

Effect of Clinical Documentation Training Program on Nursing Personnel's Documentation Skills

Samar S. Ahmed, Gehan M. A. Mostafa, and Noha H. Yassein

Faculty of Nursing, Helwan University, Egypt

Abstract

Background: Documenting patient care is a key method of information sharing among healthcare providers. Whether a patient survives or passes away may depend on prompt accurate, detailed, and concise documentation. **Aim:** The current study aimed to assess the effect of clinical documentation training program on nursing personnels' documentation skills. **Design:** Quasi experimental research design was used in this study. **Setting:** The study was conducted at Badr University Hospital. **Subject:** The subject Consist of a convenience sample (80) of nursing personnel. **Data collection:** Two tools were used in this study as 1st tool: Knowledge assessment questionnaire that consisted of two parts, part 1: Personal Characteristics Sheet, part 2: Knowledge assessment questionnaire .2nd tool: Auditing retrospective sheet of patient's records. **Results:** The majority of nursing personnel had satisfactory level of knowledge regarding documentation in post program and slightly decline at follow up as compared with preprogram phase and 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 ($p < 0.01$). **Conclusion:** The study concluded that there was highly statistically significant positive correlation between total knowledge among the studied nursing personnel and total nursing personnels' performance regarding documentation. **Recommendations:** Continuous training programs or sessions must emphasize on all aspects of nursing documentation, increasing and applying for the documentation training program, information and research findings should be disseminated online.

Keywords: Documentation skills, Nursing personnel, Training program

*Corresponding Author, e-mail: samarsaeid80@gmail.com

1. Introduction

Nursing documentation has been one of the most important functions of nursing personnel. Also, the intention of nursing documentation is to demonstrate that an organization maintains comprehensive written evidence of its planning, delivery, assessment and evaluation of patient's care. Nursing documents are considered as a suitable written communication device. However, their basic role in improving and continuance of nursing and medical interventions provided for patients, transferring patients' information to other health team members, enhance professional autonomy, critical thinking skills of nurses, development of professional knowledge and nursing education, but the most important role of it is the legal aspect, because the best witness to show health interventions provided for patients is a suitable and correct document [1]. Clinical nursing documentation is essential in letting nurses continuously reflect on their choice of interventions for patients and the effects of their interventions. Therefore, it is vital to the quality and continuity of nursing care [16]. Documentation skill is one of the important activities in nursing that reflects the details of the nurse-patient interaction which a health record

contains information. Although, Errors in documentation can lead to errors in patient care, increased length of hospitalization, and mortality due to medical error [3,7]. 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 [22,24]. Documentation and reporting are critical duties of a nurse since they affect patient care, regulatory agency standards, nursing standards, and legal requirements. Furthermore, it is an important function of professional nursing practice. Furthermore, retrospective audit helps to examine what happened after the episode of care has been completed which are often more easily managed as the audit team can plan a time to sit down and collect data from case notes or other sources [12]. As regard, Measuring nursing documentation by using an audit instrument in combination with interventions improve nursing documentation. It must unequivocally state that tailored, goal- directed nursing care was given to a patient based on a nursing assessment to reduce nursing responsibility. Also, it considered one of the best ways to

fight legal claims involving nursing care is with accurate documentation [16].

1.1. Aim of study

The study aim was to assess the effect of clinical documentation training program on nursing personnels' documentation skills through the following objectives:

- 1- Assess nursing personnels' knowledge regarding documentation skills pre; post and follow up.
- 2- Audit retrospective patient's records pre; post and follow up.
- 3- Design the documentation training program based on knowledge assessment.
- 4- Implement the documentation training program.
- 5- Evaluate the effect of the program on nursing personnels' documentation post and follow up.

1.2. Research hypothesis

This study was hypothesized that, nursing personnels' documentation skills was improved after implementing the training program.

2. Subjects and method

2.1. Research design

Quasi-experimental research design with one group pre and posttest assessment was utilized to conduct this study.

2.2. Study Setting

The study was conducted at Badr University Hospital. It consisted of one building of two floors, the first floor consisting of optical binocular unit for the upper and lower gastrointestinal tract and respiratory binocular Emergency department and 2nd floor consists of operational department with bed capacity of 100 beds.

2.3. Study Subjects

The study subject included all the available nursing personnel (n= 80) in Badr University Hospital who was presented at the time of data collection

2.4. Type of sampling

Convenience sample was used to select the study subject.

