

RETRIEVING PHYSIOTHERAPY PATIENT RECORDS IN AN ACADEMIC HOSPITAL IN JOHANNESBURG, SOUTH AFRICA

ABSTRACT: *The purpose of this study was to evaluate the process and feasibility of retrieving physiotherapy patient records in an academic hospital in Johannesburg in the Republic of South Africa.*

Multiple methods of data collection which included a walk-through observation of the whole health facility, aided by a researcher designed checklist, interviews and attempting to retrieve physiotherapy records were employed to evaluate the process of retrieving physiotherapy patient records and to determine the factors that influenced physiotherapy record retrieval. The percentage record retrieval was calculated by dividing the number of physiotherapy patient records that were actually retrieved by the total number of patients billed for receiving physiotherapy for one calendar month.

The process of retrieving physiotherapy records was arduous and multi-faceted, requiring the use of multiple recording books, files and boxes to identify the names and hospital numbers of patients who attended physiotherapy. These data were required to retrieve the correct physiotherapy record. A final retrieval rate of 29.7% (n = 769) was achieved. The implications for the quality and planning of physiotherapy services, the legal and professional standing of the physiotherapy profession and implications for the academic functions in this hospital are discussed.

The study concluded that the process of retrieving physiotherapy records in different sections of the selected hospital lacked uniformity.

KEY WORDS: *PHYSIOTHERAPY PATIENTS' RECORDS, RETRIEVAL, ACADEMIC HOSPITAL.*

INTRODUCTION

Health researchers have consistently cited the importance of maintaining patient records that are of a high quality (Abraham 2003). Without exception, patient records are expected to inform on the continuity and quality of health care (Ameh and Shehu 2002). The pursuit of quality health care requires measuring and monitoring the health status of the population and ensuring that those responsible for the health status of defined populations are given feedback on the information generated. Patients' records should therefore be easily accessible to healthcare providers to ensure continuity of care and fulfil legal requirements (Ameh and Shehu 2002; Wood 2003). When the records cannot be retrieved, it becomes difficult to determine the outcome and impact of health care interventions (including physiotherapy interventions), and subsequently to define the quality of the service provided or to plan for some aspects of continuous quality improvement.

Ensuring high quality in patients' records also contributes significantly to the training of healthcare professionals. In one academic hospital in Zaria, Nigeria, Ameh and Shehu (2002) reported on how the unavailability of patients' records led to frustrating experiences for surgeons holding faculty positions, whose promotions were tied to research and publications. In addition, health care research may assist in finding solutions to improving healthcare, including the solutions to the problems of underutilization, over utilization and inappropriate use of health care resources (Eisenberg, 1997).

In spite of the documented significance of patients' records, an earlier study in an academic hospital in Johannesburg, South Africa to assess the quality in the completion of patients' records in physiotherapy encountered serious difficulties in retrieving the records (M'kumbuzi et al, 2002). The difficulties encountered in the process of retrieving patients' records in physio-

therapy raise major concerns about the accessibility of the records of patients receiving physiotherapy services in healthcare facilities. Unless adequate systems are in place to file, store and retrieve records of patients, the data that contribute to high quality patient care, appropriate allocation and utilisation of resources, audit of professional competence and clinical training, clinical and epidemiological research and development of a national health information system will be seriously compromised. The patient record is a legal document

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that may be used to provide evidence for procedural investigations for some categories of patients e.g. assault, child abuse etc. Further the patient record may be used for defence in cases of professional litigation. There is global recognition of the growing threat of litigation against health professionals. It is estimated that one in three health professionals will be involved in some kind of legal proceeding at some point in their career (Wood 2003).

