

Training as a Means for Improving Staff Nurses' Documentation Skills

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Abstract

Background: principals of communicating information among healthcare providers are through patient care documentation. Accurate, timely, thorough and concise documentation can be the deciding factor for whether a patient lives or dies. **Aim:** The present study was aiming at utilizing training as a means for improving staff nurses' documentation skills. **Subjects:** 63 nurses were included in the study. **Setting:** The study was conducted at inpatient units at Al Helal hospital. This hospital is affiliated to Ministry of Health Specialized Medical Centers. **Methods:** three tools were used to collect data for this study. Knowledge assessment questionnaire, an observational checklist, Pre and post-test simple questions according to the title of each session. **Results:** slightly more than two fifth of staff nurses had high level of knowledge regarding total documentation dimensions in preprogram phase, while all staff nurses had highly knowledge in post phase and slightly decline at follow up phase with highly statistically significant improvement with all the phases of intervention. majority of staff nurses had low total performance level at preprogram phase while four fifth of them had high performance level at post phase and three quarter of them had high performance level after three months of training intervention with highly statistically significant improvement in total documentation performance level with all the phases of intervention. **Conclusion:** There was highly statistically significant improvement in total staff nurses' documentation knowledge and performance level during post and follow up phase as compared with preprogram phase. This supported the study hypothesis which stated, staff nurses documentation skills will be improved after implementing the training intervention. **Recommendation:** dissemination of manual for new staff nurses contains documentation skills. Dissemination of information and research finding should be done online to improve its utilization.

Key words: Documentation skills, Staff Nurses, Training

Introduction

Communication really can be the difference in healthcare outcomes: accurate, timely and effective communication can reduce patient suffering and improve

teamwork that in turn improves the working environment for nurses (Riley, 2017).

Nurses have a professional responsibility to document care planning, actual care provided and patient outcomes. Documentation is any written or

electronically generated information about a patient that describes the care provided to that patient and offers an accurate account of what occurred and when it occurred, nurses use documentation to communicate all interactions with patients including, intervention, evaluations and outcomes of care. Documentation is maintained in a health record which may include paper or electronic documentations such as electronic medical records, faxes, e-mails, audio or video records and images (Murray, 2017).

Nurses are accountable to document patient data that precisely reflects nursing assessment, planning, intervention/implementation, and evaluation of the patient's condition. Quality of care, standards of regulatory agencies and nursing practices and legal guidelines make documentation and reporting an extremely important responsibility of nurse (Theodore, 2015).

Accurate documentation is one of the best defenses for legal claims associated with nursing care. To limit nursing liability, documentation must clearly indicate that individualized, goal directed nursing care was provided to a patient based on a nursing assessment. Although nursing care may have been excellent, in a court of law, "care not documented is care not provided" (Perry, et al., 2016).

Effective documentation provides a foundation for demonstrating nursing's valuable contributions to patient outcomes as well as to the organizations that provide and support quality patient care. According to the ANA (2011b), documentation is critical to the nursing profession in the following areas: communication within the healthcare team and with other professionals as credentialing, legal, regulation, legislation, reimbursement, research, quality process and performance improvement (Murray, 2017).

Aims of the study:

This study was aimed at utilizing training as a means for improving staff nurses' documentation skills through:

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

Research hypothesis:

Staff nurses documentation skills will be improved after implementing the training intervention.

Subjects and Methods:

I- Technical design

Research design:

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

The study setting

The study was conducted at Al Helal Hospital. It is affiliated to Ministry of Health Specialized Medical Centers.

Subjects

Subjects included in the study were 63 staff nurses. They are working in the inpatient units.

Tools of data collection

Data were collected for this study using three tools these were namely,

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pre/post-test knowledge assessment questionnaire, auditing checklist of patients' records, These tools were used three times through the study intervention phases and (pre/post test) this tool evaluation questionnaire for evaluating intervention.

1- Self administered Questionnaire sheet: this tool was aimed to identify staff nurses perceptions towards documentation skills. It was adopted from (Estes, 2009; Abd El-Kader, 2013; Perry, et al., 2014). It includes two parts

a- The first Part: Contains socio-demographic data of samples' subjects as; (age, educational qualification, years of experience, and previous training program). It was developed by the researcher.

b- The second Part: It consists of (25) questions multiple-choice questions. The questions categorized into seven dimensions, communication, accuracy, consistency, signature, timing, confidentiality and brevity.

