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**A RETROSPECTIVE ANALYSIS OF NURSING  
DOCUMENTATION IN THE INTENSIVE CARE UNITS.  
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**Abstract:**

**Background:** Nursing documentation is one of the most important aspect of health care providers. The quality of nursing documentation is a reflection of the standard of individual professional practice. The study aimed to assess nursing documentation in intensive care units at Mansoura Emergency Hospital .

**Subject and Methods:** Descriptive design was used and the study was conducted on 206 patient files in intensive care units at Mansoura Emergency Hospital. Nursing documentation checklist was used .

**Results:** The findings of the study show that the nursing documentation in the intensive care units was inadequate.

**Conclusion:** The study concluded that nursing documentation of patients in ICU is insufficient and doesn't reflect adequate use of nursing process.

**Keywords:** Nursing documentation, Nursing process, Intensive care unit.

**Introduction**

As with any nursing specialty area ,critical care has its own unique documentation requirements. nursing documentation is an essential component in ICU and it is a precursor to good patient care, interdisciplinary communication and cooperation [1]. Considering the importance of intensive care unit and rapid change of the patients' status, one of the main duties of the nurses in intensive care unit is constant observation of the patients and recording patients' problems which, accelerates appropriate interventions. quality nursing documentation is certainly very essential in the care process. Since nurses have to be accountable and responsible for all aspects of care delivered as nursing documentation actually reflects the application of nursing knowledge,

skills, and professional judgment [2].

Documentation is the act of recording patient status and care in a written or electronic form, or in combination of both and regardless of the type of documentation that is used nursing process should be the guideline to nursing documentation[3].

Nursing documentation is one of the most important functions of nurses which has had a long history since the time of Florence Nightingale , which described the need for nurses to document to the proper use of fresh air, light, warmth, cleanliness and the proper administration of diet to the use of standardized nursing documentation [4].

Standardized nursing documentation means documenting by using the nursing process which

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, improve the patient care quality along side uniform the nursing terminology and through it nurses are visible[5].

Nursing process is a scientific method for delivering holistic and quality nursing care. Therefore, its effective implementation is critical for improved quality of nursing care. When quality of nursing care is improved, visibility of nurses' contribution to patient's health outcomes becomes distinct. In this way, nurses can justify the claim that nursing is a science and an independent profession[6].

Critical care nurses working in settings where patients need intensive assessment, urgent interventions, and continuous nursing care. Critical care nurses depend on a specialized body of knowledge, skills, and experience to provide care to patients and families and create environment that are human, and caring. Nurses knowledge about nursing documentation is one of the most important factors for application of the nursing process[7].

The target of nursing documentation is to reveal that the hospital maintains a complete written evidence of its planning, assessment, delivery and evaluation of a patient's care. And despite of their basic role in the improving and the continuance of nursing and medical interventions provided for patients the quality of nursing

documentation is still a challenge in the nursing profession and health care system.

#### **Aim of the study**

The aim of this study was to assess nursing documentation in intensive care units at Mansoura Emergency Hospital.

#### **Study question:**

**Q1:** Does the retrospective analysis of nursing documentation reflects the adequate use of nursing process?

#### **Materials and Methods:**

**Study design:** Descriptive design was used.

**Setting:** The present study was conducted at the intensive care units at Mansoura Emergency Hospital. Which affiliated to Mansoura University Hospitals with a bed capacity of 163 beds,

**Materials:** The study subjects included, all files of patients who were admitted to the intensive care units between "1 May 2014" and "31 July 2014". Their total numbers were 206 patient files. Distributed as the following: 50 patient files in cardiac ICU unit, 42 patient files in general ICU unit 58 patient files at medical ICU unit and 56 patient files at surgical ICU units.

#### **Tool of data collection:**

Nursing documentation checklist:- It was developed by (Hector, 2010) [8]. and aims to assess the status of documentation in intensive care units utilizing the nursing process as a guideline. The

checklist included 63 statements depending on nursing process elements: Assessment, Diagnosis, outcome identification, planning, implementation, evaluation and specific documentation regarding nursing care. The checklist items divided into 7 main parts namely:- demographic data, assessment documentation, documenting nursing diagnosis, planning documentation, implementing documentation, evaluation documentation and documentation legality.