2.5. Tools of data collection

Two tools were used to collect necessary data:

2.5.1. 1st tool: Knowledge assessment questionnaire

This tool was modified by the researcher based on the review of literatures {10,18} and consisted of two parts:

2.5.1.1. Part 1: Personal Characteristics Sheet

This part includes personal characteristics as (gender, age, qualification in nursing education, job title, years of work experience, attending training program about documentation, daily working hours, time work and department).

2.5.1.2. Part 2: Knowledge assessment questionnaire components

This part used to assess nursing personnels' knowledge about nursing documentation. It composed of seven main dimensions as demonstrated into the following:

Communication (4 questions) ; Accuracy (7 questions) ; Consistency (3 questions) ; Signature (2 questions) ; Timing (4 questions) ; Confidentiality (2 questions) and Conciseness (3 questions)

Scoring system: This tool consisted of 25 questions with a total grade (25). One grade was given for each correct answer, zero grade given for incorrect answer.

- Satisfied knowledge assessment level: > 60%
- Unsatisfied Knowledge assessment level: ≤ 60%

2.5.2. 2nd tool: Auditing retrospective sheet of patient's records

It consisted of two parts:

2.5.2.1. Part 1: This part was intended to collect data regarding nursing personnel

It contains the following items: code number and unit.

2.5.2.2. Part 2: Auditing retrospective checklist of patient's records

It was modified by the researcher after reviewing related literature [10, 16 ,17]. This tool was used to assess performance of nursing personnel regarding documentation. It filled by the researcher. It was intended to collect data about the nursing personnel's documentation performance retrospective review checklist will contain (11) dimensions involved 77 items representing documentation skills. It consists of eight dimensions as the following: Accuracy (16 items); Timing(6 items); Signature (6 items); (Confidentiality, Conciseness & Permanence) (5items); Vital signs chart (4 items); Medication Chart (8 items); Nurses'notes sheet (7 items); Incident report form (6items); Handover SBAR tool (3items); Nursing admission form (11items) and Nursing care plan (5 items) **Scoring system:** This tool consisted of 77 items with a total grade (154). Two grade was given for each correct complete answer, one grade for correct incomplete and answer zero grade given for incorrect answer.

- Poor level < 60% \longrightarrow (0-92)
- Good level ≥ 60 to <75 \longrightarrow (93-115)
- Excellent level $\geq 75\%$ \longrightarrow (116-154)

2.6. Validity

Validity of the tools was done namely face validity and content validity. The tools were translated into Arabic and tested by a group of five experts specialized in nursing administration from different four universities; Helwan University (one professor); Ain Shams University (one professor); Cairo university (one professor); Bani- suief (one professor) and BUE (one professor) through an opinionative sheet to measure validity of the tools and the necessary modifications were done accordingly.

2.7. Reliability of the tools

Reliability for the utilized tools was tested to determine the extent to which the items of the tools are inter-correlated to each other. The Cronbach's alpha model is one of the most popular reliability statistics in use today and considered as a model of internal consistency that used to estimate of reliability of test scores. Reliability of knowledge questionnaire regarding documentation by

Cronbach's alpha was (0.820) respectively. While Reliability of Auditing retrospective checklist of patient's records by Cronbach's alpha test was (0.981) respectively. The following table discusses reliability.

2.8. Ethical considerations

The research approval was obtained from Faculty of Nursing ethical committee of Helwan University before starting the study, an approval was obtained from the director of Badr University Hospital. Participants in the study (nursing personnel) were informed about the purpose and process of the study and that the study is harmless and their participation is voluntary and they have the right to withdrawal from the study at any time without reason. They also were assured that, anonymity and confidentiality will be guaranteed, as well as gathered data will be used for the research purpose only. Ethics, values, culture and believes was respected.

2.9. Pilot study

The pilot study was carried out on (10%) of the total sample size (8 nursing personnel) to test applicability and clarity of tools and time needed to complete it. Total time needed to complete both tools was ranged between (35:55) minutes. No modifications were done so participants in the pilot study were included in the study sample.

2.10. Field work

The purpose of the study was simply explained to the participants who agree to participate in the study prior to any data collection. Field work started actually at the beginning of March 2022 to the end of November 2022 lasted for nine months. After securing the official approval from the hospital for conducting the study, the researcher met the nursing director of the hospital to determine the suitable time for data collection. The researcher collected data by herself through meeting nursing personnel and was presented at all time during fulfilling the questionnaire forms to answer any questions. Also the researcher checked the completeness of each filled sheet to ensure the absence of any missing data.

