

## Research Article

# The Influence of Nursing Process and Documentation Training on Implementing of Nursing Process Documentation In Bireuen District Hospital

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**Abstract:** Documentation is an important aspect in nursing practice. Hospital Accreditation National Standard (SNARS) Edition-1 requires that patient care plans must be created and documented, and documentary evidence can be reviewed in the patient's medical record. Many obstacles have been faced by nurses in implementing nursing process documentation properly, including the lack of competence and lack of training in documenting the nursing process. The purposes of this study are to assess the influence of nursing process and documentation training on nurse's knowledge of nursing process and documentation, and to assess the influence of nursing process and documentation training on implementing of nursing process documentation in patient medical records based on SNARS Edition-1. This is quantitative research with one group pre and posttest design. Samples are 68 nurses taken by purposive sampling according to criteria established by researchers. Patient medical record samples totaling 68 medical records. Data were analyzed by Paired T-Test to compare the value of pretest-posttest nurse's knowledge and pretest-posttest implementation of nursing process documentation in the same sample group. The results show that there is a significant increase in nurse's knowledge about nursing process and documentation before and after training (p-value=0,000), a significant increase on implementing of nursing process documentation before and after training (p-value=0,000). In conclusion, the nursing process and documentation training is able to increase nurse's knowledge about the nursing process and documentation, and can improve implementing of nursing process documentation.

**Keywords:** Training, Nursing Process, Documentation.

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## BACKGROUND

Nursing documentation is one of the obligation for nurses who practice nursing as stated in the Law of the Republic of Indonesia Number 38 of 2014 concerning Nursing in article 37 point d which is "Nurses in carrying out nursing practice are obligated to document Nursing Care in accordance with standards". Documentation is an important aspect of nursing practice. Nursing documentation describes the quality of patient care. Nursing documentation is important to be done accurately, clearly, logically, timely and effectively to avoid slow recoveries and complications, to facilitate continuity of patient care, and the importance of determining the cost of care. The accuracy of nursing documentation is also important for nurses themselves as a form of legal accountability for nursing practice (Potter & Perry, 2017).

Hospital Accreditation National Standard (SNARS) Edition-1 issued by the Hospital

Accreditation Commission (2018) requires that each individual patient's care plan is created and documented as well as documentary evidence can be seen in the patient's medical record. Many obstacles faced by nurses to be able to complete nursing documentation properly such as time constraints, high workload, nurse fatigue, institutional policies towards documentation, nurse's attitudes towards documentation in which nurses personally think it is not important to complete documentation because it is not needed or even read (Blair & Smith, 2012; Soheila, Sepideh, Mohammad, & Maryam, 2017; Potter & Perry, 2017).

Problems faced by nurses in Indonesia in completeness and accuracy of nursing documentation include training in nursing documentation, work period, workload, lack of nurse time for nursing documentation, low accuracy in assessment, lack of evaluation in the nursing process, inadequate supervision, low nurse competency in documentation, and the low confidence and motivation of nurses in

documentation (Siswanto, Hariyati, & Sukihananto, 2013; Tutik *et al.*, 2015; Kamil, Rachmah, & Wardani, 2018). The results of medical record which are closed in the field by the Hospital Accreditation Commission are still found to be out of sync between nursing assessment, preparation of nursing care plans, implementation and evaluation of nursing (Persatuan Perawat Nasional Indonesia, 2017).

Lindo *et al.*, (2016) highlighted the weaknesses in nursing documentation and the need for increased training and ongoing monitoring of nursing documentation. Müller-Staub, Lavin, Needham, Odenbreit, dan van Achterberg (2007) in a study in Switzerland reported that there was a significant improvement in the quality of nursing diagnoses, interventions and outcomes after the planned implementation of education programs. Research in China recommended to nursing managers the need to increase nurse awareness of the importance of documentation including from the legal aspect, by increasing nurse's knowledge and understanding of the importance of nursing documentation (Lei L *et al.*, 2019).

At the General Hospital in Bireuen District, based on preliminary data collected by researchers in June 2019 by looking at the completeness and continuity of the documentation of the nursing process in the patient's medical record in adult hospitalizations, there are several things, including documentation which is less relevant between assessment data, nursing diagnoses, nursing plans, implementation and evaluation. The enforcement of nursing diagnoses is not entirely in accordance with the results of data collection and nursing diagnoses are not always supported by relevant data. The choice of nursing plan is not yet fully in accordance with the nursing diagnosis.