#### **Scoring system**

According to Likart scale the files were audited and allocation of scores was as following :

- Adequate = 2 & Inadequate = 1 & Absent = 0
- 95% are the accepted score and meets the standard
- Less than 95% is an unaccepted score [8].

#### **Method of data collection:**

**Validity:** It was established for face and content validity by a panel of five experts from faculties of nursing. To revised the tool for clarity, relevancy, applicability, comprehensiveness, understanding, and ease for implementation.

**Reliability** The consistency of the audit instrument was assured through nursing experts and intensive care nursing, and by using cronbach alpha test.

**Pilot study:** A pilot study was carried out on a 10% of the total

sample was drawn from each ICU unit to test the instruments and the feasibility of the study. The pilot study done to test the instruments for any inaccuracies. Moreover to identify any details that need to be addressed before the main data collection goes ahead and enable the researcher to improve the instrument and be assured of the possibility of the study.

#### **Ethical considerations:**

To ensure confidentiality of each patient file from the sample will be specified by a number. The researcher will only be working with these numbers and not the file numbers of the patients. This will ensure confidentiality and anonymity of patient information. Only the researcher will have access to any information in patient file.

#### **Statistical Design**

Data entry and statistical analysis were done using Statistical Package for Social Science (SPSS), version 16.0. Data were presented using descriptive statistics in the form of frequencies and percentages for qualitative variables, and means and standard deviations for quantitative variables. Chi-Square ( $\chi^2$ ) test was used to test the association between variables. Correlation coefficient (r) test was used to test the closeness of association between variables.

**Results**

**Table (1)** personal characteristics of patients in I.C.U.s from their files

Demographic data of patient	Number N=206	Percent
Patient Gender		
Female	48	23.3%
Male	158	76.7%
Unit:		
Cardiac	50	24.3%
General	42	20.4%
Medical	58	28.2%
Surgical	56	27.2%
Transferred or admitted from:		
Emergency unit	118	57.3%
Transfer from unit	38	18.4%
From O.R	50	24.3%

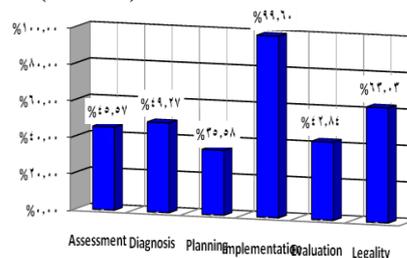
**Table(1)** Describes personal characteristics of patients in I.C.U at Mansoura Emergency Hospital. According to the table, the majority of files audited (76.7%) were that of male patient while (23.3%) were female. Regarding the distribution of files audited per unit the majority of files (28.2%) were in medical unit followed by (27.2%) in surgical unit while (24.3%) were in cardiac unit

**Table (2)** Frequencies distribution of Total Documentation

	Assessment documentation N(%)	Diagnosis N(%)	Planning N(%)	Implementation N(%)	Evaluation N(%)	Legality N(%)	Total documentation
≥95% (sufficient score)	0	0	0	202 (98.1%)	0	0	0
<95% (insufficient score)	206 (100%)	206 (100%)	206 (100%)	4 (1.9%)	206 (100%)	206 (100%)	206 (100%)

**Table (2)** Shows the distribution of total documentation frequencies according to the table, the nursing documentation was in sufficient in all phases of nursing process in the audited files except in implementation (98.1%).

followed by (20.4%) were in general unit. The majority of patients (57.3%) were admitted from emergency unit, followed by (24.3%) from the operating theatre and (18.4%) from the ward.



**Figure (1)** score of nursing process steps and legality

Fig (1) Demonstrate the main items of nursing documentation in audited files. according to the figure the highest mean score was in implementation (99.6%), while the lowest was in planning (35.58%). According to the scoring system, the nursing documentation in audited files in I.C.U was inadequate while (47.47%) of nurses documentation was insufficient with confidence level >95%.