2.11. Process of training program

The training program of this study was conducted on four phases: assessment, designing, implementation, and evaluation.

2.11.1. First Phase: Assessment

The researcher modified the tools for data collection, met the director of Badr University Hospital to explain the aim and process of the study, collected all necessary information about nursing personnel as (numbers, qualifications, departments, gender, age and years of experience working in the hospital). Conducted the pilot study on 10% of the total nursing personnel (8), additionally the researcher begin to collect data from beginning of March 2022 to end of April 2022 (2 months), by using the modified tools with the study participants in the study setting considered their available time without interrupting their daily work and after explaining the purpose of the study to them. The researcher scheduled the

visits to the hospital and under support of nursing director of the hospital as following; the researcher visited the hospital (16 visits /2 month) which eight (8visits/month) (2visit/week) for assessing nursing personnels' knowledge and also (8visits/month) for assessing performance of nursing personnel through auditing retrospective of patient's records. Total / week (2 visit / week). During the 1st month, number of visits for nursing personnel (4 visits/month) which take (N=10) nursing personnel for each visit .So, total /month (N=40) of them.while (4 visits /month) for auditing patient's record (N=5) of patient's records for each visit .So, total /month (N=20).The 2nd month, number of visits for nursing personnel (4 visits/month) which take (N=10) nursing personnel for each visit .So, total /2month (N=80) nursing personnel. While (4 visits /month) for auditing patient's record, (3) visits take (6) of patient's record and the last visit take (N=7) of patient's record. So, total /2month (N=45) patient's records. Firstly, the researcher began with knowledge assessment questionnaire (pre-test) to assess nursing personnel 'knowledge regarding documentation before implementing training program. The time needed to complete this tool ranged between (20:25) minutes. **Secondly** the researcher used Auditing retrospective sheet of patient's records (pre-test) to assess performance of nursing personnel regarding documentation before implementing training program. The time needed to complete this tool ranged between (15:30) minutes. Total time needed to complete both tools was ranged between (35:55) minutes.

2.11.2. Second Phase: Designing

The researcher in this phase designed and implemented training program about knowledge assessment questionnaire regarding documentation for nursing personnel. Based on the pre-test results, the general objectives of the knowledge assessment regarding documentation training program was to enhance nursing personnel knowledge about documentation skills. Knowledge assessment questionnaire regarding documentation skills which training program was designed to be consistent with the nursing personnel needs. This phase started in the beginning of May 2022 to the end of June (two months). Nursing documentation training program was conducted by the researcher based on assessing nursing personnels' knowledge about nursing documentation skills The researcher divided nursing personnel into (8) groups, each group of them included (10) nursing personnel under supervision and support of Badr University Hospital nursing director considering their daily work load.

2.11.3. Third Phase: Implementation

Implementation of training program regarding nursing documentation skills was through eight weeks as following; Nursing documentation training program was taken 7 sessions / week (two months) as following: each group from the eight groups of nursing personnel took (3visits/week) to conduct the program content, two visits of them included (2 sessions), and the third visit included (3sessions). Which, took (6 hours) with 15 minutes for break time. Different teaching methods were used in conducting the training program as; lectures, group

discussion and brain storming. Also media used as, power point, data show, white board and program booklet that was prepared by the researcher for nursing personnel which helped them to revise and refresh program content taken during sessions. At the end of each session nursing personnel informed about the next session time.

Nursing documentation training program for nursing personnel was held in the education room of Badr university Hospital during the day shift in coordination with nursing director and according to the daily work schedule. Activities carried out in the sessions illustrated in (program framework).

2.11.4. Fourth Phase: Evaluation

The aim of this phase was to enhancement of documentation skills for nursing personnel through a training program after applying the program by using questionnaires that were provided to nursing personnel immediately after completion the program.

Immediate evaluation: after completion of the training program, Knowledge assessment questionnaire had been (post-test) to the nursing personnel (Tool I) to assess nurses' knowledge about nursing documentation. Also, Auditing retrospective checklist of patient's records (tool II) had been given after applying educational program to assess the nursing personnel's documentation performance. Immediate evaluation post program after each group ended.

