Design Program about Accreditation Standard to Enhance Staff Nurses' Documentation Performance in Intensive Care Units at Tanta International Teaching Hospital

ManalM.Abdelaziz[1], Fouada M. Shabaan[2],RedaA. Abo Gad[3],Heba K. Obied[4]

[1]Nursing,Quality coordinator Tanta University Hospital,

[2]Professor , Nursing Administration, Faculty of Nursing, Tanta University

[3]Professor, Nursing Administration, Faculty of Nursing, Tanta University

[4]Assistant Professor, Nursing Administration Faculty of Nursing, Tanta University

Abstracta

Background: Nursing documentation, as legal and professional documents, are valuable tools for accrediting hospitals; and all hospitals seek to identify factors that contribute to the improvement of these records by considering accreditation standards. **Aim:** This study aimed to design program about accreditation standard to enhance nurses' documentation performance at Tanta International Teaching Hospital. **Subjects and Method: Study design**: Quasi experimental research design. **Setting:** The study conducted in three Intensive Care Units (ICUs) at Tanta International Teaching Hospital. **Subjects:** All (n=90) nurses, and sample of 300 patient charts randomly selected. **Tool:** Two tools were used to collect data (I) Staff nurses' knowledge about accreditation standards for patient care documentation questionnaire, (II) Audit nursing documentation in patient chart checklist. **Results:** preprogram more than half (54.4%) of staff nurses' showed fair level of total knowledge about accreditation standards for patient care documentation and the rest were at poor level, post program levels of staff nurses' knowledge about all domains of accreditation standards for patient care documentation were significantly improved at (p= 0.001). Preprogram none of staff nurses' were at good level of total performance documentation against accreditation standards for patient care significantly improved to be all were at good level post-program. Preprogram none of staff nurses were at good level of documentation against manual for JCAHO's accreditations significantly improved to be all have good level post-program. **Conclusion:** Staff nurses' documentation knowledge and performance were statistically significantly improved after implementation of the designed program about accreditation standard for documentation. **Recommendations:** Maintain periodical in-service program to staff nurses about accreditation standards for patient care documentation and Manual for JCAHO's to maintain their improved knowledge and performance levels.

***Key words*:** Accreditation standards, Nursing documentation

Introduction

Accreditation is an accurate self-assessment and external peer assessment process for health care organizations performance against established standards, and implemented continuously for improvement [(1)]. Accreditation is recommending way to be a voluntary program, in which trained external peer reviewers evaluate a health care organization's compliance with pre-established performance standards [(2)]. The Egyptian Minister of Health and Population establish a National Accreditation Board (NAB) to supply technical assistance to develop and test accreditation standards and build the institutional capacity for the program [(3)]. One among the key principles of credibility was agreement that the Egyptian standards should closely mirror international standards [(4)].

The international accreditation standards of the joint commission within the world are unique and designed for measuring the standard of patients' care [(5)]. Joint Commission International (JCI) standards define the performance expectations, structures, and functions that must be in place for a hospital to be accredited by JCI [(6)]. The Egyptian General Authority for Healthcare Accreditation and Regulation GAHAR was established under Law No. 2 for the year 2018 pertaining to the Universal Health Insurance system. The GAHAR responsibility for maintaining the status of being the accrediting and regulating body was strongly rooted in its independence, and by law [(7)].

The accreditation standards requirements are designed to support the development of healthcare quality and patients' safety by planning, managing services and measuring improvements [(8)]. So, accreditation sets standards for patients' documentation to identify and address the gaps and deterioration in quality and safety of the services provided and to promote nursing staff responsibility and accountability as a part of their accreditation process [(9)]. Nursing staff documentation is an important part of clinical documentation. Nurses are the largest professional groups in hospitals and they have a long background in nursing care documentation [(10)].

Documentation includes any written and/or electronically generated information about patient that describes the care or service provided timely and appropriate reports of assessments, decisions about patient status, plans, interventions, and outcomes. It demonstrates how a nurse has applied their knowledge, skills, and judgment according to the standards of practice. Also, it is a

comprehensive record of care provided to patient as evidence in legal proceedings [11]. The Joint Commission released a set of new and revised standards for patient documentation divided into three standard statements that describe broad practice principles requirements for communication standards, accountability and liability and information security standards to help nurses understand and apply the standards to their individual practice [12].

Each statement in the standard is followed by corresponding indicators that outline a nurse's accountability for ensuring that their documentation is accurate and meet the communication standards that influence quality of care and decision-making [13]. Also, provide guidance on applying the accountability and liability according to professional and ethical standards to practice patients' safety and staff values. The information security standards are required to keep records confidentiality and security of their professional practice [14]. The manual of the Joint Commission for Accreditation of Healthcare Organization (JCAHO) involve requirements for accreditation standards to successfully achieve and maintain compliance with nursing documentation including planning and delivering of nursing care [15,16].

Documentation accreditation standard requires, initial patient assessment and reassessments to include systematic and continuous collection of data; and communication of the data collected [17]. Also, nursing diagnoses to be developed based on data obtained during the nursing assessment and enable the nurse to develop the care plan [18]. The nursing interventions establishing a preferential sequence for address nursing diagnoses. The nursing evaluation for goals and expected outcomes must be measurable and patient-centered. The nursing discharge summary to include patient's condition at discharge, discharge instructions, and required follow up care [19].

Auditing process used to identify any gap present in documentation aiming for enhancing staff nurses' documentation and teaching the accuracy of data in either written or electronic information as well as improve patient safety and quality of care [20].

