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Original Research Article

The Effect of Training Program on Knowledge and Practice of Nurses Regarding Nursing Documentation at Omdurman Military Hospital 2019 – Sudan

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Abstract

Background: Documentation of the nursing method is crucial, however regularly ignored as a part of medical documentation. Paper-primarily based structures have been added to help the nursing documentation process. ***Objectives*:** The study aims to assess the effect of training program on knowledge and practice of nurses regarding nursing documentation. ***Methods:*** Quasi-experimental study was carried out in Omdurman military hospital extended from February 2019 to August 2019. A questionnaire and evaluation checklist was used to collect data from (203) nurses. They were selected by non-probability sampling technique (purposive sampling). The data were analyzed by computer software program (SPPS) version 20. ***Results:*** The study showed that more than half (60.6%) of nurses were female, (65%) had bachelor's degrees, (42.9%)had 1-2 years of experience and more than a third (34.0%) worked in general word. The nurse's knowledge regarding the type of record system, pretest (51.7%) had unsatisfied knowledge. There was an increase in knowledge of nurses regarding documentation post-implementation of the program. Posttest (75.9%) with a highly significant relationship between nurses training courses and knowledge about the concept of quality in nursing (0.002) Study showed that the nurse's knowledge about nursing record forms was improved post educational program (48.3%) were satisfied knowledge compared with the pretest (69.05) were poor knowledge. Common nursing report errors were the change of shift and incidence report (73.4 %, 87.2%) in pretest which decrease to (50.2%, 44.3%) in the posttest, respectively. while the common nursing record error pretest Illegible record (69.3%), change in Patient condition (66.5%), Round book (73.9), Medication record error (60.1%). ***Conclusion & Recommendation:*** The teaching program had a positive effect on the quality of nursing care. The study recommended updating nurses' knowledge and skills about documentation guidelines through continuous professional development.

Keywords: Nursing, Record system, Documentation, Error, Quality care, Report.

INTRODUCTION

Nursing documentation is the recording of nursing care that planned and given to individual patients and clients by qualified nurses or by other health care providers under the direction of a qualified nurse (Nakate, G *et al*., 2015).

The nursing record system is a vital component of safe, ethical, and effective nursing practice, more importantly, it can impact on quality of nursing care and improvement of patient outcomes, also it can play an important role in legal implications of inpatient care and nursing staff (Blair, W. and Smith, B, 2012).

Effective nursing care is always related to the quality of available information, so it's important to document patient information standardized and properly; because it can play as a cornerstone of the good nursing care plan (Farshi, Jebreili, and Abdinia, 2015).

Clients' records provide a hint of care processes that have occurred and are in addition used as

communication amongst nurses for persevered management of clients (Mutshatshi *et al*., 2018).

The high goodness of nursing documentation is crucial for the quality and continuity of nursing care consequently, the high-quality of nursing documentation is careworn internationally as being of the maximum importance, but, numerous research display that the quality of documentation is slight to bad we have performed a systematic assessment to achieve an outline of the existing evidence approximately nursing documentation, and thereby help nursing workforce achieve excessive-satisfactory nursing documentation (Mrayyan, 2006).

Several factors such as lack of enough time for documentation of the implemented actions, the priority of care to documentation, the existence of additional forms and documentation, disproportionate number of nurses to patients, lack of incentive systems, job dissatisfaction, and ignorance of correct documentation principles and legal consequences in different studies have been introduced as the barriers of correct recording (Zahra Norouzi, *et al*., 2018).

Safe patient care is at the line when delivering patient care. Online nursing documentation is existing as a possible solution. With the application of online nursing documentation, questions arise if this technology will improve the standard of nursing documentation furthermore as end-user satisfaction. Five research articles were concluded that overall online nursing documentation systems would be a benefit to improving documentation requirements and end-user satisfaction and help influence how nursing is practiced (Langowski 2005).

This study provides a base for improving the quality of service and facilitates researches in the military hospital. It emphasizes the importance of documentation and provides guidelines for the recording system.

General objective

- To assess the effect of training program on knowledge and practice regarding nursing documentation (pre& post program).

METHODS AND MATERIAL

Study design

Quasi-experimental

Study area:

The study was carried out at Omdurman military hospital, which was established in 1959. Omdurman is the largest city in Sudan, it is located along the west bank of both the Nile and the White Nile opposite the city of Khartoum. However, the city of Khartoum with a population of about 726,827(July 2001). The military hospital provides most of the medical care (medical services, surgical treatment, Obs/Gyne, and pediatric care).

The hospital working system for nursing staff, morning shift for 8 hours in duration, afternoon, and evening shift for 16 hours. The distribution of nursing staff according to the need of hospital departments, nurses rotate frequently without fixed intervals according to the need, the manpower of nurses in hospital is 746 nurses.

This institution is a government military medical service for both the civilian and the armed forces of the people, a compound for all clinics. It has a group of buildings for different specialties in a very large area. It is characterized by all specialists in Sudan in terms of nerves, bones, eyes, skin, psychology, and there is also primary care, children.