The global recognition of the growing threat of litigation against health professionals necessitates unhindered and timely access to patient records for defence. Therefore, the overall aim of this study was to determine the feasibility of retrieving physiotherapy patient records in the above-mentioned academic hospital. The specific objectives were:

1. To assess the process by which patients' physiotherapy records are retrieved throughout the hospital (irrespective of whether the physiotherapy record was a separate document or whether it was contained in the complete set of the patients notes, also known as the case file or bed letter).
2. To determine the retrieval rate of physiotherapy records in the hospital, and
3. To obtain the views of physiotherapists working in the hospital on the process of retrieving physiotherapy records

METHODS

Setting

The investigation was conducted in one-state owned academic hospital in Johannesburg, South Africa, having 2000 hospital admission beds and over 1200 staff members. The hospital complex consists of five smaller 400 bedded hospitals, and is subdivided into the following four main departments; administration, medical, nursing and allied medical. The hospital has 57 admission wards, 36 operating theatres; transplant surgery wards, a unit for the isolation of patients with haemorrhagic fever, five dialysis units, six intensive

care units and three separate casualty areas. It is physically arranged into five blocks as follows: obstetrics and gynaecology; paediatrics; surgery; urology, neurology and psychiatry and internal medicine. The hospital has a large physiotherapy department providing in and out patient services to over 500 new patients each month. The physiotherapy department has three treatment areas for i) patients with neurological impairments, ii) paediatric patients, and iii) a general outpatient's treatment area. All out patients are treated within the physiotherapy department, while patients admitted in the wards may be treated in the ward or may be brought down to the physiotherapy department to make use of the specialised facilities. There were 19 physiotherapists and five physiotherapy assistants working on a four monthly rotational basis in the hospital at the time of this study. Physiotherapy rotations include orthopaedics, neurology, paediatrics, medical and outpatients. Patients requiring physiotherapy and admitted to other wards that are not part of the physiotherapy rotations are allocated to staff by the chief physiotherapist.¹

The subject of this study included all physiotherapy records (separate or contained in the case file) of all patients (admitted and out patients) that received physiotherapy services in all areas of the academic hospital.

Ethical clearance was obtained from the Ethical Committee for Research on Human Subjects at the University of the Witwatersrand (ethical clearance certificate number - M00/04/14). In addition, permission was obtained from the Gauteng Health Department Ethical committee, the Gauteng Health Department Research and Clinical Trials Committee, the CEO and chief physiotherapist at the selected hospital.

Multiple methods were employed to collect data in a multi-staged protocol. The principal investigator collected all the data for all stages of the study. The same format was followed for data collection in all areas of the hospital.

Stage 1: Evaluation of the Retrieval System

The first stage of the study involved

observing the filing, storage and retrieval systems of patients' physiotherapy records. During the course of their routine work, each physiotherapist was accompanied to the various wards and hospital areas allocated to them for the particular rotation. On these visits, physiotherapists were observed identifying patients (old and new); retrieving patients' physiotherapy records; documenting the physiotherapy procedures and filing and storing the physiotherapy record. Visits were also made to the physiotherapy department and the central records department (where physiotherapy outpatient records and records of discharged patients were stored respectively) to determine the filing and storage facilities and processes in use.

Stage 2: Interviews

Once the persons responsible for filing and storing patients' physiotherapy records were identified, interviews were scheduled. Thus interviews were conducted with the chief physiotherapist in the hospital, 4 senior physiotherapists heading each clinical area, 3 records clerks from 3 clinical areas (paediatrics, medical, orthopaedics - the clerk from neurology was on sick leave), one records clerk in the central records department and one records clerk from the physiotherapy department. Physiotherapy clinicians were asked questions pertaining to how physiotherapy referrals were obtained, where physiotherapy procedures were documented for admitted as well as outpatients and the place where physiotherapy records were filed and stored. The records' clerks were asked questions pertaining to where physiotherapy records were obtained, how they were obtained and what their responsibility in as far as physiotherapy patient records was? These interviews served as back-checks to verify the observed practices in order to triangulate the data.

Stage 3: Identifying the Names and Hospital Numbers of Patients Who Received Physiotherapy

The next stage of the study involved identifying patients who attended physiotherapy for the first time in one particular month for the presenting

1 The size, setting and organisation of the hospital and physiotherapy department described, illustrates the complexity of the systems required to manage patients' physiotherapy records.

condition. The presenting condition was considered important in order to account for patients who might present for physiotherapy on separate occasions for different health problems during the study period. These were considered as separate 'first points of contact' with physiotherapy. In contrast, an admitted patient who was discharged from the ward but continued receiving physiotherapy as an outpatient for the same health problem was considered as having had a single 'first point of contact' with physiotherapy during the study period.