Achieving the national or international healthcare accreditation is important for providing safe, effective, patient-centered, timely, efficient and equitable health care services to all their patients, families and care providers [21]. However, attention should be given to the frequency of audits and time needed to do it, as it might interfere with staff workload and delay the

identifying strategies to address deficiencies [22, 23].

Aim of the study

Design program about accreditation standard to enhance staff nurses' documentation performance in Intensive Care Units at Tanta International Teaching Hospital.

Research hypothesis:

Staff nurses' performance documentation is expected to be enhanced after implementation of the designed program about accreditation standard for documentation.

Subjects and Method

Study design:

Staff nurses' performance documentation is expected to be enhanced after implementation of the designed program about accreditation standard for documentation.

Setting:

The study was conducted in three Intensive Care Units (ICUs) at Tanta International Teaching Hospital. Emergency Hospital ICUs included Anesthesia and Medical ICUs, and at Tanta International Teaching Hospital ICUs.

Subjects:

The study subjects consisted of:

- All (n = 90) nurses working in ICUs
- Sample of 300 patient charts randomly selected, 150 before program and 150 post program.

Tools: Two tools were used for data collection:

Tool 1: Staff Nurses' Knowledge about Accreditation Standards for Patient Care Documentation Questionnaire developed by the researcher guided byCollege and Association of Registered Nurses of Alberta (2014) [24], Egyptian accreditation standards set by the General Directorate of Quality in the Ministry of Health and Population (2015) [25] and recent related literature including Joint Commission International Accreditation Standards (2020) [26], and GAHAR Handbook for Hospital Standards (2021) [6] including 2 parts:

Part (1) Nurses' characteristics data such as age, sex, unit, marital status, experience and level of education.

Part (2) Structure questionnaire Sheet about Accreditation Standards for Patient Care Documentation.

It included 50 questions were cover the follows

- Aspects of accreditation and Egyptian health care accreditation program
- Accreditationstandardsfor patient care documentation
- Manual of the Joint Commission on Accreditation of Healthcare Organization (JCAHO) for accreditation
- Aspects of nursing documentation as definition, goals, purposes and elements

- Nursing documentation principles, standard forms and importance.

Scoring system:

Nurse's answers score of (1) for correct and (0) for incorrect.

Levels of Nurses' knowledge were classified as follows:

Good level of knowledge > 75%

Fair level of knowledge 60 % -≥75%

Poor level of knowledge < 60%

Tool 11:Audit Nursing Documentation in Patient Chart Checklist

developed by researcher based on Egyptian accreditation standards set by the General Directorate of Quality in the Ministry of Health and Population (2015) [25] and recent related literature to audit nursing staff documentation performance. It translated into Arabic language. It was include two parts:

Part I: Retrospective Auditing of Nursing Documentation against Standards for Patient Care. This part was used to audit patient charts nursing documentation against standards it included 28 items divided into three subscalesas follows:

1- Communication standard
2- Accountability and liability standard
3- Information security standard

Part II: Retrospective Auditing of Documentation against Manual for JCAHO's Accreditation.

This part was used to audit patient charts against manual for JCAHO's accreditation that nurses must document to justify accreditation it included 48 items divided into six subscales as follows:

Initial patient assessment and reassessments, diagnosis, planning, interventions, evaluation and patient discharge summary

Scoring system:

Staff nurse's performance of documentation were measured in (3) points Likert Scale ranging from complete correct done =2; incomplete correct done =1; and not done =0.

Levels of staff nurses documentation were as follows:

Good level documentation ≥ 75%

Fair level documentation 60 % -≥75%

Poor level documentation < 60%

Method

- Official permission obtained from Tanta university faculty of nursing to administrator of Tanta International Teaching Hospital to obtain the approval and assistance in data collection.
- Ethical consideration: Nurse's informed consent for participation in the study obtained after explanation of the nature and the purpose of the study, confidentiality of the information's obtained from them and the right to withdrawal.

- Tool (II) translated into Arabic and presented to a jury of seven experts in the area of specialty to check content validity and clarity of the questionnaire. The seven experts were two professors, three assistant professors and two lectures in Faculty of Nursing, Tanta University.
- The experts responses were represented in four points rating score (4-1) ranging from; 4 =strongly relevant, 3 = relevant, 2= little relevant, and 1= not relevant. Necessary modifications were done, included clarification, omission of certain items and adding others and simplifying work related words.
- Reliability of tools was tested using Cronbachs Alpha Coefficient test, its value = .958 for staff nurses' knowledge about accreditation standards for patient care documentation, .989 for checklist of auditing of nursing documentation against standards for patient care and 0. 964 for auditing of documentation against manual for JCAHO's accreditation.
- A pilot study was carried out after the experts' opinion and before starting the actual data collection. It was carried out on a sample 10% of staff nurses (n=٩٠) and they excluded from the main study sample during the actual collection of data. The aim of pilot study was to test the sequence of items, clarity, applicability, and relevance of the questions. Necessary modifications were done. Pilot study also served to estimate the time required for filling the questionnaire sheets. The estimated time needed to fulfill knowledge test tool I for staff nurses was approximately 30 minutes.
- **Data collection phase:**tool (I) staff nurses' knowledge about accreditation standard for documentation of patient care, and tool (II) auditing of nursing documentation in patient chart were used before and after implementation of the program.
- ICU staff nurses at Tanta International Teaching Hospital were divided into 10 groups. The program was 5 sessions 2hr for each session. The program time was 10 hours conducted for subjects at their work setting
- The appropriate time for data collection was according the type of work and workload for each department. The data collection started from August 2020 and lasted 4 months

Construction of educational program

The educational program about accreditation standard for patient care documentation to enhance nurses' performance designed by the researcher based on review of relevant recent literature. This research was conducted in four phases: assessment phase, development of the educational program,

implementation of the educational program phase and finally evaluation phase.

