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Quality Level of Clinical Record for Pediatric Physiotherapy in Teaching Hospital "Audit Tool"

AHMED M. SHAKSHOUK, M.Sc.; HODA A. EL-TALAWY, Ph.D. and FATEN H. ABD EL-AZIEM, Ph.D.

The Department of Physical Therapy for Pediatrics, Faculty of Physical Therapy, Cairo University

Abstract

Background: Documentation is the process of recording of all aspects of Patient care, management including the results of the initial examination, diagnosis, prognosis, plan of treatment, interventions, response to interventions, changes in Patient relative to the interventions, re-examination, and discharge.

Aim of Study: The current study examined the quality level of clinical record and documentation of pediatric physiotherapy departments at teaching hospitals and institutes according to the criteria of the Physical Therapy Chartered Society Standards to determine points of documentation lacking and work on solving them to improve the quality of record and documentation in medical institutions.

Material and Methods: This study was carried as Cross-sectional study at teaching hospitals and institutes for 310 patient record files which were selected randomly from Elmatarya Teaching Hospital (100) The National Institute of Neuromotor system (100), Faculty of physical therapy outpatient clinic (100) and Elsahel Teaching Hospital (10). Assessment of the quality of patient record files was carried out by using of the standardized patient record audit approved by the Chartered Society Standards. To describe, assess and report the quality of the working system.

Results: There are statistically significant differences among the teaching hospitals and institute in the Assessment, Examination, Analysis, Implementation, Transfer of care discharge, Documentation and Patient record conform to the following requirements axes, however there is critical lacking in the axis of documentation of informed consent, evaluation and treatment planning. There is no information technology system for the patient record files at all Teaching Hospitals and Institute.

Conclusion: Using of the standardized patient record are not implemented in the included the Egyptian Pediatric Physical Therapy Departments at Teaching Hospitals and Institute. There is no using of electronic medical records.

Key Words: *Medical records – Pediatric – Audit – Physical therapy documentation – Quality.*

Correspondence to: Dr. Ahmed M. Shakshouk,
The Department of Physical Therapy for Pediatrics,
Faculty of Physical Therapy, Cairo University

Introduction

PATIENTS' records are among the most basic of clinical tools and are involved in almost every consultation. They are there to give a clear and accurate picture of the care and treatment of patients and to assist in making sure that they receive the best possible clinical care [1]. Medical records are used for reporting the activity of hospital services, monitoring the performance of hospitals, and research to improve the quality of doctors' practice and hospital services grows, with ever increasing expectations and costs of medical care [2]. The quality assurance audit tool has been developed to facilitate the comparison of physiotherapy service delivery with that presented in the quality assurance standards to identify whether the actual standard has been met [3].

Patients and Methods

The current study took place from July 2016 to July 2017. The total number of patients' record randomly selected in all the teaching hospitals and institutes was 310 patient record files which were distributed as follows: El-Matarya Teaching Hospital, The National Institute of Neuromotor system, Faculty of physical therapy outpatient clinic and Elsahel Teaching Hospital.

Assessment of documentation of patient record files were measured by comparing it with chartered society standards of physical therapy documentation and record using record audit tool. The current study adopts record improvement process which is documentation analysis to identify what gaps, if any exist between the actual and desired documentation of the record file.

Study design: Cross-sectional study at teaching hospitals and institutes.

Selection criteria:

A- In respect of hospitals and medical institutes:

Three teaching hospitals and one medical institute in Cairo and Giza governorates were selected to represent sample namely:

In Cairo governorate: El-Sahel Teaching Hospital and Elmatarya Teaching Hospital.

In Giza governorate: The National Institute of Nervous System and The Teaching Outpatient Clinic of the Faculty of Physical Therapy Cairo University.

These hospitals and institute were selected as they represent the majority of teaching hospitals and institute in both governorates which contain pediatric physical therapy departments.

B- In respect of patients' records sample:

Selection of patients' records depended on the following criteria:

- A random selection of patients' records was designed.
- At least, there were 12 documented visits for each patient at selected hospitals or institute.
- The selection of patients' record included only outpatient records.
- Both genders were included.
- Number of patient record files in each institution must not be less than 70% of the total number of files.

