

Effect of Documentation Training Program on Staff Nurses' Documentation Skills

1Ghada Mosaad Mohammed Elghabbour, 2Noura Elgharib Mohamed Mostafa Eldiasty,
3Mayada Hassan Saad Elzohairy

Lecturer of Nursing Administration, Faculty of Nursing, Port Said University

Lecturer of Nursing Administration, Faculty of Nursing, Port Said University

Lecturer of Nursing Administration, Faculty of Nursing, Damanhour University

Abstract

Background: Documenting patient care is a key method of information sharing among healthcare professionals. Whether a patient survives or passes away may depend on prompt, accurate, detailed, and concise documentation. **Aim:** The present study aimed to assess the effect of the documentation training program on staff nurses' documentation skills. **Design:** A quasi-experimental design (one group pretest-posttest design) was used in this study. **Subjects:** A convenient sample consisted of a total of 50 nurses included in the current study who were working in the previous setting. **Setting:** The study was applied in inpatient units at Damanhour Hospital University. **Tool:** Self-administered Questionnaire sheet which contained three parts to collect data for this study: (I) Nurses' demographic data, (II) Nurses' knowledge assessment, (III) an auditing checklist of patients' records. **Results:** slightly more than two-fifth of staff nurses had a high level of knowledge regarding total documentation dimensions in preprogram training phase, while all staff nurses had high knowledge in the post-training program phase and a slight decline in follow-up phase with highly statistically significant improvement with all the phases of intervention. The majority of staff nurses had low total performance levels at preprogram training phase while four-fifth of them had high performance levels in post phase and three-quarters of them had high-performance levels after two months of training intervention with highly statistically significant improvement in total documentation performance levels with all the phases of intervention. **Conclusion:** A highly statistically significant improvement was detected in total staff nurses' documentation knowledge and performance level during the post and follow-up phases than preprogram training phase. The documentation training program has a positive effect on improving staff nurses' documentation skills. **Recommendation:** The current study recommended increasing and applying for the documentation training program, information and research findings should be disseminated online. Documentation skills are contained in the distribution manual for new staff nurses.

Keywords: Documentation skills, Staff Nurses, Training program.

Introduction

Accurate, timely, and effective communication can lessen patient suffering and enhance teamwork, both of which can enhance the working environment for nurses (Riley, 2017).

Documenting care planning, actual care delivered, and patient outcomes are the professional responsibility of nurses. All written or electronically generated information about a patient that describes the

care given to that patient and provides a precise account of what happened and when it happened is known as documentation. Nurses use documentation to communicate all interactions with patients, including interventions, evaluations, and treatment outcomes. A health record contains information that may be kept on paper or electronically, including audio or video files, faxes, e-mails, and electronic medical records (Murray, 2017).

The documentation of patient data by nurses must accurately reflect their assessment, planning, implementation, and evaluation of the patient's condition. Documentation and reporting are critical duties of a nurse since they affect patient care, regulatory agency standards, nursing standards, and legal requirements (Theodore, 2015).

One of the best ways to fight legal claims involving nursing care is with accurate documentation. Documentation must unequivocally state that tailored, goal-directed nursing care was given to a patient based on a nursing assessment to reduce nursing responsibility. In a court of law, "care not documented is care not supplied," regardless of how good the nursing treatment was (Perry, et al., 2016).

Significance of the study:

The cornerstone for establishing nursing's beneficial contributions to patient outcomes as well as to the organizations that offer and support high-quality patient care is effective documentation. Documentation is essential to the nursing profession in the following areas, per the ANA (2011): Credentialing, legal, regulatory, legislative, reimbursement, research, quality process, and performance improvement communication within the healthcare team and with other professionals (Murray, 2017). So, The present study aimed to assess the effect of the documentation training program on staff nurses' documentation skills.

Aim of the Study

The present study aimed to assess the effect of the documentation training program on staff nurses' documentation skills through:

- Assessing nurses' knowledge regarding documentation pre and post-documentation training program.
- Developing the training program based on staff nurses' training needs.
- Implementing the developed training program.
- Evaluating the effect of the training program on staff nurses' documentation.

Research hypothesis:

Staff nurses' documentation skills are expected to be improved post-training program implementation.

