Original Article

Perceptions of Patients, Doctors and Clerks of their Roles in Causing Problems in Medical Records

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Kuwait Medical Journal 2003, 35 (1): 13-17

ABSTRACT

Objectives: To study the perceptions of clerks, doctors and patients regarding their roles in the causation of current problems in medical records in Primary Health Capital area. The problems were summarized as follows: the non-retrieval, improper storage and loss by clerks, the non-recording by doctors, and the no-arranging and non-requesting for file retrieval by patients. The aim was to study the possible strategies for each group of personnel dealing with the medical records in Kuwait.

Method: 16 clinics in the capital health area were studied out of 20. Four clinics were excluded as the percentages of Kuwaiti citizens were less than 50% of the population. The study consisted of three parts. Self-filled questionnaires were administered at the three possible levels of interaction: the clerks, the doctors and the patients. The sample of doctors consisted of all those working in primary care clinics of the capital area (101 participated), the sample of clerks consisted of all clerks working in general practice section in the morning shift from the 16 clinics (47 participated), and then a convenience sample of patients in the waiting rooms of each clinic taken in the morning shift (521 patients participated).

Main outcome: The perceptions of clerks, doctors and patients of their roles in the current problems in medical records.

Results: (a) The majorities of patients (82.7%), clerks (93.5%) and doctors (92%) had good perception of the importance of having a medical record for every patient. (b) The overall rate of file retrieval by clerks was 69% (range 48-100%). (c) The overall rate of doctor's recording in the file was 60.5% (range 42-100%). 56% of clerks blamed the lack of files on the clinic itself and 53% blamed overcrowding as a cause of not retrieving the medical record. A significant correlation (two-sided) at 0.001 level was observed between the non-retrieval of files and the absence of files from the clinic, absence of a law for punishment, lazy clerks and the ways of keeping and storing medical records. 66% of doctors insisted on retrieving patient's file on each visit, 74% of doctors could work without a file. 87% of patients already had their medical records but only 46% of patients always asked for their files when they came to the clinic. 79% of patients said that they always brought their civil identity cards for clinic visits and 71% agreed to make a file when they didn't have one.

Conclusions: Although clerks, doctors and patients had good perceptions of the importance of having a medical record, yet there was a real problem of the medical records retrieval and storing system. All the three parties played a role in the filing system defect and should cooperate to correct it.

KEYWORDS: clerks, doctors, file retrieval, filing system, medical records, patients

INTRODUCTION

Health care leaders now recognize that health care systems need radical redesigning. Such a redesign was the focus of a meeting in Atlanta in May 2001 which showed impressive improvements in patient's access and evidence-based care[1]. Improving medical records system was one of these improvements. There are limitations to clinician's memory . For this reason, a record must be made in a form that accurately describes the interaction between clinician and patient, and in a manner that is readily retrievable and recorded to an agreed structured format[2].

The earliest written records of health care date back to 2700 BC when Egyptian doctors were regarded as the best, and where information was recorded on paper made from the papyrus plant. Hippocrates, the the father of medicine (460 to 379 BC), had been credited with writing more than 50 books that contain notes, surgical procedures, case studies and conflicting opinions[3]. Medical Records had been invented by physicians and nurses in order to make sure that they remembered all the facts about each individual patient[4]. There had been problems with our system of recording and retrieving health information and it is time to give

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these problems immediate attention[4]. There are many obstacles in improving the health care system in Kuwait and medical record is one of them. We decided to explore the perceptions of clerks, patients and doctors of their roles in the present medical record problems, in order to propose ways of improving the situation. There is no basic data and no recognised studies on Medical Records in Kuwait apart from the report of the medical records working party (MRWP) in 1985. This report made several observations, summarized as follows:

- The medical records (MR) profession was in its early stages of development in Kuwait and the concept of MR personnel had not been totally recognised. The activities and responsibilities of the MR personnel were generally limited to the routine handling, storing and retrieval of MR.
- The methods for handling, storing and retrieving records were time consuming and effort wasting.
- There were inadequate storage facilities.
- There were no orientation programs and familiarization courses for newly recruited personnel[5].

