

# Assessing the Dimensions of Hospital Records (Medical Records) in delivering quality of service to patients

Kenneth Amoah-Binfoh<sup>1\*</sup>, Collins Marfo Agyeman<sup>2</sup>, Pradhyuman Singh Lakhawat<sup>1</sup>

<sup>1</sup> Department of Business Studies,  
SHUATS University, Allahabad, U.P, India.

<sup>2</sup> Department of Business,  
All Nations University, Koforidua, Ghana.

\*kbinfoh@anuc.edu.gh

## ABSTRACT

Medical records through which hospital statistics are generated serve as eyes and ears to the hospital administrator. Medical records are of importance to the hospital for evaluation of its services for better patients care. Failure of duty towards the patient is failure to maintain proper medical records. Recently, medical records have become very importance in the area of education and training of physicians and others being the basis for clinical research. Medical records make research effective and require scientific observational records. Medical records as perceived to be the instructions documented in a patients file serve as a means of communication between the physicians and other health professionals caring for the patient. The essence of medical record is to ensure continuity of care. Ensuring continuity of care means medical records must be comprehensive, planned, economical, time-honored and classified in a right way. Managing these records are found concerned with several types of problems. The record keeping, making use of the records, destroying the old records of no use; documenting the important records found useful to the researchers and the medical scientists. The objectives of this paper were to find the challenging dimensions of medical records in delivering quality of service to patients and to identify the significant role of medical records in delivering quality service to patients. The researchers employed systematic sampling with a population of about 123 which included nurses, medical records and admission office (clinic-administrative departments) with a desired sample size of 60. It was found that creating as one of the dimensions of medical record was very difficult to do. It was recommended that indexing or cataloguing should be more innovative and simple within time limit, so that the required papers or records are easily made available to the concerned person.

Keywords: Dimensions of records, Quality of service, Medical Records, Patients and delivery of care services

## INTRODUCTION

According to (Amoah-Binfoh et al. 2017) in their research reported that, managerial polices, techniques and industrial development has lagged behind due to ineffective administrative functions of hospitals. The hospital administration continues to make ad hoc arrangements rather than having a carefully planned administrative policy. You can rectify your mistakes when you are aware of them. Management of hospitals is supposed to manage the present and future for the medical records. They are required to file and document the hospital records. Hospital records especially medical records are useful to the researchers and medical scientists. Globally, the Information Technology revolution has provided benefit to all sectors including healthcare.

Management of hospital records is found significant not only the viewpoint of making available to the different persons and agencies information pertaining to the working of hospitals; but also with the motto of evaluating the performance of hospital personnel serving the different department. If you manage hospital records scientifically and in a systematic fashion; your task of making possible qualitative improvements is considerably simplified. In short, good access to healthcare, and access to enhanced healthcare is not enough when the records are not properly kept. Good clinical records are a prerequisite of delivering high-quality, evidence-based healthcare, particularly where several different clinicians are contributing simultaneously to patient care. Unless everyone

involved in clinical management has access to the information they require, duplication of work, delays and mistakes are inevitable. Records may be held electronically or manually, or a mixture of both. If essential information is missing, found to be inaccurate or indecipherable, cases may be lost when they could otherwise have been won.

### Objectives

1. To find the challenging dimensions of medical records in delivering quality of service to patients
2. To identify the significant role of medical records in delivering quality service to patients

### LITERATURE REVIEW

#### Hospital records

McGibony (1952) stated that, hospital record is a chronicle of the pageantry of medical and scientific progress found in the hospital. The viewpoints of McGibony make it clear that the records of hospital present a true story of events in which the doctors, researchers, managers, medical scientists taking interests in the problem find everything they need. It has been explained by Goel et al. (2002) that, in hospital or healthcare organization, they are considerable number of records for different purpose. It is quite natural that all records don't carry equal signification. He classified four major hospital records into the following;

- 1. Vital Records:** in the first category, this record related to critical results, projection of wonderful result by the personal, innovative efforts of doctors in treating the patients, case of fraudulent preferences etc. carry outstanding significance till the existence of hospital. For references or for carrying on research, the records help substantially to the researchers, doctors, medicals scientists and other evincing interests in promoting research.
- 2. Important Records:** In this category, records are useful for future or for undertaking research. A hospital manager bears the responsibility of making available to the researchers the feedback or back up material for reference. Provision for computers, ensures the information is stored in the memory and if not the documentation would be required.
- 3. Useful Records:** In this category, records based on correspondence between the personnel of the hospital and the client which may include patients, attendants, and suppliers of distinct types of

material or any useful correspondents for records keeping.