Follow up post program: reassessment was done after three months post conducting the program. The same tools (tool I & tool II) that used in immediate evaluation post program were given to the nursing managers. Follow up evaluation post program was started on the beginning of October 2022 to the end of November 2022 (two months).

2.12. Administrative item

Approval to carry out this study was obtained from the Dean of the Faculty of Nursing Helwan University and Director of Badr University Hospital to conduct the study. Individual oral consent was also obtained from each nursing personnel to participate in the study.

2.13. Statistical item

Data entry and analysis were performed using SPSS statistical package version 25. Categorical variables were expressed as number and percentage while continuous variables were expressed as (mean \pm SD). Chi-Square (χ^2) was used to test the association between row and column variable of qualitative data. The Shapiro Wilk test has a significance value below 0.05, indicating that the data did not follow a normal distribution; therefore, nonparametric tests were used for analysis. ANOVA test was used to compare mean in normally distributed quantitative variables in more than two groups. The Kruskal–Wallis test is nonparametric tests used to compare the mean ranks of scores and determine significant differences in mean values for more than 2 groups. Pearson correlation was done to measure correlation between quantitative variables.

For all tests, a two-tailed p-value ≤ 0.05 was considered statistically significant, P-value ≤ 0.01 was considered highly statistically significant. While p-value > 0.05 was considered not significant. Eta square (η^2) is used to

measure the effect size. The referential framework for identifying the effect size for Anova-test value.

3. Results

Table (1): shows the personal characteristics of studied nursing personnel, more than two third (68.8%) had equal to less than 25 years old, while the minority (8.8%) of them had more than 35 years to less than 45 years old, with a mean age of (26.82 \pm 6.54). Pertaining to gender, more than half (53.7%) of them were females with a male to female ratio is 0.9:1. Regarding qualification in nursing education, about two third (65%) of them graduated of Technical Nursing Institute while, only (13.8%) of them had Diploma degree. According to their job title, the majority (85%) of them were staff nurses, while, only (1.2%) of them were nursing supervisors, also (1.2%) of them were nursing director. As regards departments, more than two fifth (43.8%) of them from emergency (ER), while, only (2.5%) of them from nursing office. As concerning, attended training course. More than half (58.8%) of them no previous attending training program about documentation. As regards years of work experience among the studied nursing personnel, less than half (45%) of them had an experience lasting for less than or equal to one year and less than half (46.3%) of them had daily working hours from more than eight hours to less than twelve hours with a mean of (1.97 \pm 1.14 and 12.45 \pm 5.43) respectively. Moreover, the majority of them (80%) had full time according to time work. Table (2). reveals that, total documentation knowledge level of nursing personnel the majority (93.8%) of nursing personnel had satisfactory level of knowledge regarding documentation dimensions in post program and slightly decline (81.3%) of them at follow up as compared with preprogram phase while only (11.2%) of them had satisfactory level. while there are highly statistically significant improvement in nursing personnels' knowledge related to all documentation dimensions during post program and follow up phase as compared with preprogram phase. In addition to, presence of difference between observed and expected values with a statistically significant difference at $\chi^2=182.8$, P=0.000.

Figure (1). reveals percentage distribution of total nursing personnels' level of performance regarding documentation during pre, post & three months follow up. It denotes that, during the post-test phase, nurses' level of performance regarding documentation gained higher percentage of excellent level of performance (88.9%) followed by the phase of follow-up test (80%) as compared with the phase of pre-test (13.3%). In addition to, presence of difference between observed and expected values with a statistically significant difference at P=0.000. Table (3). Clarifies Effect size and η^2 of enhancement of documentation skills program on total knowledge throughout pre, post & three months follow up among the studied nursing personnel. It shows that enhancement of documentation skills program had positive large effect size on total knowledge, during pre, post & (three months follow up) among the studied nursing personnel at $\eta^2= 0.689$. As when Eta-square value = 0.01 to < 0.06 , the effect is considered weak, when it = 0.06 to < 0.14 , the effect is considered medium and when it ≥ 0.14 the effect is large.