METHODS

The study was conducted in April 1999 in the Capital Health Region. It consisted of studying the problem at the three main levels of interaction, which were: the levels of clerks, doctors and patients presenting for treatment. Questionnaires were used for the study. The sample included all regional health clinics except four clinics which were excluded, because the percentages of Kuwaiti civilians living in these areas were less than 50%: Sawaber clinic where Kuwaitis form 0.08%, Shuwaikh Urban 42%, Shuwaikh industrial area with 0 % and Dasman 21%. The study included all clerks working in the general practice section in the chosen clinics in the morning shift on the day of filling the questionnaire (day of visit). A total of 47 clerks out of 48 responded (response rate of 98%). All general practitioners and family practitioners working in general practice sections at that time were included (total of 101 out of 111 doctors, excluding the doctors working in the excluded clinics and the three research workers). The response rate was 100% in this group. Convenience samples of patients attending the general practice sections in the waiting rooms were taken until the number required for each clinic sample was satisfied. The number of patient samples were proportionate to the average number of patients who visited each clinic daily and the total population through calculations of 95% confidence intervals[6]. The numbers were as follows: Abdullah Al-Salem 21 patients, Yarmouk 31, Qadsia 25, Dasma 36, Odailiya 52, Doha 62, Surra 26, Mansouriya 9, Shamiya 19, Deiya 63, Khaldiya 23, Nuzha 15, Faiha 73, Kaifan 40, Rawda 41, Sulaibikhat 61.

The total number of patients chosen was 597; of these, 521 responded giving a response rate of 87%. Some patients who were too sick at the time of interview refused to participate, while some could not wait long enough to fill the questionnaire. A patient was defined as having a file, if he/she had a permanent (plastic) file that was issued from the Health Information Division in the Ministry of Health, provided that his/her name and Indentification Number (ID) were registered in the Annual Reports of the Public Authority for Civil Information. Those who had a temporary file made in the clinic while awaiting the plastic file were also included.

The questionnaire addressed the following questions:

1 - What were the perceptions of clerks, doctors and patients regarding causes of non-retrieval of files for patients ?
2 - What were the roles of each of the three groups in the current problems of maintaining medical records ?

Finally some strategies were suggested to improve the situation in the future.

The questionnaire was planned in 1998 based on the perceptions of the main defects in the filing system after discussions between the authors and the senior consultants in the area. The questions targeting the clerks consisted of assessing their perceptions regarding the importance of patients' files, causes of file non-retrieval and the storage problems. The questions targeting doctors concentrated on assessing their opinions of the importance of files, and whether they could work without files and if they used them to record every visit. Questions targeting patients consisted of assessing their role in the problem such as forgetting the civil ID card, carelessness regarding participation in the arrangement for their own files, and their perceptions regarding the importance of the medical record. Answers included: Yes, No, Don't Know or Always, Never, Sometimes. All questions were asked in Arabic. We found no problem in understanding the questions at the level of clerks and doctors. The majority of patients responded well, and they were able to write the answers; those who couldn't write were helped by the interviewers.

Data Analysis

Data were filled and analyzed using SPSS. All variables were presented as frequencies for categorical variables. Comparisons for categorical variables were

conducted with the X^2 test. Spearman's correlation testing was used to test important correlations with $P < 0.01$ considered as significant.

RESULTS

The total population of patients assigned to the 16 clinics of Capital Health Area was 264748[6].

Clerk Data

98% of the clerks said that retrieving the medical file was easy, 98% took not more than 3-5 minutes to retrieve a file, 89.5% said that the storage method used in their clinics was easy and five clerks (10.5%) said it was difficult to retrieve files. The main reasons for difficulty were: not enough shelves; 1 (20%), too many patients; 2 (40%), and other general reasons; 2 (40%) which were not identified. 93.5% of the clerks said they recognized the importance of the file, and 68% thought that if the file was not retrieved this would affect the work. Table 1 shows the analysis of the perceptions of clerks regarding reasons of file non-retrieval: just over half the clerks said it was due to absence of files in the clinic itself, a similar proportion said it was due to having too many patients, just over one third said that it was because patients usually do not ask for it, one third said because the clerk would not be punished, doctors did not ask for it (13%), files were not important (13%), lazy clerk (4%), and none said that it was due to difficulty in extracting files.