**4. Transit Records:** the record in this category is found of current of temporary use. This makes it essential that a hospital manager keeping in view the period limit make suitable arrangement for their documentation. It is also important that after the time limit, the record is destroyed.

### DIMENSIONS OF HOSPITAL RECORDS MANAGEMENT

The dimensions of hospital records have five different phases. It's against this phases that a hospital manager is required to be careful at the different stage of managing the hospital records. However, with the development of information technology, a hospital manager finds it convenient to manage the hospital records better. The following are the dimensions of hospital records;

- 1. Creating the Hospital Records:** this is the first constituent or dimension of records management which draw an attention on the development of filling system, indexing, and cataloguing, record keeping in view of the requirements of different department for which the records are created. The creation focuses attention on the system adopted and quality promoted for the said purpose.
- 2. Administering the records:** this is the second dimension of the management of hospital records which gravitates our attention the implementation of the system of developing records that you have created. Irrespective of the fact that it is technology driven or manual driven, you need to make it sure that the system is functioning on our direction and instruction.
- 3. Retaining the hospital records:** since hospitals face the problem of space constraint, it is right that a microscopic analysis of the facts that how and in what way, the record are to be retained for future reference. While making classification of hospital records, some of the records are vital, important whereas some of the records are of temporary use.
- 4. Submitting the records:** this is the first stage before you take a decision to destroy the records. This dimension of the management of hospital records make it essential that being a hospital manager, you come to know about the rationale behind documenting the same or storing the same in the memory of your computers.

**5. Destroying the hospital records:** This dimension of records management is found occupying an outstanding place because once you take a decision, you are not able to make use of the same. This makes it essential that before taking a decision regarding the destroying of the records, you consult different heads of department and in consultation with them take a final decision.

### CONCEPT OF MEDICAL RECORDS

According to Stedman's (Medical Dictionary 2002), medical record defined as a chronological written account of a patient's examination and treatment that includes the patient's medical history and complaints, the physician's physical findings, the results of diagnostic tests and procedures, and medications and therapeutic procedures. Patient care includes a chronological record of care and treatment, namely medical records. Accurate and adequate medical records are very important for clinical, legal, fiscal and research purposes and is based on the principle 'people forget, but records remember' Medical Records Department is a very important department in every hospital. (Natarajan 2010), in her book, explained that, medical record is a storehouse of knowledge concerning the patients; it's a standard measure of quality of work done by the physicians and hospital personnel. In simple terms, a medical record, health record or medical chart is a systematic documentation of a patient's medical history and care. Medical record is used both for the physical folder for each individual patient and for the body of information which comprises the total of each patient's health history. The life and health of every patient depends on the Hospitals and management of records. An effective medical care depends on the skills and competency of doctors and nurses and on high-sophisticated quality facilities and equipment. Without precise, complete up-to-date and available medical records, medical personnel may not offer the best treatment or may in fact misdiagnose a condition, which can have severe consequences. (Haux 2006) explained that, any records for patients kept confidential by healthcare professional or organization. The medical record contains the patients personal details (address, name, gender, date of birth) a summary of the patient's medical history, and documentation of each event, including physical examinations,

symptoms, provisional diagnosis, treatment, progress report and outcome. Other pertinent documents and correspondence (like referrals, consultancy reports) are also included.

### CONTENT OF MEDICAL RECORDS

According to (Natarajan, 2010), said, though medical records content may vary depending upon specialty and location. In the matter of time different scholars like (Berg, 2001; WHO(2003,2006) & Huffman 2001) because of advance form of research, identified the following intellectual and physical items as in whole or in part, which make up the contents of a patient's Medical Record: Table-1

| Non-Medical   | Medical history and encounters       |  |
|---|--------------------------------------|--|
| Demographics: Name, Address                                 | Doctor's clinical notes              | Medications and medical allergies  |
| contact numbers, race, religion Nationality, family history | Recording of discussion with patient | Imaging records and reports Clinical Photographs                                     |
| Social history: workplace,                                  | next of kin regards disease          | Consent Forms, At-Own-Risk Discharge Forms   |
| Occupation, career, school                                  | Referral Notes to other specialist   | Operation Notes/Anaesthetic Notes  |
|   | Nurses' Reports, Video Recordings    | Printouts from monitoring equipment (e.g. Electro-cardiogram, Electro-encephalogram) |
|   | Surgical history                     | Physical examinations, progress notes  |

