Analysis of Incomplete Medical Record Filling in Indonesia

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Abstract

Incomplete medical records are an obstacle in obtaining quality medical records. Using a literature review approach sourced from various journals and research in Indonesia, this study aims to obtain an overview of the interrelationships of multiple factors that influence the incomplete filling of medical records in hospitals in Indonesia. Based on the results of the study, it can be seen that there are two interrelated areas of improvement that need to be paid attention to by Health facilities in ensuring the quality of medical record recording, including areas for improving the quality of human resources (Man and Machine factors); quality standard compliance area (Method and Material Factors). The fulfillment of these two areas of improvement depends on the commitment of Health Facilities to prioritize the improvement of these two areas in the budget (money factor).

Keywords: *Hospitals, Healthcare, Medical Record, Patient Safety.*

A. INTRODUCTION

Khanji et al. (2019) and Vahedi et al. (2018) describe that medical records are vital for providing medical care with quality standards for patient needs and legal evidence needs and must have accuracy and completeness of the information. Khanji et al. (2019) describe that medical records have weaknesses, including the lack of recording standards. The patient's medical record sometimes does not provide appropriate information on the symptoms experienced and the history of the illness.

Pourasghar et al. (2008), Ayatollahi et al. (2009), and Ulfa (2017) describe that the problem of recording, lost documents, and human problems are the main problems in manual medical records. Furthermore, research by Siti Nadya Ulfa (2017) saw that generally incomplete medical records were found because there were many empty parts, graffiti, and nurses who did not give names. The filling is insufficient, the doctor's writing is not specific about the diagnosis to impact internal and external hospitals because the data processing results are the basis for making reports.

Incomplete medical records are an obstacle in obtaining quality medical records. According to Wilson's (1905) manuscript regarding a clinical chart for the record of patients in small hospitals, it is stated that the completeness of filling out medical records is essential for the benefit of patients and the hospital. One of the efforts to improve the quality of health care facilities is to improve medical record services, including completeness, speed, and accuracy in providing information for health service needs. Mawarni and Wulandari (2013) describe that a good medical record reflects a good practice of medicine and dentistry.

The completeness of filling out medical record files by doctors and dentists can facilitate other medical personnel in providing action or treatment to patients. It can

also be used as a source of data in the medical record section in managing data and reports used as helpful information for hospital management. in determining the evaluation and development of health services (Istirocah, 2016). According to Siti Nadya Ulfa (2017), the factors influencing the incomplete filling of medical records are man, money, material, machine, and method. However, according to Henny Maria Ulfa (2018), the factors that affect the incomplete filling of medical records are only man, method, and material.

There are still some differences among researchers in Indonesia related to the factors that affect the incomplete filling of medical records. Some studies describe that the man, money, material, machine, and method factors are the main factors. In contrast, others describe the incomplete medical records only on the man, method, and material factors.

This study aims to understand the interrelationships of various factors that influence the incomplete filling of medical records at hospitals in Indonesia, referring to multiple journals and available research results based on these fundamental differences.

B. LITERATURE REVIEW

1. Medical Record Concept in Indonesia

According to Khanji et al. (2019) and Vahedi et al. (2018), medical records are the primary source of information about the patient care process, including diagnosis, treatment, referrals, prescriptions, and clinical outcomes such as medical history. Thus medical records are vital for the provision of medical care. With quality standards for the needs of patients and the need for legal evidence and must have the accuracy and completeness of the information.

According to Article 1 of the Regulation of the Minister of Health of the Republic of Indonesia No. 269 of 2008 concerning Medical Records, medical records are files containing notes and documents regarding patient identity, examination, treatment, actions, and other services that have been provided to patients. According to Article 46 of Law Number 29 of 2004 concerning Medical Practice Article 46, medical records must be given the officer's name, time, and signature who provides health services. Every doctor is obliged to make or fill out a medical record.

According to Article 3 of the Minister of Health of the Republic of Indonesia Number 269 of 2008, the contents of medical records are grouped as follows:

a. The medical record must contain the following for inpatients: a). Patient identity; b). Date and time; c). Anamnesis results, including at least complaints and a history of the disease; d). Effects of physical and supporting examinations; e). Diagnosis; f). Management plan; g). Treatment and or action; h). Approval of action when necessary; i). Records of clinical observations and treatment outcomes; j). Summary of discharge (discharge summary); k). Name and signature of a doctor, dentist, or specific health worker who provides health services; l). Other services performed by certain health workers; and M). For dental cases, patients are equipped with a clinical odontogram.

b. The medical record should at least contain the following for outpatients: a). Patient identity; b). Date and time; c). Anamnesis results, at least include complaints and a history of the disease; d). Effects of physical examination and medical support; e). Diagnosis; f). Management plan; g). Treatment and action; h). Other services that have been provided to the patient; i). For dental cases, patients are equipped with a clinical odontogram; and j). Approval of action if necessary.
c. For emergency patients, the medical record must at least contain the following: a) Patient's identity; b) The condition of the patient upon arrival at the health care facility; c) Patient introduction identity; d) Date and time; e) The results of anamnesis, including at least complaints and a history of the disease; f). Results of physical and supporting examinations; g) Diagnosis; h) Treatment and action; i) Summary of the patient's condition before leaving the emergency department and follow-up action plans; and j) Name and signature of a particular doctor, dentist, or health worker who provides health services.