Subjects & Methods

Research design: A quasi-experimental design (one group pretest-posttest design) was used in carrying out this study.

Setting: The study was conducted in Medical Inpatient Units at Damanhour Hospital University.

Subjects: A convenient sample consisted of a total of 50 nurses included in the current study who were working in the previous setting

Tools for data collection:

Tool: Self-administered Questionnaire sheet: this tool was aimed to identify staff nurses' perceptions towards documentation skills. This sheet was designed by the researchers after reviewing the literature (Abd El- Kader, 2013; Perry, et al., 2014). It includes four parts

- a- **Part 1:** Nurses' demographic data which contained items such as; (age, educational qualification, years of experience, and previous training program).
- b- **Part 2:** Nurses' knowledge assessment, consisted of (26) questions multiple-choice questions. The questions are categorized into seven dimensions,

communication, accuracy, consistency, signature, timing, confidentiality, and brevity.

Scoring system

Each question received a score of "1" for the right answer and "0" for the wrong one. Twenty-five was the highest possible total score. A mean score for this component was calculated by adding the item scores together and dividing the result by the number of items. The knowledge levels were then calculated from the knowledge percent score (Elsayed, 2013; Saad, 2014), as shown in the following table.

Knowledge levels were considered high when the score is more than 75%, Moderate when the score is 60%-75%, and low was less than 60%

Part 3: The auditing checklist of patients' records was developed by the researcher through a review of related literature (Abo El-Hassan, 2004; Abd El-Kader, 2013 and Perry, et al. 2014) to assess the actual performance of staff nurses regarding documentation. It was developed in the English language, and was filled by the researcher it consists of two parts:

Part one was designed to gather information about the staff nurses' code number, working unit, data collection date, and time.

Part two was designed to gather information about the staff nurses' documentation performance. This concurrent audit checklist had 57 elements representing the documentation skills in eight aspects.

Scoring system:

Performance scores were from "1" to "zero" for done/not done, respectively. The maximum possible total score was (fifty-seven). All items related to certain

dimensions are summed up and a mean score is calculated for each dimension, the total mean score of the observational checklist was calculated by summing up the score for all dimensions. Performance levels were considered high when the score is more than 75%, Moderate when the score is 60%-75%, and low was less than 60%

Operational design

1-Preparatory phase

This stage started from June 2019 till December 2019. The researcher reviewed national, international, and current related literature, and used textbooks, articles, journals, and theses concerning the topic of the study. Based on this review, the researcher began to develop the first tool of staff nurses' documentation skills knowledge assessment questionnaire and prepared it in the preliminary form. Next, develop the second tool of staff nurses' documentation skills is the auditing checklist for patients' records.

Tools validity:

The validity of the tools was judged by five jury members with experience in nursing administration and medical-surgical nursing. Based on jury recommendations necessary modifications, corrections, addition, and/or omission of some items were done by the researcher.

Tools reliability:

The reliability test was used in this stage for two tools for data collection using Cronbach's Alpha test. It was 0.898 for knowledge. It was 0.976 for skills.

Pilot study:

A pilot study was started to examine the applicability, and clarity of language, test

the feasibility and suitability of the designated tools and estimate the time needed to complete the tools. The time needed to answer the knowledge assessment part ranged from 30-40 minutes. The time needed to answer to fill in the auditing checklist the researcher was 40- 50 minutes during the time of patient's care.

Fieldwork:

Data collection for the study was started at the beginning of June 2019 and was completed by the end of December 2019. The study was conducted through five phases

Phase I (preliminary), To discuss the goals and advantages of the study, the researcher met with the staff nurses. Nursing staff members received a knowledge sheet. During morning and afternoon shifts, the researcher evaluated the real performance of the nurses.

Phase II (program planning): A literature review was used to design the training program's content. To make the nursing documentation training program suitable for deployment, the researcher started to design and create it. Different teaching methods were chosen to meet the needs of the student and accomplish the program's goals and contents.

Phase III (program implementation): The program was introduced to the staff nurses engaged in the study. Five groups of staff nurses were formed. The program included sessions on communication skills, documentation and documentation skills, recording and reporting, and training to document in nursing formats such as nursing assessment, vital signs, pain assessment, diabetic chart, nursing care plan, medication chart, bed sores, nursing progress, blood transfusion, and health education. Different instructional strategies and mediums were employed.

