



Description of health employees knowledge regarding the completion of medical records in inpatient installation unit at Stella Maris Hospital in Makassar[☆]



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Received 29 May 2019; accepted 15 July 2019

KEYWORDS

Knowledge;
Doctor;
Medical record;
Inpatient

Abstract

Objective: This study aimed to describe the knowledge of health employees (doctors) in completing medical records at inpatient facilities at the Stella Maris Hospital in Makassar.

Method: The research method used a quantitative and qualitative approach by distributing questionnaires and organizing interviews among health employees. The respondents consisted of 52 doctors who worked in Stella Hospital and were categorized by age, sex, education and years of service.

Results: The results showed that the knowledge of health employees on completing medical records was not very good. The respondents that had good knowledge were 25 respondents (48.1%) while those with less knowledge were 27 respondents (51.9%).

Conclusion: The health employees at Stella Maris Hospital majority do not understand how to complete criteria of medical records filling. It is recommended to the Hospital Management to hold socialization to health employees (doctors) about the rules relating to the completion of medical records to improve their knowledge of medical records completion.

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Introduction

The Presence of medical record is one of the important parts on improving the provision of health services to patients in hospitals.^{1,2} This refers to the contents of the medical record that reflects all information concerning the patient as a

basis for determining further action in the service effort and other medical actions. According to the Ministry of Health of the Republic of Indonesia (2006),³ a medical record file has medical value because the record is used as a basis for planning treatment or care given to a patient and in order to maintain and improve service quality through medical audit activities, clinical risk management and safety or security patient and cost control.

According to Shofari (2002),⁴ the quality of medical records is not only influenced by indicators of completion, accuracy, timeliness, and fulfillment of legal aspects of medical records but also influenced by human resources, facilities, methods, and financing factors. The statement certainly alludes to the capacity of knowledge and

[☆] Peer-review under responsibility of the scientific committee of the International Conference on Women and Societal Perspective on Quality of Life (WOSQUAL-2019). Full-text and the content of it is under responsibility of authors of the article.

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awareness of medical record practitioners as human resources which is an important role in completing the accuracy of the patient's medical records during practice, especially in inpatient installations. It is also supported by the statement that human resource factors are influenced by several behavioral factors which are formed by three factors, namely predisposing factors consisting of knowledge, attitudes, beliefs, values and so on. Moreover, there are supporting factors on the completion of medical records which consist of the physical environment, the availability of facilities and infrastructure as well as regulations, and the driving factor that are including attitudes and behavior of other employees.^{5,6}

Knowledge is a domain that is very important on formatting actions; if the behavior is not based on knowledge, then the behavior will not last long. Knowledge can be measured by interviews or questionnaires that ask about the material that you want to measure.⁷ In this case, the knowledge is related to the cognitive ability possessed by medical record practitioners on filling the patient's medical records. Next, these records are used later as health needs both generally and specifically so medical record practitioners (doctors) are required to have extensive knowledge insights. With the guidance of medical record administration knowledge that explores the basic medical and health sciences and health information, an advanced involvement of practitioners in medical records in various activities are closely related to medical audits which this is one of the elements in the process of evaluating medical record files.⁸ The research conducted by Irmawaty (2013)⁹ in the Padjonga General Hospital, Takalar District, showed that there was a relationship between employment status, knowledge, and tenure with the completeness of filling in the medical record, and there was no relationship between motivation and type of expertise of doctors with completing the medical records.

The above researches show that there are still many problems related to completing the filling of medical records due to the lack of knowledge of the employees.^{10,11} This can lead to complex problems such as inhibiting the provision of patient information, making it difficult in the processing of data, harming the patient and reducing the quality of health services. Therefore, this study aims to find out closely the description of medical records in terms of employees knowledge in order to measure the feasibility of the quality of medical records in a hospital. The selected hospital for this research is Stella Maris Hospital, which is a class B hospital and the oldest in Makassar, South Sulawesi.

