Application of Management Development Strategy for Developing Nurse Intern's Managerial Skills

Mona F. Mohamed [(1)], **Rabab M. Hassan** [(2)], **Hemat A. Mostafa** [(2)]

[(1)] Nursing Administration Department-Faculty of Nursing, Beni-Suef University.
[(2)] Nursing Administration Department- Faculty of Nursing, Ain-Shams University.

Abstract

Background: Developing nurse interns' managerial skills is crucial to increase their confidence, autonomy, and satisfaction that has proven to result in increased quality of patient care and increased patient safety. **Aim:** The current study aimed at developing managerial skills of nurse interns by application of management development strategy. **Subject and Methods**: Quasi experimental design was used. The study was conducted at Beni-Suef university hospital where the nurse interns spending their internship year. A convenient sample of nurse interns (184) who spend the internship year at Beni-Suef university hospital at academic year 2016-2017 were agreed to participate in the study. Data were collected using three tools; Nurse Interns' knowledge questionnaire sheet, Observation checklist, and Nurse Interns' needs assessment questionnaire Sheet. **Results:** The results showed that Nurse interns' total knowledge related to managerial skills was unsatisfactory in the pre intervention, and improved in the post and follow up phases to satisfactory levels. Nurse interns' total performance related to managerial skills was at inadequate in the pre intervention, and improved in the post and follow up phases to adequate levels. **Conclusion:** Nurse interns' managerial skills were statistically significantly improved after implementing of the training intervention, and were still improved in the follow up phase. **Recommendations:** The study recommends conducting in-service education and professional development programs regularly based on need assessment. Further studies are needed to examine the effect of developing nurse interns' managerial skills on organization outcomes.

Introduction

Management is defined as the art of securing maximum results with minimal efforts, it aims to secure maximum success and happiness for both employer and employee and give the public the best possible service. Also, management is the process of reaching organizational goals by working with and through people and other organizational resources. Management can be defined as the process of getting work done through others properly on time and within budget. The management process consists of working with human and physical resources and organizational and psychological processes within a creative and innovative climate for the realization of organizational goals (Duffield, 2014).

Nurse Managers are responsible for planning, organizing, directing, supervising, and controlling the work of their staff. They also coordinate nursing efforts to ensure that effective patient care is being provided and that quality

standards are met. Nurse Managers have a variety of roles supervising as patient care responsibilities, as well as management and leadership functions (Hodges, 2015).

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 clients 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).

The period of transition from student to newly qualified nurse can be stressful. Reality Shock is a common experience in newly qualified nurses who find themselves in work situations for which they feel inadequately prepared. The transition period is a time when nurses need to consolidate their knowledge and skills, and adjust to their new role. In the absence of adequate support, nurses have been found to change clinical area or leave the profession altogether. The potential benefits of easing this transition could be reduction in stress and anxiety, enhanced job satisfaction and improved retention rates (Padilha, 2015).

There are four phases to reality shock: Honeymoon phase: the new graduates are happy to be in their clinical rotations and may say "everything is wonderful', Shock phase: the new graduates begin to encounter weaknesses, discrepancies, and inconsistencies in the work environment and their new colleagues, Recovery phase: the new graduates begin to perceive the realities of the professional practice environment with a balanced view of both negative and positive aspects and finally, Resolution phase: the new graduates may adopt less than ideal values or beliefs to resolve the conflicts of values and find ways to "fit in" with their coworkers. Some shock experienced by the new graduate can be prevented with preparation for the role transformation (Armstrong, 2016).

Educational training program is crucial to increase the new graduate confidence, autonomy, and satisfaction that has proven to result in increased quality of patient care and increased patient safety. Nurse Interns are mentored throughout the program to increase both personal and professional growth and development. Besides, helps in developing leadership and managerial abilities (Henderson, 2014).

The nursing graduate roles as head nurses embrace being confident, care deliverers and managers; implementing policy and procedures guidelines, guiding and ensuring staff members buy into the process. Head nurses' roles encompasses constantly developing and improving patient care, being proficient at time management, being able to coach and consulate staff and others, engaging in reflective practice, and finally being an appropriate role model. So nurse internes should be trained on the managerial role to perform their role effectively in the future (Lucia, and Lepsinger, 2015).