Selected patients' records:

The total number of patients' record selected in the selected teaching hospitals and institutes was 310 patient record files as:

- 100 patient record file from El-Matarya Teaching Hospital which represents 85% of the total number of the patient files.
- 100 patient record file from the National Institute of Nervous System which represents 80% of the total number of the patient files.
- 100 patient record file from Outpatient Clinic at Faculty of Physical Therapy Cairo University which represents 70% of the total number of the patient files.
- 10 patient record file from El-Sahel Teaching Hospital which represents 100% of the total number of the patient files.

Instrumentation:

The current study included measuring of the quality of the patients' record files according to the patient record audit approved by the Chartered Society Standards.

Informed consent:

Assessment : (The patient's perceptions of their needs, the patient's expectations demographic details, presenting condition/problems, past medical history, Current medication/treatment, contraindications/precautions/allergies, social and family history/life style, Relevant investigation).

Examination: (Observation, use of specific assessment tools/techniques, palpation/handlingthe result of the outcome measurement is recorded at the end of the episode of care).

Analysis: (Identified needs/problems, Subjective markers being identified, and a clinical diagnosis).

Treatment plan: (Time scales for implementation/ review, goal outcome measures, the identification of those who will deliver the plan).

Implementation: (Interventions are implemented according to the treatment plan, all advice/information given to the patient is recorded, there is a record of equipment loaned and issued to the patient).

Evaluation: (The treatment plan is reviewed at each session, subjective markers are reviewed at each session, objective markers are reviewed at each session, All changes, subjective and objective, are documented, Any changes to the treatment plan are documented, Outcome is measured at the end of the treatment program).

Transfer of care/discharge: (Arrangements for transfer of care/discharge are record in the patient's record, When transferred, information is relayed to those involved in their on-going care, Discharge summary is sent in keeping with agreed local policy).

Documentation: (Patient records are started at the time of the initial contact, Patient records are written immediately after the contact with the physiotherapist or before the end of the day of the contact, Patient records are cotemporaneous).

Patient record conform the requirements: (Concise, Legible, logical sequence, dated, signed after each entry/attendance, name is printed after each entry/attendance, no correction fluid is used, written in permanent photocopy able ink, errors crossed with a single line, errors initialed, each side of each page is numbered, patient's name, either date of birth, hospital number, number are recorded on each page, abbreviations are contained within a locally agreed glossary, written records, computer records, audio tapes, emails, Faxes, video tapes, photographs).

Analyze the data:

When processing the data items that include 'not applicable' responses in these cases the percentages should be calculated on the responses excluding the not applicable Measured in points.

Statistical analysis:

After collecting data, they were coded and transformed in to specially designed format to be suitable for computer processing.

The following statistically measures that will be used:

Descriptive statistics:

- The one-way analysis of variance (ANOVA).
- The least significant difference (LSD) analysis.

Results

Analysis of patient record files in El-Matarya Teaching Hospital results revealed satisfaction of 35.5% of the assessment axis, 25% of examination axis, 53% of analysis axis, 33% of implementation axis, 33%of transfer of care axis and 66% of documentation axis in respect of items within different axes, 64% of patient record requirements.

Analysis of patient record files in the National Institute of Neuromotor System results revealed satisfaction of 33% of the assessment axis, 75%of examination axis, 66% of analysis axis, 33% of implementation axis, 33% of transfer of care axis and 66% of documentation, 57% of patient record requirements.

Analysis of patient record files in the Outpatient Clinic at the Faculty of Physical Therapy Cairo University represents satisfaction of 44% of the assessment axis, 68.7% of examination axis, 66% of analysis axis, 65% of implementation axis, 66% of transfer of care axis and 65% of documentation axis, 52% of patient record requirements.

Analysis of patient record files at El-Sahel Teaching Hospital represents satisfaction of 11% of the assessment, 33% of analysis and 66% of documentation axes, 14% of patient record requirements.

The results of the table indicate the mean and the standard deviation of the hospitals and the total number of them in the questionnaire and the total value of the questionnaire:

- The table also indicates that the Informed Consent axis was the overall search sample response not applicable.
- The responses to the sample were not applicable on the axis of Implementation which states Outcome is measured at the end of the treatment program from the axis of Evaluation.
- The responses to the search sample were not applicable on the axis of Documentation and Axis of Patient records conform to the following requirement.

The results of the table indicate that there are statistically significant differences among the hospitals in the "Assessment, Examination, Analysis, Implementation, Transfer of care discharge, Documentation, Patient record conform to the following requirements" axis.

The results of the table indicate that there are statistically significant differences among the hospitals in the total value.