Phase1: assessment structure questionnaire sheet tool (I) distributed by researcher to all ICUs staff nurses to assess their level of knowledge about accreditation standards for patient care documentation pre and post implementation of program, and auditing nursing documentation in patient chart checklist tool (II) collected by the researcher before and within 3 months after implementation of the program to audit staff nurses performance documentation against standards for patient care and auditing staff nurses performance against manual for JCAHO's accreditation.

Phase 2: development of the educational programthe first step in the construction of this program was the statement of instructional objectives. These objectives were derived from the assessed need of the sample and literature review.

Instructional objectives the main objective of the program is to improve the staff nurses knowledge about accreditation standard for patient care documentation and effectively perform manual standard at patients' charts for Tanta International Teaching Hospital ICUs.

Specific objectives at the end of the program the nurses should have knowledge about accreditation standard to enhance nurses' documentation performance at Tanta International Teaching Hospital charts as follow:

- Identify accreditation aspects and Egyptian health care accreditation program.
- Identify accreditation standardsfor patient care documentation.
- Understand information about manual of JCAHO for accreditation
- Identify aspects of documentation include information as definition, goals, purposes and elements.
- Identify information about nursing documentation principles, standard forms and importance.

Selection and organization of program contents after determining objectives of program, the content was specially designed; method of teaching and evaluation was identified. The content was selected after carful assessment of subject needs. Simple and scientific language was used. This content was designed to provide knowledge related to accreditation standard for patient care documentation which includes 5 sessions under (5) titles as follows:-

- Accreditation aspects and Egyptian health care accreditation program.

- Accreditation standards for patient care documentation
- Information about manual of JCAHO for accreditation
- Aspects of documentation include information as definition, goals, purposes and elements
- Information about nursing documentation principles, standard forms and importance

Selection of learning strategies was governed by studying the subject themselves and content of accreditation standard for patient care documentation program. The methods used were lecture, group discussion, example from patients' charts.

Learning strategies aids used for attainment of program objectives were data show, handouts, flow sheet, pen, and paper.

Phase 3: Implementation of the program

The study was carried on all available (n = 90) staff nurses working in Tanta International Teaching Hospital ICUs. The staff nurses divided into ten groups. The program time was 10 hours for each group. One session every day for 5days, every session 2 hour, program was conducted for subjects at their work setting. They preferred to start the session after finishing necessary work. ICU nursing staff was informed about the general objectives of program and each session. The researcher built good relationship and motivated them to participate and share in program activities.

- The program was implemented in ICUs at Tanta International Teaching Hospital.

Phase 4: Evaluation of the program

The program evaluated by:

a- Pre-implementation of the program, pre-test done for nurses using tool I and tool II to assess their level of knowledge and performance about accreditation standard for patient care documentation

b- Immediately after implementation of the program, post – test was done for nurses using tool I.

c- After three months post program using (tool II) to audit chart of patient care for nurses' documentation performance.

Statistical analysis Data were fed to the computer and analyzed using IBM SPSS software package version 20.0. (Armonk, NY: IBM Corp) Qualitative data were described using number and percent.

Results

Table (1) Shows staff nurses characteristics. The age of staff nurses ranged from 21- 41 years with mean (26.64 ± 3.209). Majority (91.1%) of staff nurses aged ≤ 30 years, 75.6 % were single and 62.2% had children. Staff nurses 65.6% were female compared to 34.4% were

male, 62.2% had ≤5 years and the rest had > 5 years of experience. They 45.6%, 34.4% and 20% respectively were working in cardiac, anesthetic and medical ICUs. Staff nurses 63.3 % had associate degree and 36.7% had bachelor degree. More than half (52.2%) of staff nurses not attended accreditation standards courses while 47.8% attended it.

Table (2) shows levels of staff nurses' knowledge about accreditation standards for patient care documentation pre and post program. There was statistically significant improvement of levels of staff nurses' knowledge about all domains of accreditation standards for patient care documentation at ($P \leq 0.001$). Pre-program staff nurses 26.7%, 55.6% and 17.8% showed good, fair and poor levels of total knowledge respectively on international and Egyptian health care accreditation. They 45.6%, 26.7% and 27.8% respectively showed good, fair and poor level of total knowledge on accreditation standards for patient care documentation as well as 35.6%, 44.4% and 20.0% of staff nurses respectively showed good, fair and poor level of total knowledge on manual of (JCAHO) for accreditation. Majority (81.1%), (73.3%) showed poor level of total knowledge respectively on aspects of nursing documentation and nursing documentation principles. All (100%) staff nurses showed good level for all domains of accreditation standard of documentation post program.

Table (3) shows retrospective auditing of staff nurses documentation domains against accreditation standards for patient care pre and post-program. There was statistically significant improvement of staff nurses documentation for all domains of accreditation standards post than pre-program at ($P \leq 0.001$). Pre-program the staff nurses' total means score was 27 ± 1.77 significantly increased to 50.97 ± 1.9 post-program. Pre-program majorities (98.7%, 95.3% and 89.3 %) of charts showed that staff nurses' had poor documentation level in communication standard, information and security standard and accountability and liability standard respectively. But post program 100%, 99.3%, and 82% of charts showed that staff nurses became at good level for communication standard, information and security standard and accountability and liability standard respectively.