Method

Location of research

This study was conducted in the Medical Record Installation and Inpatient Installation unit of Stella Maris Hospital, Makassar City, South Sulawesi Province and was held from April to May 2017.

Population and sample

The samples consisted of 52 doctors at the inpatient installation at Stella's Hospital. The samples were divided into

several categories based on age, work period, and type of education.

Method of collecting data

The method of collecting data was quantitative research methods, which were descriptive observation. It was conducted by doing observations, distributing questionnaires, and interviewing the respondents. Sampling used in this study was a non-random method known as non-probability sampling using total sampling or exhaustive sampling.

Data analysis

The data analysis method used in this study is a univariate analysis which aimed to explain or describe the characteristics of the research variable. Univariate analysis was performed on variables from the results of the study by using frequency distribution tables to produce a percentage of the research.

Results

Characteristics of respondents

According to the table above, there are several characteristics of respondents in the Inpatient Installation of Stella Maris Hospital in Makassar, which consists of ages 25 years to 65 years. From the total respondents, the majority of respondents were 36–45 years old, as many as 19 people (36.5%). Meanwhile, the number of respondents was the least at the age of 56–65 years, that is as many as 4 people (7.7%). Then based on the latest level of education of respondents, it can be seen that the most educated respondents were specialist doctors with a total of 33 people (63.5%) while the number of respondents educated by general practice doctors was 19 people (36.5%). In this study, the working period of respondents varied. The study found that respondents who had worked for more than 30 years were only 1 respondent, while those who work for less than 10 years were as many as 43 respondents (Table 1).

Univariate analysis

The result showed that out of a total of 18 inquiries submitted to respondents in order to measure the level of respondent knowledge, all the respondents were generally aware of the ownership of medical records and the ownership of medical record contents with a percentage of 100% and 88.5% accordingly. Contrastingly, the respondents did not know well matters regulated by the government, and this can be seen from data above that shows most respondents answer incorrectly on knowledge in the Law Number 29 of 2004 (75%) and law about completing the medical records (67.3%). The data also showed that less than half total of total respondents had less knowledge about the use of medical records as well as standard on completing the medical records.

The result of the study indicated the difference in total percentage regarding the level of respondent knowledge

Table 1 Frequency distribution of respondents characteristics in inpatient installation unit at Stella Maris Hospital in 2017.

Characteristics of respondents	Frequency (n)	Percentage (%)
<i>Age</i>		
25–29	2	3.8
30–35	13	25
36–45	19	36.5
46–55	14	26.9
56–65	4	7.7
Total	52	100
<i>Education</i>		
General practice doctor	19	36.5
Specialist doctor	33	63.5
Total	52	100
<i>The length of the work period</i>		
1–10	43	82.7
11–20	5	9.6
21–30	3	5.8
31–40	1	1.9
Total	52	100

regarding medical records was slightly different. According to [Table 2](#), the respondents that have less knowledge about medical records is 51.9%, while 48.1% of total respondents have good knowledge about medical records ([Table 3](#)).

Interviews

Based on the results of the interview, an informant stated that the completeness criteria should include the existence of an identity, history, diagnosis, physical examination, and investigation. As quoted below:

“Completeness should be filled with Identity, history, diagnosis, physical examination, and investigation.”

(S, 25 years)

In this study, it was also found that there were informants who said that the criteria for completing a good medical record must include ALFRED (administration, Legal, Financial, Research, Education, and Documentation). Quotes from informants as follows:

“We have adjusted the criteria for completeness to the existing standards, which must include those whose names are ALFRED (administration, Legal, Financial, Research, Education, and Documentation) that must be applied in the completeness of medical records.”

(JJ, 43 years)

The findings of in-depth interviews, informants explained that the forms or sections that need to be completed in the medical record file are medical identity and resume. As stated in the interview excerpt from the following informant:

“In my opinion, the required identity and medical resume must be filled.”