Significance of the study

Nurse interns in Beni-Suef university hospital carry out full work

responsibilities that need well-trained nurses. Clinical experience showed that nurse interns have in adequate performance of managerial role. The predictors of these inadequacies appear in the following: delay of work assignment, inaccurate shift reports, incomplete patient records and improper nursing rounds during internship year. Moreover, studies revealed dissatisfaction of both educators and employers with graduates' performance when they hold supervisory roles and recommending training programs for the nurse interns regarding managerial skills (Saad, 2003; Parson and Stonestreet, 2015; Ebrahem, 2015).

It is assumed that preparation of nurse interns with day to day management skills will help them to adapt their role effectively, prevent reality shock, thus can provide effective patient care. The current study will be conducted to develop managerial skills of nurse interns by application of management development strategy.

Aim of the study

This study aims 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.

• Measuring the effect of management development strategy on nurse interns' managerial skills.

Research Hypothesis:

Nurse interns' managerial skills will be improved after implementing the proposed strategy.

Subject and Methods

Research design:

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

Setting:

This study was conducted at Beni-Suef university hospital where the nurse interns spending their internship year. Each nurse intern spent twelve months in internship year.

Subjects

A convenience sample of nurse interns (184) who spend the internship year at Beni-Suef university hospital at academic year 2016-2017 were agreed to participate in the study, total number of nurse interns was 184, three nurse intern exchanged internship year to another university, and one nurse intern postpone internship year. The actual number of participating nurse interns was 180.

Data collection tools

Three data collection tools were used to carry out this study namely, Nurse Interns' knowledge questionnaire sheet, observation checklist, and need assessment sheet.

The first tool: Nurse interns' knowledge questionnaire sheet:

The questionnaire was used to assess nurse interns' managerial knowledge. It consists of two parts.

Part 1: it aimed at collecting data about 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).

Part 2: It constructed in the form of (60) multiple-choice questions, divided into 6 dimensions as follow: management related concepts (7 items), planning (13 items), organizing (9 items), directing (13 items), controlling & coordinating (9 items), and documentation (9 items).

❖ **Scoring system:**

Nurse interns' response were scored (one) for the correct answer and (zero) for incorrect answer. Mean and standard deviation was calculated and then converted into percent score. The knowledge was considered satisfactory if percent score was 60% or more and unsatisfactory if less than 60%.

The second tool: 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). It consisted of two parts:

Part 1: This part included nurse interns' code, unit name, time, and date of observation.

Part 2: This part consisted of 83 items which grouped into 5 dimensions as follow planning (34 items), organizing (10 items), directing (12 items), controlling and coordinating (10 items), and documentation (17 items).

❖ **Scoring system:**

Nurse interns' response were scored (one) for "Done" observations and (zero) for "Not done" observations. The scores of the items of each part were summed up and the total divided by the number of items, giving a mean score for the part. These scores were converted to percent score. Total score of nurse interns' performance regarding managerial skills considered adequate if total percent score was 60% or more and inadequate if the total percent score was less than 60%

The third tool: Nurse Interns' needs assessment questionnaire Sheet

It aimed to determine managerial skills which needed from nurse interns' point of view. It was developed by the researcher based on (Mamdouh, 2011; Ebrahem, 2015), and consisted of (22) items.

❖ **Scoring system:**

Subjects response were; "needed", "not needed" and scored one and zero respectively. The scores of the items were summed up and the total divided by the number of items, giving a mean score. These scores were converted to percent score. Total score considered needed if total percent score was 60% or

more and not needed if the total percent score was less than 60%

Tools validity and reliability

Face and content validity of the tools was assessed by jury group consisted of nine experts in nursing administration from different faculty of nursing,(Ain shams university, Cairo university, El Minia university, El Mansora university, and Tanta university). The tools were distributed to a jury group member to judge its' comprehensiveness, accuracy and clarity in language. Based on their recommendation's correction, addition and / or omission of some items were done. Study tools percent were tested for its internal consistency by Cronbach's Alpha. It was 0.783 for knowledge questionnaire sheet and 0.815 for observation checklist.

Pilot study

It was done to examine clarity, feasibility and applicability of the tools. Nurse interns (18) who were included in the pilot study were selected randomly and included in the study sample, who represent 10% of the total study subjects. The time estimated to fill the questionnaire was ranged from 50 to 60 minute. The time consumed to complete the observation checklist ranged from 75 to 90 minute. This stage took about one month.

Field work:

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

Assessment phase: The researcher introduced herself to nurse interns, explained the aim of the study and its implications and how to fill in the knowledge questionnaire, sought there cooperation. The researcher distributed the knowledge questionnaire to 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 after three months after the intervention. The first distribution was at the beginning of September 2016.

