3. Implementation phase**: In this phase, the program was implemented for the nurse interns at the study setting and implemented throughout two and half months, started from the beginning of January 2017 till the mid of March 2017. Nurse interns divided into six groups, each group attended one session every week. The researcher explains the program into two groups every day three times weakly. The first group started from 10 a.m. to 12 p.m., the second group started from 12:30 p.m. to 2:30 p.m. The total number of session for each group was 14 sessions. In the first session the researcher explains the aim of the study, program objectives, plan, and content. At the beginning of each session the objectives of the session were explained. **4. Evaluation phase**: After implementing the training program, evaluation of nurse interns' knowledge regarding management was done immediately after the program and after three months of the program, by

regarding management was done immediately after the program and after three months of the program, by using the same data collection tools used at the assessment phase for measuring knowledge questionnaire and managerial skills.

#### **Data Analysis**

The collected data were coded and entered into the statistical package for the social science (SPSS). Data were presented using descriptive statistics in the form of frequencies and percentages for categorical variables, and means and standard deviations for continuous quantitative variables. Qualitative categorical variables were compared using 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 when P-value<0.05.

#### **Ethical Considerations**

Prior study conduction, ethical approval was obtained from the scientific research ethical committee of the faculty of nursing. The researcher met both medical and nursing director of the hospital where the nurse interns trained 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 assured about the anonymity and confidentiality of the collected data, and the researcher emphasized on that data will be used only for the purpose of scientific research. The subjects' right to withdraw from the study at any time was also assured.

## RESULTS

Table 1 shows that, more than half of participants (55%) had less than twenty three years of age, more than two thirds of participants (67.8%) were females and majority of them (80%) were single, with regards to certificate before enrolment graduated from general secondary school, near half of the participants (49.4%) had very good cumulative grads, while minority of them had excellent grades. In addition, the majority of the participants (92.8%) did not attended training courses about managerial skills before internship program.

Table 1						
DEMOGRAPHIC CHARACTERISTIC Demographic Characteristics	S OF THE STUDY SUB, No.	JECTS (N=180) %				
Age 100. 70						
- >23 years	99	55				
$- \geq 23$ years	81	45				
Mean ages ± SD	$22.4 \pm .532$					
Gender						
- Male	58	32.2				
- Female	122	67.8				
Marital Status						
- Married	36	20				
- Single	144	80				
Study Type Before Faculty Enrolment						
- General secondary school	162	90				
- Nursing institute	18	10				
Cumulative Grads						
- Excellent	52	28.9				
- Very good	89	49.4				
- Good	17	9.4				
- Acceptable	22	12.3				

Attending Training Courses About Managerial Skills Before Internship Program					
- Yes	13	7.2			
- No	167	92.8			

Table 2 shows that majority of nurse interns needed training about performance appraisal, organizing process, leadership, and supervision (87.7%, 86.7%, 85.5%, and 85% respectively. On the other hand, more than two thirds of the nurse interns were not in need for training about material resources estimation, time management, human resources estimation, and budgeting (71.7%, 67.3%, 64.5%, and 62.2% respectively).

Ta NURSE INTERNS' TRAINING NEEDS REGA POINT OF VIEW BEFORE 7				A THEIR			
Items		ded		needed			
	No.	%	No	%			
Management							
Management and its related concept	152	84.5	28	15.5			
Management functions	136	75.6	44	24.4			
Pla	anning						
Planning and planning process	151	83.8	29	16.2			
Nursing care assignment	142	78.6	38	21.4			
Time management	59	32.7	121	67.3			
Time scheduling	144	80	36	20			
Or	ganizing						
Organizing process	156	86.7	24	13.3			
Staffing	142	78.8	38	21.2			
Human resources estimation	64	35.5	116	64.5			
Material resources estimation	51	28.3	129	71.7			
Patient classification system	150	83.3	30	16.7			
Di	recting						
Directing and its elements	139	77.2	41	22.8			
Leadership	154	85.5	26	14.5			
Supervision	153	85	27	15			
Communication	147	81.6	53	18.4			
Delegation	136	75.5	44	24.5			
Motivation	146	81.1	34	18.9			
Controlling							
Controlling process	136	75.6	44	24.4			
Budgeting	68	37.8	112	62.2			
Performance appraisal	158	87.7	22	12.3			
	and Recording						
Reporting and its types	139	77.2	41	22.8			
Recording and its types	149	82.7	31	17.3			

Table 3 shows that there was statistically significant improvement in all mean scores as well as in total mean score of nurse interns' knowledge related to managerial skills. The least mean scores  $(2.53 \pm 1.48)$  was to the area of management concept in pre intervention while improved in the post and follow up phases  $(5.85 \pm 1.04 \text{ and } 5.41 \pm 1.20 \text{ respectively})$ .