It was necessary to obtain the name and or hospital number of patients that received physiotherapy in order to identify the correct physiotherapy record for retrieval. Names of patients admitted to the wards were obtained at the first point of contact with physiotherapy. For the purposes of this study, the first point of contact with physiotherapy was taken as the point at which physiotherapy services were requested. A list of these names was drawn up from multiple sources. These included the 'daily order' book on each ward, which contains daily entries of planned patient care procedures, the 'physiotherapy referral file', or 'physiotherapy box'. These sources may include the doctors' referrals for the commencement of physiotherapy for patients admitted in the wards. The individual "physiotherapists' notebook" and 'time sheet' were also used to obtain the particulars of patients referred by word of mouth. Once the names of patients receiving physiotherapy had been determined, hospital numbers were obtained from again various sources (ward admission book, ward discharge book, computer database, and physiotherapy referral file and physiotherapy box). However, it was observed that not all the patients referred for physiotherapy were identified from these sources. Therefore an audit trail was carried out to ensure that all the names of patients receiving physiotherapy were identified.

Stage 4: Audit Trail

During their routine work, the researcher requested each physiotherapist and physiotherapy assistant on each

ward to identify the patients already referred for physiotherapy. The names and hospital numbers of these patients were noted and crosschecked against the list of names of patients identified as receiving physiotherapy in stage 3. Those names not appearing on the initial list were added. A similar process was followed in the physiotherapy outpatient department. The names of patients were taken from the appointment book and outpatient physiotherapy register, where all patients were scheduled for physiotherapy and recorded after receiving physiotherapy respectively. At the end of the fourth stage, information was shared with senior physiotherapy clinicians in order to obtain their perception on factors affecting record retrieval.

Stage 5: Attempting to Retrieve Physiotherapy Records

After three months an attempt was made to retrieve all physiotherapy records of patients (identified in stage 3 and 4 of the study) from the central records department. It was envisaged that after three months the majority of patients' records would have been sent to the central records department for storage. This is because the study was undertaken at a quaternary level referral hospital, where patients are discharged or at least referred to a lower level of care hospital within a relatively short period of time. Hence the list of the names and hospital numbers of patients identified in stage 3 and 4 was given to a records clerk² who was asked to retrieve the physiotherapy records. A copy of the list of names and hospital numbers identified in stage 3 and 4 was also given to the records' clerk in the physiotherapy department, and she was asked to retrieve physiotherapy records stored within the department.

One month after completing the 5th stage of the study, the total number of patients who were billed for receiving physiotherapy during the study month was obtained from the administration department of the hospital. This number was used to determine the number of patients that had actually attended physiotherapy.

DATA ANALYSIS

Data was analysed descriptively to calculate the percentage retrieval for the hospital using the following formula:

$$\% \text{ Retrieval} = \frac{\text{number of records retrieved} \times 100}{\text{Total number of patients billed for receiving physiotherapy}}$$

Total number of patients billed for receiving physiotherapy

Observations made during the 1st stage of the study, and opinions expressed during the interviews were analyzed qualitatively.

RESULTS

Physiotherapy Record Retrieval Rate

A total of 279 out of a possible 769 physiotherapy records were retrieved from the hospital. This amounted to a retrieval rate of 36.2%. Fifty microfiche film records were later excluded because the film was poor and physiotherapy records illegible, giving a final retrieval rate of 29.7% (229 out of a possible 769 records).

The Process of Retrieving Physiotherapy Records

It was only possible to retrieve the correct physiotherapy record once a patient's hospital number and full name were available. When the date of admission or date of discharge was known, the record retrieval process was more efficient. This was because one was directed to the correct place to look for the record - in the ward, physiotherapy department or in the central records storage unit. In the Intensive Care unit, one had to manually check through the charts to identify patients who had received physiotherapy, while in the orthopaedic wards the patients' first name or initial was often missing. In both these cases obtaining the name and hospital number of patients who had received physiotherapy was time consuming, difficult and not always possible.

