

## Factors Affecting Implementation of Nursing Process: Nurses' Perspective

Fadia A. Abdelkader<sup>1</sup>, Walaa N.E. Othman<sup>2</sup>

<sup>1</sup> Critical Care Nursing Department, Faculty of Nursing-Mansoura University

<sup>2</sup> Medical-Surgical Nursing Department, Faculty of Nursing-Mansoura University

---

### **Abstract:**

**Background:** Application of nursing process helps the nurses to utilize critical thinking for decision making and care activities. There are many factors that interferes the implementation of the nursing process.

**The aim of study:** to identify barriers in implementation of the nursing process from the standpoint of nurses in different settings of Main University hospital, Mansoura.

**Material & Methods:** A descriptive design was used to conduct this study on 100 nurses worked at the pervious setting were included in the study. Two tools were utilized in

**The Present Study:** nursing process questionnaire and factors affecting the application of nursing process.

**Results:** The factors that affecting implementation of nursing process were lack of sufficient enthusiasm in using the nursing process, shortage of nursing staff, no format for writing, lack of follow up and monitoring, no adequate time for using, lack of attention to its importance, deficient in clear instruction, inadequate education, and have no believe in applying the patient care according to the nursing process.

**Conclusion:** It is possible to recommend the hospitals to seek means to upgrade the knowledge of their nurses on the nursing process and utilizing nursing process which reflect the quality of patient care.

**Keywords:** Nursing process, implementation, factors affecting.

---

### I. Introduction

The nursing care guided by the nursing process (NP) principles the planning of actions, the interventions, the evaluation and specific goals recognized for each patient. The nursing process consider a problem solving method which is useful to meet the community health and care needs. Application of NP helps the nurses to utilize critical thinking for decision making. [1]

The nursing process (NP) is generally viewed as a tool for planning and providing patient care. The nursing process is synonymous within the discipline of nursing. It is an organized, systematic approach used by nurses to meet the individualized health care needs of their patients. care as a process. [2]

Assessment, diagnosis, planning, implementation and evaluation are steps of the nursing process accordingly. Assessment is an organized dynamic process including: systematically collecting data, and ordering the collected data, and documenting the data in a retrievable way. Subjective and objective data are collected from different sources the nurse emphasizes on eliciting a profile of the patient that supplies a sense of the patient's overall health status, providing a picture of the patient. [3]

Diagnosis/need identification means the analysis of collected data to recognize the patient's needs or problems, also called the nursing diagnosis. The purpose of this step is to draw a whole picture regarding the patient's specific needs of concern so which effective care can be planned and given. [4] Planning contains setting priorities, establishing goals, considering proper patient outcomes, and determining exact nursing interventions. These actions are accepted as the plan of care. [3]

Implementation occurs when the plan of care is put into action, and the nurse performs the planned interventions. Individual knowledge and expertise and agency routines allow the flexibility that is necessary to adapt to the changing needs of the patient. [5] Evaluation is accomplished by determining the patient's progress toward attaining the known outcomes and by monitoring the patient's reaction to efficiency of the preferred nursing interventions for the reason of altering the plan as indicated. [6]

Nursing process is a step by step series of actions that create something or that lead to a particular result related to health of a patient. It is a matter of fact that nursing process is the center of nursing practice where professional nurses must be expert. This process has its steps that guide nurses in description holistic nursing care to be demonstrated excellently for this is the foundation of quality nursing care to customers. in addition to, interaction is significant in between the patient and the nurse because it is the only way of gaining cooperation in time nursing care is being implemented. On Orlando's Deliberative Nursing Process Theory, the focus is on the interaction between the nurse and patient, perception validation, and the use of the nursing process to create optimistic outcomes or patient progress. [4]

Despite, the importance of studying and using the nursing process, the nurses use problem solving process in order to arrange and give nursing services. NP helps the nurse to use critical thinking for clinical judgments. [7] Principles for implementing the nursing process is the systematic registration. Consequently, recognizing barriers in accomplishment of the nursing process in Mansoura hospitals seems needed. So, this study aimed to identify barriers in implementation of the NP from the standpoint of nurses in chosen ICU, medical, surgical and orthopedic wards of Main University hospital, Mansoura, EGYPT so that the outcome of this study can be helpful in identifying current barriers and implementation of the nursing process in our country will be easy. [8]