Table 3 NURSE INTERNS' TOTAL KNOWLEDGE REGARDING MANAGERIAL SKILLS THROUGHOUT THE INTERVENTION PHASES						
Mean Score						
Items	Pre Mean ± SD	Post Mean ± SD	Follow Up Mean ± SD	P1	Fest P2	
1. Management concept	$2.53 \pm 1.48$	$5.85 \pm 1.04$	$5.41 \pm 1.20$	.000*	.000*	
2. Planning	$\frac{2.33 \pm 1.48}{6.18 \pm 2.20}$	$10.7 \pm 1.52$	$10.23 \pm 1.63$	.000*	.000*	
3. Organizing	$3.15 \pm 1.35$	$7.16 \pm 1.23$	$6.90 \pm 1.31$	.000*	.000*	
4. Directing	$4.80 \pm 2.77$	$10.33 \pm 1.40$	9.93 ± 1.51	.000*	.000*	
5. Controlling	$3.83 \pm 2.43$	$7.15 \pm 1.19$	$6.93 \pm 1.26$	.000*	.000*	
6. Recording & Reporting	$3.89 \pm 2.01$	$7.08 \pm 1.38$	$6.90 \pm 1.45$	.000*	.000*	
Total	$24.05\pm 6.93$	$48.31 \pm 4.54$	$46.31 \pm 4.63$	.000*	.000*	
	*statistically sig	nificant p<0.05				
	P1=change betw	een pre and post				
	P2=change betwee	n pre and follow	ıp			

Table 4 shows that statistically significant improvement in all mean scores as well as in total mean of nurse interns' performance related to different areas of managerial skills. The least mean scores  $(2.70 \pm 1.29)$  was related to the area of "*organizing*" in pre intervention while improved in the post and follow up phases  $(7.49 \pm 1.33, \text{ and } 7.33 \pm 1.41 \text{ respectively})$ .

Table 4 NURSE INTERNS' TOTAL PERFORMANCE MEAN SCORES REGARDING MANAGERIAL SKILLS BY THE MAIN CATEGORIES THROUGHOUT THE INTERVENTION (N=180)					
	Mean Score			Paired Sample Test	
Items	Pre	Post	Follow up		
	Mean $\pm$ SD	Mean $\pm$ SD	Mean $\pm$ SD	P1	P2
1. Planning skills	$1.53 \pm 1.09$	$6.27 \pm 1.16$	$5.91 \pm 1.25$	.000*	.000*
2. Nursing care assignment	$4.76 \pm 1.20$	$9.19 \pm 1.17$	$8.98 \pm 1.28$	.000*	.000*
3. Scheduling	$5.56 \pm 2.41$	$12.06 \pm 2.38$	$11.70\pm2.03$	.000*	.000*
4. Total planning	$11.86 \pm 3.15$	$27.53 \pm 3.08$	$26.61 \pm 2.98$	.000*	.000*
5. Organizing	$2.70 \pm 1.29$	$7.49 \pm 1.33$	$7.33 \pm 1.41$	.000*	.000*
6. Directing	2.13 ± .993	$9.04 \pm 1.34$	$9.34 \pm 1.32$	.000*	.000*
7. Controlling	3.96 ± 1.33	$8.28 \pm 1.34$	$7.92 \pm 1.41$	.000*	.000*
8. Recording and	$5.16 \pm 1.57$	$13.76 \pm 1.61$	$13.20\pm1.67$	.000*	.000*
Reporting					
Total	$25.83 \pm 5.64$	$66.12 \pm 4.69$	$64.42 \pm 4.67$	.000*	.000*
	*stati	stically signification	ant p<0.05		
	P1=ch	ange between p	re and post		
	P2=chan	ge between pre	and follow up		

Table 5 shows that, there was a positive correlation between nurse interns' knowledge and their performance throughout the intervention. There is a significant improvement in the post and follow up knowledge and performance of nurse interns regarding managerial skills.