Doctor's Results

Table 2 shows that almost all doctors thought that the permanent file in its current form was suitable for their needs, two thirds insisted on retrieval of the file, a significant correlation at 0.001 was found between the insistence of doctors on file retrieval and the actual retrieval of the files, almost all of the doctors thought that the presence of the file was extremely important, 74% said that they could always or sometimes work without the file, while the rest could not. Almost all doctors recorded every visit of patients. A significant association (two tailed) was found between doctor's writing and file retrieval, 73% said that recording in the file was not time consuming.

Patients' Data

Table 3 shows that almost half of patients included in the study said that they always asked for their files when they visit the clinic, over three quarters of the patients always brought their ID cards on each visit, two thirds arranged for making a file when they didn't have one, and slightly more than two thirds said that they were treated without a file. More than half did not face any problems when the files were not extracted.

Table 1
The perceptions of clerks regarding the causes of non-retrieval of files which were mainly the unavailability of files in the clinic itself, overcrowding, patients not asking for their files and absence of a law of punishment for non-retrieval.

Cause	N (%)	Stat. Sig.
1. File not available in clinic	26 (56)	P 0.00
2. Too many patients	25 (53)	P 0.00
3. Patients do not ask for it	18 (38)	P 0.00
4. No punishment for non-retrieval	25 (32)	P 0.00
5. Doctors do not ask for it	18 (13)	P 0.00
6. Files are not important	18 (13)	P 0.00
7. Lazy clerks	8 (04)	P 0.00

N = numbers; % = percentages
Stat. Sig. = X^2 statistical significance

Table 2
PHC Physician's perceptions regarding the filing system (N = 101) shows that the majority of doctors recognize the importance of patient's files, three quarters work without files and the majority record every patient-visit.
Stat. sig: X^2 Statistical Significance

Question	N (%)	Stat. Sig.
1. Do you think permanent file is suitable for your needs in its current form?		
Yes	92 (91)	P < 0.001
No	9 (9)	
I don't Know		
2. Do you insist on file retrieval?		
yes	66 (65.3)	P< 0.001
No	7 (7)	
Sometimes	28 (27.7)	
3. Do you think presence of a file is important?		
Very much	93 (92)	P < 0.001
Not at all	8 (8)	
4. Can you work without the file?		
Yes	14 (13.8)	P< 0.001
No	27 (26.7)	
Sometimes	60 (59.5)	
5. Do you record every visit on the file?		
Always when available	92 (91)	P< 0.001
Never	2 (2)	
Sometimes	7 (7)	
6. Do you perceive that recording in the file is time consuming?		
Very much	3 (3)	P< 0.001
Not at all	72 (71.2)	
Somewhat	26 (25.8)	

DISCUSSION

Having a file is a priority in the work of general practitioners. One file for each patient is a standard aimed to improve the level of care. Although the study showed that vast majority of clerks had good perception of the importance of having a file for each patient and they did not take long for file retrieval, nevertheless in the analysis of their

Table 3
Information regarding medical files provided by PHC patients (N = 470). Results of patient's questionnaire: less than half of patients always asked for their files, three quarters always brought their ID cards and less than two thirds arranged for a file when it was not available and the majority recognized the importance of the file

Questions	Yes		No		Sometimes		Significance
	N	%	N	%	N	%	P
1. Do you ask for your file ?	217	46	93	20	160	34	0.000
2. Do you bring your ID every time?	362	77	26	5.5	82	17.5	0.000
3. Do you desire to arrange for a file when you don't have one ?	310	66	120	25.5	40	8.5	0.000
4. Do clerks insist on the presence of the file ?	210	44.6	105	22.4	155	33	0.000
5. Do doctors insist on the presence of the file ?	246	52.4	97	20.6	127	27	0.000
6. Do you recognize the importance of the file?	410	87.2	45	9.6	15	3.2	0.000
7. Do you get treated without a file?	132	28	134	28.5	204	43.5	0.000
8. Do you face problems when the file is not extracted?	69	14.7	295	62.8	106	22.5	0.000

perceptions of the causes of non-retrieval by the clerks, significant association between lack of files in the clinic itself and their non-retrieval was quite logical (56% clerks claimed lack of files as a cause of non-retrieval).