Tables (4) illustrate retrospective auditing of staff nurses documentation against Manual for JCAHO's Accreditation pre and post-program. There was statistically significant improvement of staff nurses documentation for all items at ($P \leq 0.001$) post than pre- program. Pre-program staff nurses means score of documentation was

25.81 ± 3.57 significantly increased to 88.73 ± 3.44 post-program. Pre-program all charts showed that staff nurses had poor documentation level against manual for JCAHO's for all items. Post-program staff nurses' documentation level became good for all items against manual for JCAHO's

Figure (1)shows levels of staff nurses' total knowledge about accreditation standards for patient care documentation pre and post program. Preprogram above half of staff nurses had fair level of total knowledge about accreditation standards for patient care, improved to majority had good level post program

Figure (2) shows retrospective auditing of staff nurses total documentation against accreditation standards for patient care pre and post-program. Preprogram none of staff

nurses' were at good level of total performance documentation against accreditation standards for patient care, improved to be all were at good level post-program.

Figure (3) show retrospective auditing of staff nurses documentation against manual for JCAHO's Accreditation pre and post-program. Preprogram none of staff nurses were at good level of documentation against manual for JCAHO's accreditations improved to be all have good level post-program.

Table (1): Staff nurses characteristics (n = 90)

Characteristics	N	%
Age **≤30 years** **>30 years**	 82 8	 91.1 8.9
	Range Mean ±SD	21- 41 26.64 ± 3.209
Marital status Married Single	 22 68	 24.4 75.6
Sex Male **Female**	 31 59	 34.4 65.6
No. of Children No Yes	 34 56	 37.8 62.2
Years of Experience ≤ 5 years >5 years	 56 34	 62.2 37.8
Department: • Cardiac ICUs • Anesthetic ICUs • Medical ICUs	 41 31 18	 45.6 34.4 20.0
Education level: • Associate degree • Bachelor degree	 57 33	 63.3 36.7
Accreditation program Yes No	 43 47	 47.8 52.2

Table (2): Levels of staff nurses' knowledge about accreditation standards for patient care documentation pre and post program (n = 90)

Domains	Staff Nurses Knowledge				χ^2 p
	Pre		Post		
	N	%	N	%	
International and Egyptian accreditation program					
• Good	24	26.7	90	100.0	104.21
• Fair	50	55.6	-	-	0.001**
• Poor	16	17.8	-	-	
Accreditation standards of documentation					
• Good	41	45.6	90	100.0	67.33
• Fair	24	26.7	-	-	0.001**
• Poor	25	27.8	-	-	
Manual of (JCAHO).					
• Good	32	35.6	90	100.0	85.57
• Fair	40	44.4	-	-	0.001**
• Poor	18	20.0	-	-	
Aspects of documentation					
• Good	8	8.9	90	100.0	150.61
• Fair	9	10.0	-	-	0.001**
• Poor	73	81.1	-	-	
Documentation principles					
• Good	8	8.9	90	100.0	150.61
• Fair	16	17.8	-	-	0.001**
• Poor	66	73.3	-	-	

** Significance at $P \leq 0.001$

Table (3): Retrospective auditing of staff nurses documentation domains against accreditation standards for patient care pre and post-program (n = 150)

Domains of accreditation standards	Pre- program			Post-program			χ^2 p
	Good	Fair	Poor	Good	Fair	Poor	
	%	%	%	%	%	%	
Communication standard	-	1.3	98.7	99.3	.7	-	297.333 0.001**
Accountability and liability standard	-	10.7	89.3	100.00	-	-	300 0.001**
Information and security standard	-	4.7	95.3	82.0	15.3	2.7	262.97 0.001**
Total	-	-	100.00	100.00	-	-	300 0.001**
Range Mean ± SD	24 – 32 27 ± 1.77			43 – 54 50.97 ± 1.9			-112.8 0.001**

Table (4): Retrospective auditing of staff nurses documentation domains against manual for JCAHO's accreditation pre and post-program (n = 150 chart)

JCAHO Domains	Pre- program			Post-program			χ^2 p
	Good	Fair	Poor	Good	Fair	Poor	
	%	%	%	%	%	%	
Initial patient assessment record	-	-	100.00	94.0	6.0	-	300 0.001**
Nursing diagnosis	-	-	100.00	96.0	3.3	.7	298 0.001**
Nursing planning	-	-	100.00	98.7	.7	.7	300 0.001**
Nursing interventions	-	8.0	92.0	100.00	-	-	300 0.001**
Nursing evaluation	-	-	100.00	98.7	1.3	-	300 0.001**
Patient discharge summary	-	-	100.00	97.3	2.7	-	300 0.001**
Total	-	-	100.00	100.00	-	-	300 0.001**
Range Mean ± SD	17 – 37 25.81 ± 3.57			81 – 95 88.73 ± 3.44			-155.46 0.001**

**Significance at P ≤ 0.001

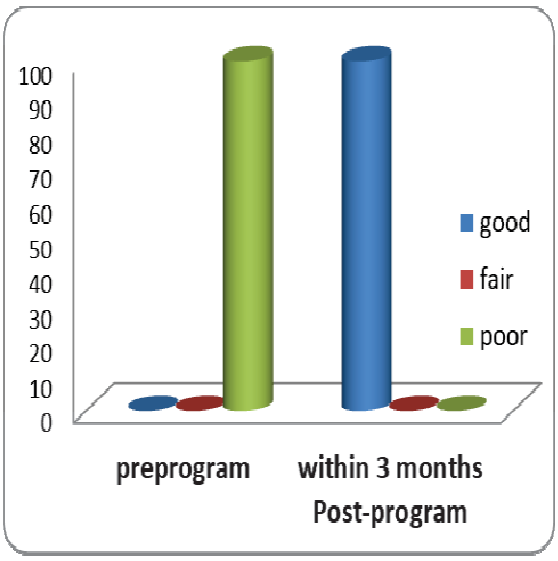

Figure (1): Levels of staff nurses' total knowledge about accreditation standards for patient care documentation pre and post program (n = 90)