Table 5 CORRELATION BETWEEN NURSE INTERNS' KNOWLEDGE AND THEIR PERFORMANCE THROUGHOUT THE INTERVENTION (N=180)					
Satisfactory	Satisfactory Knowledge		Adequate Performance		
		Pre	Post	Follow up	
Pre	$R^2$	0.345	0.695	0.91	
	p-value	.041*	.029*	.008*	
Post	$R^2$	0.158	0.488	0.427	
	p-value	.034*	.000*	.000*	
Follow up	$R^2$	0.153	0.48	0.447	
	p-value	.040*	.000*	.000*	
	*statistically significant p<	0.05			

#### DISCUSSION

Regarding nurse interns' knowledge related to different areas of managerial skills, The current study reported statistically significant improvement in all mean scores, as well as in total mean scores of nurse interns' knowledge in different areas of managerial skills, the highest mean was in the area of "*total planning*" throughout the study intervention. This finding could be due to the fact that, planning skills remained important so nurse interns perceive planning skills as significant to their role. However the least mean scores was in the area of "*management concept*" throughout the study intervention. This might be due to the fact that, nurse interns didn't perceive their managerial role as the most important role. Concerning total knowledge the highest mean was in the post intervention phase.

The finding is in congruence with Saad (2003) who mentioned that it was obvious that there was overall improvement in all the dimensions of the managerial knowledge of study subjects after exposure to the program. This finding was consistent also with Ebrahem (2015) who reported statistical significant improvement in all mean scores, as well as in total mean of head nurses' knowledge related to different areas of managerial competencies. The finding is symmetrical with Deonna (2010) who found that, first line managers ranking the highest competency domain means frequency was for managing fiscal planning. In addition, Steinmann (2015) asserted that the approach of active learning used in the training program assisted head nurses in more internalization of knowledge related to the management concept and this supported the current finding.

Regarding nurse interns' performance related to different areas of managerial skills, the current study revealed that highest mean was to the area of "*total planning*" throughout the study intervention. It may be due to the fact that, planning skills remained important so nurse interns perceive planning skills as significant to their role. However the least mean scores was to the area of "*management concept*" throughout the study intervention. It may be due to the fact that, nurse interns didn't perceive their managerial role as the most important role. Concerning total knowledge the highest mean was in the post intervention phase.

This result was supported by Ebrahem (2015) who mentioned that head nurses' performance of the managerial competencies was generally low before the intervention related to conducting daily unit operation activities. As well as Abd El-Aziz (2008) found that components of organizing activities; all scored unsatisfactory in the pre intervention and all of them improved after intervention. The result is in accordance with Saad (2003) who mentioned that it was obvious that there was overall improvement in all the dimensions of the managerial performance of study subjects after exposure to the program.

This finding was consistent with Ebrahem (2015) who reported that, statistically significant improvement in all mean scores as well as in total mean of head nurses' performance related to different areas of managerial competencies. In addition to Deonna (2010) who found that, first line managers ranking the highest competency domain means frequency was for managing fiscal planning.

Regarding nurse interns' needs assessment questionnaire sheet, the current study findings revealed that, the majority of the nurse interns' needed training about "*Material resources estimation*", "*Motivation*", "*Planning*", "*Organizing*", "*Controlling*", "*Recording*", "*Conflict management*", "*Supervision*", "*Staffing*", "*Reporting*" and "*Management concept*". These findings were supported by Mamdouh (2012) who found that nurse managers needed adequate training about staffing. As well as, Khalil (2007) who stated that head nurses, after attending management training have ranked staffing as the most important role of them. This nurse interns' opinions is in agreement with Steinmann (2015) who asserted that it seems that the approach of active learning used in the training program assisted head nurses in more internalization of knowledge related to the management concept.

Nurse interns' opinions were also in agreement with Ebrahem (2015) who mentioned that head nurses' performance of the managerial competencies was generally low before the intervention related to "*communication activities*", and "*delegate workload appropriately and fairly*". And Meretoja (2015) mentioned that the university hospital had the highest patient acuity levels and short length of stay which increase complexity, increase patients' risk and increase the need for rapid nursing responses to patient care. A similar situation was reported in evaluating and instructing staff through regular meetings (Bayomy, 2005).

The current study revealed that, there was a positive correlation between nurse interns' knowledge and their performance throughout the intervention. This finding supported with (Ebrahem, 2015) who found that, there was a positive relation between nurses' knowledge and their performance. This finding is in disagreement with (Abd El-Kader, 2014; Abd-Elal, 2016) who found that, there were no statistical relation between nurses' knowledge and their performance.

## CONCLUSION

The current study concluded that majority of nurse interns' need training about almost all the managerial skills related topics. The majority of the nurse interns had unsatisfactory knowledge related to managerial skills in the pre strategy development phase. While at post phase most of them had satisfactory knowledge level, and at follow up phase, all nurse interns had satisfactory levels of managerial knowledge as well.