There are many barriers that interferes the implementation of the nursing process, some of these barriers related to individual factors and the others related to management or policy factors. Individual factors as insufficient information, no belief in doing the patient care according to it, lack of sufficient motivation in doing NP, lack of enough skill for doing NP, uninteresting in doing the NP, uncooperation among the nurses. [8]

While the management factors as: repetitious replacement of the nurses, Shortage of nursing staff, no format for writing, lack of monitoring on nursing process, there no necessary facilities, lack of enough time, lack of attention to its importance, lack of specific instructions, lack of education, lack of enough trained nurses, hospital policies in non-implementation of the nursing process. [8, 9]

## **II. Materials and Methods**

The study design is a descriptive study, designed to identify the factors affecting the application of nursing process in clinical setting .The study was conducted in ICU, orthopedic, medical, and surgical department at Mansoura University Hospital. A convenience sample of 100 nurses of both sexes worked at the pervious setting were included in the study, the nurses refuse to sharing in the study will be excluded from the study. Two tools were utilized in the present study after reviewing the related literatures.

**Tool I: Nursing Process Questionnaire:** This tool was developed by the researcher after reviewing the related literatures (and used to evaluate the nurse's knowledge of nursing process and include two parts as follow:

Part one: "General Characteristics of Nurses": This part include the following data, age, gender, ward, educational level, position, years of experience, implementation of nursing process.

Part two "Nursing Process Questionnaire": this part include (23 question) to assess the level of nurse's knowledge of nursing process in the form of MCQ.

### **Tool II: Factors affecting the application of nursing process**

This tool was modified from (Akbari & Shamsi, 2011), [15] and used to identify the factors affecting the application of nursing process from nurse's point of view, these factors are (17) factors and each nurse are asked about each factors with Yes (equal 1) and No (equal 0) .

## **Methods**

- Permission to conduct the study was obtained from responsible authorities of the study area (Mansoura University Hospital) after clear explanation to the aim of the study.
- Verbal consent approval was obtained from each participating nurse. Anonymity, privacy, safety, confidentiality and the right to withdraw from the study at any time were assured.
- Clarification of the study purpose was done. The researcher emphasized that participation is absolutely voluntary.
- All tools were tested for content validity by 5 professors in the field from faculty of nursing Mansoura University and the necessary modifications were done accordingly.
- Data collection extended over a period of two month from 1/9/2016 to 1/11/2016
- Nurses agreed to participate in the study were interviewed and asked to fill the nursing process questionnaire using tool (I), then the nurses choose the factors affecting the application of nursing process using tool (II).

## **III. Result**

The findings of the study will be presented in five tables: (1)Distribution according to their socio-demographic characteristics, (2) Distribution according to their knowledge assessment regarding nursing process, (3) Distribution of groups according to their knowledge assessment result, (4) Relationship between knowledge assessment result of the studied group as regards work place, age group, gender, educational level, position, and years of experience through the period of the study, (5) Factors affecting nursing process implementation from nurses' point of view.

Table (1) shows the distribution of studied group according to their demographic characteristics. A total of 100 nurses were enrolled in the study. The majority of nurses included in the study 51.0% have been working at ICU. The majority of the studied group 43.0% aged from 35-39 years. Female were more included in the studied group, they constituted 91.0% of all study sample. Concerning level of education, the majority of the

studied sample 94.0% was holding a bachelor degree of nursing. Regarding position of studied nurses, the table also shows that 66.0% of them were a head nurse. In relation to numbers of experience years in active service, the table reveals that nearly half of the studied sample 47.0% has years of experience ranged from 10-14 years with mean years  $10.40 \pm 3.10$ . The table also showed that, all of the studied nurses 100.0% have no implementation of nursing process in their clinical setting.

