



Utilization of Online Learning Modules to Increase Nurse Capacity in the Implementation of Nursing Care Documentation

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ABSTRACT

Nursing care documentation is still a problem in many developing countries due to individual and organizational factors. Providing education is believed to be able to improve the competence and compliance of nurses in documenting nursing care. This study analyzes the use of online learning modules to increase the capacity of nurses in the implementation of nursing care documentation at Rantau Prapat city administration public hospital. The type of research used is a quasi-experimental approach with a pre-post test design approach with a control group. The population in this study were all nurses in the inpatient ward of Rantau Prapat city administration public hospital, totaling 160 people and a sample of 31 nurses for the intervention group and 31 nurses for the control group. Collecting data with primary and secondary data and the data were analyzed using the Mann-Whitney test. The results showed that there were differences in the knowledge, attitudes and actions of nurses regarding the documentation of nursing care before and after the online module learning was performed. The increase in scores on these three aspects was higher in the intervention group than in the control group. Clinical supervision by the head of the room is also recommended to be performed regularly and continuously so that nurses can be motivated in improving documentation that is oriented toward quality nursing care services.

Kata kunci:

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ABSTRAK

Pendokumentasian asuhan keperawatan masih menjadi permasalahan di berbagai negara berkembang dikarenakan faktor individual maupun faktor organisasional. Pemberian edukasi dipercaya mampu meningkatkan kompetensi dan kepatuhan perawat dalam melakukan pendokumentasian asuhan keperawatan. Penelitian ini bertujuan untuk menganalisis penggunaan modul pembelajaran online untuk meningkatkan kapasitas perawat dalam pelaksanaan pendokumentasian asuhan keperawatan di RSUD Rantau Prapat. Jenis penelitian yang digunakan adalah quasi experiment dengan pendekatan pre-post test design with control group. Populasi dalam penelitian ini adalah seluruh perawat pelaksana di ruang rawat inap RSUD Rantau Prapat yang berjumlah 160 orang dan sampel sebanyak 31 perawat untuk kelompok intervensi dan 31 perawat untuk kelompok kontrol. Pengumpulan data dengan data primer dan sekunder dan data dianalisis dengan uji Mann-Whitney. Hasil penelitian menunjukkan bahwa terdapat perbedaan pengetahuan, sikap dan tindakan perawat tentang pendokumentasian asuhan keperawatan sebelum dan sesudah dilakukan pembelajaran modul online. Peningkatan skor pada ketiga aspek tersebut lebih tinggi pada kelompok intervensi dibandingkan pada kelompok kontrol. Supervisi klinis oleh kepala ruangan juga dianjurkan untuk dilakukan secara teratur serta berkelanjutan agar perawat dapat termotivasi dalam meningkatkan pendokumentasian yang berorientasi pada pelayanan asuhan keperawatan yang berkualitas.

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INTRODUCTION

Good competence of nurses in documenting nursing care is an important component of safe, ethical and effective nursing services. In developing countries, the documentation of nursing care experience problems in the planning, implementation and evaluation processes due to poor quality of documentation (Ndabarora et al., 2013; Tasew et al., 2019). This documentation is important because nursing services provided to clients require records and reports that can be used as responsibility and accountability for various possible problems experienced by clients, both problems of satisfaction and dissatisfaction with the services provided (Blake-Mowatt et al., 2013).

Previous studies have shown that the practice of documenting nursing care is still poor. The causes are diverse, including a lack of understanding of operational standards of nursing documentation, low motivation, excessive workload, minimal supervision from superiors, and negative attitudes from nurses (Kamil et al., 2018; Tasew et al., 2019; Ayele et al., 2021; Bizimana & Bimerew, 2021). Poor nursing documentation will impact the value of nursing documentation such as administration, law, finance, research and education (Collins et al., 2013; Asamani et al., 2014; Salameh et al., 2019).