Phase IV (post-program evaluation): To ascertain whether the program's goals and objectives were met, the researcher assessed how the documentation skills program affected staff nurses' knowledge and practice. Using the same data collection methods as in the planning stage, a post-test was conducted right away following program implementation.

Phase V (follow-up): The same data collection methods, including a knowledge sheet and an audit checklist, were used in a follow-up test that was conducted two months following the post-intervention evaluation to gauge the program's long-term impacts.

Ethical considerations:

Each nurse who accepted to take part in the study gave their written agreement, and the researcher informed them that the information they collected would be treated in confidence, would be anonymous, and would only be used for research. Additionally, each nurse was made aware of their right to discontinue participation in the study at any time and without providing a reason.

Administrative design:

An official letter was issued from the faculty of nursing, at Damanshour University, to obtain permission from the director of the previously selected settings to collect the data for the study.

Statistical analysis:

A statistical Package for Social Science was used to analyze and tabulate the data (SPSS). The mean and standard deviation were the tests employed in the investigation. To calculate the statistically significant differences, the P value and the Chi-Square test were utilized.

Results

Table (1) shows that 52% of the studied nurses were between 20 and < 30 years old with a mean of 20-50, and 94% of the studied nurses were female. Slightly less than half of the studied nurses (68%) have a nursing diploma. Regarding years of experience, 54% of the studied nurses have >10 years of experience.

The total documentation knowledge level of staff nurses is shown in **Table 2** to be (40%) of them have a high level of knowledge regarding documentation dimensions in the pre-training program, an improvement (100%) in the post-training program, and a slight decline (98%) at follow up. But, post-training program and follow-up phase staff nurses' knowledge of all documentation dimensions has improved significantly statistically compared to the pre-training program phase.

Table (3) shows that the total documentation knowledge percent score in the pre-training program was 67.81, highly increase in the post-program reached 99.17. It was 94.79 in the follow-up phase, while there are high statistical improvements in total staff

nurses' documentation knowledge during the post-program and a slight decline in the follow-up phase as compared with preprogram phase ($p < 0.01$).

Table (4) shows that no staff nurse has a high level of total documentation performance before the program and improvement in post-program (80%) are high level, but slightly less than three-fourths (74%) of staff nurses have a high level of total documentation performance, and there is highly statistically significant improvement in total documentation performance level during post-program, while there was a slight decline in follow up phase compared to preprogram.

Table (5) shows that the total performance percent score in the pre-training program was 35.45 ± 11.87 , highly increase in the post-program reached 85.28 ± 11.89 . It was 81.09 in the follow-up phase, while there are high statistical improvements in total staff nurses' documentation performance percent score during the post-program and a slight decline in the follow-up phase as compared with preprogram phase ($p < 0.01$).

Table (1): Percentage distribution of the staff nurses regarding their demographic data

Variables.	The Studied Nurses	
	N	%
Age:		
• 20 < 30	26	52.0
• 30 < 40	15	30.0
• ≥ 40	9	18.0
Mean 20-57		
Gender:		
• Male	3	6.0
• Female	47	94.0
Qualification:		
• Nursing Diploma.	34	68.0
• Technical Nursing Institute Diploma	9	18.0
• Bachelor of nursing.	12	24.0
Years of experience:		
• < 5	10	20.0
• <10	13	26.0
• >10	27	54.0

Table (2): Percentage distribution of the staff nurses according to their level of knowledge about documentation pre, post, and follow-up after implementation (n=50)

Documentation Dimensions		Training program phases						Chi-square test	P-value
		Pre		Post		Follow up			
		No	%	No	%	No	%		
Total Documentation Knowledge level	Low	16	32%	0	0.0%	1	1.0%	80.95	0.000*
	Moderate	14	28%	0	0.0%	1	1.0%		
	High	26	40%	50	100.0%	48	98%		

(**) Highly statistically significant at $P < 0.01$

Table (3): Comparison between Staff nurses' knowledge percent scores regarding Dimensions reflecting documentation pre, post, and follow-up after implementation