**Table (1):** Distribution of studied group according to demographic characteristics (N=100)

Socio-demographic data	Studied group No= 100	
	No	%
Ward		
• Icu	51	51.0
• Medical	25	25.0
• Surgical	20	20.0
• orthopedic	4	4.0
Age		
• 20-24y	17	17.0
• 25-29y	30	30.0
• 35-39y	43	43.0
• $\geq 40y$	10	10.0
Gender		
• Male	9	9.0
• Female	91	91.0
Education level		
• BSC	94	94.0
• Master degree	6	6.0
Position		
• Nursing officer	2	2.0
• Head nurse	66	66.0
• Assistant director	2	2.0
• Nursing technician	30	30.0
Years of experience		
• 0-4y	5	5.0
• 5-9y	38	38.0
• 10-14y	47	47.0
• 15-19y	9	9.0
• 20-24y	1	1.0
Mean $\pm$ SD	<b>10.40<math>\pm</math>3.10</b>	
Implementing nursing process in clinical setting	No	%
• Yes	0	0.0
• No	100	100.0

Table (2) shows the distribution of studied groups according to their knowledge assessment regarding nursing process. As regards (nursing process utilization) question, the majority of sample 99.0% have correct answer. in relation to (nursing process steps) question, the majority of sample 97.0% have correct answer. The table also shows that, 98.0% of the studied sample has correct answer regarding (assessment step) question. In relation to (NANDA) question, the majority of sample 85.0% has correct answer. Concerning (establishing nursing diagnosis) question, only 9.0% of sample have correct answer. The majority of the studied sample shows the highest percent 88.0% and 93.0% respectively regarding (nursing diagnosis completeness & developing plan) questions have correct answer. As regards (goals established in a plan & essential component of written goal) questions, it was observed that, the majority of sample 100.0% & 88.0% respectively have incorrect answer.

**Table (2):** Distribution of studied groups according to their knowledge assessment answers regarding nursing process quiz

Nursing Process Items	Correct Answer	
	No	%
1. Nursing process utilization	99	99.0
2. Nursing process steps	97	97.0
3. Assessment step	98	98.0
4. Objective data	95	95.0
5. Subjective data	94	94.0
6. Analysis of objective and subjective data	100	100.0
7. NANDA	85	85.0
8. Establishing nursing diagnosis	9	9.0
9. Behavior observed	84	84.0

10. Nursing diagnosis completeness	88	88.0
11. Developing plan	93	93.0
12. Goals established in a plan	0	0.0
13. Essential component of written goals	12	12.0
14. The patient and the family	96	96.0
15. Patient outcome	89	89.0
16. Other important outcome	80	80.0
17. The plan of care	72	72.0
18. Not be considered an intervention	0	0.0
19. Open communication	86	86.0
20. The evaluation phase	93	93.0
21. Questions during evaluation phase	76	76.0
22. If the plan is not working	12	12.0
23. Data support an additional diagnosis	11	11.0

Table (3) shows the distribution of studied group according to their knowledge assessment result. It was found that, the majority of the studied sample 88.0% have average knowledge score, which ranged from 11.5- < 15. While only 4.0% of total studied sample have poor knowledge score < 11.5(Total: 23 score).

**Table (3):** Distribution of studied group according to their knowledge assessment outcome (No= 100)

knowledge assessment outcome	Studied group No= 100	
	No	%
Poor < 11.5	4	4.0
Average 11.5- < 15	88	88.0
Good ≥ 15	8	8.0
<b>Total score= 23</b>	<b>100</b>	<b>100</b>

Table (4) show relationship between knowledge assessment results of studied group as regards work place. The table reveals that the ICU staff had (50%) average knowledge score, while the knowledge score of medical staff was good (62.5%). on other hand, surgical ward had (22.7%) average knowledge score, while (4.5%) of nursing staff at orthopedic unit had average knowledge score. A significant association between knowledge score and working in different departments was observed (p= 0.084).

The table shows that the half of nursing staff between ( 20-24 years) (50%) had good knowledge score, while the knowledge score of nursing staff between (25-29 years old) was good (50%). on other hand, nearly of half of nursing staff between (35-39 years old) (47.7) had average knowledge score, and 25% of nursing staff ≥40 had average knowledge score. A significant association between knowledge score and age group was observed (p = 0.032). The table reveals that, the 89.9% of female nursing staff had average knowledge score. The table shows that, the 93.2% of BSC nursing staff had average knowledge score. The table shows that (75%) of the knowledge score of head nurse was good. The table reveals that the ICU staff work at the hospital between 5-9 years was (75%) good knowledge score, while the knowledge score of staff work at the hospital between 10-14 years was average (50%). A significant association between knowledge score and Years of experience was observed (chi-square=0.039).