Scoring system

Each question was assigned a score of "1" if correct answer and "0" if incorrect answer. The maximum possible total score was twenty five. The scores of the items were summed up and the total divided by the number of items giving a mean score for this part. Knowledge percent score was then converted to knowledge levels (Elsayed, 2013), (Saad, 2014) as the following table.

Table (1) Scoringsystem forSelf-administered Questionnaire sheet

Knowledge levels	percent score
High	>75.0%
Moderate	60.0%-75.0%
Low	≤60.0%

2- Auditing Checklist of patients' records was developed by the researcher through 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 English language, it was filled by the researcher it consists of two parts:

Part one this part was intended to collect data regarding staff nurses' code number, working unit, date and time of data collection and **part two** was intended to collect data about the staff nurses' documentation performance. This concurrent audit checklist was contained eight dimensions involve 57 items represent the documentation skills

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 dimension 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. Practice percent score was then converted to performance levels as follows:

Table (2): Scoringsystem for audit checklist sheet.

Nurses performance level	Scored percent
High	> 75.0%
Moderate	60 -75.0%
Low	<60 %

3- Questionnaire sheet to evaluate interventionA self-administered questionnaire sheets, were developed and constructed by the researcher based on review of related literature (Oppenheim, 2012; Gillingham, & Seibel, 2014), it was applied to evaluate intervention throughout

intervention progress. It was done to make sure that intervention on track.

II- Operational design

1-Preparatory phase

This stage started from November 2015 till June 2016. The researcher reviewed national, international, current related literature, and using text books, 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 that auditing checklist for patients' records.

Tools validity:

After the construction of data collection tools, two types of validity tests were used in this stage, face validity and content validity. The validity of the tools was judged by nine jury members having experience in nursing administration and medical surgical nursing from Cairo University and Ain shams University. 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 done to assure the consistency, determine how strongly the attributes were related to each other and to the composite score. The reliability test was used in this stage for two tools for data collection using Cronbach's' Alpha test. It was **0.897**for knowledge. It was **0.967**for skills.

2- Pilot study:

A pilot study was started in July 2016, to examine the applicability, clarity of

language, test the feasibility and suitability of the designated tools, estimate the time needed to complete the tools. The time consumed in answering the knowledge assessment questionnaire ranged from 30-40 minutes. The time consumed to fill in auditing checklist by the researcher was 40-50 minutes in the time of patient's care.

Field work:

Data collection of the study was started at the beginning of August 2016, and was completed by the end of August 2017. The study was conducted through five phases **Phase I**(preliminary),the researcher met the staff nurses to explain the purpose and the benefits of the study. Knowledge questionnaire sheet was distributed to nurses. It started in first week of August 2016 and took about two weeks. The researcher audited nurses' actual performance during morning and afternoon shifts. audit was done from third week of August 2016 to last week of September 2016 (before program implementation).

Phase II (program planning): the content of the training program was developed based on literature review. The researcher began to design and construct the nursing documentation training program to be appropriate for implementation. Different instructional strategies were selected to suit the learner's needs, and achieve the objectives and contents of the program.

Phase III (program implementation): the program was implemented to the staff nurses working in the study setting, from December 2016 till February 2017. Staff nurses were divided into five groups. The program sessions were; communication skills, documentation and documentation skills, recording and reporting, training to document in nursing formats as: nursing assessment, vital signs, pain assessment, diabetic chart, nursing care plan, medication chart, bed sores, nursing progress, blood transfusion, health education. Different teaching methods and educational media were used.

Phase IV (post program evaluation):

The researcher evaluated the effect of the documentation skills program on staff nurses' knowledge and practice to determine how the program goals and objectives were achieved. A post-test was done immediately after program implementation during February and March 2017, by using the same data collection tools as in the pre planning phase.

Phase V (follow-up): follow up test was repeated three months after post intervention evaluation during July and August 2017, by using the same data collection tools concerning a knowledge questionnaire and audit checklist to assess the long-term effects of the program.

Ethical considerations:

Prior to conducting the pilot study approval was obtained from the Scientific Ethical Committee at the Faculty of Nursing, Ain Shams University. The approval was obtained in a written consent from each nurse who agreed to participate in the study and the researcher informed them that the collected data will be treated confidentially, anonymously and will be used only for research purposes. Each nurse was also informed about having the right to withdraw from the study at any time, without giving any reason.