There are still undocumented implementations and evaluations/integrated Patient Development Notes (CPPT) written by nurses are still found to be unsuitable for the patient's condition. The results of a brief interview with the hospital nursing manager obtained information that nurses as one of the care giver professionals play a big role in the implementation of documentation according to hospital accreditation standards, where nurses have been given training on documentation according to SNARS Edition-1, but actually nurses have never been given training specifically about the documentation of the nursing process version SNARS Edition-1.

In SNARS Edition-1, the nursing process and documentation can be divided into two parts. The first part is the initial assessment in 24 hours consists of reviewing, establishing nursing diagnoses/problems, nursing plans, and implementing nursing. The second part is re-assessment/evaluation of nursing in CPPT format. This is in line with the division of activities at

each stage of the nursing process according to Koziar *et al.*, (2016); Potter and Perry (2017), namely the stage of assessment, nursing diagnosis, planning, implementation, and evaluation.

## METHOD

Type of this research is quantitative; quasi-experiment with one group pretest-posttest design. The population in this study was all nurses in adult inpatient ward at the Bireuen District Hospital totaling 285 nurses. The population of the patient's medical record document is all the patient's medical record documents based on the number of patient beds in the inpatient ward, amounting to 314 beds. Purposive sampling technique was used. Sample of nurses that suitable to the criteria is merely 68 nurses while the sample of medical records that met the criteria is 68 medical records.

Data collection of nurse's knowledge and implementation of the nursing process and documentation use the nurse knowledge questionnaire and observation questionnaire about the nursing process and documentation and its implementation in the medical record version of SNARS Edition-1. Nurse knowledge questionnaire and observation of the nursing process and documentation as well as its implementation have been tested through content validity including face validity and logical validity in the form of professional judgment by experts in their fields at the Faculty of Nursing at Syiah Kuala University, Banda Aceh. The construct validity test of the nurse's knowledge questionnaire about the nursing process and the SNARS Edition-1 documentation was conducted on 15 nurses in the hospital who had the same characteristics as the study site, using the Pearson Product Moment ( $r$ ) correlation test at a significant level of 5% using a computer program with the overall final test results Cronbach's Alpha value = 0.880. Research data were analyzed using descriptive statistical tests, and Paired T-Test for data that met parametric statistical requirements or Wilcoxon tests for data that did not meet parametric statistical requirements. This research has passed the ethical test by the ethics commission of the Faculty of Nursing at Syiah Kuala University, Banda Aceh, in which the research code is 112022030919.

## RESULT

### 1. Characteristics of nurses

Characteristics of nurses who were respondents in this study are presented in Table 1, it is known that 51.5% of respondents are in late adulthood (36-45 years), 69.1% of respondents are female, 86.8% of respondents are married, 45.6 % of respondents with D-III Nursing education, 5.4% of respondents have the status of Civil Servants (PNS), and 32.4% of respondents with a length of work of 1-5 years. The medical records of patients who were the subject of this

study were spread across four medical inpatient rooms, totaling 68 medical records, namely the Internal Medicine Inpatient Room totaling 11 medical records (16.18%), the Internal Medicine Inpatient Room

totaling 20 medical records (29.41%), Lung Inpatient Room amounted to 15 medical records (22.06%), and Neurological Disease Inpatient Room is 22 medical records (32.35%).

**Tabel 1.**Frequency Distribution of Nurse Characteristic Data at the Bireuen District Hospital in 2019(n=68)

No. No	Characteristic	Frequency	Percentage
1	Age:		
	Late teens (17- 25 years)	4	5,9
	Early adult (26- 35years)	22	32,3
	Late Adult (36- 45 years)	35	51,5
2	Early Elderly (46- 55 years)	7	10,3
	Gender:	68	100
	Male	21	30.9
	Female	47	69.1
3	Marriage Status	68	100
	Single	7	10.3
	Married	59	86.8
	Widow	2	2.9
4	Education	68	100
	Ners		
	S-1 Nursing	29	42.6
	D-IV Nursing	6	8.8
5	D-III Nursing	2	2.9
	Employment Status	31	45.6
	Civil Servant	68	100
	Contracts	37	54.4
6	Honorery	28	41.2
	Working Period	3	4.4
	1 - ≤5 years	68	100
	>5 - ≤10 years	22	32.4
6	>11 - ≤15 years	15	22.1
	>15 years	11	16.2
		20	29.4
		68	100

**2. Nurse's knowledge of the nursing process and documentation SNARS Edition-1 version.**

Nurse's knowledge of the nursing process and documentation SNARS Edition-1 version including nurse's knowledge of the initial assessment and re-assessment, are presented in table 2.