**Table (4)** Percentage distribution of nurses' knowledge score regarding working department

Departments	Knowledge						Test
	Poor		Average		Good		
	No	%	No.	%	No.	%	
ICU	4	100	44	50	3	37.5	Chi-Square 0.084
Medical	0	0	20	22.7	5	62.5	
Surgical	0	0	20	22.7	0	0	
Orthopedic	0	0	4	4.5	0	0	
Age Group							0.032
20-24	0	0	13	14.8	4	50	
25-29	2	50	24	27.3	4	50	
35-39	1	25	42	47.7	0	0	
≥ 40	1	25	9	10.2	0	0	
Gender							0.509
Female	4	0	79	89.9	8	100	
Male	0	0	9	10.2	0	0	
Education BSC	4	100	82	93.2	8	100	0.647
Master	0	0	6	6.8	0	0	
Position Nurse Officer	0	0	2	2.3	0	0	0.836
Head Nurse	4	100	56	63.6	6	75	
Assistant Director	0	0	2	2.3	0	0	
Nursing Technician	0	0	28	31.8	2	25	

Years of experience							
0-4	0	0	3	3.4	2	25	0.039
5-9	1	25	31	35.2	6	75	
10-14	3	75	44	50	0	0	
15-19	0	0	9	10.2	0	0	
20-24	0	0	1	1.1	0	0	

Table (5) demonstrates the factors affecting nursing process implementation from nurses' point of view. It was founded that, more than the half of nurses 63.0% have insufficient information regarding nursing process. The table also showed, the majority of nurses 76.0% have no idea in applying it. All studied nurses 100.0% have no sufficient enthusiasm in using the nursing process, shortage of nursing staff, no format for writing Nursing process, no follow up by the authorities, inadequate time for using it, no attention to its importance by the nursing authorities, and deficient in clear instruction for applying the nursing process by the authorities respectively. The majority of nurses 64.0% have no problem in implementing nursing process related to repetitious replacement of the nurses. The finding showed that, 63.0% have no interesting in using the nursing process. The table showed that, 93.0% of nurses have no adequate education in the nursing process. Regarding hospital policy in non-implementation of the nursing process, 53.0% of nurses agree about hospital policy in non-implementation of the nursing process.

**Table (5):** factors affecting nursing process implementation from nurses' point of view

Factors affecting nursing process implementation	Yes	
	No	%
1. Lack of sufficient information	63	63.0
2. No belief in deliver patient care according to it	76	76.0
3. No enough motivation in using it	100	100.0
4. Inadequate skillfulness for applying it	80	80.0
5. No interesting in using it	63	63.0
6. Lack of cooperation between the nurses	39	39.0
7. Repetitious replacement of the nurses	36	36.0
8. Shortage of nursing staff	100	100.0
9. No format for writing Nursing process	100	100.0
10. No follow up by the authorities	100	100.0
11. Not providing necessary facilities for doing the nursing process by the authorities	0	0.0
12. No enough time for applying it	100	100.0
13. No attention to its importance by authorities	100	100.0
14. No specific training for applying it by the authorities	100	100.0
15. Lack of education of nursing process principle by the authorities	63	63.0
16. No enough qualified nurses in it	93	93.0
17. Hospital rules in non-implementation of it	53	53.0

#### IV. Discussion

The aim of this study was to identify factors affecting implementation of nursing process: nurses' perspective. The socio-demographic background of the present study showed that, the majority of nurses included in the study 51.0% have been working at ICU. The majority of the studied group 43.0% aged from 35-39 years while only 10.0% were 40 years and more. Female were more included in the studied group, they constituted 91.0% of all study sample. Concerning level of education, the majority of the studied sample 94.0% was holding a bachelor degree of nursing while only 6.0% of them were having master degree. Regarding position of studied nurses, the table also shows that 66.0% of them were a head nurse comparing to the lowest percent 2.0% were a nursing officer and an assistant director. In relation to numbers of experience years in active service, the table reveals that nearly half of the studied sample 47.0% has years of experience ranged from 10-14 years with mean years  $10.40 \pm 3.10$ .