The researcher observed nurse intern's performance of managerial skills by using observation checklist. Each nurse intern was observed in her training place three times in each phase of the study. The observation was done during morning shift. The observation was taken within75 to 90 minutes.

Planning phase: based on the analysis of the data obtained from the assessment phase, and in view of the related literature, the researcher designed program about managerial skills for nurse interns. The 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.

Implementation phase: the program was implemented for nurse interns in the study setting at Beni-Suef University hospital and implemented throughout two and half months started from the beginning of January 2017 to mid of March2017. 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 10am to 12pm, the second group started from 12:30pm to 2:30pm. The total number of sessions 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.

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 using the same data collection tools used at the assessment phase for measuring knowledge questionnaire and managerial skills.

Ethical Considerations

Prior study conduction, ethical approval was obtained from the scientific research ethical committee of the faculty of nursing, Ain Shams University. The researcher met both medical and nursing 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 reassured about the anonymity and confidentiality of the collected data, and it was used only for the purpose of scientific research. The subjects' right to withdraw from the study at any time was assured.

Results:

Table (1): shows that, 55% of participants had less than twenty-three years, 67.8% of participants were females and 80% of them were single. 49.4% of had very good regarding cumulative grads, while minority of them had excellent. As well as 92.8% of them not attended training courses about managerial skills before internship program.

Table (2): shows that, statistically significant improvement in all mean scores as well as in total mean of nurse interns' knowledge related to different areas of managerial skills. The highest mean (6.18±2.20, 10.7±1.52, 10.23±1.63) was to the area of "Planning" throughout the study intervention respectively. However, the least mean scores (2.53±1.48, 5.85±1.04, 5.41±1.20) was to the area of "management concept" throughout the study intervention respectively. Concerning total knowledge, the highest mean (48.31±4.54) was in the post intervention phase.

Table (3): 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 highest mean (11.86±3.15, 27.53±3.08, and 26.61±2.98) was to the area of "Total planning" throughout the study intervention respectively. However, the least mean scores (2.70±1.29, 7.49±1.33, and 7.33±1.41) was to the area of "organizing" throughout the study intervention respectively. Concerning total performance, the highest mean (66.12±4.69) was in the post intervention phase.

Table (4): shows that, nurse interns' needed training about material resources estimation, motivation, planning, organizing, controlling, recording, conflict management, supervision, staffing, reporting, and

management concept (87.7%, 85.5%, 84.5%, 83.8%, 82.7%, 80%, 78.8%, 77.2%, 75.6%, 75.5%, and 72.3% respectively). Almost nurse interns' needed training about performance appraisal, time management, delegation (63.8%, 62.3% and 60.5% respectively)., and more than half of them needed training about communication skills and team building (54.4% and 57.5% respectively). On the other hand, 76.6% of participants not needed training about

nursing care assignment as well as more than half of them not needed training about time scheduling, budgeting, leadership, human resources estimation, and patient classification system, (57.2%, 55.6%, 53.9%, 53.5% and 51.1% respectively).

Table (5): shows that, there was a positive correlation between nurse interns' knowledge and their performance throughout the intervention.

Table (1): Demographic characteristics of the study subjects (n=180).

Demographic characteristics	No.	%
Age		
- >23 years	99	55
- ≥23 years	81	45
Mean ages ± SD	22.4 ± .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): Nurse interns' knowledge regarding managerial skills by the main categories throughout the intervention (n = 180).

Items	No. of Items	Mean score Pre Mean ± SD	Post Mean ± SD	Follow up Mean ± SD	Paired Sample Test P1	P2
1. Management concept	7	2.53± 1.48	5.85±1.04	5.41±1.20	.000*	.000*
2. Planning	13	6.18±2.20	10.7±1.52	10.23±1.63	.000*	.000*
3. Organizing	9	3.15±1.35	7.16±1.23	6.90±1.31	.000*	.000*
4. Directing	13	4.80±2.77	10.33±1.40	9.93±1.51	.000*	.000*
5. Controlling	9	3.83±2.43	7.15±1.19	6.93±1.26	.000*	.000*
6. Recording & Reporting	9	3.89±2.01	7.08±1.38	6.90±1.45	.000*	.000*
Total	60	24.05±6.93	48.31±4.54	46.31±4.63	.000*	.000*

(*) statistically significant p < 0.5   P1 = change between pre and post.
P2 = change between pre and follow up.

Table (3): Nurse interns' performance regarding managerial skills by the main categories throughout the intervention (n = 180).