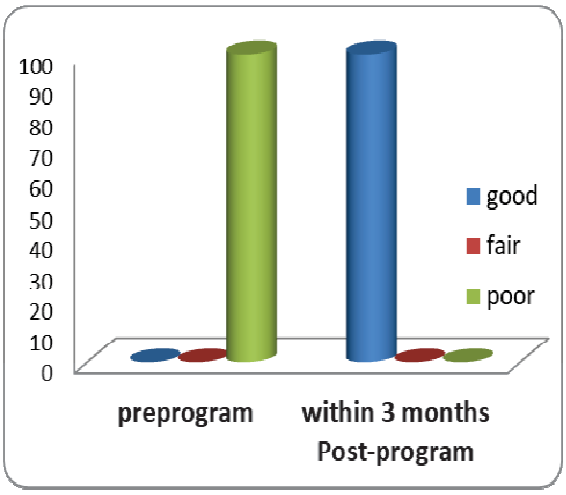

Figure (2): Retrospective auditing of staff nurses total documentation against accreditation standards for Patient Care pre and within 3 months Post-program (150 charts)

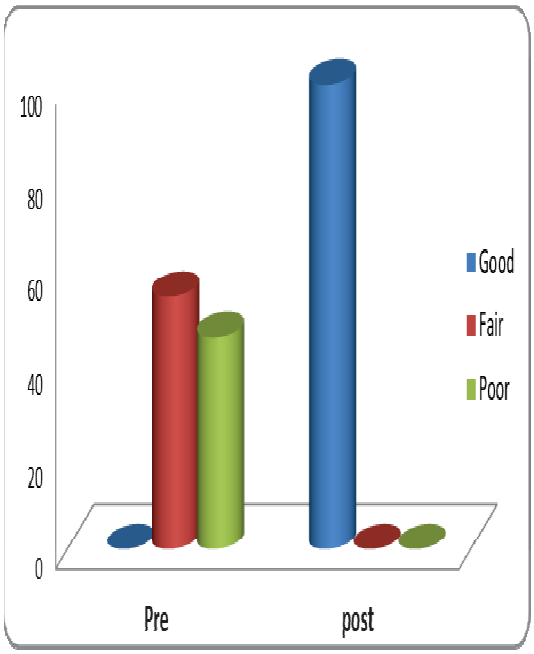

Figure (3): Retrospective Auditing of staff nurses documentation against Manual for JCAHO's Accreditation pre and post-program (n = 150 charts)

Discussion

Accreditation is an international evaluation process aims to define key functions, activities, process and structure required for health care facilities to ensure provision of acceptable level of quality care. Patients' documentation is a part of accreditation process for identifying and addressing gabs in quality of services provided. The accreditation committee sets standards for patient documentation to be met by staff nurses to evaluate documentation process and services outcome achieved. The documentation standards specially promote staff nurses' responsibility and accountability, facilitate communication and convey contribution of nursing to health care. The standards were designed to support the development of quality and patient safety by planning, managing and measuring improvements.

Result of current study indicated that preprogram more than half of staff nurses showed fair total knowledge and the rest were at poor level about accreditation standards for patient care documentation. Despite the fact that most of them are single middle aged females don't have new family responsibilities and have time to improve their knowledge about accreditation standards. Especially they were associate degree education staff nurses not attend any previous program or course about accreditation standards. Actually they were insufficiently equipped with information about accreditation standards for patient care documentation, hospital policy, team work, management support, communication openness and continuous training. Those staff nurses are responsible to improve and update their knowledge by self-learning and reading magazines about accreditation standards domains for patient care documentation, as well as attending in-service education programs specially they working in intensive care units which equipped with well-educated staff to meet hospital accreditation. Most probably they were suffering from lacking of human resources management including continuous training session and workshops, extending shared vision among staff nurses and staff motivation .

El- Gendy et al. (2021) [28] study about awareness of nursing staff and patients regarding hospitals accreditation, conducted the study at El Helal Governmental hospital, National Liver Hospital, Shebin-Elkom Teaching Hospital and Menoufia University Hospitals, found that the staff nurses in all hospitals understudy had not satisfying knowledge level about hospital accreditation standards

while, Menoufia University Hospitals staff nurses had lowest level of total awareness because it is largest and main hospital in Menoufia governorate and nursing staff had excessive workload. They viewed accreditation standards required them to document what they do as "unnecessary paper work" or waste of time. Also, **Due et al. (2019)** [28] study about understanding accreditation standards in general practice found that the majority of staff nurses were confused and had poor knowledge about the requirements of the accreditation standards for patient care. The participants described the problems was due to the readability of the style of language in the standard book, the standards contained references to several different concepts and they sought out information and clarification from different sources in order to increase their understanding of the requirements and how to conform to them. Preprogram above half of staff nurses showed fair level of knowledge about International and Egyptian accreditation program. They gave incorrect answers for principles of patient-centered care and effective ways to identify a patient according to national patient safety and organization centered standards. The fact is that staff nurses at ICUs of Tanta International Teaching hospital always busy and had excessive workload. Most probably they have nursing staff shortage and their staff nurses are associate degree with inadequate basic knowledge for quality of care and accreditation program. They required to strengthening their knowledge to be able to deal with international and Egyptian accreditation standards. They don't know that patient-centered care refer to a plan of care entirely based on the patient and his/her family's wants, needs, and culture. They also not understand that patient-centered care includes patients' preferences, coordination of care, access to care, emotional support, information and education.

