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Study on Rate of Knowledge, Attitude and Practice of Medical Students Towards Method of Medical Records Documentation

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Abstract: History, Clinical findings, all procedures done and patient response to treatment are written in clinical records and contents of clinical records are indicators of physician evaluation. If clinical records are provided precisely, clear and systematized, indicate the clinical thinking and facilitate patient diagnosis process. These records have an important role in coordinating between professional staff that share in patient care. Since the physicians and medical students are involved, more in medical records documentation than the other hospital staff, hence knowledge on their attitude and practice towards the principles of medical records documentation is undertaken. This descriptive study done about the rate of knowledge, attitude and practice of 207 medical students at (Mazandaran University of Medical Sciences) MazUMS affiliated educational hospitals. Descriptive and inferential statistical analyses were used for the collected data, for comparison of the hospitals. Regarding observing designed principles in the context of medical records documentation and considering the filled questionnaires, the minimum score designated as 1 and maximum 5, that is, very poor to excellent. Then the mean of score was calculated and considered for the comparison of hospitals. β Kendall's Tau Test was used for the determination of the relationship between knowledge, attitude and practice. It was found that 77.8% of the participants had low knowledge about medical records documentation and 54.1% of them did not have good attitude about completion of medical records the significance and value of medical records documentation in treatment, education and research. Results of this study indicate that delinquencies of medical records at the university-affiliated hospitals are due to lack of awareness of the students towards the method of medical records documentation. In addition, lack of desire in completion of records can affect quality of their practice.

Key words: Medical records · Documentation · Inpatient

INTRODUCTION

Documentation in the medical record facilitates diagnosis and treatment, communicates pertinent information to the other caregivers to ensure patient safety, reduces medical errors and serves an important medical-legal function in risk management [1]. Quality of documentation may also reflect the quality of care delivered. Although recent studies have suggested that medical record documentation in the out patient setting tends to underestimate the actual practice of preventive health care services and other indicators of quality of care [2-4]. The core of health information system in the hospital lies in the medical records [5]. As a primary means of communication between health care workers, a properly documented medical record is essential to good clinical care [6-9].

The medical record of today not only reflects the care given to the patients, but also has become a communication tool to a wide variety of players [9].

Medical records are commonly used to measure quality of care. However, little is known about how accurately they reflect patients' clinical condition. Even less is understood about what influences the accuracy of provider's documentation and whether patients' characteristic affects documentation habits [10].

The hospital medical record has become increasingly exposed to retrospective audits by third party insurers, quality assessment studies and billing inquiries. As a result, the demand for complete documentation in the record has steadily increased during the past few years. Institutional medical practices are subject to a variety of regulations and standards [11].

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In improving the quality of treatment, different tools are implied for evaluation of way of recognizing coding and way of caring in there for it providers data about the disease, the rendered care and treatment procedures. Therefore, evaluating the quality of care given is important [12].

Kahooei and Askari Majdabadi [13] on 188 students at Semnan University of Medical Sciences showed that majority of the subjects under study had poor knowledge on medical filing and had positive attitudes towards its promptness and its stand on treatment, education and research. At the university affiliated hospitals, physicians and the students are more involved in medical documentation. Therefore study on the knowledge, attitude and practice related to filing system is necessary to help prepare education planning through identifying the deficiency.

MATERIALS AND METHODS

In this descriptive study, 207(81.18%) of the total number of 255 medial students at different levels of education, participated. Data collected in questionnaire, comprising 10 questions having four scores related to knowledge, 10 questions having 0 to 2 scores related to attitude and check list for practice prepared based on the instruction given in the medical record documentation standard approved by the ministry of health and medical education of Iran. Medical records included admission/ discharge sheet, summary sheet, medical history and physician's order. To determine the validity by referring to measuring the total score with the help of medical record department faculty members about viewpoints on knowledge and attitude of the students under study towards principles of medical documentation, designated as week (0-10) moderate (11-20), good (21-30), excellent (31-40) and weak (0-5), moderate (6-10), good (11-15), excellent (16-20), respectively. Also their trainee students' practice about the completion of medical history by differentiating the university affiliated hospitals was shown as weak (0- 5) moderate (6-10), good (11-15) and excellent (16-20). About determining the practice, medical history for trainee, admission/discharge sheet, discharge summary sheet, medical history and physician's order for attends and interns for the comparison of the hospital regarding observing the planned principles about completion of medical record documentations completion used.

Using Likert test and giving score of 1 to the very weak and 5 to the excellent, then mean score was obtained and used for comparison of the hospitals.

For statistical analysis of the obtained data, descriptive and inferential methods used and with arrangement of the total for the absolute and partial distribution, the data described and classified. Also for determining of the relationship between knowledge, attitude and practice of the subjects under study and statistical analysis of the data, β Kendall's Tau Test used by using SPSS software.