**Table (3)** Relationship Between implementation of documentation and the type of I.C.U units

Predictor Unit:	Files number	Implantation of documentation		Test of significance
		Insufficient	sufficient	
Cardiac	50	0	50(100%)	$\chi^2 = 10.926$ $P = 0.012^*$
General	42	0	42(100%)	
Medical	58	0	58(100%)	
Surgical	56	4(7.1%)	52(92.9%)	
Total	206	4(1.9%)	202(98.1%)	

\* $\chi^2$  for chi square, P value significant at level  $\leq 0.05$

Table (3) shows the relationship between implementation documentation and I.C.U units. According to the table, there is statistically significant strong relation between the unit and implementation documentation  $p=0.012$

**Discussion:**

Nursing documentation was evolved in recent years responding to the changes in health-care delivery system, and advanced technology which affected its expectations, therefore the quality of nursing documentation is a reflection of the standard of professional practice (Buttaro, T.) [12]. Due to the growing need for ensuring care practice based on scientific evidence in nursing, Nursing process is considered an appropriate method to explain the nursing essence and its scientific bases. Nursing documentation is a valuable method of demonstrating that nursing knowledge and skills

have been applied in line with the Standards of Practice for Nurses. Nurses knowledge about nursing documentation is one of the most determinant factors for application of the nursing process (CRNBC) [13].

Finding of the present study revealed that the nursing process is not applied by using the scientific way in the hospital. And there is insufficient information about patients' assessment, nursing diagnosis, outcome identification, planning, evaluations and legality; which all are under the category of nursing process and legality. These may be due to unavailability of hospital policy and training related to documentation.

The result of the present study go in the same line with (Lee, TT.) [14] who mentioned that nursing documentation have inadequate information about nursing care process. Also, (Pokorski, S. et al, ) [15] study

conducted in Brazil reported that, nursing documentation has deficiencies in the practice involved in the implementation of the nursing process.. Moreover, this is the same view of (**Hector** ) [8].who found that scientific evidence show that the nursing process is not adequately utilized as reflected in the nursing documentation and in respect with our finding a study done in prazil by(**Baena, M. H. &Higa, R.,**) [16] indicated that there is inadequate implementation of nursing process steps.

It also go in the same line with the study conducted by (**Jasemi, M. et al,**)[11] who found that all most of nursing records had moderate quality and insufficient information about the steps of nursing process and legality. study conducted in Northern Ethiopia by(**Hagos, F.**) [17]indicated that the nursing process is not applied by following the scientific way and this result is supported by (**Zamanzadeh, V. et al,**) [18]who found that nursing process is not systematically performed and sometimes the nursing process is replaced by a routine careperformance.and these go in the same line with study conducted in Libya by (**Hajir, E.etal,**)[19]who found that , nursing process was not practiced in a way it should be.Inadequate documentation can reduce the

quality of care provided and threaten the patient safety(**JCIA,**) [20].

On the other hand, the finding of the result were inconsistent with the findings of the study done by(**Pokorski, S. et al,** ) [15]in prazilwho stated that the implementation of the nursing process was done in all step of nursing process adequately except for the diagnostic step. It also vary with the study conducted by(**Rivas, F.J.P. et al,** ) [21]who investigated the implementation of the nursing process in primary healthcare and reported that using the nursing process improves the quality of care and people's health findings are also vary with those of .accordingly to the study conducted by (**Blake, C. et al,** ) [22]at hospital in western jamicato evaluate the nursing documentation The study showed high levels of accurate documentation by nurses and the nurses appeared to be aware of the required documentation guidelines with policy manuals available on each ward.

(**Poortaghi et al,** ) [23]in study conducted in tahrans found that nursing care documentad in compliance with the steps of nursing process adequately.