The table also shows that there are not statistically significant differences among the sample hospitals in “Informed consent, Treatment planning, evaluation and There is evidence that patient records are retained securely “axis.

Focus group result: That at the National Heart Institute department of physical therapy in the institute is concerned only with adult cases and pediatric cases are assessed and treated by physical medicine department so we couldn't make evaluation for record files at the institute. The physical therapists reported that an access of the physical therapist for the same patient is difficult due to lack of systematic approach of the patients monitoring system and due to lack of physical therapists number in relation to the number of patients.

Table (1): Patient record files according to their gender.

	El-Matarya Institute Faculty			Elsahel	Total
Male	53	57	56	5	171
Female	47	43	44	5	139

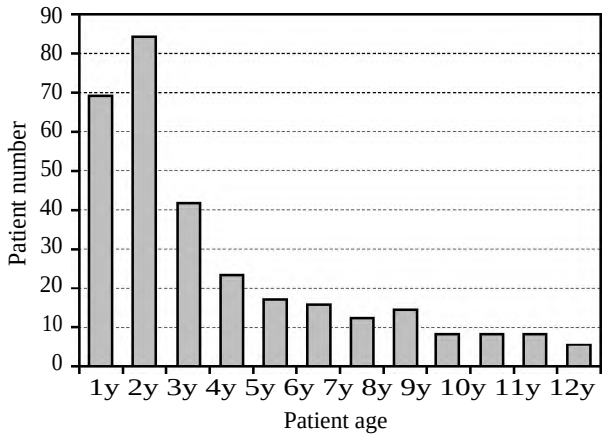

Fig. (1): Patient record files according to cases' age .

Table (2): Patient record files which assessed in the study and its classification according to diagnosis of cases in different teaching hospitals and institutes.

	El-Matarya	National institute of nervous system	Faculty of physical therapy	El-Sahel	Total
CP	57	73	74	8	212
Erb's palsy	6	3	7	2	18
Down's syndrome	8	8	7	–	23
Spina befida	1	1	4	–	6
Torticollis syndrome	1	3	2	–	6
Myopathy	2	1	1	–	4
Orthopedic	29	11	5	–	45
Total	100	100	100	10	310

Table (3): The percentage of satisfaction on audit tool's axes.

	El-Matarya	Institute	Faculty	El-Sahel
Informed consent	0%	0%	0%	0%
Assessment	35.5%	33%	43%	11%
Examination	25%	75%	68.7%	0%
Analysis	53%	67%	66%	33%
Treatment planning	0%	0%	0%	0%
Implementation	33%	33%	65%	0%
Evaluation	0%	0%	0%	0%
Transfer of care/discharge	33%	33%	66%	0%
Documentation	66%	66%	66%	66%
Patient record re-quirements	64%	57%	52%	14%

Table (4): The mean value and standard deviation for each axis in different hospitals according to patient record.

	El-Matarya N=100		Institute N=100		Faculty N=100		El-Sahel N=10		Total N=310	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
Informed consent	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Assessment	12.200	0.402	12.000	0.000	12.890	0.665	10.000	0.000	12.287	0.714
Examination	4.090	0.288	6.990	0.100	6.650	1.009	4.000	0.000	5.848	1.448
Analysis	4.600	0.492	5.000	0.000	5.000	0.000	4.000	0.000	4.839	0.368
Treatment planning	3.000	0.000	3.000	0.000	3.000	0.000	3.000	0.000	3.000	0.000
Implementation	4.000	0.000	4.000	0.000	4.960	0.197	3.000	0.000	4.277	0.516
Evaluation	5.000	0.000	5.000	0.000	5.000	0.000	5.000	0.000	5.000	0.000
Transfer of care discharge	4.000	0.000	4.000	0.000	5.000	0.953	3.000	0.000	4.290	0.750
Documentation	5.000	0.000	4.830	0.378	4.950	0.297	5.000	0.000	4.929	0.281
Patient record conform to the following requirements	21.000	0.000	20.000	0.000	18.940	0.814	18.000	0.000	19.916	1.11
There is evidence that patient records are retained securely	8.000	0.000	8.000	0.000	8.000	0.000	8.000	0.000	8.000	0.000
Total	70.890	0.827	72.820	0.411	74.390	2.025	63.000	0.000	72.387	2.554

Table (5): Correlation between hospitals in different axes according to patient's record.