Table 1. Personal characteristics of the studied nursing personnel (n=80)

Personal characteristics		No.	%	
▪ Age (year)	▪ <25 years old	55	68.8	
	▪ >25<35 years old	18	22.4	
	▪ >35<45 years old	7	8.8	
	▪ Mean± SD	26.82 ± 6.54		
▪ Gender	▪ Male	37	46.3	
	▪ Female	43	53.7	
	▪ Male to female ratio	0.9:1		
▪ Qualifications in nursing education	▪ Bachelor	17	21.2	
	▪ Technical nursing institute	52	65.0	
	▪ Diploma nurse	11	13.8	
▪ Job title	▪ Staff nurse	68	85.0	
	▪ Charge nurse	7	8.8	
	▪ Head nurse	3	3.8	
	▪ Nursing supervisor	1	1.2	
	▪ Director	1	1.2	
	▪ Department	20	25.0	
▪ In- patient	▪ ICU	23	28.7	
	▪ ER	35	43.8	
	▪ Nursing office	2	2.5	
	▪ Attending training program about documentation	33	41.2	
▪ Yes	▪ No	47	58.8	
	▪ Years of work experience in hospital	▪ ≤ 1	36	45.0
		▪ < 1≤ 3	27	33.8
		▪ > 3< 5	17	21.2
▪ Mean± SD	1.97 ± 1.14			
▪ Daily working hours	▪ ≤ 8 hours	30	37.5	
	▪ <8≤12	37	46.3	
	▪ <12 hours	13	16.2	
	▪ Mean± SD	12.45 ± 5.43		
▪ Time work	▪ Full time	80	100.0	
	▪ Part time	0		
	▪ Causal	0		

Table 2. Total level of knowledge regarding documentation throughout (intervention phases) pre, post & three months follow up among the studied nursing personnel (n=80)

Documentation dimensions		Intervention phases						Chi square test	P-value
		Pre		Post		Follow up			
		No	%	No	%	No	%		
Total documentation knowledge level	Satisfactory	9	11.2%	73	93.8%	65	81.3%	81.956	0.000**
	Un satisfactory	71	88.8%	7	8.75%	15	18.7%		

(**) Highly statistically significant at P<0.01

Table 3. Effect size and η^2 of enhancement of documentation skills program on total knowledge throughout (Intervention phases) pre, post & three months follow up among the studied nursing personnel (n=80)

Documentation dimensions	Intervention phases	Mean	SD	F Test	P value	H	η^2	Effect size
Total documentation Knowledge	Pre-test	10.58	2.92	262	0.000***	0.830	0.689***	Large effect
	Post-test	20.98	1.55					
	Follow up	19.79	4.31					
	Total	17.11	5.61					

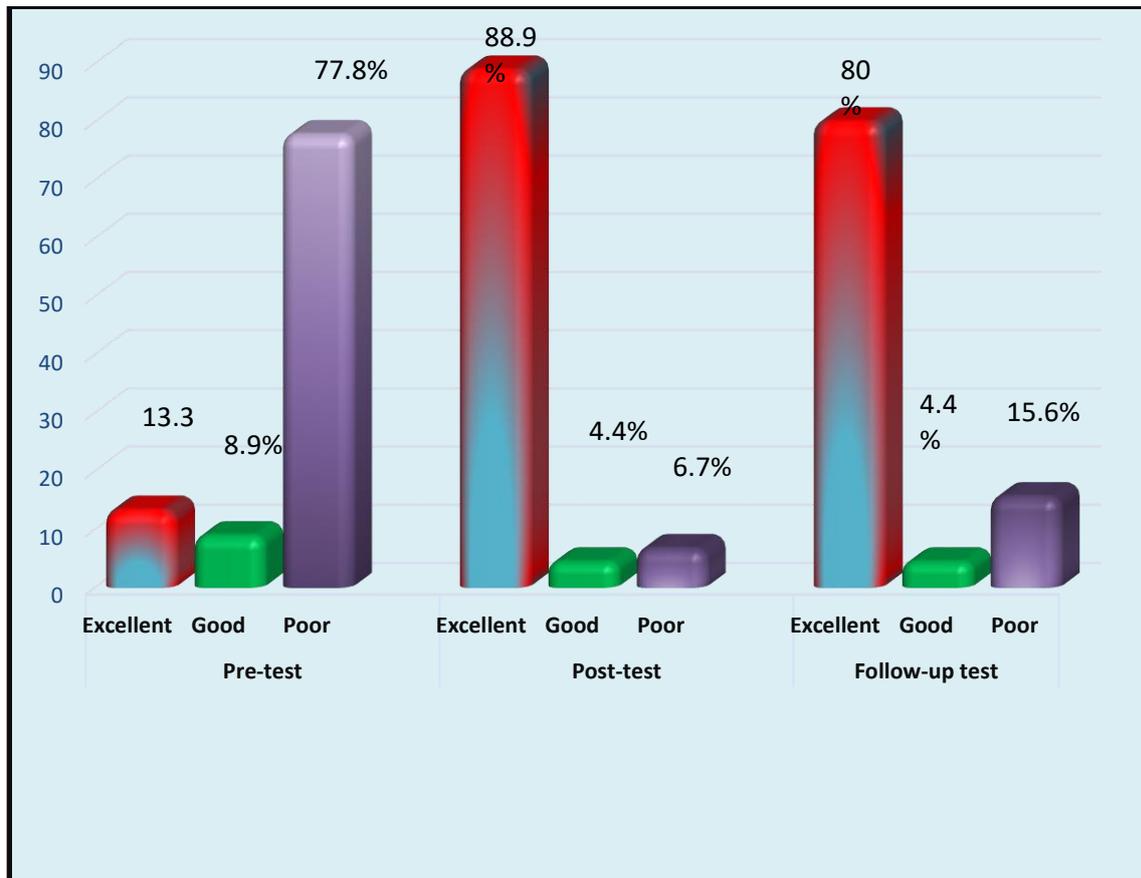
Highly statistically significant $p \leq 0.01$ size (.06) F: ANOVA Test *Small effect size (.01) *Medium effect size (.14) ***Large effect size (14)