The sources of information for obtaining the particulars of patients admitted to the wards whose physiotherapy records were being retrieved are summarised in table 1.

² A records clerk is specially employed on a contract basis to retrieve records of patients required for research purposes in this hospital.

Table 1: Sources for retrieving the particulars of patients admitted on the wards.

	Paediatrics (7 wards incl. an ICU)	Neurology (3 wards)	Orthopaedics (3 wards)	Adult Medical (11 wards incl. 2 ICU's)
Obtaining names of patients	<ul style="list-style-type: none"> • Physiotherapy book (excl. ICU). • Physiotherapists time sheet 	<ul style="list-style-type: none"> • New referrals file. • Physiotherapists time sheet • Porters' book 	<ul style="list-style-type: none"> • Physiotherapy book. • Physiotherapists time sheet 	<ul style="list-style-type: none"> • Physiotherapy box contained new physiotherapy referrals. These were discarded after the patient had been seen. • Physiotherapists time sheet
Obtaining hospital numbers of patients	<ul style="list-style-type: none"> • Ward admission book • Ward discharge book • Physiotherapy book 	<ul style="list-style-type: none"> • Ward admission book • Ward discharge book • Computer database 	<ul style="list-style-type: none"> • The ward admission book could not be found • Ward discharge book • Computer database 	<ul style="list-style-type: none"> • Ward admission book • Ward discharge book
Location of sources	<ul style="list-style-type: none"> • Wards 	<ul style="list-style-type: none"> • Wards • Physiotherapy department 	<ul style="list-style-type: none"> • Wards • Ward records clerk office 	<ul style="list-style-type: none"> • Wards • Physiotherapists carried referrals on them

Records of patients discharged from the wards were stored on a microfiche film in a central records unit, while those of admitted patients were kept on the ward. There were frequent patient transfers between wards; therefore in searching for the particulars of patients it was necessary to take this into account and in particular to trace patients from wards of admission.

The lack of a central register which indicated the names of admitted patients and the incomplete documentation of the patients name made it difficult to use the computer database to retrieve the patients hospital number (unique identifier) required to retrieve the patients' physiotherapy record.

The names and hospital numbers of patients who received physiotherapy on an out patient basis were retrieved from various daily patient appointment books kept in the neurology, paediatric and general outpatients' treatment areas within the physiotherapy department. In the general outpatients treatment area, three appointment diaries were kept. One was for appointments of patients treated by third year physiotherapy students, the other for fourth year physiotherapy students, and the third appointment diary for patients treated by qualified physiotherapists. Through these diaries, the names of patients and dates on which patients received physiotherapy were identified. New patients were indicated

as "NP". In the neurology treatment area the patients' name, hospital number and date of referral could further be obtained from the 'new physiotherapy referrals file'.

All outpatient physiotherapy records were stored in paper format, with current and most records of discharged outpatients found in the department. The remaining physiotherapy records were reported to have been sent to the central records unit to be put on microfiche and stored.

VIEWS OF PHYSIOTHERAPISTS ON PHYSIOTHERAPY RECORD RETRIEVAL

The physiotherapists offered various reasons for failing to record patients' hospital numbers needed to retrieve patients' records. These ranged from being too busy to not having considered the consequences. During the in-depth interviews it also became evident that senior physiotherapy clinicians were more concerned with ensuring that patients requiring physiotherapy services obtained them, rather than ensuring that the record-keeping practices supporting physiotherapy patient treatments were in place.

The possible reasons for low physiotherapy record retrieval in the academic hospital were offered by some of the therapists' responses during the in-depth interviews. For instance one physiotherapist said -

"Some patients come to the hospital for specialist medical treatment and are

referred for physiotherapy, but we do not see them because they go back to where they came from...sometimes this is very far or even from other countries. We sometimes manage to treat cystic fibrosis patients from Zimbabwe..."