Items	NO. of Items	Mean score Pre Mean ± SD	Post Mean ± SD	Follow up Mean ± SD	Paired Sample Test P1	P2
1. Planning skills	8	1.53±1.09	6.27±1.16	5.91±1.25	.000*	.000*
2. Nursing care assignment	11	4.76±1.20	9.19±1.17	8.98±1.28	.000*	.000*
3. Scheduling	15	5.56±2.41	12.06±2.38	11.70±2.03	.000*	.000*
4. Total planning	34	11.86±3.15	27.53±3.08	26.61±2.98	.000*	.000*
5. Organizing	10	2.70±1.29	7.49±1.33	7.33±1.41	.000*	.000*
6. Directing	12	2.13±.993	9.04±1.34	9.34±1.32	.000*	.000*
7. Controlling	10	3.96±1.33	8.28±1.34	7.92±1.41	.000*	.000*
8. Recording & Reporting	17	5.16±1.57	13.76±1.61	13.20±1.67	.000*	.000*
Total	83	25.83±5.64	66.12±4.69	64.42±4.67	.000*	.000*

(*) statistically significant p < 0.5   P1 = change between pre and post.
P2 = change between pre and follow up.

Table (4): Nurse Interns' training needs regarding managerial skills from their point of view before the intervention (n = 180).

	Items	Needed		Not needed	
		No.	%	No	%
1.	Management concept.	130	72.3	50	27.7
2.	Planning.	152	84.5	28	15.5
3.	Nursing care assignment.	42	23.4	138	76.6
4.	Time scheduling.	77	42.8	103	57.2
5.	Budgeting.	81	44.4	99	55.6
6.	Patient classification system.	88	48.9	92	51.1
7.	Staffing.	136	75.6	44	24.4
8.	Time management.	112	62.3	68	37.7
9.	Organizing.	151	83.8	29	16.2
10.	Human resources estimation.	102	56.5	78	53.5
11.	Material resources estimation.	158	87.7	22	12.3
12.	Leadership.	83	46.1	97	53.9
13.	Delegation.	109	60.5	71	39.5
14.	Communication skills.	98	54.4	82	45.6
15.	Conflict management.	142	78.8	38	21.2
16.	Supervision.	139	77.2	41	22.8
17.	Motivation.	154	85.5	26	14.5
18.	Team building.	104	57.5	76	42.5
19.	Controlling.	149	82.7	31	17.3
20.	Performance appraisal.	115	63.8	65	36.2
21.	Reporting.	136	75.5	44	24.5
22.	Recording.	144	80	36	20

Table (5): correlation between nurse interns' knowledge and their performance throughout the intervention (n = 180).

Knowledge		Performance		
		Pre	Post	Follow up
Pre	R	.071	.029	.008
	p-value	.345	.695	.910
Post	R	.158	.488	.427
	p-value	.034	.000	.000
Follow up	R	.153	.480	.447
	p-value	.040	.000	.000

Discussion

Regarding statistically significant improvement in all mean scores as well as in total mean of nurse interns' knowledge related to different areas of managerial skills, the study revealed that, the 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 were 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.

The result is in accordance with Saad, (2003) who conducted a study entitled effect of nursing management training program on nurse interns' managerial knowledge and skills at faculty of nursing, Cairo university, mentioned that it was obvious that there was overall improvement in all dimensions of the managerial knowledge of study subjects after exposure to the program. This finding was consistent with Ebrahem (2015) who conducted a study entitled developing head nurses' managerial competencies: An intervention study at faculty of nursing, Ain shams university reported that, statistically significant improvement in all mean scores as well as in total mean of head nurses' knowledge related to different areas of managerial competencies. In this regard, Deonna (2010) found that, first line managers ranking the highest competency domain means frequency was for managing fiscal planning.

Additionally, Steinmann (2015) who conducted a study entitled head nurse teach effective management, 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

Regarding 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 present 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 were 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. Concerning total performance, the highest mean was in the post intervention phase

This result was supported by Ebrahem, (2015) who conducted a study entitled developing head nurses' managerial competencies: An intervention study at faculty of nursing, Ain shams university 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 present study result is in accordance with Saad (2003) who conducted a study entitled effect of nursing management training program on nurse interns' managerial knowledge and skills at faculty of nursing, Cairo university, 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.

The current finding is consistent with Ebrahem (2015) who conducted a study entitled developing head nurses' managerial competencies: An intervention study at faculty of nursing, Ain shams university, 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 studied analysis of hospital based, nursing management, 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 present study revealed that, majority of nurse interns' needed training about material resources estimation, motivation, planning", organizing, controlling, recording, conflict management, supervision, staffing, reporting, and management concept. It may be due to the fact that, nurse interns need to training program about managerial skills.