Axis	Sum of Squares	df	Mean Square (point)	F	Sig.
Informed consent:					
Between Groups	0.000	3	0.000	–	NS
Within Groups	0.000	306	0.000		
Total	0.000	309			
Assessment:					
Between Groups	97.658	3	32.553	166.602*	S
Within Groups	59.790	306	0.195		
Total	157.448	309			
Examination:					
Between Groups	537.944	3	179.315	499.139*	S
Within Groups	109.930	306	.359		
Total	647.874	309			
Analysis:					
Between Groups	17.935	3	5.978	76.226*	S
Within Groups	24.000	306	.078		
Total	41.935	309			
Treatment planning:					
Between Groups	0.000	3	0.000	–	NS
Within Groups	0.000	306	0.000		
Total	0.000	309			
Implementation:					
Between Groups	78.302	3	26.101	2079.895*	S
Within Groups	3.840	306	0.013		
Total	82.142	309			
Evaluation:					
Between Groups	0.000	3	0.000	–	NS
Within Groups	0.000	306	0.000		
Total	0.000	309			
Transfer of care discharge:					
Between Groups	83.871	3	27.957	95.054*	S
Within Groups	90.000	306	0.294		
Total	173.871	309			
Documentation:					
Between Groups	1.579	3	0.526	7.044*	S
Within Groups	22.860	306	0.075		
Total	24.439	309			
Patient record conform to the following requirements:					
Between Groups	250.179	3	83.393	388.761*	S
Within Groups	65.640	306	.215		
Total	315.819	309			
There is evidence that patient records are retained securely:					
Between Groups	0.000	3	0.000	–	NS
Within Groups	0.000	306	0.000		
Total	0.000	309			
Total:					
Between Groups	1525.208	3	508.403	317.272*	S
Within Groups	490.340	306	1.602		
Total	2015.548	309			

(S) : Significant difference.
(NS): Non-significant difference.

Table (6): Comparison among different hospital in different axes according to patient's record.

Dependent Variable	Mean (Point)	Groups		
		Institute	Faculty	El-Sahel
Assessment:				
El-Matarya	12.200	0.20000*	0.69000*	2.20000*
Institute	12.000		0.89000*	2.00000*
Faculty	12.890			2.89000*
El-Sahel	10.000			
Examination:				
El-Matarya	4.090	2.90000*	2.56000*	0.09000
Institute	6.990		0.34000*	2.99000*
Faculty	6.650			2.65000*
El-Sahel	4.000			
Analysis:				
El-Matarya	4.600	0.40000*	0.40000*	0.60000*
Institute	5.000		0.00000	1.00000*
Faculty	5.000			1.00000*
El-Sahel	4.000			
Implementation:				
El-Matarya	4.000	0.00000	0.96000*	1.00000*
Institute	4.000		0.96000*	1.00000*
Faculty	4.960			1.96000*
El-Sahel	3.000			
Transfer of care discharge:				
El-Matarya	4.000	0.00000	1.00000*	1.00000*
Institute	4.000		1.00000*	1.00000*
Faculty	5.000			2.00000*
El-Sahel	3.000			
Documentation:				
El-Matarya	5.000	0.17000*	0.05000	0.00000
Institute	4.830		0.12000*	0.17000*
Faculty	4.950			0.05000
El-Sahel	5.000			
Patient record conform to the following requirements:				
El-Matarya	21.000	1.00000*	2.06000*	3.00000*
Institute	20.000		1.06000*	2.00000*
Faculty	18.940			0.94000*
El-Sahel	18.000			
Total:				
El-Matarya	70.890	1.93000*	3.50000*	7.89000*
Institute	72.820		1.57000*	9.82000*
Faculty	74.390			11.39000*
El-Sahel	63.000			

Discussion

According to the results of this study the medical records in El-Matarya Teaching Hospital, The National Institute of Neuromotor System, Outpatient Clinic at Faculty of Physical Therapy Cairo University and El-Sahel Teaching Hospital are lacking of Informed consent documentation because these hospitals and institutions lack an approved policy that authorize a patient informed consent before starting of treatment.

According to the results of this study the medical records in El-Matarya Teaching Hospital, The National Institute of Neuromotor System, Outpatient Clinic at Faculty of Physical Therapy Cairo University and Elsahel Teaching Hospital are lacking of Informed consent documentation because these hospitals and institutions lack an approved policy that authorize a patient informed consent before starting of treatment. Informed consent should be involved in medical care, having access to new treatments that are not currently available,

receiving care from experts in the field, contributing to the advancement of medical research and scientific knowledge [4].