This suggests that patients who had been referred to physiotherapy may not receive the services and this would account for the lack of a physiotherapy record.

In another instance a senior physiotherapist stated that -

"...If a patient has been referred to be just mobilised before going home, we sometimes see the patient only once... so we do not get a chance to write an assessment."

It was also evident that some inappropriate work attitudes accounted for the low physiotherapy record retrieval. In one ward, a records clerk commented

"It is not my job to look for hospital numbers...go and look in the ward admission book, if you cannot find it there it's not my fault."

DISCUSSION

Generally, the physiotherapy records of patients on admission were documented in the patients' folders, which were kept in the ward until after discharge. The records of patients receiving physiotherapy on an outpatient basis were documented in separate folders and kept in the Department of Physiotherapy.

However, multiple sources (boxes, files, books, time sheets and registers) of documenting the particulars of patients receiving physiotherapy existed, particularly on the wards. The rotation of clinical staff some of whom seem to have used different methods of keeping the records of the particulars of their patients could have contributed to such a development. The multiple diaries and files served different and multiple functions on the wards across the hospital. Obtaining the patients' full name and hospital number necessary to retrieve the physiotherapy record entailed using the various diaries, log books, files and boxes in various combinations. The lack of uniformity in recording the particulars of physiotherapy patients on the wards seemed to have accounted for the low retrieval rate reported in this study.

In this study, it was impossible to access over 70% of physiotherapy patients' records. The implications on the continuity and quality of physiotherapy care are self-evident. From a health systems framework, the large proportion that was not retrieved served as a serious indictment on the usefulness of aggregated hospital data, which is used as one of the important indicators of the performance of the health care sector. It particularly highlights the inaccuracy of any physiotherapy audit on the quality of patient care occurring against this background, and hospital managers would be limited in planning ahead due to lack of adequate information (Ameh and Shehu 2002).

The absence of records makes it difficult for practitioners to prove that they provided appropriate care should they be asked to do so in a professional or legal hearing (Wood, 2002). The Australian Council for Safety and Quality in Health Care recognised that health workers may fear legal exposure particularly where adverse events occur, thus such documentation may be withheld (Allens Arthur Robinson 2003). This may partly explain the low record retrieval obtained here, but physiotherapists need to view their records as a means of ensuring continuous quality improvement in that efforts to improve safety can be implemented. Further, patient records may benefit the physiotherapy patient in the case of a legal

investigation as may occur for victims of domestic violence, motor vehicle accidents, child abuse and occupational injuries. For whatever reason that physiotherapy patient records were not retrieved, the results of this study suggest that physiotherapists at this academic hospital run the risk of being considered both unsafe and unskilled, and subsequently of undermining the professional and legal standing of physiotherapists. As undergraduate physiotherapy students are exposed to this environment, there is a danger of a ripple effect of inadequate record keeping practices.

RECOMMENDATIONS

It was evident that there was no standardised physiotherapy record retrieval system in this academic hospital, therefore this study recommends:

1. A need to develop and communicate policies, procedures and protocols regarding the place where physiotherapy records should be documented, filed and stored. This should be done in order to make them accessible to health workers involved in patient care, clinical and epidemiological researchers, undergraduate physiotherapy students, records clerks and hospital managers to enable them to plan adequately for the comprehensive functions of academic hospitals.
2. Periodical review of existing systems and policies and to test their efficiency. Staff rotations and changes, infrastructure growth and expansion and new technologies necessitate such periodic reviews.
3. The fostering of clinically relevant behaviours and professional development, those that contribute to an appropriate culture of maintaining good record keeping systems. This should be contained in specific modules during undergraduate, postgraduate and in-service training. This needs to occur across all clinical and para-clinical disciplines in recognition of the team approach to patient care, and the important contributions of all workers in health sector performance.
4. Finally, it may also be prudent to investigate the process of filing, storing and retrieving records of patients across the hospital.

CONCLUSION

This study concludes that there was high physiotherapy patient record retrieval failure in this academic hospital. The failure rate may be attributed to the non-uniformity in the process of filing, storing and retrieving physiotherapy records.

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