Dimensions	Training program phases						A paired t-test (1)	P-value	A paired t-test (2)	P-value
	Pre		Post		Follow up					
	Mean%	± SD	Mean%	± SD	Mean%	± SD				
Communication	57.88	±22.33	98.72	±5.56	94.73	±10.23	-13.07	0.000**	-12.23	0.000**
Accuracy	68.66	±22.32	99.90	±1.47	95.74	±8.87	-12.04	0.000**	-8.78	0.000**
Continuity	78.13	±22.14	99.42	±3.62	94.83	±11.23	-7.44	0.000**	-5.07	0.000**
Signature	83.22	±31.35	100.00	±0.00	93.76	±21.07	-4.34	0.000**	-2.27	0.000**
Timing	61.33	±34.23	98.34	±8.77	96.67	±12.38	-8.67	0.000**	-7.65	0.000**
Confidentiality	54.67	±39.45	99.31	±6.40	91.38	±22.87	-8.45	0.000**	-6.44	0.000**
Concise	62.34	±35.67	96.72	±12.34	92.79	±19.65	-6.32	0.000**	-5.56	0.000**
Total Documentation Knowledge Percent score	67.81	±16.17	99.17	±2.40	94.79	±8.67	-16.003	0.000**	-11.71	0.000**

A paired t-test (1): Difference between pre-program and post-program Paired t-test (2): Difference between preprogram and follow-up (**) highly statistically significant at $P < 0.01$

Table (4): Percentage distribution of the staff nurses according to their Total Documentation Performance level pre, post, and follow-up after implementation (n=50)

Dimensions		Training program phases						Chi-square test	P-value
		Pre		Post		Follow up			
		No	%	No	%	No	%		
Total Documentation Performance level	Low	46	92%	4	8.0%	3	6.0%	145.34	0.000**
	Moderate	4	8.0%	6	12.0%	10	20.0%		
	High	0	0.0%	50	80%	37	74%		

(**) Highly statistically significant at $P < 0.01$

Table (5): Comparison between staff nurses' performance percent scores regarding dimensions reflecting documentation pre, post, and follow-up after implementation

Dimensions	Training program phases			A paired t-test (1)	P-value	A paired t-test (2)	P-value
	Pre	Post	Follow up				
	Mean± SD	Mean ± SD	Mean ± SD				
I- Accuracy in documentation	30.46 ±15.84	80.86 ±17.65	80.15 ±15.49	-19.40	0.000**	-22.09	0.000**
II-Documentationin vital sign chart	59.22 ±39.46	94.06 ±19.43	93.64 ±20.05	-6.09	0.000**	-5.94	0.000**
III-Documentation in medication chart	58.33 ±13.80	87.84 ±9.73	88.02 ±8.53	-17.70	0.000**	-17.012	0.000**
IV-Documentation in nurses' notesheet	26.88 ±20.07	80.37 ±19.94	76.38 ±22.13	-16.87	0.000**	-14.33	0.000**
V- Documentation in nursing careplan sheet	22.44 ±31.67	75.67 ±39.34	66.13 ±44.63	-9.57	0.000**	-6.91	0.000**
VI- TimingDimension	15.54 ±17.06	74.86 ±20.06	74.59 ±22.98	-17.84	0.000**	-15.13	0.000**
VII- SignatureDimension	15.77 ±17.07	74.86 ±20.06	74.58 ±22.96	17.87	0.000**	-15.36	0.000**
VIII- Confidentiality, Conciseness & Permanence Dimension	51.13 ±20.56	92.7 ±10.45	93.64 ±12.85	-12.78	0.000**	-13.28	0.000**
Total PerformancePercent Score	35.73 ±11.88	85.27 ±11.83	81.08 ±13.24	-24.07	0.000**	-23.08	0.000**

A paired t-test (1): Difference between pre-program and post-program Paired t-test (2): Difference between pre-program and follow-up (**): Highly statistically significant at P<0.01

Discussion

Documentation in the patient file should be accurate, brief, and complete. If documentation is done according to these principles, it gives anyone reading the nursing notes a clear picture of the patient. Slang and words with unclear definitions shouldn't be used in documentation; instead, be detailed and definite when using words or phrases to indicate the nurse's wishes (Williams, 2018). The care given to a patient must have conformed to legal requirements and within the bounds of good practice, according to the documentation kept by the nurse (Grant & Ballard,2018).