III- Administrative design

An official letter was issued from the faculty of nursing, Ain Shams University, to obtain permission from the Director of Al Helal Hospital to collect the data for the study.

IV- Statistical design

Data were analyzed and tabulated using the computer Statistical Package for Social Science (SPSS). The tests used in the study were mean, standard deviation. Chi-Square test and P value were used to estimate the statistical significant differences.

Results:

Table (1) shows that more than two fifth (42.9%) of the study subjects had age ranged from 25-<35 years. Majority of study subjects are females and had nursing school diploma 95.2%, 81.0% respectively. More than half (52.4%) of study subjects had experience ranged between 10-20 years. More than half (52.4%) of study subjects didn't attend training program about documentation while more than one fifth (20.6%) of them attended training program about recording and reporting.

Table (2) reveals that, more than half of study subjects have low knowledge (65.1%, 61.9%, 63.5%, 58.7%) about communication, timing, confidentiality and concise documentation dimensions in pre program phase. While all nurses have high knowledge about accuracy, continuity and signature in post program phase. But majority of study subjects have high knowledge (93.7%, 93.7%, 90.5%, 93.7%) about accuracy, continuity, signature and timing in follow up program phase. There is a highly statistically significant improvement in nurses' knowledge as regard documentation throughout intervention phases during post program and follow up when compared with pre program ($p < 0.01$).

Table (3) reveals that, total documentation knowledge level of staff nurses slightly more than two fifth (41.3%) of them have high level of knowledge regarding documentation dimensions in preprogram, while an improvement (100%) in post program and slightly decline (96.8%) at follow up. while there are highly statistically significant improvement in staff nurses knowledge related to all documentation dimensions during post program and follow up phase as compared with preprogram phase.

Table (4) shows that, total documentation knowledge percent score in preprogram 67.81, highly increase in post program reached to 99.17. It was 94.79 in

follow up phase, while there are highly statistical improvements in total staff nurses' documentation knowledge during post program and slightly decline in follow up phase as compared with preprogram phase ($p < 0.01$).

Table (5) reveals that, No one of study subject (0.0%) have high Performance level in preprogram phase to follow accuracy in documentation while more than two third (71.4%) of study subject have high performance level in post program phase and about two third (63.5%) of them have high performance level in follow up for the same dimension, there are highly statistically significant improvement in staff nurses performance related to all documentation dimensions during post program and follow up phase as compared with preprogram phase.

Table (6) demonstrates that no one of staff nurses has high level in total

documentation performance before the program and enhancement in post program slightly less than four fifth (79.4%) are high level, while slightly less than three fourth (74.6%) staff nurses has high total documentation performance level, there are highly statistically significant improvement in total documentation performance level during post program while there was slightly decline in follow up phase as compared with preprogram phase ($p < 0.01$).

Table (7) shows that, total performance percent score in preprogram 34.73, highly increase in post program reached to 82.29. It was 81.09 in follow up phase, while there are highly statistical improvements in total staff nurses' documentation performance percent score during post program and slightly decline in follow up phase as compared with preprogram phase ($p < 0.01$).

Table (1): demographic & job Characteristics of the studied staff nurses (n=63)

Characteristics of the studied staff nurses		No.	%
Age	Less than 25 years	11	17.5%
	25-35 years	27	42.9%
	More than 35 years	25	39.7%
Gender	Male	3	4.8%
	Female	60	95.2%
Qualification	Nursing Diploma	51	81.0%
	Technical Nursing Institute Diploma	11	17.5%
	Bachelor degree in Nursing	1	1.6%
Experience	Less than 10 years	15	23.8%
	10-20 years	33	52.4%
	More than 20 years	15	23.8%
Training about documentation	Yes	30	47.6%
	No	33	52.4%
Training about recording & reporting	Yes	13	20.6%
	No	50	79.4%

Table (2): Staff nurses' level of knowledge regarding documentation dimensions throughout intervention phases (n=63)