Findings: Two hundred and seven students participated in the study of which, 78 were trainee, 87 and 42 postgraduates. Knowledge on principles of medical documentation in Table 1 shows that frequency distribution on the rate of students' knowledge about the principles of medical records s documentation is poor.

Practice towards principles of medical documentation, in order to determine the Practice of the trainee students about completion of medical history, the way of completion studied separately for each educational hospital (Table 3).

The trainee students at Zare Hospital scored the highest rank that is 100 (excellent). The interns and attends scored 45.4% and 37.5% (good), respectively.

The relationship between knowledge and attitude was determined by β Kendall's Tau Test, because two variables were grading which was 0.008, p value = 0.967 which is insignificant.

Table 1: Frequency distribution about student's rate of knowledge on medical records documentation at Mazandaran Medical University, 2004

	Trainee		Intern		Attend		Sum	
Knowledge	N	%	N	%	N	%	N	%
Weak	57	73.1	69	79.3	35	83.3	161	77.8
Moderate	19	24.3	18	20.7	7	16.7	44	21.2
Good	2	2.6	-	-	-	-	2	1.0
Sum	78	100.0	87	100.0	42	100.0	207	100.0

Table 2: Frequency distribution of the student's attitude towards principles of medical record writing at the Mazandaran Medical University affiliated hospitals in 2004

	Trainee		Intern		Attend		Sum	
Attitude	N	%	N	%	N	%	N	%
Weak	7	9.0	5	5.7	4	9.5	16	7.7
Moderate	27	34.6	36	41.4	16	38.1	79	38.2
Good	44	56.4	46	52.9	22	52.4	112	54.1
Sum	78	100.0	87	100.0	42	100.0	207	100.0

Table 3: Frequency distribution of the trainee student's practice about completion of medical history separately for each hospital at university affiliated hospitals in 2004

	Bo Ali Hospital		Imam Hospital		Fatemeh Zahra Hospital		Zare Hospital		Razi Hospital		sum	
Practice	N	%	N	%	N	%	N	%	N	%	N	%
Weak	6	21.4	3	10.0	-	-	-	-	-	-	9	11.5
Moderate	5	17.9	14	46.7	5	55.6	-	-	1	16.7	25	32.1
Good	9	22.1	9	30.0	4	44.4	-	-	5	83.3	27	34.6
Excellent	8	28.6	4	12.3	-	-	5	100	-	-	17	21.8
Sum	28	100.0	20	100.0	9	100.0	5	100	-	-	78	100.0

For determining the relationship between knowledge and performance, β Kendall's Tau Test was used. Finding was 0.005 and p value = 0.438, which is insignificant. Relationship between Practice and attitude considering the above condition and using of β Kendall's Tau Test was 0.003 and p value = 0. 967, which is insignificant.

DISCUSSION

Result of this study showed that student had not proper knowledge on medical documentation e.g. 9.7% of them knew about the time of writing medical history, which is very important for physical examination, diagnosis and treatment by the other physicians.

If interviewing is not recorded, the consultant physicians should be informed and it should be done within 24 hours after admission [7-8].

Most of the students did not know when an oral prescription ordered in emergency condition. It should be documented in the medical history sheet and signed. Majority of the students were unaware about writing of abbreviations and acronyms final diagnosis and operation. Many inappropriate confusing abbreviations and acronyms used during research, ethical follow up or treatment and diagnosis of operation by the other surgeons. It was expected that the attends know better than the intern on writing medical history, but it was not true. The reason may be due to workload and shortage of time.

Kahooei *et al*. in a descriptive and analytical study about the comparative survey of medical students' attitude, knowledge and practice in practice of history taking and physical examination of patients at Semnan university of medical sciences who used, a twelve-section questionnaire and a checklist used after confirming their validity and reliability, found that 60% of assistants did not know legal aspects of medical records documentation, 74.8% of them did not know how to use abbreviations in final diagnosis and surgeries and 85.8% did not know duration of confirmation of verbal orders. The relationship between knowledge and educational course was significant ($p<0.05$). Only 10% completed the medical chart legally. Most of assistants tended to record clinical data. There was a significant relationship between practice, education course and knowledge ($p<0.05$) [6, 10].

Table 2 is about the attitude of the subjects under study towards medical records documentation and shows that 54.1% of the students under study have good attitude towards medical documentation for patients and indicating that majority of the cases under study have good attitude towards medical documentation. Also 88.9% of them believe that recording of clinical data is considered as a supportive for proper caring of the patients and 65.7% of them believed that medical documentation is duty of the consultant physician. Data revealed that 49.3% believed that the secretary of the hospital department should not do documentation duty and 55.1% were against of medical records documentation by medical records students because they are not in direct contact with the patients.