Nurse interns' opinions in this study were supported by Mamdouh (2012) who studied management function performed by various nursing managerial levels and their perception in Menoufyia, found that nurse managers needed to adequate training about staffing. As well, Khalil (2007) who studied head nurses' assessment of their learning needs at Moubarak police hospital stated that head nurses, after attending management training have ranked staffing as the most important role of them. Nurse interns' opinions agreement with Steinmann (2015) who studied who conducted a study entitled head nurse teach effective management, 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 intern' opinions were agreed with Ebrahem, (2015) who conducted a study entitled developing head nurses' managerial competencies: An intervention study at faculty of nursing, Ain shams university, 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 Bayomy (2005) who studied effect of the management process on the patient care services in general hospital of ministry of health in Cairo, clarified that, the university hospital setting had high patient acuity and short length of stay which reflected great complexity, high risk patients and the need of rapid nursing responses to patient care. A similar situation was reported in evaluating and instructing staff through regular meetings.

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

Conclusion

From the present study findings and research hypothesis, it can be concluded that, managerial skills as perceived by nurse interns in the pre intervention, were low. The nurse interns' perceptions had statistically significant improved after implantation of intervention and also in follow up. Majority of nurse interns had unsatisfactory knowledge related to managerial skills in the pre intervention. While at post intervention most of them had satisfactory levels of knowledge, and at follow up all of them had satisfactory levels of knowledge. Majority of nurse interns' performance regarding managerial skills at pre intervention was

inadequate. It has shown statistically significant improvement to adequate levels after intervention, both at post and at follow up. Study also indicated statistically significant a positive correlation between nurse interns' knowledge and their performance throughout the intervention.

Recommendations

In the light of the findings of the present study, the following are recommended:

- In service education and professional development programs must be implemented regularly based on need assessment.

- Further studies are needed to examine the effect of developing nurse interns' managerial skills on organization out comes.

- Constructive evaluation should be initiated to assess the sustainability of positive effect of this training program.

Financial support

No funding was received

Conflict of interest
No

References

Duffield, C. (2014): Managerial skills: An evaluation of the use of the literature. Journal of advanced nursing, 34, (18), pp 1245-1257

Hodges, IJ. (2015): nurse manager: their practice and education, Journal of

nurse administration; 35 (16), pp 39-45

Mabrou, L. (2013): Nursing management: Approach of Scheduling. Retrieved July 20, 2017 from: http:// www. nursing management.com

Henderson, H. (2014): Cyclic time scheduling and Block time scheduling. Journal of nursing management; 17(9), pp 15-22

Padilha, E. (2015): Criteria for recruitment and the educational requirements for nursing staff. Journal of advanced nursing. 42(3), pp 90-96

Armstrong, K. (2016): Head nurse needs. Journal of nursing management; 25(14), pp41

Lucia, B. and Lepsinger, A. (2015): Time Scheduling: Types of time scheduling. Journal of nursing management; 10(4), pp 38-45

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

Parson, ML. Stonestreet, J. (2015): Factors that contribute on nurse manager role. Nursing Management, 35(5), pp 110-117. Retrieved Jun 15, 2017 from: http:// www. American science.com

Ebrahem, A. (2015): Developing head nurses' managerial competencies: An intervention study. Doctorate thesis, faculty of nursing, Ain shams University.

DeOnna, J. (2010): Behavioral event interview: analysis of hospital based, nursing management. Unpublished work. Retrieved july 5, 2016 from: http:// www. nursing world.com

Steinmann, M. (2015): Head nurse teach effective management "Journal for nurse in staff development"28(24), pp 203-209. Retrieved July 27, 2016 from: http:// www. Nurse leader.com

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.

Mamdouh, S. (2012): Management function performed by various nursing managerial levels and their perception. Master thesis, Faculty of nursing, Menoufyia University.

Khalil, H (2007): Head nurses' assessment of their learning needs at Moubarak police hospital, Nasr City, Master thesis, Faculty of nursing, Cairo University.

Meretoja, R. (2015): Planning process. Journal of nursing management: 16, (9), pp. 329-336. Retrieved May 10, 2017 from: http:// www. nursing management.com

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

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, SR. (2016): Patient safety: Assessing nurses' performance during shift handover. Master thesis, Faculty of nursing, Ain shams University.

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