The results of this study mentioned that the mean values of the axis of assessment documentation for El-Matarya Teaching Hospital, The National Institute of Neuromotor system, Outpatient Clinic at Faculty of Physical Therapy Cairo University and Elsahel Teaching Hospital were 12.200, 12.000, 12.890 and 10.000 point respectively; which indicated that the higher value is for the Outpatient Clinic of the Faculty of Physical Therapy Cairo University and the least value is for Elsahel Teaching Hospital. The documentation of each patient encounter should include physical examination findings and prior diagnostic test results [5]. Medical record documentation must accurately report all pertinent facts, findings, and observations. [6].

In respect of the axis of examination documentation the mean values for El-Matarya Teaching Hospital, The National Institute of Neuromotor System, Outpatient Clinic at faculty of Physical Therapy Cairo University and El-Sahel Teaching Hospital were 4.090, 6.990, 6.650 and 4.000 point which indicate that the higher value is for The National Institute of Neuromotor system and the least value is for El-Sahel Teaching Hospital. Record must include anything that the patient might say to describe their condition or any observations about the patient's condition [7]. The recorder should avoid using words such as 'appears' or 'seems' and should write all observations in a descriptive manner [8].

The results of this study mentioned that the mean values of the axis of analysis documentation the mean value for El-Matarya Teaching Hospital, The National Institute of Neuromotor system Outpatient Clinic at faculty of Physical Therapy Cairo University and El-Sahel Teaching Hospital were 4.600, 5.000, 5.000 and 4.000 point Which indicate that the higher value is for the outpatient clinic of the Faculty of Physical Therapy Cairo University and the least is for El-Sahel Teaching Hospital. The documentation of each patient encounter should include diagnosis, legible identity of the observer, clinical impression, Past and present diagnoses should be accessible to the treating and/or consulting physician, reason for the encounter [5]. Medical record documentation must include appropriate diagnosis for the service provided [6].

The result of this study the medical record in all places are lacking of Treatment planning documentation which include Time scales for implementation/review, goal outcome measures and the identification of those who will deliver the plan. However, Every entry in the medical record should be dated, timed, legible and signed by the person making the entry. Identify the most senior healthcare professional present (who is responsible for decision making) at the time the entry is made [9]. Documentation must be presented in a logical and sequential manner [10].

The results of this study mentioned that the mean values of the axis of Implementation documentation the mean value for, El-Matarya Teaching Hospital, The National Institute of Neuromotor system, Outpatient Clinic at Faculty of Physical Therapy Cairo University and El-Sahel Teaching Hospital were 4.000, 4.000, 4.960 and 3.000 Which indicate that the higher value is for Outpatient Clinic at Faculty of Physical Therapy Cairo University and the least value is for El-Sahel Teaching Hospital. Interventions must be record in a manner that demonstrates the care of the patient, the benefit of these interventions, showing why such interventions were necessary, what was done and the outcome for the patient/client [11]. The record must include all problems experienced by the patient, interventions are implemented and their outcome. [12].

The result of this study the medical record in all places are lacking of documentation of any changes to the treatment plan, the treatment plan reviewing, subjective markers reviewing and objective markers reviewing, the patient's progress, response to and changes in treatment, and revision of diagnosis documentation [5]. Documentation should demonstrate that the problem has been re-evaluated and further solutions were sought [12].

The results of this study mentioned that the mean values of the axis of Transfer of care/discharge documentation the mean value for Elmatarya Teaching Hospital, The National Institute of Neuromotor system, Outpatient Clinic at faculty of Physical Therapy Cairo University and El-Sahel Teaching Hospital were 4.000, 4.000, 5.000 and 3.000 point Which indicate that the higher value is for the outpatient clinic of the Faculty of Physical Therapy Cairo University and the least value is for El-Sahel Teaching Hospital. The discharge record/discharge summary should be commenced at the time a patient is admitted to hospital [9].