**Table 2.** Nurse’s knowledge about the Nursing Process and Documentation Before and After The Nursing Process and Documentation Training Version SNARS Edition-1 at Bireuen District Hospital in 2019 (n=68)

		Mean	SD	Mean Difference	CI 95% mean differences		t-test	α	p-value
					Lower	Upper			
Nurse’s knowledge about the nursing process and documentation	Pre Test	9,75	2,51	3,67	-4,29	-3,05	11,90	0,05	0,000
	Post Test	13,42	2,37						
Nurse’s knowledge of the initial assessment	Pre test	5,52	1,85	2,41	-2,94	-1,88	9,09	0,05	0,000
	Post test	7,94	1,57						
Nurse’s knowledge of reassessment	Pre test	4,22	1,43	1,26	-1,68	-0,84	6,04	0,05	0,000
	Post test	5,48	1,56						

Based on table 2 it can be concluded that all alternative hypotheses (Ha) were accepted; Nurse’s knowledge of the nursing process and documentation (p-value=0,000), Nurse’s knowledge of the initial assessment (p-value=0,000), and Nurse’s knowledge of the re-assessment (p-value=0,000). It means that there are differences in nurse’s knowledge about the nursing process and documentation, initial assessment and re-assessment before and after training in the nursing process and documentation SNARS Edition-1 version at the Bireuen District Hospital.

**3. Implementation of nursing process documentation SNARS Edition-1 version**

Implementation of the nursing process documentation and implementation of re-assessment of SNARS Edition-1 are presented in table 3. Based on table 3 it can be concluded that all alternative hypotheses (Ha) were accepted; implementation of the nursing process documentation (p-value=0,000) and the implementation of the initial assessment documentation (p-value =0,000), meaning that there are differences in the implementation of the nursing process documentation and initial assessment documentation before and after the nursing process and documentation training SNARS Edition-1 version at Bireuen District Hospital.

**Table3.** Implementation of Nursing Process Documentation Before and After Nursing Process and Documentation Training SNARS Edition-1 Version at Bireuen District Hospital in 2019 (n=68)

		Mean	SD	Mean Difference	CI 95% mean differences		t-test	α	p-value
					Lower	Upper			
Implementation of nursing process documentatin	Pre Test	30,04	5,76	20,76	-22,63	-18,89	2,11	0,05	0,000
	Post Test	50,58	5,45						
Implementation of initial assesment documentatin	Pre test	22,39	5,18	18,75	-20,44	-17,05	22,10	0,05	0,000
	Post test	41,14	4,99						

Data analysis of re-assessment documentation was using the Wilcoxon test, with the results presented in table 4, there were six subjects decreased in results, 57 subjects increased, and five subjects with fixed results. Whereas in Table 5 shows the results that the alternative hypothesis (Ha) of the implementation of re-

assessment documentation was accepted (p-value=0,000). It means that there were differences in the implementation of the re-assessment documentation before and after nursing process and documentation training SNARS Edition-1 version at Bireuen District Hospital.

**Table 4.** Comparison of Pre Test and Post Test Values of Re-Assessment Documentation SNARS Edition-1 Version at Bireuen District Hospital in 2019 (n=68)

Rank

			N	Mean Rank	Sum of Rank
Re-assessment post reassessment pre test	Negative Rank	6a			
	Positive Rank	57b		16,75	100,50
	Ties	5c		33,61	1915,50
	Total	68			

- Post test result < Pretest result
- Post test result > Pretest result
- Post test result = Pretest result

**Table 5.** Implementation of Re-Assessment Documentation Before and After Nursing Process and documentation Training Version SNARS Edition-1 at Bireuen District Hospital in 2019 (n=68)

	Median	Minimum-Maximum	$\alpha$	p-value
Pre test	8,00	4,00-10,00	0,05	0,000
Post test	10,00	6,00-11,00		

## DISCUSSION

### 1. Nurse’s knowledge of the nursing process and documentation

Based on the results of the study, it is known that there is an increase in nurse’s knowledge about the nursing process and documentation, initial assessment and re-assessment after being given training in the nursing process and documentation of the SNARS Edition-1 version at the Bireuen District Hospital. Nurses attend the training enthusiastically, ask questions frequently and answers and discussions about the nursing process and documentation, initial assessment, and re-assessment. Gain a broader understanding of the nursing process and documentation, initial assessment, and re-assessment. Training is also very relevant to daily work and respondents realize that this knowledge is important in maintaining responsibility for their work. The hospital manager wishes that the training can also be given to all nurses on duty in the inpatient room, so that all nurses in the inpatient room have knowledge of the nursing process and documentation of SNARS Edition-1 version. They realized that nurses had been equipped with training on the SNARS Edition-1 version of the documentation, but there had never been any specific training on the SNARS Edition-1 nursing process documentation.