The majority of the nurse interns' performance regarding managerial skills in pre strategy development phase was inadequate. It has shown statistically significant improvement to adequate levels after implementing the strategy both at post and at follow up. The study indicated statistically significant positive correlation between nurse interns' knowledge and their performance throughout the intervention phases. Moreover, a statistically significant improvement in nurse interns' knowledge, and performance regarding managerial skills throughout the study intervention were noted. These findings support and confirm the research hypotheses. The current study recommends providing educational training program related to management skills during internship.

#### **RELEVANCE TO CLINICAL PRACTICE**

Application of management development strategy for nurse interns is very crucial where their managerial skills and knowledge will be increased and consequently improves clinical practice after graduation and prepare them for the actual work environment.

#### What Does This Paper Contribute to the Wider Global Community?

Application of management development strategy for the nurse interns improved their managerial skills.
This paper will enhance the internship program and clarify the required managerial skills for nurse interns.

3. It contributes in improving quality of care.

#### REFERENCES

- Abd El-Kader, A. (2014). Factors affecting nursing performance regarding documentation in general surgical units. Master thesis, Faculty of Nursing, Ain Shams University.
- Abd-Elal, S.R. (2016). *Patient safety: Assessing nurse's performance during shift handover*. Master Thesis, Faculty of Nursing, Ain Shams University.
- Abd-Elaziz, B. (2008). *Effect of training on head nurses managerial skills related to the organizing and directing*. Master Thesis, Faculty of Nursing, Ain Shams University.
- Armstrong, K. (2016). Head nurse needs. Journal of Nursing Management, 25(14), 41.
- Barker, M., & Ganti, A. (2013). An in depth study of the head nurse role. Supervisor Nurse, 11(12), 16-21.
- Bayomy, S. (2005). Effect of the management process on the patient care services in general hospital of ministry of health in Cairo. Doctorate Thesis, Faculty of Nursing, Cairo University.
- Deana, N. (2015). The relationship of motivational factors, peer support, and transfer of finance training in nurse managers working in acute care hospital settings. Doctorate dissertation, Faculty of North Carolina State University.
- DeOnna, J. (2010). *Behavioural event interview: Analysis of hospital based, nursing management*. Unpublished work. Retrieved from: http://www.nursing world.com
- Duffield, C. (2014). Managerial skills: An evaluation of the use of the literature. *Journal of Advanced Nursing*, 34(18), 1245-1257.
- Ebrahem, A. (2015). *Developing head nurses' managerial competencies: An intervention study*. Doctorate Thesis, Faculty of Nursing, Ain shams University.
- Greenwood, A. (2016). The national assessment of training program: Nursing management skills to be taught, learned, and assessed. Washington, DC: US. Dept. of Education, National Center for Education Statistics, Office of educational Research and Improvement (NCES 96-284).
- Henderson, H. (2014). Cyclic time scheduling and Block time scheduling. *Journal of Nursing Management*, 17(9), 15-22.
- Hodges, I.J. (2015). Nurse manager: Their practice and education. Journal of Nurse Administration, 35(16), 39-45.
- Khalil, H. (2007). Head nurses assessment of their learning needs at Moubarak police hospital. Nasr City, Master Thesis, Faculty of Nursing, Cairo University.
- Lucia, B., & Lepsinger, A. (2015). Time Scheduling: Types of time scheduling. *Journal of Nursing Management*, 10(4), 38-45.
- Mabrou, L. (2013). Nursing management: Approach of Scheduling. Retrieved from: http://www.nursing management.com
- Mamdouh, S. (2012). *Management function performed by various nursing managerial levels and their perception*. Master Thesis, Faculty of Nursing, Menoufyia University.
- Meretoja, R. (2015). Planning process. Journal of Nursing Management, 16(9), 329-336.
- Padilha, E. (2015). Criteria for recruitment and the educational requirements for nursing staff. *Journal of Advanced Nursing*, 42(3), 90-96.
- Parson, M.L., & Stonestreet, J. (2015). Factors that contribute on nurse manager role. *Nursing Management*, 35(5), 110-117.

Saad, E. (2003). *Effect of nursing management training program on nurse interns' managerial knowledge and skills*. Doctorate Thesis, Faculty of nursing, Cairo University.

Saver, C. (2014). Internship program: Recovery phase. Professional Nursing, 23(2), 80-81.

Steinmann, M. (2015): Head nurse teach effective management. Journal for Nurse in Staff Development, 28(24), 203-209.

Tappen, R. (2015). Role of head nurse responsibility. Journal of Nursing Management, 12(5), 25.