The results of this study mentioned that the mean values of the axis of documentation the mean value for El-Matarya Teaching Hospital, The Na-

tional Institute of Neuromotor system, Outpatient Clinic at faculty of Physical Therapy Cairo University and El-Sahel Teaching Hospital were 5.000, 4.830, 4.950 and 5.000 Which indicate that the higher value is for El-Matarya Teaching hospital and the least value is for The National Institute of Neuromotor system. Documentation should be written as events occur to ensure that all documentation is an accurate reflection of the patient's condition and care, the record should events as they occur. If recorder waits until the end of working day to document the day's events, it can be difficult to recreate an accurate sequence of events. Documenting events as they occur guarantees that important information about the patient's condition and care is not forgotten if subsequent events take place **[13]**.

The results of this study mentioned that the mean values of the axis of Patient record conform to the following requirements the mean value for El-Matarya Teaching Hospital, The National Institute of Neuromotor system, Outpatient Clinic at faculty of Physical Therapy Cairo University and Elsahel Teaching Hospital were 21.000, 20.000, 18.940 and 18.000 point Which indicate that the higher value is for El-Matarya Teaching hospital and the least value is for El-Sahel Teaching Hospital. Every entry in the medical record should be dated, timed, legible and signed by the person making the entry, **[9]** and record should be complete, legible, **[5]** clear and concise so that it is an effective communication tool. One method of ensuring this clarity is to document information that is not found in other entries of the health-care record and which indicates that the patient's condition and their care has not changed **[14]**.

The results of this study mentioned that the mean value of the axis of total results the mean value for, El-Matarya Teaching Hospital, The National Institute of Neuromotor system Outpatient Clinic at Faculty of Physical Therapy Cairo University and El-Sahel Teaching Hospital were 70.890, 72.820, 74.390 and 63.000 Which indicate that the higher value is for the outpatient clinic of the Faculty of Physical Therapy Cairo University and the least value is for El-Sahel Teaching Hospital.

The highest results for the outpatient clinic of the Faculty of Physical Therapy Cairo University was attributed to high scores in the axis of assessment, analysis, implementation and transfer of card/discharge.

The patient's complete medical record should be available at all times during their stay at hospital **[9]**. On the contrary the medical records of the patient not available at El-Sahel Teaching Hospital however a monitoring card was available with each patient during his visit to the hospital.

The results of the present study indicate lacking of electronic in all places. However, the electronic health record should facilitate thoughtful review of previously documented clinical information. Ready review of prior relevant information, such as longitudinal history and care plans as well as prior physical examination findings, may be valuable in improving the completeness of documentation as well as establishing context. As value-based care and accountable care models grow, the primary purpose of the electronic health record should remain the facilitation of seamless patient care to improve outcomes while contributing to data collection that supports necessary analyses **[15]**. Electronic health record is, the issues addressed could reasonably apply to any future technology-enabled system of clinical documentation **[16]** and are now widespread in the healthcare industry **[17]**. Electronic health record facilitate more efficient documentation collection and storage, promote patient safety and quality initiatives by allowing widespread access to health information, and allow for transaction of claims data for professional and hospital billing.

Conclusion:

The majority of Egyptian pediatric physical therapists at teaching hospitals document patients' findings without the use of standard tools, there is no use for electronic medical records at the physical therapy departments included in the present study. There is no systematic way to document medical records in teaching hospitals.

References

1- PULLEN, IAN and JOHN LOUDON: "Improving standards in clinical record-keeping". Advances in Psychiatric Treatment, 12.4: 280-286, 2006.

2- CARPENTER, IAIN, et al.: "Medical records and record-keeping standards." Clinical Medicine, 7.4: 328-331, 2007.

3- SIDDIQI, KAMRAN and JAMES NEWELL.: "What were the lessons learned from implementing clinical audit in Latin America?" Clinical Governance: An International Journal, 14.3: 215-225, 2009.

4- FRIEDMAN, LAWRENCE M., et al.: Fundamentals of clinical trials. Springer-Verlag, 2015.

5- MAUCH and DONNA: Reimbursement of mental health services in primary care settings. DIANE Publishing, 2011.

6- LAXMAIAH MANCHIKANTI M.D. and M.D. VIJAY SINGH.: "Description of documentation in the management of chronic spinal pain." Pain Physician, 12: E199-E224, 2009.

7- GEBRU K., AHSBERG E. and WILLMAN A.: Nursing and medicaldocumentation on patients' cultural background. Journal of Clinical Nursing, 16: 2056-2065, 2007.

8- STAUNTON P.J. and CHIARELLA M.: Nursing and the Law, 6th edn Sydney: Elsevier, 2008.