Documentation Dimensions		Intervention phases						Chi square test	P-value
		Pre		Post		Follow up			
		No	%	No	%	No	%		
Communication	Low	41	65.1%	0	0.0%	0	0.0%	130.667	0.000**
	Moderate	15	23.8%	3	4.8%	13	20.6%		
	High	7	11.1%	60	95.2%	50	79.4%		
Accuracy	Low	19	30.2%	0	0.0%	1	1.6%	80.550	0.000**
	Moderate	19	30.2%	0	0.0%	3	4.8%		
	High	25	39.7%	63	100.0%	59	93.7%		
Continuity	Low	18	28.6%	0	0.0%	4	6.3%	27.573	0.000**
	Moderate	0	0.0%	0	0.0%	0	0.0%		
	High	45	71.4%	63	100.0%	59	93.7%		
Signature	Low	16	25.4%	0	0.0%	6	9.5%	20.165	0.000**
	Moderate	0	0.0%	0	0.0%	0	0.0%		
	High	47	74.6%	63	100.0%	57	90.5%		
Timing	Low	39	61.9%	2	3.2%	4	6.3%	75.775	0.000**
	Moderate	0	0.0%	0	0.0%	0	0.0%		
	High	24	38.1%	61	96.8%	59	93.7%		
Confidentiality	Low	40	63.5%	1	1.6%	9	14.3%	69.237	0.000**
	Moderate	0	0.0%	0	0.0%	0	0.0%		
	High	23	36.5%	62	98.4%	54	85.7%		
Concise	Low	37	58.7%	4	6.3%	8	12.7%	53.614	0.000**
	Moderate	0	0.0%	0	0.0%	0	0.0%		
	High	26	41.3%	59	93.7%	55	87.3%		

(**) Highly statistically significant at P<0.01

Table (3): Total staff nurses' level of knowledge regarding documentation throughout intervention phases (n=63)

Documentation Dimensions		Intervention phases						Chi square test	P-value
		Pre		Post		Follow up			
		No	%	No	%	No	%		
Total Documentation Knowledge level	Low	22	34.9%	0	0.0%	1	1.6%	83.956	0.000**
	Moderate	15	23.8%	0	0.0%	1	1.6%		
	High	26	41.3%	63	100.0%	61	96.8%		

(**) Highly statistically significant at P<0.01

Table (4): Comparison between Staff nurses' knowledge percent scores regarding Dimensions reflecting documentation throughout intervention phases

Dimensions	Intervention phases						Paired t-test (1)	P-value	Paired t-test (2)	P-value
	Pre		Post		Follow up					
	Mean%	+ SD	Mean%	+ SD	Mean%	+ SD				
Communication	57.94	±22.37	98.81	±5.37	94.84	±10.20	-14.08	0.000**	-12.14	0.000**
Accuracy	68.45	±22.66	99.80	±1.57	95.83	±8.98	-11.03	0.000**	-8.84	0.000**
Continuity	78.10	±22.06	99.37	±3.53	94.92	±11.34	-7.53	0.000**	-5.05	0.000**
Signature	83.33	±31.11	100.00	±0.00	93.65	±21.05	-4.252	0.000**	-2.269	0.000**
Timing	61.90	±34.45	98.41	±8.84	96.83	±12.29	-8.879	0.000**	-7.568	0.000**
Confidentiality	54.76	±39.87	99.21	±6.30	91.27	±22.97	-8.550	0.000**	-6.303	0.000**
Concise	62.70	±35.89	96.83	±12.29	92.86	±19.79	-6.610	0.000**	-5.885	0.000**
Total Documentation Knowledge Percent score	67.81	±16.17	99.17	±2.40	94.79	±8.67	-15.007	0.000**	-12.071	0.000**

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 (5): Staff nurses' level of performance regarding documentation throughout intervention phases (n=63)