These results are consistent with the study of **Kapurkar et al. (2021)** [29] about assess effectiveness of plan teaching program on national accreditation board for hospitals and health care providers guidelines among newly recruited staff nurses at Krishna hospital, found that staff nurses preprogram has low level of knowledge about national accreditation standards. Only 16.83% have average knowledge on accreditation board for hospital including the access, assessment and continuing of care, care of patients, management of medication, patient rights and education, and hospital infection control.**Araki (2019)** [30]study about patient centered care and professional nursing practices,

concluded that patient centered care (PCC) is a model of care that respects the patient's values, needs, choices and preferences in the planning process and implementation of his or her care. Model of PCC has been shown to contribute to improved outcomes for patients and organization, decreased costs and increased satisfaction with care. To improve PCC consider the importance of its dimensions in their specific context of care provision, which will improve levels of patient centeredness in efficient, effective and focused manner. Health care providers should acknowledge primary ethical principles to ensure that patients are provided with the information they need to make decisions and are supported in any decision making processes. When PCC is provided with support, education and information, patients are capable of appropriately applying this information to better manage their health and evaluate their own health status .

But post program majority of staff nurses of present study had good level of total knowledge about all domains of accreditation standards for patient care documentation. Really, the well-designed program attracted those staff nurses and explained the accreditation standards of documentation so that their knowledge level significantly improved about all its domain. The program gave them not only information about International and Egyptian accreditation, but also knowledge on accreditation standards of documentation, manual of (JCAHO), aspects and principles of documentation. On the same line **Vafaei et al. (2018)** [(31)]study about improving nursing care documentation in emergency department: a participatory action research study in Iran, indicated that the staff training and awareness development effectively improved the quality of staff nurses' documentation. Also, **Andri and Soewondo (2018)** [(32)] study about nurses' perception of patient safety culture in the hospital accreditation, support the study and revealed that staff nurses knowledge were at high level about accreditation standards through educational programs that are well communicated throughout hospitals and other health care organizations. Beside **Vasseur (2015)** [(33)] study about evaluation of new graduate nurses' physical assessment and documentation skills using simulation, debriefing, and a nurse transition program, reported that the majority of staff nurses acquired information about nursing documentation through attending training courses in hospital .

Preprogram the retrospective auditing showed that none of staff nurses were at good level of total documentation against

accreditation standards for patient care. Actually, those staff nurses had poor documentation in patient charts. They have poor documentation level in communication, information and security and accountability and liability standards. Indeed their insufficient basic documentation information reflected on their level of practice. Another reason of their poor level of documentation includes lack of follow-up from head nurses, and quality assurance personal. Through regular review of documented information on patient charts which evaluate quality and accuracy of care provided by staff nurses supervisors .**Tasew et al. (2019)** [(34)] study about nursing documentation practice and associated factors among nurses in public hospitals regarding the practice of patient care documentation, found that most of staff nurses had poor nursing documentation practice due to associated factors related to inadequacy of documenting sheets, lack of time and lack of familiarity with operational standard of nursing documentation. **Ramukumb and El Amouri (2019)** [(35)] study about nurses' perspectives of the nursing documentation audit process, reported weaknesses in the auditing of nursing documentation and suggested focused training. Also, **Jannatiet al., (2017)** [(36)] study about hospital accreditation: what difficulties does it face in Iran, found difficulties due to insufficient training of surveyors and shortage of their time spent on assessment of staff nurses documentation.

Result of present study post program implementation revealed that there was significant improvement in staff nurses documentation to be at good level for all domains of accreditation standards. However a slight decline occurred in staff nurses' documentation performance against accreditation standards for patient care after three months post program due to staff nurse need for periodical training program. Actually, post program those staff nurses receive adequate support to apply the accreditation standards in patient files by using communication, information and security standards and accountability and liability standards. Furthermore, simplification and well-presented educational matter with suitable educational aids attracted staff nurses to improve the practice of their documentation performance .**Silva et al., (2019)** [(37)]confirmed that documentation performance improved by implementation of educational program as (simulation exercises, role-play on consent). Also, **Vahedi et al. (2018)** [(38)] reported that after the workshop the majority of the essential items of information was documented with significantly

improvement. In particular documentation of the patients' date and time of admission, past medical and social history. Also, **Azzolini et al. (2019)** [39] discussed effectiveness of auditing in improving medical records practice. Beside, **Obioma (2018)** [40] study about improving the quality of nursing documentation in home health care setting, indicated that staff nurses need for periodic audits of nurses' notes in the agency in order to demonstrate compliance with quality of documentation standards.

Result indicated that preprogram auditing of charts showed that none of staff nurses were at good level but all had poor documentation against manual for JCAHO's accreditations. Most probably those staff nurses' lack important knowledge about manual of JCAHO's, and they don't understand that nursing process used as a frame work for patient nursing care plan. They required to understand that nursing process include six phases namely assessment, diagnosis, outcome, planning, implementation and evaluation. Adding to the ICUs over work load, and lack of supervisor appreciation.**Hussein (2020)**[41] study about implementation of nursing process program and assessment factors affecting nurses' knowledge and performance, found that preprogram staff nurses had poor performance in documentation of nursing process due to its time consuming, undesirable content design, shortage of materials and supplies and the atmosphere of work.**Asmirajanti et al. (2019)**[42] study about nursing care activities based on documentation, stated that the majority of staff nurses performance in patient identification, assessment, nursing diagnosis formulation, discharge planning, intervention, monitoring and evaluation, and nursing outcomes were below standard due to having to perform a large number of non-nursing duties, manual documentation, a lack of standards in documenting patient progress notes. They explained that patient safety is a fundamental concern for all nurses and health professionals, from the patient's admission to the hospital until discharge phases in the nursing process are interconnected and become a continuous cycle. Therefore, steps in this process are interrelated, interactive, and cannot stand alone.