### TYPES OF MEDICAL RECORDS

In 2005 Desouza in his research asserted that, the increase in population, escalating number of patients and the new diseases and symptoms necessitate healthcare industry to deal and control enormous amounts of data and information. Medical Records form an essential part of any medical practice since it

facilitate quality care for patients as well as a critical point of contact for any future dispute or investigation or legal issues. However, according to (Durking, 2006) posited that, there are different types of medical records normally found in hospitals; this statement was elaborated by (Durking, 2006) when he itemized medical record which includes:

Table-2

| Types   |                               | Types of form  |
|---|-------------------------------|--|
| Patient History and Examination report                            | Clinical notes                | Core forms: discharge summary, operative notes, doctors and nurses records |
| Consultation report, Operative report                             | Autopsy report                |  |
| Radiology report, Pathology report                                | Biopsy report                 |  |
| SOAP note report (Subjective, Objective, Assessment & Plan notes) | Psychiatric observations      | Diagnostic forms : X-ray, ECG  |
| Emergency report, Laboratory report                               | X-ray report, Daily report    | Department specific forms: outpatients and inpatients                      |
| Progress note report, Therapy report                              | Scan report, Referral letters |  |

### SIGNIFICANCE OF RECORD-KEEPING

Of late, the process has been made more scientific and albeit easier because we find computers playing an incremental role in managing the records, it is pertinent that you realize the instrumentality of record-keeping. However, medical record is an important primary tool in the practice of medicine because (Huffman,2001) stressed that the whole idea " behind it is to provide better care of the patient through careful recording of every detail having to do with his/her case. The medical record is the, who, what, why, where, when, and how of the patient care during hospitalization. The following are the significant of hospital records;

**1. Quality decision making:** it was agreed with this view that sky is the limit to quality purgation and sky is the limit even for achieving a stage of perfection. Of course, you have subjective knowledge and based

on that you are in a position to manage hospitals in a right fashion.

**2. Evaluation of Performance is possible:** Records in a true sense narrate the contribution of different department and section. The performance of an individual or a team can be gauged with the help of records.

**3. Making possible a comparative analysis:** If an organization want to remain number one or at the top, it is pertinent that you not only know about yourself but also come to know about your competitors. It is in this context that we find hospital helping you in making comparative analysis of the performance of leading and internationally acclaimed hospitals and healthcare organizations.

**4. Internal control is possible:** The record keeping if managed and monitored in a right fashion helps an organization in channelizing the internal control. Since you have come to know the points, stage, reasons for the mistakes committed earlier, it is easier for you to be vigilant so that the employees don't repeat the same." Prevention is better than cure.

**5. Operational efficiency is increased:** The hospital records substantially help you in increasing the level of efficiency of not only the personnel but also the equipment, instruments, plants and machines, instrument used in the process.

### METHODOLOGY

This shows how the study was conducted using the very right methods. To ensure that all aspects of this descriptive research were analyzed significantly before drawing relevant conclusions, both quantitative and qualitative approaches were employed. The sample size used for the study was 60. The researchers employed systematic sampling for the study. Systematic sampling is a type of probability sampling method in which sample members from a larger population are selected according to a random starting point and a fixed periodic interval. The total population was 123 and the target sample was 60, thus  $123/60=2.05$  so every 2nd person in the population stands the chance of being selected.

**RESULT AND DISCUSSION**

Table-3

| S/N | THEMATIC                                  | ITEMS                 | PROPORTION (100%) |
|-----|---|-----------------------|-------------------|
| 1.  | Age                                       | (A) 18-23             | 25                |
|     |   | (B) 23-28             | 25                |
|     |   | (C) 33-38             | 15                |
|     |   | (D) 43-48             | 15                |
|     |   | (E) 53 And Above      | 20                |
| 2.  | Gender                                    | (A) Male              | 36.7              |
|     |   | (B) Female            | 63.3              |
| 3.  | Years Worked                              | (A) 0-1year           | 13.3              |
|     |   | (B) 1-2years          | 5.0               |
|     |   | (C) 2-3years          | 21.7              |
|     |   | (D) 3-4years          | 21.7              |
|     |   | (E) 5years And Above  | 38.3              |
| 4.  | Department                                | (A) Nursing           | 51.7              |
|     |   | (B) Admission Office  | 16.7              |
|     |   | (C) Medical Record    | 31.7              |
| 5.  | System For Storing And Keeping Records    | (B) TD Record         | 48.3              |
|     |   | (C) Both              | 51.7              |
| 6.  | Difficulty In Filing And Creating Records | (A) Strongly Agree    | 18.3              |
|     |   | (B) Agree             | 43.3              |
|     |   | (D) Disagree,         | 31.7              |
|     |   | (E) Strongly Disagree | 6.7               |

(Field survey, 2018)

From the table above, the Age categories of the respondents range from 18-28, recording the highest percentage of 25% of the entire age category.