The present study revealed that planning step is the lowest stepdocument among the other phases of nursing process followed by evaluation and not followed the

scientific way in documentation. This goes in the same line with **(Hector)**[8] who found that planning was the lowest step documented followed by evaluation. In accordance with these the study conducted by **(Hajir, E. et al)**[19] who found that planning and evaluation are the lowest steps documented. These findings of these studies not accorded with the study conducted by **(Pokorski, S. et al)** [15] who found that planning is the lowest step documents. It also varies with a study done in Nigeria by, **(Oporapenard, C)** [24] indicated that the nurses in adequately implement the nursing process at the level of assessment, level of nursing diagnosis, planning, and evaluation, respectively. It also varies with the study conducted by **(Tefaye, A.)**[25] who found that: assessment documentation was the highest followed by nursing diagnosis, planning, implementation and evaluation. According to the present study the highest step documented was implementation which was the only sufficient score among all the steps of nursing process these findings are accorded with **(Hector)** [8] who reported that implementation was the highest step documented among other steps of nursing process. and these go in the same line with **(Hajir, E. et al)**[19] who reported that the implementation phase was the

leading step among all steps of nursing process. In this regard, nurses show the excessive dependency to the physicians, indisputable obedience, doing routine activities without thinking. devaluation of this profession by nurses **(Akbari, M. & Shamsi, A.)**[26].

The study finding varies with the study conducted by **(Pokorski, S. et al, )**[15] who found that assessment was the leading step in application of nursing process steps. it also varies with **(Poortaghi et al, )** [23] & **(Tefaye, A., )**[25] who found that assessment was the highest step documented in patient records.

The study finding shows that there is statistically significant relation between the unit and implementation documentation. It is accorded with the finding of **(Hector, )** [8] who found a statistical association of significance between the unit and implementation.

These findings contradicted with the study conducted by **(Pokorski, S. et al, )**[15], **(Poortaghi et al, )** [23] & **(Tefaye, A., )**[25] who found that there is no significant relation between the unit and implementation.

The present study shows that nursing process was not practiced in a way it should be. The result of an assessment should be the basis for planning of care to be

implemented then evaluated. the findings show that there is no adequate assessment and evaluation of patients in ICU. in the study conducted by **(Irajpour, A. et al.)**[27] who found that in adequate assessment and shortage of standards in designing patients' monitoring in ICU can disturb the quality of care **(Irajpour, A. et al.)**[27].

**More over (Ahmadi, M. & Koolae, M.)**[28] showed that moment assessment, recording and reporting lead to immediate decision making and decrease of cardiac emergencies further more. In regard to these a British study conducted by **(Rothman, M. et al.)** [29] found that substandard documentation of nursing assessment was associated with increased in-hospital and post-discharge mortality.

In this study Intervention or the implementation phase was the leading step. In this regard, nurses show more dependence to physicians. according to orlando theory If interventions are carried out before adequate planning and identifying and if those interventions give benefits for the patient, nursing is not highly professional **(Haapoja, A., )** [30].

The finding of the present study reflect legal inaccuracy in nursing documentation. In the same line the study conducted by **(Hector , )**[8], **(Jasemi, M. et al, )** [11],

**(Hajir, E. et al, )**[19]&**(Haapoja, A.)** [30] all of them reported that nursing documentation reflect legal inaccuracy.

### Conclusion

Nursing documentation in intensive care unit at Mansoura Emergency Hospital reflects in adequate use of nursing process and absence of following the scientific way in documenting patient care.

### **Recommendations:**

Research should pay more attention to the accuracy of nursing documentation

1. The hospital should organize regular seminars, and workshops on the practical implementation of the nursing process to upgrade the knowledge of their nurses on the nursing process and its implementation
2. The hospital should provide continued education services in the nursing division structure to be responsible for conducting training sessions which favor the incorporation of knowledge for the implementation of nursing process
3. The nursing directors in the hospital should clarify policy regarding nursing documentation.
4. The curriculum used in the training of nursing students (both in nursing schools of nursing and universities) should pay more attention to the quality of

nursing documentation and the application of the nursing process.

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