Table 4. Effect size and η^2 of enhancement of documentation skills program on total nursing personnel' performance throughout (Intervention phases) pre, post & three months follow up through auditing retrospective of patients' records (n=45)

Dimensions	Intervention phases	Mean	SD	F Test	P value	H	η^2	Effect size
Total Documentation Performance (auditing retrospective)	Pre-test	64.4	45.7	74.6	0.000***	0.729	0.531***	Large effect
	Post-test	144.5	21.6					
	Follow up	137.6	31.7					
	Total	115.5	49.9					

(Intervention phases) pre, post & three months follow up through auditing retrospective of patients' records (n=45)

Highly significant $p \leq 0.01$ F: ANOVA Test *Small effect size (.01) **Medium effect size (.06) *Large effect size (.14)



$\chi^2=66.80, P=0.000$ Poor ($<60\%$); Good ($>60\% - <75\%$) & Excellent ($>75\%$)

Figure 1. Percentage distribution of total nursing personnels' level of performance regarding documentation during pre, post & three months follow up though auditing retrospective of patients' records (n=45)

Therefore, this provides enough evidence to support research hypothesis.

Table (4). indicates Effect size and η^2 of enhancement of documentation skills program on total nursing personnel performance during pre, post & (three months follow up) through auditing retrospective of patients' records. It calcifies that enhancement of documentation skills had positive large effect size on total nursing personnel's performance during pre, post & three months follow up at $\eta^2 = 0.531$. As when Eta-square value = 0.01 to < 0.06, the effect is considered weak, when it = 0.06 to < 0.14, the effect is considered medium and when it ≥ 0.14 the effect is large. Therefore, this provides enough evidence to support research hypothesis.

4. Discussion

Regarding personal data of the studied subjects, the study results showed that more than two third had equal to less than 25 years old. From the researcher point of view this may be due to study sample including about two third of them new graduated from Technical Nursing Institute which hiring new in the hospital. Pertaining to gender, more than half of them were females. This may be due to nursing profession still receive females more than males despite of increasing flow of males to the profession. As regards qualification in nursing education, about two third of them graduated of Technical Nursing Institute while, only of them had Diploma degree. According to their job title, the majority of them were staff nurses. As regards years of work experience among the studied nursing personnel, less than half of them had an experience lasting for less than or equal to one year. The present study indicated that there were high statistical significances differences between studied nursing personnel at pre, post and follow up intervention related to the knowledge and audit scores ($p < 0.001$).