Statistically significant improvement of staff nurses documentation for all items of documentation against manual for JCAHO's accreditations identified post program. Auditing helps to identify discrepancies between what is done and what should be done. Actually, this improvement due to the well-designed program and training the staff nurses to

follow the documentation skills on forms during practical session. Yet the researcher corrects any mistakes for staff nurses and gave them feedback immediately about their performance. Also, they gain the knowledge information during program sessions regarding effective communication, documentation skills, recording and reporting .**Hussein (2020)** [(41)] found that post program staff nurses had good performance in documentation of nursing process. **Frigstad and Andre (2017)** [(43)]study about impact of an education intervention on nursing diagnoses in free-text format in electronic health records revealed that educational programs directed at improving nursing skills significantly increase the prevalence and accuracy of documented nursing diagnoses.

Conclusion

None of staff nurses' were at good level of total performance documentation against accreditation standards for patient care at Tanta International Teaching Hospital. The present study well designed program improved their knowledge about accreditation standards for patient care documentation. As well as, staff nurses became knowledgeable about international and Egyptian health care accreditation, accreditation standards for patient care documentation, manual of (JCAHO) for accreditation, aspects of nursing documentation and nursing documentation principles. Still these staff nurses performance level require specific auditing against accreditation standards for patient care and manual of (JCAHO) to maintain develop their performance level.

Recommendations

- Tanta International Teaching Hospital need to collaborate with continuing education department in healthcare organization to develop effective training program on concepts and guidelines of hospital accreditation and to provide training for nurses about policies and procedures of hospital accreditation and how to implement it.
- Head nurses required to periodically audit patient chart to evaluate staff nurses gaps in documentation of nursing care and provide them direction and correction for their deficiencies.
- Staff nurses’ periodical attend educational program to update their knowledge about accreditation standards for patient care documentation.
- Periodical training program to staff nurses to strengthening their knowledge about international and Egyptian accreditation standards.

References

1- Shaikhz. A critical comparative study on the national accreditation standards for

hospitals of India, Australia, Denmark and South Africa. 1st edition. KY Publications: 2020.32. Available at: https://doi.org/10.5281/zenodo.5151463

2- Cash A, Burke D, Godbole P. Hospital transformation: From failure to success and beyond. 1st edition E. Book. Springer. 2019. 134. Available at: https://www.worldcat.org/

3- Joint Commission International Accreditation Standards for Hospitals.5th Edition. 2018.available at: https://www.jointcommission.org/

4- Joint Commission International Accreditation Standards for Hospitals. 7th Edition. 2020.available at: https://www.jointcommission.org/

5- Ghanem H. International Bank for Reconstruction and Development Project Appraisal Document. Transforming Egypt's Healthcare System Project. Public Disclosure Authorized. Health, Nutrition & Population Global Practice Middle East and North Africa Region. 2018.

6- GAHAR Handbook for Hospital Standards. General Authority for Healthcare Accreditation and Regulation. 2021.availableat: https://www.gahar.gov.eg/upload/gahar-handbook-for-hospital-standards-edition-2021-secured--1.pdf

7- Sustainable Development Strategy: Egypt's Vision 2030.Available at: http://planipolis.iiep.unesco.org/sites/planipolis/files/ressources/egypt_vision_2030.pdf

8- International Accreditation Standards for Healthcare Organizations. AACI Technical Committee. Version 4.2. 2016.Available at: https://www.scribd.com/document/413104246/AACI-International-Accreditation-Standards-V4-2-Feb-2016-en-ISQua

9- Delivering Quality Health Services. A global imperative for universal health coverage. World Health Organization and International Bank for Reconstruction and Development the World Bank. 2018. available at:https://creativecommons.org/licenses/by-nc-sa/3.0/igo

10- Nomura A, Silva M, Almeida M. Quality of Nursing Documentation before and after the Hospital Accreditation in a University Hospital. Published online. 2016.available at:10.1590/1518-8345.0686.2813

11- Vaismoradi M, Tella S, Logan P, Khakurel J, Vizcaya-Moreno F. Nurses' adherence to patient safety principles: A systematic review. International Journal of Environmental Health and Public Health. 2020.Available at :http://www.mdpi.com/journal/ijerph

12- Ben-Natan M. Patient-centered care in healthcare and its implementation in nursing. International Journal of Caring Sciences. 2017;10(1)p.596.

13- Practice Standard for BCCNP Nurses. British Columbia College of Nursing Professionals. June 2019. Available at: http://www.bccnp.ca Pub.

14- The Joint Commission. Advancing Effective Communication, Cultural Competence, and Patient- and Family-Centered Care: A Roadmap for Hospitals. Oakbrook Terrace. The Joint Commission. 2020.Available at :http://www.jointcommission.org/Advancing_Effective_Communication/

15- Fukada M. Nursing Competency: Definition, Structure and Development Published online.٢٠١٨; 61(1): 1–7.Available at: http://www.lib.tottori-u.ac.jp/yam/yam.html

16- Rubio-Navarro A,Garcia-Capilla D, Torralba-Madrid J, Rutty J. Ethical, legal and professional accountability in emergency nursing practice: An ethnographic observational study. International Emergency Nurses. 2019;46(100777).

17- Joint Commission International Accreditation Standards for Hospitals Including Standards for Academic Medical Center Hospitals. 6th Edition. 2017.Available at :https://www.jointcommissioninternational.org/-/media/jci/jci-documents/accreditation/hospital-and-amc/jci-errata-standards-only_7th-ed-hospital.pdf

18- Dean M. Complying with joint commission nursing standards: Practical documentation tools. Journal for Healthcare Quality.2015; 14(1):24-9.