(S, 25 years)

Discussion

The results showed that the respondent knowledge (based on answers to 18 questions distributed) regarding understanding medical records, uses, ownership, things that must be included in the medical record, responsibility for medical records, standard medical record completeness, things that should not be done in filling out medical records, as well as the rules relating to medical records were not yet classified as good. Respondents who had good knowledge were 25 respondents (48.1%), while those with less knowledge were 27 respondents (51.9%).

Based on the results of in-depth interviews conducted by researchers to informants, it was found that most informants did not understand the criteria according to the minister of Health Regulation 269 of 2008¹² for completing a good medical record. This was supported by the statement of an informant who said that completeness criteria were at least must contain history, diagnosis, examination physical and supporting examination. However, the informant did not mention timing, plan of management, treatment, approval of the action, discharge summary, and the name of the officer who filled out the medical record. In addition, another informant also said that the medical record must be complete and correctly filled and as well as on time. Therefore, socialization to the party in on completing the medical record needs to be promoted.

The results are in line with the results of research conducted by Rahmadhani et al. (2008)¹³ that the main reason for incomplete medical record filling for inpatients are generally caused by aspects of human resources. This factor also supported by the statement said that the performance of human resources is influenced by several behavioral factors that are formed from three factors, namely predisposing factors consisting of knowledge, attitudes, beliefs, values and so on.^{14,15}

Based on the results of interviews conducted by researchers it can be concluded that most of the informants said that medical identities and resumes became are the most important part in health services. It is because identity is the main point that must be filled in completely for services recommended in hospitals, and medical resumes is a record that contains legal aspects in it.

Recording of medical resumes of patients must be made as complete as possible by authority figures like doctors and health professionals. This aims to see records of the progress of the patient medical history from the beginning to the end constantly. Moreover, legal sources that can be used as a reference for the completeness of medical records regulated in Article 46 of the Republic of Indonesia Law Number 29 of 2004,¹⁶ one of which is the medical record referred must be completed immediately after the patient has received health services, and each medical record must be given a name, time

Table 2 Distribution of respondent responses on inquiries of medical records knowledge in inpatient installation unit at Stella Maris Hospital in Makassar 2017.

Inquiries	Respondent responses					
	Correct		Incorrect		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Definition of medical records	24	53.8	28	46.2	52	100
Content of medical records	38	73.1	14	26.9	52	100
Ownership of medical records	46	88.5	6	11.5	52	100
Ownership of medical record contents	52	100	0	0	52	100
Person in charge of completing medical records	17	32.7	35	67.3	52	100
Medical records regarding patient records history	29	55.8	23	44.2	52	100
Usability of medical records	21	40.4	31	59.6	52	100
Standard of completing medical records	17	32.7	35	67.3	52	100
Prohibited procedure on filling medical records	25	48.1	27	51.9	52	100
Revision on incorreccted filling medical records	20	38.5	32	61.5	52	100
person in charge on loss and damage of medical records	24	46.2	28	53.8	52	100
Time period on storing medical periods.	25	48.1	27	51.9	52	100
Responsibility on medical records provision	24	46.2	28	53.8	52	100
Medical records that cannot be annihilated	23	44.2	29	55.8	52	100
Every patient has medical records number for each health service	37	71.2	15	28.8	52	100
Law about completing medical records.	17	32.7	35	67.3	52	100
Medical records form that should be filled	31	59.6	21	40.4	52	100
Matters regarding medical records Law No.29 of 2004	13	25	39	75	52	100
Total average	25	52.4	27	47.9	52	100

Table 3 Total frequency distribution on inquiries regarding respondent knowledge of medical records in inpatient installation unit at Stella Maris Hospital in Makassar 2017.

Knowledge level	Frequency (<i>n</i>)	Percentage (%)
Decent	25	48.1
Deficient	27	51.9
Total	52	100

and signature of the officer who provides health services.