The effort to increase the capacity of nurses in the implementation of quality and professional nursing care documentation is to provide documentation skills training. For example, writing training programs to improve the quality of documentation (Jefferies et al., 2012). Team-based learning methods are also effectively used to improve teaching and improve nurses' skills and knowledge (Kasim & Abdurrouf, 2016; Ebrahimpour & Pelarak, 2017). Training using guidelines or SOPs for filling out nursing documents is a popular method to do (Alhawri et al., 2020). The use of online-based media (e-learning) has also proven to be effective in nursing materials. But most studies suggest that online learning should be coupled with interactions such as coaching, blended learning or practice (Health Foundation, 2012). In this study, the intervention used was the provision of online learning modules to nurses. The online learning module in the field of nursing is a nursing module combined with a hospital computer system for nurses and based on electronic media.

From the results of a preliminary study at Rantauprapat Hospital, it was found that the sample of nursing care documents for inpatients showed incompleteness, especially in the assessment form (71.26%), then diagnosis (83%). For interventions, implementation and evaluation of nurses have been filled with many things. The incomplete documentation of nursing care is caused by differences in perceptions between nurses, inconsistency of nurses in doing documentation, lack of motivation of nurses, and changes in the workforce. To address this, the nursing management department has taken many ways, including the supervision of the head of the room, training, and socialization of writing nursing care documentation, but the results have not yet reached the standard. Based on the results of interviews with 10 Rantauprapat nurses, information was obtained that the incomplete documentation of nursing care was caused by differences in perceptions between nurses due to the educational background of nurses, large workloads, lack of understanding of nurses about documenting nursing care, and writing documentation had no effect on income. This study analyzes the effectiveness of online learning modules in increasing the capacity of nurses in the implementation of nursing care documentation.

METHOD

Research Design

The study used is a quasi-experimental study with a pre-test design approach with a control group. The capacity of nurses in documenting nursing care was measured before and 1 week after giving the online learning module. The study was located in Rantau Prapat city administration public hospital and was conducted from August to September 2021.

Sampling Procedures

The population in this study were all implementing nurses in the inpatient room at the Rantau Prapat city administration public hospital, amounting to 160 people. The sample size was determined using the Slovin formula to test the hypothesis on the data on the proportion of one population. The research subjects involved in the study were 62 nurses, of which 31 were nurses in the intervention group and 31 nurses in the control group. The sampling technique used was purposive sampling using the homogeneous sampling method. The sample that was selected based on the inclusion criteria was a nurse who had worked for at least 1 year. The researcher explained the objectives and research procedures on the subject before data collection and the subject was given a statement of willingness to be involved in the study.

Data Collection

The researcher coordinated with the management of the Rantau Prapat city administration public hospital to convey the plan and objectives of the study and submit a request to recruit samples. Furthermore, the researchers made an agreement that was used as a place for conducting research for the intervention group with an intervention group of 62 people. Before the online learning module was given, data were collected on the knowledge, attitudes and actions of the research subjects. The data will be the pretest data. The pretest was performed to select the subjects to be assigned to the experimental group and the control group. Subjects who have knowledge, attitudes and actions scores in the low category will be included as research subjects. Furthermore, random assignments were made to determine which subjects were included in the experimental group and the control group. The experimental group was treated by giving an online learning module for nursing care documentation, while the control group was not treated.

The treatment group was given an intervention in the form of an online learning module for 6 days. During the first 3 days, the subject was assigned to read the online learning module, then on the fourth day the subject was assigned the task of documenting nursing care. On the fifth and sixth day again given the second task in the documentation of nursing care. One week after the implementation of the online learning module, data collection was performed again.

Data Analysis

The data collected in the pretest and post-test on the subjects were then analyzed statistically using a paired t test. This test was conducted with the aim of identifying differences in knowledge, attitudes and actions before and after the intervention. Before the bivariate analysis, the data normality test was conducted using the Shapiro Wilk test. Data that are normally distributed will be tested for two

different means (t test), namely unpaired/independent t. If the data are not normally distributed, it is tested with Wilcoxon or Mann–Whitney. Furthermore, the results of the analysis are presented in the form of tables and narratives.

RESULTS AND DISCUSSION

During the study, it was reported that all objects responded and followed each collection process to

completion. The majority of the last educated subjects graduated from a nursing diploma (58.1%) in the intervention group and in the control group was dominated by nursing profession graduates (ners)(71.0%). Most of the research subjects were female in both groups (80.6%). The working period for the two groups was mostly in the category above 3 years. The distribution of subjects based on age is fairly even in each age category and the highest age is in the range of 26-30 years (Table 1).