Table 3 shows the practice of the society under study. It showed that practice of 34.6% trainees on completion of medical history was good, while 11.5% were weak. Considering the importance of medical history sheet on diagnosis of diseases and subsequent treatment, it is necessary all of the students complete it properly. In this regard, 41.4% of trainees were good and 50% were moderate. A study by Ziaei et.al in 1995 about the quality of medical filing on three intestinal diseases at Beheshti University affiliated hospitals revealed that the trainees took history and documented in the file, but the contents were not valuable [9].

It was found that the attends have better practice as compare to the intern students, which is because the formers have more experience and feel more responsibility.

Mashoufi *et al*. (2001) resulted that in 68.8% of the files documented on discharge summary sheet and 76.3% about discharge instructions not given.

The results indicated that medical record documentation by health care givers were not arranged well [11].

Therefore, it is concluded that our finding as compare to the above-mentioned study enjoys better status regarding completion of admission and discharge sheets. In this study, 63.2% of interns and 57.1% of attends performed well. Also 50.6% of the interns and 31% of attends completed medical order sheet and 48.3% of interns and 33.3% of attends completed short records well.

Comparison of the hospitals on completion of medical records documentation, using Likert Scale test by the obtained score, which are given in percentage as follow:

Imam Hospital	14.43%
Fatemeh Zahra Hospital	15.5%
Zareh Hospital	16.33%
Boali Hospital	17.22
Razi Hospital	18.83

It was found that the improper medical record documentation at Mazandaran Medical Sciences University is due to not explaining its importance to the medical students and unawareness to the legal responsibility.

Physicians are very busy; therefore, issue of proper medical documentation is problem for them. In addition, there is no emphasis from administrators.

Based on the obtained results, the following suggestions are recommended:

- Principles of medical records documentation and the legal aspects are content of semiology subject.
- Conduction of continuous medical education or medical records documentation and workshop for medical students.
- Educational codifications in relation to evaluate score of medical student's clinical skill for to completion of medical records for them.
- Promotion of medical records committee at teaching and therapeutic centers.

REFERENCES

1. Wood, D.L., 2001. Documentation guidelines: evolution, future direction and compliance. American Journal of Medicine, 110: 332-334.
2. Deresslhaus, T.R., J.W. Readbody, M. Lee, M.M. Wang and J. Luck, 2000. Measuring compliance with preventive care guidelines: standardized patients, clinical vignettes and the medical record. Journal of General internal Medicine, 15: 782-788.
3. Luck, J., J.W. Peabody, T.R. Dresselhaus, M. Lee and P. Glassman, 2000. How well does chart abstraction measure quality? A prospective comparison of standardized patients with the medical record. American Journal of Medicine, 108: 642-649.
4. Peabody, J.W., J. Luck, P. Glassman, T.R. Dresselhaus and Lee M., 2000. Comparison of Vignettes, Standardized Patients and Chart Abstraction: A Prospective Validation Study of 3 Methods for Measuring Quality. JAMA, 283 (13): 1715-1722.
5. Kang, S. and K.A. Kim, 1998. Medinf., 9 pt 1: 75-79.
6. Braun, P., W.C. Hsiao *et al*. 1988. Evaluation and management services in the Resource-Based Relative Value Scale. JAMA, 260 (16): 2409-2417.
7. DeParle, N.A., From the Health Care Financing Administration. Evaluation and management services guideline. JAMA, 283 (23): 3061.
8. Holzer, S., W. Wachter *et al*. 2000. Structured clinical documentation for the assessment of medical care. Stud Health Technol Inform, 77: 480-483.
9. Murphy, B.J., 2001. Principles of good medical record documentation. J. Med. Pract Manage, 16(5): 258-260. available online at: http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed &dopt=Citation&list_uids=11345884
10. Cradock, J. and A.S. Young *et al*., 2001. The accuracy of medical record documentation in schizophrenia. J. Behav Health Serv. Res., 28 (4): 456-465.
11. Gannon, P.M., 0000. Documentation of drug interchange in the medical record. Hosp Pharm, 26 (1): 14-16, 18, 22.
12. Hajavi Abazar. Medical Records. (1-2). Tehran: Ministry of Health, 1372=1997, pp: 6-8.
13. Kahooei, M. and H. Askari Majdabadi, The comparative survey of medical students' attitude, Knowledge and Practice in practice of history taking and physical examination of patients at Semnan University of Medical Sciences. Semnan: School of paramedical sciences and Nursing. Semnan University of Medical Sciences, 1379=2000. Abstract.