Conclusion

Based on the results of the above research, it can be concluded that the description of the health employees knowledge in the Inpatient Installation unit of Stella Maris Hospital in Makassar related to the completeness of inpatient medical records is still classified as deficient, which are as many as 27 respondents (51.9%). It is recommended to the Hospital Management to hold socialization to health employees (doctors) about the rules relating to the completion of medical records to improve their knowledge of medical records completion. Besides, it is also required to develop the ability of health employees on the completeness of filling out medical records by providing training and closely supervision.

Conflict of interest

The authors declare no conflict of interest.

References

1. Forster AJ, Clark HD, Menard A, Dupuis N, Chernish R, Chandok N, et al. Adverse events among medical patients after discharge from hospital. *CMAJ*. 2004;170:345–9.
2. Pamungkas TW. Presentase pengetahuan keperawatan tentang kelengkapan rekam medis. *J Publ Heal*. 2010;4:17–28, <http://dx.doi.org/10.12928/KesMas.v4i1.552>.
3. Depkes RI. Pedoman Penyelenggaraan dan Prosedur Rekam Medis Rumah Sakit di Indonesia. Jakarta: Direktorat Jenderal Bina Upaya Pelayanan Medik; 2006.
4. Shofari B, Rachmani E, Astuti S, Anjani S. Dasar Pengelolaan Rekam Medis. RMIK Fakultas Kesehatan Universitas Dian Nuswantoro; 2018.
5. Mohammed-Rajput NA, Smith DC, Mamlin B, Biondich P, Doebbeling BN. Open MRS Collaborative Investigators Open-MRS, a global medical records system collaborative: factors influencing successful implementation. *AMIA Annu Symp Proc*. 2011;2011:960–8.
6. Fritz F, Tilahun B, Dugas M. Success criteria for electronic medical record implementations in low-resource settings: a systematic review. *J Am Med Inform Assoc*. 2015;22:479–88.
7. Notoatmodjo S. Promosi Kesehatan dan Ilmu Perilaku. Jakarta: Rineka Cipta; 2007.
8. Hatta G. Pedoman manajemen informasi kesehatan di sarana pelayanan kesehatan. Jakarta: Penerbit Universitas Indonesia (UI-Press); 2008.

9. Irmawati Indar FN. Kelengkapan Rekam Medis Di RSUD H. Padjonga Dg. Ngalle Takalar 2013. Bagian Adm dan Kebijakan Kesehatan, FKM Unhas. 2013.
10. Wu RC, Straus SE. Evidence for handheld electronic medical records in improving care: a systematic review. *BMC Med Inform Decis Mak.* 2006;6:26.
11. Siamian H, Ghafari AB, Aligolbandi K. Study on rate of knowledge attitude and practice of medical students towards method of medical records documentation. *World J Med Sci.* 2008;3:24-7.
12. PERMENKES RI no 269/MENKES/PER/III/2008. REKAM MEDIS. s. f. Available from: http://dinkes.surabaya.go.id/portal/files/permenkes/dok_dinkes_87.pdf.
13. Ramadhani IS, Sugiarsi S, dan Pujihastuti A. Faktor Penyebab Ketidak lengkapan Dokumen Rekam Medis Pasien Rawat Inap Dalam Batas Waktu Pelengkapan di Rumah Sakit Umum Daerah Dr Moewardi Surakarta. *J Keseh.* 2008;2: 82-8.
14. Evans S. Health education planning: a diagnostic approach. *Soc Sci Med.* 2002;16:609-10, [http://dx.doi.org/10.1016/0277-9536\(82\)90316-1](http://dx.doi.org/10.1016/0277-9536(82)90316-1).
15. Cascio WF. *Managing human resources.* McGraw-Hill; 2015.
16. Republik Indonesia, Undang-Undang Nomor 24 Tahun 2004, tentang Praktik Kedokteran.