Table 1.
Characteristics of respondents (n=180)

Characteristics	Intervention group		Control group	
	n	%	n	%
Age				
< 25 years	11	35,5	7	22,6
26-30 years	8	25,8	13	41,9
31-35 years	7	22,6	6	19,4
> 35 years	5	16,1	5	16,1
Sex				
Male	6	19,4	6	19,4
Female	25	80,6	25	80,6
Education				
Diploma	18	58,1	9	29,0
Ners	13	41,9	22	71,0
Length of working				
≤ 1 year	9	29,0	4	12,9
2-3 years	5	16,1	7	22,6
> 3 years	17	54,8	20	64,5

Table 2 can be seen that the knowledge of nurses about documenting nursing care before online module learning at Rantau Prapat city administration public hospital in the experimental group was more with poor knowledge as many as 21 people (67.7%) while in the control group there were more with good knowledge as many as 20 people. (64.5%). The attitude of nurses about documenting nursing care before online module learning was performed in the experimental group was more with a negative attitude of 25 people (80.6%) while in the control group there was also more with a negative attitude of 18 people (58.1%). Then the nurse's actions about documenting nursing care before the online module learning was performed in the experimental group were more with bad actions as many as 18 people (58.1%) while in the control group also more with bad actions as many as 16 people (51.6%).

The score of nurses' knowledge about nursing care documentation after online module learning at Rantau Prapat city administration public hospital in the experimental group was more with good knowledge as many as 24 people (77.4%) while in the control group there were more with good knowledge as many as 21 people (67.7%). The attitude of nurses about documenting nursing care after online module learning was performed in the experimental group was more with a positive attitude of 16 people (51.6%) while in the control group also more with a negative attitude of 18 people (58.1%). Then the nurse's actions about documenting nursing care after online module learning was performed in the experimental group more

with good actions as many as 24 people (77.4%) while in the control group also more with good actions as many as 20 people (64.5%).

Furthermore, the researchers conducted statistical tests to determine or identify differences in knowledge, attitudes and actions before and after the intervention. Before bivariate analysis, the data normality test was performed using the Shapiro Wilk test. If the p value is smaller than (0.005), it can be said that the data are not normally distributed.

The test results showed that knowledge (p=0.000), attitude (p=0.006), and action (p=0.036) variables were not normally distributed, so to identify differences in knowledge, attitudes and actions before and after online module learning was tested using the Mann statistical test. -Whitney.

The results of the test using Mann–Whitney showed that there were differences in the knowledge of nurses about documenting nursing care before and after learning the online module (p=0.005). In the attitude variable, there are also differences in nurses' attitudes about documenting nursing care before and after online module learning (p=0.022). Likewise, for the action variable, there are differences in the actions of nurses regarding the documentation of nursing care before and after the online module learning (p=0.010). Statistically, it can be said that the intervention impact changes in the knowledge, attitudes and actions of nurses in the Rantau Prapat city administration public hospital.

Table 2.
 The frequency distribution of knowledge, attitudes and actions of nurses on the pretest and post-test

Variable	Pre-test				Post-test			
	Intervention		Control		Intervention		Control	
	n	%	n	%	n	%	n	%
Knowledge								
Good	10	32,3	20	64,5	24	77,4	21	67,7
Not good	21	67,7	11	35,5	7	22,6	10	32,3
Attitude								
Positive	6	19,4	13	41,9	16	51,6	13	41,9
Negative	25	80,6	18	58,1	15	48,4	18	58,1
Practice								
Good	13	41,9	15	48,4	24	77,4	20	64,5
Not good	18	58,1	16	51,6	7	22,6	11	35,5

Table 3.
 Normality test of knowledge, attitudes and practices of nurses

Variable	Statistical	p-value
Knowledge	0,917	0,000
Attitude	0,942	0,006
Practice	0,959	0,036

Table 4.
 Differences in knowledge, attitudes and actions of nurses before and after online module learning

Variabel	Pre-test	Post-test	Statistical
Knowledge	319.500	280.500	Mann-Whitney U
	0.022	0.005	p-value
Attitude	359.500	318.500	Mann-Whitney U
	0.088	0.022	p-value
Practice	443.500	300.500	Mann-Whitney U
	0.599	0.010	p-value