Dimensions		Intervention phases						Chi square test	P-value
		Pre		Post		Follow up			
		No	%	No	%	No	%		
I- Accuracy in documentation	Low	59	93.7%	10	15.9%	6	9.5%	121.794	0.000**
	Moderate	4	6.3%	8	12.7%	17	27.0%		
	High	0	0.0%	45	71.4%	40	63.5%		
Ia- Documentation in vital sign chart	Low	23	36.5%	3	4.8%	4	6.3%	66.597	0.000**
	Moderate	22	34.9%	5	7.9%	4	6.3%		
	High	18	28.6%	55	87.3%	55	87.3%		
Ib- Documentation in medication chart	Low	32	50.8%	0	0.0%	0	0.0%	135.406	0.000**
	Moderate	24	38.1%	5	7.9%	2	3.2%		
	High	7	11.1%	58	92.1%	61	96.8%		
Ic- Documentation in nurses notes sheet	Low	56	88.9%	9	14.3%	13	20.6%	92.341	0.000**
	Moderate	7	11.1%	18	28.6%	16	25.4%		
	High	0	0.0%	36	57.1%	34	54.0%		
Id- Documentation in nursing care plan sheet	Low	52	82.5%	15	23.8%	20	31.7%	57.370	0.000**
	Moderate	6	9.5%	5	7.9%	6	9.5%		
	High	5	7.9%	43	68.3%	37	58.7%		
II- Timing Dimension	Low	62	98.4%	17	27.0%	16	25.4%	87.936	0.000**
	Moderate	1	1.6%	12	19.0%	11	17.5%		
	High	0	0.0%	34	54.0%	36	57.1%		
III- Signature Dimension	Low	62	98.4%	17	27.0%	16	25.4%	87.936	0.000**
	Moderate	1	1.6%	12	19.0%	11	17.5%		
	High	0	0.0%	34	54.0%	36	57.1%		
IV- Confidentiality, Conciseness & Permanence Dimension	Low	52	82.5%	1	1.6%	1	1.6%	134.867	0.000**
	Moderate	0	0.0%	0	0.0%	0	0.0%		
	High	11	17.5%	62	98.4%	62	98.4%		
	Moderate	3	4.8%	8	12.7%	12	19.0%		
	High	0	0.0%	50	79.4%	47	74.6%		

(**) Highly statistically significant at P<0.01

Table (6): Total staff nurses' level of performance regarding documentation throughout intervention phases (n=63)

Dimensions		Intervention phases						Chi square test	P-value
		Pre		Post		Follow up			
		No	%	No	%	No	%		
Total Documentation Performance level	Low	60	95.2%	5	7.9%	4	6.3%	143.248	0.000**
	Moderate	3	4.8%	8	12.7%	12	19.0%		
	High	0	0.0%	50	79.4%	47	74.6%		

(**) Highly statistically significant at P<0.01

Table (7): Comparison between staff nurses' performance percent scores regarding dimensions reflecting documentation throughout intervention phases

Dimensions	Intervention phases						Paired t-test (1)	P-value	Paired t-test (2)	P-value
	Pre		Post		Follow up					
	Mean%	+ SD	Mean%	+ SD	Mean%	+ SD				
I- Accuracy in documentation	30.65	±15.82	80.85	±17.64	80.16	±15.50	-18.404	0.000**	-21.096	0.000**
II-Documentation in vital sign chart	59.13	±39.48	94.05	±19.42	93.65	±20.06	-6.096	0.000**	-5.944	0.000**
III-Documentation in medication chart	58.38	±13.82	87.83	±9.72	88.01	±8.54	-16.708	0.000**	-17.010	0.000**
IV-Documentation in nurses notes sheet	26.79	±20.06	80.36	±19.92	76.39	±22.12	-15.870	0.000**	-13.334	0.000**
V- Documentation in nursing care plan sheet	22.22	±31.68	75.66	±39.35	66.14	±44.60	-9.507	0.000**	-6.918	0.000**
VI- Timing Dimension	15.87	±17.05	74.87	±20.05	74.60	±22.97	-17.847	0.000**	-15.136	0.000**
VII- Signature Dimension	15.87	±17.05	74.87	±20.05	74.60	±22.97	17.847	0.000**	-15.136	0.000**
VIII- Confidentiality, Conciseness & Permanence Dimension	51.11	±20.57	92.38	±10.43	93.65	±12.86	-12.785	0.000**	-13.228	0.000**
Total Performance Percent Score	34.73	±11.84	82.29	±11.94	81.09	±13.25	-24.073	0.000**	-23.018	0.000**

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 patient file should be accurate, brief and complete. When documentation follows these principals, it presents a photographic view of the patient to anyone who reads the nursing notes. Be specific and definite in using words or

phrases that convey the meaning the nurse wish expressed, document the patient behavior, words that have ambiguous meanings and slang should not be used in documentation (Williams, 2018). Nurse's documentation must indicate that the care provided to a patient was within acceptable standards of practice and in accordance with

regulatory mandates.(Grant & Ballard, 2018).