19- Toney-Butler T, Unison-Pace W. Nursing Admission Assessment and Examination.Treasure Island (FL): StatPearls Publishing; 2022. Available from: https://www.ncbi.nlm.nih.gov/books/NBK493211/

20- Vera M. Nursing Care Plans (NCP): Ultimate Guide and Database. 2020.Available at :https://nurseslabs.com/nursing-care-plans/

21- Ryan T, Ryan M, Sutherland J, Milne S. Medication adherence, medical record accuracy, and medication exposure in real-World patients using comprehensive medication monitoring. Public Library of Science One. 2017; 12(9).Available at: https://doi.org/10.1371/journal.pone.0185471.

22- Ali Sh, Sleem W, Elsayed W. A Retrospective analysis of nursing documentation in the intensive care units. Mansoura Nursing Journal.2016; 3(2).P. 187-197

23- Ramukumba M, El Amouri S.Nurses' perspectives of the nursing documentation audit process. International Journal of Health Sciences Published online. 2019; 24(1): 1121.

24- College and Association of Registered Nurses of Alberta (CARNA).Documentation Standards for Regulated Members. Provincial Council. 2018.Available at: https://cnps.ca/wp-content/uploads/2020/03/complementary-and-alternative-health-care-and-natural-health-products-1.pdf

25- National Accreditation Board for Hospitals and Healthcare Providers. Guide Book to Accreditation Standards for Hospitals. 4th Edition. 2015.

26- Joint Commission International Accreditation Standards.2020.Available at: https://www.jointcommission.org/standards/

27- El-Gendy A, Eid N, Rashad Z, Nassar R. Awareness of nursing staff and patients regarding hospitals accreditation. Menoufia Nursing Journal. Faculty of NuringMenoufia University.2021;6(1): 1-14.

28- Due T, Thorsen T, Kousgaard M. Understanding accreditation standards in general practice :A qualitative study. The Research Unit for General Practice and Section of General Practice, Department of Public Health, University of Copenhagen, Copenhagen, Denmark. 2019. available at: https://doi.org/10.1186/s12875-019-0910-2

29- KapurkarK, Jagadale S, Babar R. To assess effectiveness of plan teaching program on national accreditation board for hospitals and health care providers (NABH) guidelines among newly recruited staff nurses at Krishna Hospital, Karad. Journal of Evolution of Medical and Dental Sciences.2021; 4(103): 16830.

30- Araki M.Patient Centered Care and Professional Nursing Practices. Journal of Biomedical Research and Clinical Investigation. Tawam hospital, SEHA, AlAin, United Arab Emirates. 2020. Available at: https://doi.org/10.31546/JBRCI.1004

31- Vafaei S, Manzari Z, Heydari A, Froutan R, Farahani L.Improving nursing care documentation in emergency department: A participatory action. Research Study in Iran. 2018; 6(8):1527-1532.

32- AndriL.,Soewondo P. Nurses' Perception of Patient Safety Culture in the Hospital Accreditation Era: A Literature Review. The 2nd International Conference on Hospital Administration. KnE Life Sciences. 2018. 60–75.available at: http://dx.doi.org/10.18502/kls.v4i9.3558

33- Vasseur E. Evaluation of new graduate nurses' physical assessment and

documentation skills using simulation, debriefing, and a nurse transition program. Northern Kentucky University, Highland Heights, Kentucky, Pro Quest LLC. UMI 3707332, United States Code, USA.2015. 12-48.

34- Tasew H, Mariye T, Teklay G.Nursing documentation practice and associated factors among nurses in public hospitals, Tigray, Ethiopia. BMC Res Notes. 2019; 12(1):612.

35- Ramukumba M, El Amouri S. Nurses' perspectives of the nursing documentation audit process. Health SA Gesondheid ISSN: (Online) 2071-9736, (Print) 1025-9848. 2019.available at: https://doi.org/10.4102/hsag.v24i0.1121.

36- Jannati A, Ebrahimoghli R, Ebadi A, Toofan F. Hospital accreditation: What difficulties does it face in Iran Global. Journal of Health Science. 2017; 9 (1).Available at: http://dx.doi.org/10.5539/gjhs.v9n1p254

37- Silva A, Wijesinghe H, Mundil N, Walsh R.Consent in pediatric neurosurgery: Adequacy of documentation and parental perspectives. Child's Nervous System. 2019; 35(1):2363–2369.

38- Vahedi H, Mirfakhrai M, Vahidi E, Saeedi M. Impact of an educational intervention on medical records documentation. World Journal Emergency Medicine. 2018; 9(2): 136–140.

39- Azzolini E, Furia G, Cambieri A, Ricciardi W, Volpe M, Poscia A. Quality improvement of medical records through internal auditing: A comparative analysis. Journal of Preventive Medicine and Hygiene. 2019; 60(3): 250–255.

40- Chamberlain D, Pollock W, Fulbrook P.Workforce standards for intensive care nursing: Systematic and evidence review, development, and appraisal. Australian Critical Care Journal.2018; 31(5).

41- Hussein E. Implementation of nursing process program and assessment factors affecting nurses' knowledge and performance. International Journal of Novel Research in Healthcare and Nursing. 2020; 7(2):341-355.

42- Asmirajanti M., Yani A., and Hariyati T. Nursing Care Activities Based on Documentation. BMC Nursing. 2019.Availableat: https://doi.org/10.1186/s12912-019-0352-0\

43- FrigstadA, Andre B. Impact of an education intervention on nursing diagnoses in free-text format in electronic health records: A pretest–posttest study in a medical department at a university hospital. Nordic Journal of Nursing Research. 2017; 37(1): 100–1.