The hospital Contains most medical departments in the form of small hospitals according to the medical specialties (pediatric, obstetric, psychiatric, dental, and emergency hospital. etc).

Study population:

This study includes (512) nurses working in Omdurman military hospital during the time of the study, distribution in order as follows (ICU, CCU, Dialysis, Medicine - surgery wards and ER). The study enrolled all nurses with a variety of nursing qualifications.

Inclusion criteria:

- Nurses with the fixed-job.
- Nurses with more than one year of experience.

Exclusion criteria:

- Nurses on the vocation or sick leave.
- Nurses working in more than one hospital.

Sampling and sample size:

The sample size was calculated to be (203) nurses. The sample was distributed proportionally to the study population and according to the total population in the hospital units. The sampling was selected by non-probability sampling technique (purposive sampling).

Data collection tools:

Two instruments were used for data collection (pre/intervention /post-program) Structured questionnaire and an evaluation checklist.

Structural questionnaire:

Standard Structure questionnaire was designed based on literature review and study objectives.

Evaluation checklist

To assess the practices of the participants related to nursing documentation. Adopted and modified from (American nurse association guidelines

for the year 2016). Composed of (6) characteristics) Doenges *et al*., 2016).

Educational program

A training program was designed based on the actual needs assessment of nurses to improve their knowledge and practice regarding nursing record systems, it was designed by the investigator in the light of available researches and related literature.

A booklet for nursing documentation was designed and delivered to each nurse. One study book was divided into four groups, each group containing 50 nurses but the last group containing 53 nurses.

The booklet was then explained to them in three lectures for each group and made workshop for how to use the form of nursing documentation and also answered all questions and queries during the lectures.

Models:

- Real objects: (Booklet, white paper, and documentation forms).
- Material: ("IPAD", stand poster, picture, and videos.) lectures, group discussion.

The duration of an educational program on the recording system was six months.

Data analysis

After the data was collected, then transferred into a specially designed format in a manner to be suitable for computer feeding, following data entrance, a checking and modification process was carried out to avoid any mistakes during data entry. Frequency analysis, cross-tabulation, and manual revision were done. The data were analyzed by computer software program (SPPS) version 20.

The following statistical measures were used:

- Descriptive measures include: count, percentage, and arithmetic mean, standard deviation, minimum and maximum.
- The statistical test includes the Chi-square test, T-test was used for quantitative variables.
- The significance level was considered (P-value equal to or less than 0.05).

Ethical considerations

The study was approved by the ethical committee of the faculty of nursing and the research board at Shendi University.

- The permission for the study was taken from the nursing director of the Omdurman military hospital.
- The nurse's staff who were given information about the study and who accept to participate in the study were included, the privacy and dignity of the nurse was a safeguard.
- The participants in this study were assured confidentiality through identification coding and reports of data. The participants were informed about the aims, method, benefits, and results of this study.
- Any participants had the right to ask, to discontinue, and to refuse to answer any question of the study.

Limitation of the study:

- Access of nurse post duty.
- Lack of documentation forms in the file.

RESULTS

Table 1: The differences between nurse's knowledge about common record and their importance

Items	Pre		Post		p. v
Knowledgeable	Frequency	Percentage	Frequency	Percentages	
	33	16.3 %	100	49.3 %	
Satisfied	36	17.7 %	82	40.4 %	
Unsatisfied	75	36.9 %	21	10.3 %	0.05
Poor	59	29.1 %	0	0 %	
Mean	2.78		1.61		

Table 2: The differences between nurse's knowledge about nursing report ,n = 203

Items	Pre		Post		p. v
	Frequency	Percentage	Frequency	Percentages	
Knowledgeable	25	12.3 %	114	56.2 %	
Satisfied	42	20.7 %	67	33.0 %	
Unsatisfied	74	36.5 %	21	10.3 %	0.01
Poor	62	30.5 %	1	0.5 %	
Mean	0.99		0.69		

Table 3: Nurses knowledge about reason of nursing documentation

Items	Pre		Post		Total	p. v
	Frequency	Percentage	Frequency	Percentages		
Knowledgeable	24	11.8 %	117	57.6 %		
Satisfied	34	16.7 %	63	31.0 %		
Unsatisfied	76	37.4 %	22	10.8 %	100 %	0.02
Poor	69	34.0 %	1	0.5 %		
Mean	2.93		1.54			
Std. D	0.99		0.7			

Table 4: Nurses knowledge about the concept of quality in nursing

Items	Pre		Post		Total	p. v
	Frequency	Percentage	Frequency	Percentages		
Knowledgeable	15	7.4 %	127	62.6 %		
Satisfied	47	23.2 %	51	25.1 %		
Unsatisfied	58	28.6%	25	12.3 %	100 %	0.00
Poor	83	40.9 %	0	0 %		
Mean	3.02		1.49			
Std. D	0.96		0.07			