The result contrast with the results of [25].who studied "Impact of Documentation Practice Training Program for Nurses: On The Job versus Off The Job" and stated that, about a third of the study sample aged from 25 to less than 35- year-old, about two-third of them married and have diploma of nursing school, slightly less than half of them their experience from 15 to less than 25 years, and also, agree with the study results which founded that the majority of them were female, most of them reported no previous training program attended to documentation. So, that reflects improvement nursing personnels' knowledge of documentation skills and their performance after training program intervention. This result disagrees with the results of [4,23]. who studied "Nursing documentation practice and associated factors among nurses in public hospitals" and revealed that despite its non-significant an association, knowledge has shown association with documentation practice in other studies. These inconsistencies might be related to socio-demographic variability of the study participants or difference in familiarity to the documentation guideline. Concerning total nursing personnels' documentation knowledge, the present study showed that slightly most of them had low level of knowledge regarding total documentation dimensions in preprogram phase, while all nursing personnel had high level of knowledge in post phase and follow phase with highly statistically significant improvement with all the phases of intervention. That means improvement of nursing personnels' knowledge after

implementation the program. From the researcher point of view this may be due to the documentation skills program included effective ways to learn new information. Also, feel

In the same .a sense of responsibility toward patient records line, [13,19]. who studied "Self learning package as a mean for achieving quality nursing documentation" and stated that nursing personnels' knowledge regarding documentation was unacceptable level. While majority of nursing personnel were highly aware of documentation at immediately post

The result of .and follow up after three months of program the current study revealed that, knowledge scores had a high statistically positive correlation with their audit scores. The current study was supported by [8,25].Who studied "Impact of Documentation Practice Training Program for Nurses: On The Job versus Off The Job " and stated that there was a statistically significant high positive correlation with their audit scores of the nursing personnels' documentation immediately after training program. The Additionally, The current study result was in disagreement with [20,25]. Who studied "Impact of Documentation Practice Training Program for Nurses: On The Job versus Off The Job " and stated that knowledge scores had statistically significant weak negative correlations with their experience years. This result may be due to nursing personnel with low experiences didn't have abilities to evaluate and determine responsible for accurate documentation and that they must protect the patient from adverse events.

Who studied "Impact of Documentation Practice Training Program for Nurses: On The Job versus Off The Job "and founded that the majority of them had a high level of knowledge regarding total documentation dimensions in post phase and slightly decline at follow up phase in compared to prophase with highly statistically significant improvement in all phases of intervention. Additionally, that means improvement of nursing personnels' level of knowledge after implementation of the program. This may be due to the documentation skills program included effective ways to learn new information. Also, feel a sense of responsibility toward patient records.

Regarding nursing personnels' Performance levels of documentation throughout intervention phases present study findings stated that majority of nursing personnel had low total performance level. The current study result was matched with [9,15]. who studied "Improving the quality of nursing documentation at a residential care home: a clinical audit" and stated that the findings showed a significant score increase in nursing documentation directly after the intervention. The current study result was congruent with [5] who studied "Quality improvement of medical records through internal auditing: a comparative analysis " and showed that the documentation of nursing increased in quality, as compared with the audit. Also, these supported by [6]. 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, [14]. who studied "Documenting patient risk and nursing interventions: record audit" and mentioned that intervention has demonstrated positive results in improving knowledge and attitudes to documentation and nursing process. This finding was consistent with the finding of [21]. who studied "Training as a Means for Improving Staff Nurses' Documentation Skills" and indicated that, limitations in

nursing personnels' knowledge, skill level, and understanding important of documentation is reasons 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. Finally, the documentation should be saved for an appropriate length of time and should be concise and clear; complete, accurate, and up-to-date documentation will protect a nurse in a court of law. Correct documentation may encourage a nurse to establish continuity between the diagnosis, intervention, progress, and evaluation of the outcome.

5. Conclusions

The current study explores that enhancement of documentation skills for nursing personnel through a training program. This study concluded that the majority of nursing personnel have a low level of knowledge related to documentation skills pre applying nursing documentation training program, also total nursing personnels' knowledge regarding documentation and performance of them through auditing of patient's records scores had improved among all of them immediate post and follow up of applying training program. Moreover, there was a highly statistically significant positive correlation between knowledge among the studied nursing personnel and total nursing personnels' performance regarding documentation through auditing retrospective of patients' records after applying training program. This finding support the research hypotheses.

Based on the results and hypotheses of the present study, the study findings concluded that a highly statistically significant improvement was detected in total nursing personnels' 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 nursing personnels' documentation skills.

6. Recommendations

Based on the previous findings, the following recommendations suggested:

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 nursing personnel.

-Replication of the current study with a larger sample of nurses in different settings is required for generalizing the results.

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