The study's findings showed that, when compared to pre-training program intervention, nurses' knowledge regarding documentation skills had significantly improved immediately after training and during the follow-up intervention. As a result, it shows that the training program's intervention improved the staff nurses' knowledge of documentation abilities.

The study's findings are consistent with those of Safey El-Din (2018), who examined the "Effect of a Comprehensive Nursing Documentation Training Program to Staff Nurses on Their Documentation Skills" and found that there were highly statistically

significant differences between the mean scores of the documentation knowledge and skills before the training program audit and all other periods of assessment. Following the implementation of the training program, the nurses' documentation knowledge and skills improved during each evaluation period. The mean scores of the nurses' documentation skills showed statistically significant differences in rights after the skills were put into practice.

The current study's findings regarding the documentation knowledge of the entire staff of nurses revealed that, in the pre-training program phase, only about a fifth of them had a high level of knowledge regarding the total documentation dimensions, while all staff nurses had a high level of knowledge in the post-training program phase and a slight decline at the follow-up phase, with highly statistically significant improvement in all phases of intervention. After the program is put in place, that indicates an improvement in the nurses' level of expertise. This may be because the training program for documentation skills incorporated efficient strategies for learning new knowledge. Assume accountability for patient records as well.

Similar findings were reported by **El-Ghwab (2013)** who studied "Quality of nursing documentation in intensive care units in selected Hospitals at Port Said City" and **Abdo (2014)** who conducted a study about "The relationship between quality of nursing documentation system and continuity of patient care in medicine Hospital at Cairo University Hospitals" and they both mentioned that nurses' knowledge regarding nursing documentation was below an acceptable level. While the majority of the nurses were well aware of documentation at the time of post-op and follow-up after a two-month training program.

According to **Safey Al-Din (2018)**, approximately two-thirds of the study nurses had inadequate documentation knowledge before the program's implementation, but these same study nurses had adequate documentation knowledge both immediately following and three months after the program's implementation. Similar findings were reported by **Vasseur (2019)** who studied "Evaluation of new graduate nurses' physical assessment and documentation skills using simulation, debriefing, and a nurse transition program, Northern Kentucky University, Highland Heights, Kentucky," and **Ali (2017)** who studied "Evaluating The Effect of Internal Quality Management System on Quality of Recording System among Nursing Personal, Benha University, Egypt" and "Evaluating The Effect of Internal Quality Management System on Quality of Recording System among Nursing Personal," both of which were done at the same.

Considering this, **Huber (2018)** emphasized that Nurses must protect themselves by being completely transparent about the steps they took in reaction to changes in the patient's state. They are aware of their obligations to provide accurate documentation and to safeguard patients from negative events.

According to the results of the current study, the majority of staff nurses had low overall performance levels during the intervention phases, but about three-quarters of them had high performance

levels after the program had ended and about three-quarters of them had high performance levels after the program's two-month training period. This improvement in total documentation performance level was also highly statistically significant. This verified the study's hypothesis that, when the training program is put in place, staff nurses' documentation abilities will increase. This improvement may be attributable to the documentation skills training program, which taught staff nurses to follow the documentation skills on forms during practical sessions and corrected any mistakes made by the trainee while providing prompt feedback on their performance. Gaining information about good communication, documentation skills, recording, and reporting, as well as their significance for patients, hospitals, and the healthcare team, during the training program will also help staff nurses feel more responsible for producing thorough documentation.

Congruent with the study's findings nursing documentation scores significantly increased after the intervention, according to **Rvell's (2017)** findings. Similar results were obtained by **Bjorvell et al. (2018)**, who investigated "Long-term increase in quality of nursing documentation: consequences of a complete intervention" and discovered that the quality of nursing documentation improved in comparison to the audit conducted before the intervention. Additionally, these are in line with **Safan (2017)**, who investigated the "Self-learning package as a means for achieving quality nursing documentation" and discovered a satisfactory improvement level in medical and surgical departments as well as in special units after the implementation of the self-learning package, compared to pre-intervention period. In the same line with **Patiraki et al. (2015)** who studied and mentioned that intervention has demonstrated positive results in improving knowledge and attitudes to documentation and the nursing process.