This study involved 62 nurses at Rantau Prapat city administration public hospital and divided into the intervention group (31 nurses) and control group (31 nurses). The focus of the study looks at the effect of education using online learning modules on increasing the competence of nurses in documenting nursing care. Documentation of nursing care includes assessment, diagnosis, intervention, implementation, and evaluation. During the implementation of the study, all respondents were involved in the end of the study. Aspects of knowledge, attitudes and actions of nurses were measured before and after the intervention. Statistical results show that there are differences in scores on these three aspects, both in the intervention group and the control group.

In the aspect of knowledge, there was an increase of 45.1% for the group and an increase in the score of the control group was only 3.2%. It can be seen that the intervention in the form of an online learning module has a significant effect on increasing nurses' knowledge. Online learning will increase the capacity of nurses in the implementation of nursing care documentation. Previous studies concluded that training is needed to improve the skills, knowledge, and attitudes of nurses related to electronic nursing documentation to be able to adapt to the new system (Hariyati et al., 2018). Knowledge of nursing care documentation will stimulate nurse performance in nursing care documentation because knowledge-based behavior will last longer than non-knowledge-based behavior. The higher the knowledge of nurses about

documenting nursing care, the better in documenting nursing care (Putra et al., 2016).

A recent study concluded that independent learning using learning modules could increase nurses' knowledge about the documentation aspects of nursing care even though they had less knowledge in the initial test (Paulsamy et al., 2021; Hussein et al., 2021). The nursing staff's low knowledge of nursing documentation indicates that nurses have not considered the documentation process important. An education and training system for nurses, both old and new nurses, is important for hospital management to build (Khattak et al., 2016). The management should also assign the head nurse to perform routine checks to be able to detect obstacles and deficiencies in the implementation of nursing care documentation (Hariyati et al., 2018).

Likewise in the attitude aspect, the results of the study showed a significant increase in the score in the intervention group (32.2%). While in the control group did not experience an increase. This means that the online learning module intervention can improve the attitude of nurses in a positive direction in responding to the documentation of nursing care. The positive attitude of the respondents is probably due to the experience of many respondents and a long working period so that it gives birth to a good mindset, good beliefs and emotions, good motivation and sufficient ability in conducting the documentation of nursing care. The findings of this study are in accordance with studies that identified that the majority of respondents showed a positive attitude toward patient documentation (Blair & Smith, 2012). Poor

attention document nursing care because nurses do not consider it part of their professional duties and responsibilities (Kebede et al., 2017). The results of a study in Ethiopia recommend increasing positive nurse attitudes can be done by increasing nurses' knowledge about documenting and managing work units effectively (Ayele et al., 2021). A good attitude toward nursing documentation is also related to the assessment of nurses who think that complete and correct nursing documentation can be used as a legal protection and a means to determine patient care priorities (Nakate et al., 2015).

The last aspect that is measured in this study is the nurse's actions before and after learning the online module on nursing care documentation. The results of statistical tests showed that both groups showed an increase in post-test scores. The increase in the score on the action in the intervention group (35.5%) was greater than that in the control group (16.1%). Referring to the test results, it can be explained that nurses who receive online learning modules are more likely to experience increased competence in performing nursing care documentation. This finding is similar to the results of previous studies that stated that e-learning can be used to facilitate the implementation of nursing education programs (Abbaszadeh et al., 2011). Education is still the most contributing factor to quality nursing documentation. Educational interventions and ongoing support need to be performed to improve compliance with documentation procedures (Kamil et al., 2018). Better improvement in the documentation of nursing care after supervision training by the head of the room (Abdillah & Basri, 2021).

CONCLUSIONS AND SUGGESTIONS

The online learning module was proven to be able to significantly increase nurses' knowledge, attitudes and actions scores more significantly in the intervention group. In the control group, the difference between the pretest and post-test scores was not too significant. Providing support and learning facilities is critical in encouraging increased nurse compliance in documenting nursing care in hospitals. This study is admittedly still limited because it only examines one hospital. Therefore, studies involving a larger population are suggested to obtain accurate results as input for various relevant stakeholders.

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