Regarding nurses' knowledge related to nursing process, the study noted that, the majority of the studied sample 88.0% have average knowledge score, which ranged from 11.5- < 15. While only 4.0% of total studied sample have poor knowledge score < 11.5 (Total: 23 score). This agreed with Fisseha et al, 2014 [10] who noted that, knowledge is one of the mainly important factors for implementation of nursing process. The result of this study also agreed with a study conducted in Brazil, which indicated knowledge is one of several factors that interfere in the efficient implementation of the nursing process [11].

The relation between knowledge and the nurses' work place, the present study reveals that the ICU staff had (50%) average knowledge score, while the knowledge score of medical staff was good (62.5%). on other hand, surgical ward had (22.7%) average knowledge score. A significant association between knowledge score and working in different departments was observed ( $p= 0.084$ ). this findings come agree with Roberts, 2000

[12], results who suggested that, the clinical environment has a potentially significant role to play in both nurses' perceptions and use of the nursing process.

The relation between knowledge and the nurses' age group and years of experience, the majority of the studied group 47.0% aged from 35-39 years had average knowledge score. A significant association between knowledge score and age group was observed ( $p = 0.032$ ). The study also reveals that, half of the studied sample 50.0% has years of experience ranged from 10-14 years. A significant association between knowledge score and Years of experience was observed ( $\chi^2=0.039$ ). These results in agreement with Dousouri, 2010 [13], who noted that nurses regardless their category with educational level, age and experience had a generally very good knowledge regarding the nursing process.

Factor affecting implementation of nursing process from nurses' point of view, the study showed that 63.0% have lack of sufficient information regarding nursing process. The study result also showed that, 100.0% have no enough time for applying it. These findings come agree with McKenna et al, 2004 [11], who noted that, the majority of the nurses have lack of knowledge and lack of enough time for applying it, as mainly significant barriers, which are in agreement with the results of the current study.

Lukes, 2010 [14] also mentioned that, the nurses be trained nursing process when they have only one patient but when patients' numbers increase, they couldn't utilize it. On the other hand, Akbari & Shamsi, 2011[15] noted that, one of the other reasons in lack of application of the nursing process in intensive care units could be due to excess number of the patients and shortage of nurses. Therefore, nurses do not have enough time to use this systematic method.

The present study presented that, the majority of nurses 76.0% have no reliance in caring the patient according to the nursing process. This agreed with Haghghi Moghaddam et al, 2004 [16], who mentioned that, no enough information about the conception of it and have no belief in applying it as the majority essential barrier. Additionally, lack of support of the authorities from use of the nursing process is the other administration factor, which can be related to deficient in knowledge about the significance and effect of this process on increasing health care power [15].

The finding of the study showed that, 63.0% of nurses agree about lack of education of nursing process principle by the authorities. This come agree with Hasson& Arnetz, 2009 [17], who found that, proper learning of appliance of it helps in additional rising of nursing discipline and increase in their involvement in enhancing the quality of the care.

The current study also showed that, 93.0% of nurses have no sufficient qualified nurses in the nursing process. This agree with Hughes and Young, 2010 [18], who suggests that as nurses gain more experience in nursing process application, they develop better ways of managing the error and take appropriate measures to ensure that they do not make the same error in the future and promoting the quality of patient care.

## **V. Conclusions**

The nursing process is a widely accepted method and has been suggested as a scientific method to guide procedures and qualify nursing care. More recently, the process has been defined as a systematic and dynamic way to deliver nursing care, operating through five interrelated steps: assessment, diagnosis, planning, implementation, and evaluation [19]. Lack of utilizing of the nursing process can decrease the quality of care. Nurses of the current study reported that factors such as lack of knowledge, high patient nurse ratio/work load, and lack of educating, training and motivating factors affected the application of the nursing process. It is possible to recommend the hospitals to look for resources to promote the awareness of their nurses on it and its utilization.