The present study aimed at utilizing training as a means for improving staff nurses' documentation skills through assessing nurses' knowledge regarding documentation, audit nurses' documentation, developing and implementing the developed program then evaluating the effect of the program on staff nurses documentation by direct observation for activities performed by staff nurses working at Al-Helal Hospital. Results of this study revealed that there is a highly statistically significant improvement in nurses' knowledge and performance as regard documentation skills at immediately post-program and follow up intervention when compared with pre-program intervention. So, that reflects improvement staff nurses' knowledge and performance of documentation skills after training program intervention.

The study findings are in agreement with **Safey El- Din (2012)** who showed that, there were high statistically significant difference of the mean scores of the documentation knowledge and skills before the program audit and all the other periods of assessment. The nurses' documentation knowledge and skills was improved after implementation of the program at all periods of assessment. There was a statistically significant difference of the mean scores of the nurses' documentation skills immediately after implementation of the skills.

Concerning total staff nurses' documentation knowledge result of the present study showed that, slightly more than two fifth of them had high level of knowledge regarding total documentation dimensions in preprogram phase, while all staff nurses had highly knowledge in post phase and slightly decline at follow up phase with highly statistically significant improvement in all phases of intervention. That means improvement of nurses' level of knowledge after implementation the

program. This might be due to the documentation skills program included effective ways to learn new information. Also, feel a sense of responsibility toward patient records.

Similar finding was reported by **Safan(2007), El-Ghwab(2013) and Abdo (2014)** who mentioned that nurses knowledge regarding nursing documentation was un acceptable level. While majority of nurses were highly aware of documentation at immediately post and follow up after three months of program.

on the same line **Safey Al Din (2012)** mentioned that about two third of the study nurses inadequately documentation knowledge before implementation of the program while there was adequate documentation knowledge by the study nurses immediately after and three months after implementation of the program. Similar findings were reported by **Ali (2013) and Vasseur (2015)** reported the majority of nurses acquired information about nursing documentation through training courses attended in hospital.

In this regard **Huber (2018)** highlighted when making decisions nurses know that they are responsible for accurate documentation and that they must protect the patient from adverse events; however, they must also protect themselves by showing fully what actions they took in response to a change in the patient's status.

Regarding **nurses' Performance levels of documentation throughout the intervention phases** the present study findings stated that majority of staff nurses had low total performance level at preprogram phase while about four fifth of them had high performance level at post phase and about three quarter of them had high performance level after three months of training intervention with highly statistically significant improvement in total documentation performance level through all the phases of intervention. This supported the study hypothesis which

stated, staff nurses documentation skills will be improved after implementing the training intervention. This improvement might be due to the documentation skills program included effective way to learn how to document effectively, and training the staff nurses to follow the documentation skills on forms during practical session and researcher correct any mistakes for trainee and gave him their feedback immediately about their performance. Also, gain the knowledge during program regarding effective communication, documentation skills, recording and reporting and their importance for patient, hospital and healthcare team that lead to feel the staff nurses with responsibility to perform complete and accurate documentation.

The study finding is congruent with **Rvell (2002)** denoted that the findings showed a significant score increase in nursing documentation directly after the intervention. Similar findings were reported by **BjoË rvell et al. (2002)** found that the documentation of nursing increased in quality, as compared with the audit before the intervention. Also, these consistent with **Safan (2007)** who found 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. On the same line with **Patiraki et al. (2015)** who mentioned that intervention has demonstrated positive results in improving knowledge and attitudes to documentation and nursing process.

These findings were in accordance with **Gerdin (2017)** highlighted that, limitations in nurses' knowledge, skill level, and understanding importance of documentation is reason noted to explain incomplete and deficient documentation for skilled nurses. Nurses are the solution to address this problem, but they require training and development in clinical documentation to comply with the documentation guidelines.

Hence, there was highly statistically significant improvement in total staff nurses' documentation knowledge and performance level during post and follow up phases as compared with preprogram phase. This supported the study hypothesis which stated, staff nurses documentation skills will be improved after implementing the training intervention.

Conclusion:

There was highly statistically significant improvement in total staff nurses' documentation knowledge and performance level during post and follow up phase as compared with preprogram phase. This supported the study hypothesis which stated, staff nurses documentation skills will be improved after implementing the training intervention.

Recommendations:

Establishing electronic record systems to support nurses for improving the accuracy of their documentation.

Nursing documentation must be covered widely and in-depth in nursing curriculum of nursing schools.

Continuous training programs or sessions must emphasize on all aspects of nursing documentation.

Orientation program for all newly nurses and in services training program for experienced nurses about documentation.

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