Majority of the respondents were females 63.3%. Respondents were asked years they've worked with the organization, majority of them have worked more the 5years representing 38.3%.

Nursing department was majority of the respondents recording 51.7%. However, the researchers wanted to know which system was adopted for record keeping in the organization, majority said both manual and technology were used representing 51.7%. Respondents agreed that, filing, indexing, cataloguing and creating records was a challenging task.

Table-4 The most challenging dimension of medical records keeping

| Rank                      | 1 <sup>st</sup> | 2 <sup>nd</sup> | 3 <sup>rd</sup> | 4 <sup>th</sup> | 5 <sup>th</sup> | Total |
|---------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------|
| Creating the Records      | (26x1)          | (15x2)          | (9x3)           | (6x4)           | (4x5)           | 127   |
| Retaining the Records     | (21x1)          | (18x2)          | (11x3)          | (6x4)           | (4x5)           | 134   |
| Administering the Records | (24x1)          | (18x2)          | (8x3)           | (6x4)           | (4x5)           | 128   |
| Destroying the Records    | (16x1)          | (14x2)          | (8x3)           | (9x4)           | (13x5)          | 169   |
| Submitting the Records    | (13x1)          | (11x2)          | (15x3)          | (11x4)          | (10x5)          | 174   |

The above table shows the dimensions of medical records the most challenge to the least challenging. The first rank was given the lowest number (1) and the least challenging attribute was given the highest number (5). The total lowest score shows the first most challenging. The results of the rank order were as follows; Creating records, administering the records, destroying the records and submitting the records.

Table-5 Model Summary<sup>b</sup>

| Model | R                 | R square | Adjusted R Square | Std. Error of the Estimate | Change Statistics |          |     |     |               |
|-------|-------------------|----------|-------------------|----------------------------|-------------------|----------|-----|-----|---------------|
|       |                   |          |                   |                            | R Square Change   | F Change | df1 | df2 | Sig. F Change |
| 1     | .657 <sup>a</sup> | .432     | .375              | .94442                     | .432              | 7.602    | 5   | 50  | .000          |

a. Predictors: (Constant), Legal documents, Performance evaluation, Quality decision making, Operational efficiency, Internal control

b. Dependent Variable: Patients Satisfaction

Table-6 ANOVA<sup>b</sup>

| Model | Sum of Squares | df     | Mean Square | F     | Sig.  |                   |
|-------|----------------|--------|-------------|-------|-------|-------------------|
| 1     | Regression     | 33.903 | 5           | 6.781 | 7.602 | .000 <sup>a</sup> |
|       | Residual       | 44.597 | 50          | .892  |       |                   |
|       | Total          | 78.500 | 55          |       |       |                   |

a. Predictors: (Constant), Legal documents, Performance evaluation, Quality decision making, Operational efficiency, Internal control

b. Dependent Variable: Patients Satisfaction

The Multiple regression coefficient R from the table recorded (.657) high and excellent level of prediction. Whilst R<sup>2</sup> (.432), signifies percentage of variations in the dependent variable that was interpreted by the independent variables. Technically, the independent variables gave details of 43.2% of the variations in the dependent variable. Thus, 43.2% of the disproportion (variance) in Patients satisfaction was accounted for Legal documents, Performance evaluation, Quality decision making, Operational efficiency, Internal control. It explicitly shows how close the data were. The Adjusted r-squared was 37.5% which spell out an increase and a preferred goodness-of-fit statistic.