Table 5: Common reporting nursing error

Errors	Pre		Post	
	Frequency	Percentage	Frequency	Percentages
Change of shift	149 54	73.4% 26.6 %	102 101	50.2 % 49.8%
Telephone order	151 52	74.4% 25.6%	76 127	37.4 % 62.6 %
Patient transfer	185 18	91.1 % 8.9 %	105 98	51.7 % 48.3 %
incidence report	181 22	89.2% 10.8 %	90 113	44.3% 55.7%
Total	**203 100%**			

Table 6: Common nursing record error, n =203

Errors	Pre		Post		Total
	Frequency	Percentage	Frequency	Percentages	
Illegible record	140 63	69% 31%	94 109	46.3 % 53.7 %	
Change in Patient condition	135 68	66.5 % 33.5%	50 153	24.6 % 75.4 %	
Duty restore	96 107	47.3% 52.7 %	40 163	19.7 % 80.3 %	
Round book	150 53	73.9% 26.1%	63 140	31% 69%	100%
Medication	122 81	60.1`% 39.9 %	53 150	26.1% 73.9 %	
Meeting minutes	190 13	93.6% 6.4%	105 98	51.7 48.3	

Table 7: The relationship between professional barrier of documentation and error in incident report

Variables	Professional barrier of documentation		
	Mean	Std. D	Sig
Error in incident report / **pre**	0.8916	0.31162	0.000**
Error in incident report /**post**	0.4433	0.49801	0.000**

Table 8: Paired sample t-test for the pre/post for characteristic of good documentation

Hospital departments		**Mean**	**Correlation**		**t-test**
	Pre	Post	Sig.	t-test	Sig.
ER	1.5	3.17	0.02	9.339	0.001
Word	1.83	2.83			
CCU	3.17	4.17			
ICU	2.83	4.0			
Dialysis	1.67	3.17			
Total mean	2.20	3.47			
Standard Deviation	0.74927	0.58320			

DISCUSSION

The present study revealed a significant relationship between the degree of education and knowledge about the characteristic of good documentation) p. v 0.00). The qualified nurse can use and implement new ideas and practices, also have a better understanding of the relevant concept. This finding agrees with a study finding by (Adubi, Olaogun, and Adejumo, 2018) reported a positive relationship between high-level education and good characteristic documentation.

The present study showed that significant relationship (p. v 0.04) between years of experience and recording error related to medication, these findings were justified because the nurses who are more experience can be knowledgeable about the patient safety and using the (MERF) medication error record form; this result agree with (Feleke, Mulatu and Yesmaw, 2015) reported that nurses training and experience of work effect on medication error documentation.

The study reflected that the knowledge of nurses about the concept of quality in nursing pretest was poor, after implement program the significant improvement was observed (p. v 0.00), so continued training and education about the quality of nursing is important. In addition to that, this study showed a significant relationship between nurses training courses and knowledge about the concept of quality in nursing (p. v 0.002), whenever increasing in the knowledge of nurses can promote and support the quality of nursing care and reflect that on patient outcome. this finding consistent with findings of the study done by(Vafaei *et al*., 2018) stated that "nursing staff training was found to play an important role in improving the documentation and quality of nursing services".

The study found that nurses' knowledge regarding the report, pretest (36.5%) ware unsatisfied knowledge, posttest more than half (56.2%) were knowledgeable this finding interpret after the program the nurse's knowledge was increased.

The present study illustrated that the significant difference in the quality of documentation of nursing in the departments of the hospital, such as general word, emergency, and CCU, the experience of nursing staff, and nature of work may responsible for this varied in quality of documentation. In addition to that, the study showed a significant relationship between the quality of documentation of nurses pre and post-test (p. v 0.02), it was improved after implementation of the educational program. This finding justified the lack of knowledge and training that enhances the nurse's practices on documentation of care. This finding agrees with the finding by (Adubi, Olaogun, and Adejumo, 2018).

The study showed that the nurses' knowledge about nursing record form was improved after implementing the educational program it was found (48.3%) were satisfied, knowledgeable (42.9%) compared with the pretest (69.05) were poor knowledge. This finding justifies the increased background about the stander record system form. So is important to support nurses through education and training.

The study reflected that nurses' knowledge regarding record, pretest (36.9%) ware unsatisfied knowledge, posttest (49.3%,40.4%) were knowledge and satisfied respectively this finding interpret after the program the nurse's knowledge was increased.

In addition, the study found that, a highly significant positive relationship between the knowledge of quality in nursing and characteristics of good documentation (sig = 0.000).

Improving knowledge about the nursing documentation is an important part of risk management and assurance quality and there was reduced error and poor stander. A previous study reported that documentation is a powerful tool for improving the quality of nursing care as it paves the way for formulating global standards for care (Diali *et al*., 2016).

Declaration

The submitted work is original, important, not under consideration for publication elsewhere.it is important for nursing clinical practice. It's not published before elsewhere.

The approval for this study was taken from a nursing director in Omdurman military hospital. The nurse's staff who were given information about the study and who accept to participate in the study were included, the privacy and dignity of the nurse will be assured.

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