The finding of a significant correlation between non-retrieval of files and the absence of a law for punishment for clerks who refused to retrieve or were careless in retrieving files, raises the problem of absence of planning and policy making by medical record administrators. This is consistent with the findings of the MRWP 1985. This finding should encourage the policy makers to intervene to improve the situation in the future.

The way of organizing the files and keeping them had its effect on easy retrieval as evidenced by the strong correlation between the time of extraction of the file and the ways of keeping records. The systematic storage of records for convenient retrieval is essential to the efficient operation of any clinic[7]. Although the work of file clerks is usually light, it may involve much standing, walking, reaching, pulling and bending depending on the filing methods used[8]. Laziness of clerks contributed to the time factor for extraction of patient's file[7]. A similar finding was observed in 1985 by MRWP, which suggested that there had not been much improvement since that time.

Doctors are also responsible for causing problems in MR as evidenced by the significant correlation between doctors of the clinic insisting on file retrieval on every occasion and the actual retrieval of files for all patients, and the significant correlation found between doctor's writing in the file and file retrieval. The Royal College of General Practitioners defined the excellent general practitioner as one who records appropriately information on all contacts with patient, respects the patient's rights to confidentiality, and records data in order. They also defined an unacceptable general practitioner, as the one who keeps records that are incomplete or illegible or that contains inaccurate data, who does not keep records confidential, keeps records that cannot be readily followed by another doctor and who consistently consults without records[7].

Although the majority of patients said that they realized the importance of the medical record, yet a lower percentage arranged for a file when they didn't have one. Less than half of them asked for their files to be retrieved. This probably showed that there was a problem in some patients who did not realize the importance of medical record although they said they did recognize this. This supported the fact that patients have the responsibility in the clinical care they receive; they have a responsibility to participate in their own health care decisions[9].

The paper-based MR is woefully inadequate for meeting the needs of modern medicine. It began in the 19th century as a highly personalized "lab notebook" that clinicians could use to record their observations and plans. The electronic medical record (EMR) offers the hope for improved access to patient-specific information and should provide a major benefit both for the quality of care and the quality of life for clinicians in practice[10]. Despite the obvious need for a new record keeping paradigm, most organizations have found it challenging to try to move to paperless computer- based clinical records[10]. A survey was conducted in the general practice of Skipton and North Yorkshire on the electronic records of all registered practice patients to study the validity and utility of electronic patient records in 2001. It showed that practice electronic records were valid, complete and accurate for the following: prescribed items (99.7%), consultations (98.1%), laboratory tests (100%), hospital episodes (100%), and childhood immunizations (97%)[11].

In conclusion, clerks, patients and doctors have good awareness regarding the importance of maintaining a patient's medical record. However, many obstacles still exist before each patient could have a medical file. These include: absence of records in the clinic itself, overcrowding, patients not asking for their file on each visit, patients not bringing their ID cards or not arranging for a file when they did not have one. Finally, we conclude that all three parties

contributed to the problem of maintaining medical records. Managing this problem will require the cooperation of all.

RECOMMENDATIONS

- Intensive Standardized Health Education and Training Programs should be planned and applied for all those dealing with medical records starting with patients, clerks, doctors, and heads and managers of clinics.
- There is a need to assess the quality and quantity of the available and future man-power to meet the present and future demands. Staff in the MR should have a minimum qualification of high school certificate.
- Senior MR Supervisory Staff should attend courses to acquire latest technology in MR science.
- MR personnel should be encouraged to participate in seminars, workshops and conferences.
- Finally, we encourage the use of electronic patient record for its obvious advantages in providing improvements in Primary Health Care.

ACKNOWLEDGMENTS

We thank all those who helped us in performing this study, in particular clerks, patients and doctors who participated in it. We also thank the Central Department of Statistics in the Ministry of Health. Our special thanks to Dr. Saleem Adib of the Faculty of Medicine, Community Medicine Department.

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