Table -7 Coefficients<sup>a</sup>

| Model |                         | Unstandardized Coefficients |            | Standardized Coefficients | T      | Sig. | Collinearity Statistics |       |
|-------|-------------------------|-----------------------------|------------|---------------------------|--------|------|-------------------------|-------|
|       |                         | B                           | Std. Error | Beta                      |        |      | Tolerance               | VIF   |
| 1     | (Constant)              | .062                        | .477       |                           | .129   | .898 |                         |       |
|       | Quality decision making | .372                        | .135       | .303                      | 2.760  | .008 | .942                    | 1.061 |
|       | Performance evaluation  | .381                        | .140       | .296                      | 2.726  | .009 | .961                    | 1.041 |
|       | Internal control        | .162                        | .111       | .174                      | 1.453  | .152 | .796                    | 1.257 |
|       | Operational efficiency  | -.186                       | .111       | -.183                     | -1.670 | .101 | .951                    | 1.052 |
|       | Legal document          | .409                        | .140       | .347                      | 2.932  | .005 | .810                    | 1.234 |

a. Dependent Variable: Patients Satisfaction

### b. Statistical significance

The ANOVA table above, the F-ratio where  $F(5, 50) = 7.602$ ,  $p < .0005$  (i.e., the regression model was good and was fit for the data significantly). From the Coefficients Table 7, there was no presence of multicollinearity. Since the VIF values, from the above table ranges from 1.042 to 1.257 were less than rule of thumbs 4, 5, and 10. Therefore the presence of multicollinearity in this model was corrected.

## CONCLUSION

It was observed that majority of the respondents were youth from the Age categories of 18-28, whilst majority of the respondents have worked with the health institution for 5 years and above. However the study was more focused on the medical records; but it was found that majority of the respondents were nursing showing that they work more with patients records than any other department. It was found that both manual and technological driven system of keeping records was adopted. The result indicated that filing, indexing, cataloguing as one of the dimensions of records was very difficult to do. Administering the records was the next most challenging dimension, followed by destroying the records and submitting the records was the least challenging. It was also observed that patient satisfaction was depended on, Quality decision making, Legal documents, Performance evaluation, Operational efficiency and Internal control. When all the aforementioned parameters increase it simultaneously increases the satisfaction of patients. The significance and the effective role of medical records ensure continuity of care and patients satisfaction. It was also identified that, patients file, lab reports, X-ray, Doctors notes makes up the medical records, and admissions, discharge summaries, and day-to-day care procedures are forms (core form and diagnostic form). Most patients do not give the right information about their medical history which tends to be a very challenging. In conclusion, the medical records department is to care for the accuracy in maintaining records properly as it will assist in the timely production of the data, fact sheet and right time of retrieval. It was recommended that indexing or cataloguing should be more innovative and simple within time limit, so that the required papers or records are easily made available to the concerned person. Health records should be properly maintained to gauge the performance of health professionals and effective comparative analysis.

**Conflict of interest:** None

## REFERENCES

1. Amoah-Binfoh K., Pradhyuman L., Marfo C. (2017); The Impact of Managerial 5Cs' on Efficient Hospital Administration (EHA) in Providing quality care to patients Saudi J. Bus. Manag. Stud.; 2(5A); 513-520
2. Available: [www.who.int/mediacentre/factsheets/fs302/en/index.html](http://www.who.int/mediacentre/factsheets/fs302/en/index.html) (Accessed 20, March 2018)
3. Berg, M. (2001); Implementing information systems in health care organizations: Myths and challenges; International Journal of Medical Informatics; 64 (2-3); 143-156.
4. Desouza, K. C. (2005); Knowledge management in hospitals. Creating Knowledge Based Healthcare Organizations, N. Wickramasinghe, J.N.D Gupta and S.K Sharma (eds.), pp. 14-28. Hershey, PA: Idea Group

Publishing.

5. Durking, N. (2006); Using records review as a quality improvement process. Home Health Nurse; 24:492e502.
6. Haux, R (2006); Health information systems past, present, future. Int J Med Inform 75:268 281
7. Huffman, K.E (2001); Medical Record Management (9thEd.) New York, NY: Claredon Press.
8. John R. McGibony (1952); Principles of Hospital Administration. New York: Putnam publications.
9. Kumar R& Goel SL.(2002); Management of Hospitals. Vol 4. New Delhi: Deep & deep publications.
10. Natrajan Sangeeta (2010); Hospital Supportive Services. India:Excel Books publishers
11. The American Heritage® Stedman's Medical Dictionary (2002); by Houghton Mifflin Company; Published by Houghton Mifflin Company.
12. WHO. (2006); the global shortage of health workers and its impact.  
[www.who.int/mediacentre/factsheets/fs302/en/index.html](http://www.who.int/mediacentre/factsheets/fs302/en/index.html) (Accessed 20, March 2018)