Marquis dan Huston (2015) defined training as an organized method to ensure that people have the knowledge and skills for a particular purpose and that they have obtained the knowledge needed to do work assignments. Such knowledge may require increased cognitive, affective, motor skills. Human’s cognitive abilities can be obtained through the learning process. Dettmer dan Dettmer (2010) stated that to obtain cognitive abilities as expected can be done by providing activities or stimulation to the brain to work for

activating the intellectual. The training provided to nurses is one of the activities in order to provide stimuli to improve nurse’s cognitive abilities about the nursing process and documentation.

The results of this study were also supported by Barry (2018) who conducted research on increasing nurse’s knowledge, satisfaction, and retention of long-term care (geriatric care) by implementing training programs to improve nurse’s knowledge. The researcher concluded that the training program can increase nurse’s knowledge in the geriatric care department.

Before conducting the assessment, a nurse must have strong scientific foundations, such as nursing theory, research results in the field of nursing, and other sciences that support the implementation of the nursing process (Kozier *et al.*, 2016). Hospital Accreditation Commission (2018) requires that assessments must be carried out by clinical disciplines according to the needs of patients, and carried out by people who are competent and authorized according to legislation, and reassessments must be carried out by professional health workers who have the knowledge, abilities and expertise, and requires special education or training. Legally, a nurse’s independent intervention should only be carried out by nurses who have knowledge and skills about it (NANDA International, 2018), nursing care plans or nursing actions taken based on clinical judgment must be supported by science (Kozier *et al.*, 2016). In choosing interventions, nurses must have knowledge of scientific and rational reasons, must have skills, psychomotor and interpersonal skills (Bulechek, Butcher, Dochterman, & Wagner, 2016).

## 2. Implementation of nursing process documentation

After studying in class, the training is continued with the assistance for 10 days to implementing the nursing process documentation, as an exercise/practice for nurses in dealing with various in the real case. The results showed a significant increase in the implementation of the nursing process documentation, both an increase in the implementation of the initial assessment documentation and an increase in the implementation of the re-assessment documentation after training. Only studying in class is not enough to transfer knowledge, but must be followed by adequate training/simulations with real conditions in the work environment and must be followed by adequate understanding of the underlying principles (Marquis & Huston, 2015).

The increasing ability of nurses in implementing the nursing process documentation is motivated by using exercise/simulations methods of real cases faced at work. Then the training continued with assistance in implementing the documentation of the nursing process. In accordance with the theory of transfer of knowledge by Marquis dan Huston (2015), which stated that the purpose of training is to transfer new knowledge to the workplace environment. So, there must be a similarity between the content of the training and the workplace tasks, it is mandatory to include learning with appropriate practice methods. Training must include a case of different situations so that participants gain knowledge in diverse, broad and comprehensive situations. Training must identify important matters or important step in the learning process, and must giving understanding the principles of the task and how to implement it in the various conditions. Bandura's social cognitive theory explains the existence of a reciprocal relationship between behavioral factors, environmental factors and person/cognitive factors. Social cognitive theory states that an important factor in learning are social, cognitive, and behavior factors (Santrock, 2011).

The results of this research were supported by Müller-Staub, Lavin, Needham, Odenbreit, dan van Achterberg (2007) in their study which concluded that after providing training and education to nurses there were significant increases in the quality of nursing diagnoses, planning, and implementation. Dutra, Mendes, Carneiro, Barboza, dan Cláudio (2016)) in their research on nursing records resulted in the conclusion that educational and training interventions could contribute to improvements the nursing documentation, especially improvements to date and time documentation, signatures and stamps of the professional health worker identity. Nursing training can improve the ability of nurses in documenting nursing care (Yeni, 2014). Research by Nomura, Pruinelli, Da Silva, Lucena, dan Almeida (2017) aimed to evaluating the quality of electronic nursing

documentation during the hospital accreditation process, found that educational interventions provided to nurses can be positive changes to improved nursing documentation, and improve the nursing practice is better.

A study at the University of Gondar Hospital that assessed implementing of the nursing process documentation and factors related to nurse performances concluded that several factors related to this problem were the nurse-patient ratio, internal training at the hospital, nurse knowledge, and nurse's attitudes towards documentation nursing (Kebede, Endris, & Zegeye, 2017). Nurses believe that nursing documentation can be improved by continuing education and training, guidance from ward manager or senior staff, and improve staffing management. Nurses expect that the nursing process documentation guidelines available in all of the unit/ward (Mowatt, Lindo, & Bennett, 2013).

## CONCLUSION

This research concluded that the nursing process and documentation training is able to increase nurse's knowledge about the nursing process and documentation, and can improve implementing of nursing process documentation the patient's medical records.

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