These results are consistent with **Gerdin's (2017)** research, which emphasized the fact that professional nurses' incomplete and inadequate documentation is often the

result of limitations in their knowledge, skill level, and comprehension of documentation. Nurses are the answer to this issue, but for them to follow the documentation rules; they must get clinical documentation training and development.

Conclusion

Based on the results and hypotheses of the present study, the study findings concluded that a highly statistically significant improvement was detected in total staff nurses' documentation knowledge and performance level during the post and follow-up phases than preprogram training phase. The documentation training program has a positive effect on improving staff nurses' documentation skills.

Recommendations

Based on the current study results, the following recommendations are proposed:

- The current study recommended increasing and applying for the documentation training program, and information and research findings should be disseminated online. Documentation skills are contained in the distribution manual for new staff nurses.
- Replication of the current study with a larger sample of nurses in different settings is required for generalizing the results.

References:

Abd El-kader, H.A. (2013): Factors affecting nurses' performance regarding documentation in surgical units, unpublished Master Thesis, Faculty of Nursing Ain Shams University, Egypt.

Abdo, B. (2014): The relationship between quality of nursing documentation system and continuity of patient care in medicine Hospital at Cairo University Hospitals, unpublished Master Thesis, Cairo University, Egypt.

Abo El-Hassan, N. (2004): Nurse interns Acquisition of communication skills: The Effect of Two Teaching Methods, Doctorate Thesis, Faculty of Nursing, Ain Shams University.

Ali, M. (2013): Evaluating The effect of internal quality management system on quality of recording system among nursing personnel, unpublished Master Thesis, Faculty of Nursing Benha University, Egypt.

Björvell, C., Wredling, R., & Ekstrand, T. (2018): Long-term increase in quality of nursing documentation: effects of a comprehensive intervention, Nordic College of Caring Sciences, Scand J Caring Sci.

16 Original Article Accessed on: 23/1/2018

El-Ghwab, F.(2013): Quality of nursing documentation in intensive care units in selected Hospitals at Port Said City, Master Thesis, Faculty of Nursing Port Said University, Egypt, PP. 120: 140

Elsayed, M. (2013): The effect of implementing SBAR shift report on the quality of reporting of patient care, Doctorate Thesis, Faculty of Nursing, Ain Shams University.

Gerdin, J.(2017): Health careers today, (6th ed.), Elsevier, Inc.: China. p.37.

Murray, E. (2017): Nursing leadership and management: for patient safety and quality care, F. A., Davis Company, USA. pp. 20- 90 - 221: 224.

Patiraki, E., atsaragakis, S., reliozi, A., & Prezerakos, P. (2015): Nursing care plans based on NANDA, nursing interventions classification, and nursing outcomes classification: the investigation of the effectiveness of an educational intervention in Greece, NANDA International, Inc: International Journal of Nursing Knowledge, 28, 2.

Perry, A., Potter, P., & Ostendorf, W. (2016): Nursing interventions & clinical skills, 6th ed., Elsevier, Inc.: USA. pp. 37- 40

Perry, A., Potter, P., & Ostendorf, W., (2014): Clinical nursing skills and techniques, 8th ed., Mosby, Inc: Elsevier, Inc.: Canada. pp. 50-53.

Riley, J. (2017): Communication in nursing, (8th ed.), Elsevier, Inc.: USA. pp. 196-203

Rvell, C. (2017): Long-term increase in quality of nursing documentation: effects of a comprehensive intervention, Department of Nursing, Karolinska Institutet, Cross College of Nursing and Health, Stockholm. pp. 34 -39 Accessed on: 26/11/2017.

Saad, E. (2014): Effect of an educational program about intradepartmental communication among nurses on nurses' empowerment, a Doctorate thesis, Faculty of Nursing, Benha University, Egypt.

Safan, S. (2017): Self-learning package as a means for achieving quality nursing documentation, unpublished Doctorate Thesis, Shebien El-Kom University, Menofia University, Egypt.