## **VI. Recommendations**

- Introduction of educational programs will enhance nurses' ability to use nursing the process to improve the quality of patient's care.
- Motivation of nurses is very important in improving care planning systems that would further promote consistency in the process.
- Programs to train, improve and update the nurses working in clinical health settings with current innovations in the nursing process should be implement.

## **References**

- [1]. Cruz, D. Guedes, E. Santos, A. Sousa, R. Turrini, T. Maia, M. Araújo, N., Nursing process documentation: rationale and methods of analytical study, *Rev Bras Enferm*, (1), 2016, 183-189.
- [2]. Yildirim, B., Özkahraman, S., Critical Thinking in Nursing Process and Education, *International Journal of Humanities and Social Science*, 1(13), 2011, 257-262.
- [3]. Newfield, SA. Hinz, M. D. Scott Tilley, D. Sridaromont, K. L. Joy Maramba, P., 2007 *Cox's clinical applications of nursing diagnosis Adult, Child, Women's, Mental Health, Gerontic, and Home Health Considerations*. F. A. Davis Company.

- [4]. Doenges, ME., Moorhouse, MF., Murr, AC., 2008 Nurses pocket guide diagnosis, prioritized interventions and rationales. F. A. Davis Company.
- [5]. Carpenito, L.J., 2009 Nursing Care Plans & Documentation: Nursing Diagnoses and Collaborative Problems. Lippincott Williams & Wilkins
- [6]. De Medeiros Dantas, AL., de Almeida Medeiros, AB., de Araújo Olímpio, J., de Sá Tinôco, JD., da Conceição Dias Fernandes, MI. and de Carvalho Lira, ALB., Nursing Diagnoses of the Domain Safety/Protection and Socioeconomic and Clinical Aspects of Critical Patients. *Open Journal of Nursing*, 6, 2016, 314-322.
- [7]. Potter, PA., Perry, AG., 2007 Basic nursing: essentials for practice. Philadelphia: Mosby Elsevier.
- [8]. Akbari M., Shamsi A., A Survey on Nursing Process Barriers from the nurses' view of Intensive Care Units. *Iranian Journal of Critical Care Nursing*. 4(3) 2011, 181-186.
- [9]. Mangare N. L., Omondi A. L., Ayieko O. A., Wakasiaka S., Wagoro M. C. A., Implementation of the Nursing Process in Naivasha District Hospital, Kenya, *American Journal of Nursing Science*, 5(4) 2016, 152-157.
- [10]. Fisseha et al, (2014) Application of Nursing Process and Its Affecting Factors among Nurses Working in Mekelle Zone Hospitals, Northern Ethiopia .
- [11]. McKenna H, Ashton S, Keeney S (2004) Barriers to evidence based practice in primary care: A review of the literature. *Int J Nurs Stud*. 41(4):369-78.
- [12]. Roberts J. (2000) problem- solving skills of senior student nurses: an exploratory study using simulation. *International journal of nursing studies* 37, 135-143.
- [13]. Dousouri, N.S. (2010): Perception of nurses on the implementation of the nursing process in the Brong-Ahafo Region. Institute for Educational Planning and Administration; <http://hdl.handle.net>.
- [14]. Lukes E. (2010) The nursing process and program planning. *AAOHN J*. 58(1):5-7.
- [15]. Akbari M. MSc., Shamsi AI MSc . (2011) A Survey on Nursing Process Barriers from the nurses' view of Intensive Care Units Volume 4, Issue 3. Pages: 181-186.
- [16]. Haghghi Moghaddam Y. (2004) A survey on nursing process barriers from nurses' view in selected hospitals of Urmia. (MSc Thesis), Urmia Medical University; p.5.
- [17]. Hasson H, Arnetz JE. (2009) The impact of an educational intervention on nursing staff ratings of quality of older people care: A prospective, controlled intervention study. *Int J Nurs Stud*. 46(4):470-8.
- [18]. Hughes K., Young W. (2010). The relationship between task complexity and decision making consistency. *Research in nursing and health* 13, 189-197.
- [19]. Carol Taylor C, Lillis C, LeMone P, Lynn P. (2008) *Fundamentals of nursing: The art and science of nursing care*. 6th ed. Philadelphia: Lippincott Williams & Wilkins; p.51-9.