9- WATERSON and PATRICK.: "Health information technology and sociotechnical systems: A progress report on recent developments within the UK National Health Service (NHS)". Applied Ergonomics, 45.2: 150-161, 2014.

10- BERGH A., BERGH C. and FRIBERG F.: How do nurses record pedagogical activities? Nurses' documentation in patient recordsin a cardiac rehabilitation unit for patients who have under-gone coronary artery bypass surgery. Journal of Clinical Nursing, 16: 1898-1907, 2007.

11- KARKKAINEN O. and ERIKSSON K.: Evaluation of patient records aspart of developing a nursing care classification. Journal of Clinical Nursing, 12: 198-205, 2003.

12- EHRENBERG A., EHNFORS M. and EKMAN I.: Older patients with chronic heart failure within Swedish community healthcare: A record review of nursing assessments and interventions. Journal of Clinical Nursing, 13: 90-96, 2004.

13- SHAYAH A., AGADA F.O., GUNASEKARAN S., JASSAR P. and ENGLAND R.J.A.:The quality of operative note taking: An audit using the RoyalCollege of Surgeons Guidelines as the gold standard. Inter-national Journal of Clinical Practice, 61: 677-679, 2007.

14- FRANK-STROMBORG M., CHRISTENSEN A. and DO D.E.: Nurse documentation: Not done or worse, done the wrong way-partI. Oncology Nursing Forum, 28: 697-702, 2001.

15- KAWAMOTO, KENSAKU, et al.: "Improving clinical practice using clinical decision support systems: A systematic review of trials to identify features critical to success". BMJ, 330.7494: 765, 2005.

16- SHORTLIFFE, EDWARD H. and JAMES J.: Cimino, eds. biomedical informatics: COmputer applications in health care and biomedicine. Springer Science & Business Media, 2013.

17- ANYIKA and CHINWE.: Modeling and analysis of a clinical documentation improvement system: Calculating patient outcomes. Diss. Rutgers University-School of Health Related Professions, 2015.

تقييم مستوى الجودة للسجلات بأقسام العلاج الطبيعى للأطفال بالمستشفيات التعليمية (لأداة التدقيق)

\الخلفية: الوثائق هى عملية تسجيل جميع جوانب رعاية المرضى، بما فى ذلك إدارة نتائج الفحص الأولى والتشخيص، وخطة العلاج ، والتداخلات، والأستجابة للتداخلات، وإعادة الفحص، الخروج.

\الهدف: تهدف الدراسة الحالية إلى فحص مستوى جودة السجل السريرى وتوثيق أقسام العلاج الطبيعى للأطفال فى المستشفيات والمعاهد التعليمية وفقاً لمعايير جمعية العلاج الطبيعى المعتمدة لتحديد نقاط التوثيق التى تفتقر إليها والعمل على حلها لتحسين الجودة. من السجل والوثائق فى المؤسسات الطبية.

\الطريقة: أجريت هذه الدراسة كدراسة مستعرضة فى المستشفيات والمعاهد التعليمية لـ ٣١٠ ملف تسجيل للمرضى تم أختيارهم عشوائياً نت عيادات العلاج الطبيعى فى الكلية (١٠٠)، المعهد القومى للحركة العصبية (١٠٠)، مستشفى المطرية التعليمية (١٠٠)، مستشفى الساحل التعليمى (١٠). تم إجراء تقييم لجودة ملفات تسجيل المرضى بإستخدام التدقيق القياسى للمرضى المعتمد من قبل معايير المجتمع تشادترد. وصف وتقييم جودة نظام العمل والإبلاغ عنه.

\النتائج: هناك فروق ذات دلالة إحصائية بين المستشفيات التعليمية والمعهد فى التقييم، الفحص، التحليل التنفيذ، نقل تصريف الرعاية، سجل الوثائق والمريض تتوافق مع محاور المتطلبات التالية، ومع ذلك هناك نقص حاد فى محور توثيق الموافقة المسبقة والتقييم والتخطيط والعلاج. لا يوجد نظام لتكنولوچيا المعلومات لملفات تسجيل المرضى فى جميع المستشفيات والمعاهد التعليمية فى مصر.

\الأستنتاج: إستخدام سجل المريض الموحد لم يتم تنفيذه فى أقسام العلاج الطبيعى للأطفال فى المستشفيات والمعاهد التعليمية. لا يوجد إستخدام للسجلات الطبية الإلكترونية.