2. Accuracy

According to Indradi (2017), accuracy is the accuracy of medical record records, where all patient data is written carefully, precisely, and according to the actual situation and should not be fabricated.

3. Well-timed

According to Indradi (2017), the medical must be filled in in terms of timeliness. After it is filled back, it must receive the medical record at the time and place according to existing regulations.

According to Indradi (2017), Medical records meet the requirements of legal aspects: medical records may not be written in pencil; no eraser marks or x-tips; no streaks; writing must be clear and legible; there is a signature by the person who is obliged to sign and the name of the officer, and there is a consent form.

In addition, the completeness of the medical record is said to be complete if it meets the following requirements: 1) every action is taken to the patient no later than 1x24 hours for outpatient and 2x24 hours for inpatient, must be written in the medical record sheet; 2) A doctor or other health worker must sign all records following their authority, full name and date; 3) the treating doctor can correct writing errors that occur naturally such as crossing out the wrong word/sentence by giving a straight line in the writing, and 4) given the initials of the person who corrected earlier and include the date.

C. METHOD

Using a literature review approach, the researcher conducts a desk study of various reference sources or research results from databases (Google Scholar, PubMed), especially journals, research reports, and case records that focus on the incompleteness of medical records in various health facilities in Indonesia. The

relevant research references were collected using the following keywords: (factors, incompleteness, medical record), which were selected based on the relevant reference analysis.

D. RESULT AND DISCUSSION

1. Result of Literature Review

According to Khasanah (2011), the incompleteness of medical record documents is a problem because medical records are the only records that can provide detailed information about what has happened while the patient was hospitalized. Several factors influence the incompleteness of medical records in hospitals.24. According to Siuswati (2018), to determine the factors that influence the incomplete filling of medical records, 5 elements of management or management facilities are needed: man, money, material, machine, and method.

Several studies have been conducted to determine the factors influencing the incomplete filling of medical records in hospitals. Siti Nadya Ulfa (2017) conducted research at Pertamina Jaya Hospital in 2017 using the Fishbone diagram. This study showed a quantitative analysis and identified the factors that influence the incomplete filling of medical records using descriptive methods and observation, interviews, and literature study. The completeness of medical records obtained is 74%. From the interviews and observations, it is known what factors affect the incomplete filling of medical records. Namely, there are no sanctions for health workers who do not complete medical records, insufficient/busy time to complete medical record filling. No sanctions are applied for which do not complete medical records, and there is no/lack of socialization, the implementation of filling in medical records that are not following standard operating procedures, and funds for the completeness of medical records are limited.

Subsequent research was conducted by Wirajaya (2019) to determine the factors that influence the incomplete filling of medical records at hospitals in Indonesia using the systematic literature study method. From the study results, several factors affect the incomplete filling of medical records, which are seen from the man/HR, material/tool, method/implementation, machine/policy, and money/finance factors. In terms of HR/Man, the contributing factors are staff knowledge and discipline, low motivation, high workload, and poor communication. In terms of tools/materials, the cause is a checklist that does not exist to determine the incompleteness of medical record documents. There are still hospitals that do not have rooms, especially assembling rooms, medical record documents such as the arrangement of medical record forms that are not correctly arranged, and types of medical record forms that must be filled in too many. There is no difference in the color of the medical record documentation that must be filled in in each section. In terms of method/implementation, the causative factors are more related to work procedures, such as the absence of guidelines, policies, and SOPs in the medical record section, lack of socialization regarding medical record SOPs, lack of monitoring and evaluation in the medical record section, inappropriate medical record flow standards

and the absence of rewards and punishments. The contributing factor is the limited availability of funds to support the completeness of medical record documents from a financial perspective.

Lihawa (2015) conducted research at RSI Unisma Malang in 2015 with a descriptive approach and document study method, observation of service units, and questionnaires that have been tested for validity and reliability with open questions for suggestions. The sample in this study was 27 doctors who determined the root of the problem using a fishbone diagram then decided on one of the priority problems with the USG method (urgency, seriousness, and growth). The solution was determined using the McNamara filter. From the study results, several factors affect the incomplete filling of medical records, namely man, method, machine, material, money. In this study, what is meant by man is the knowledge and motivation of doctors or nurses who are still lacking due to the absence of punishment or reward, the head of the room does not remind the doctor to complete the filling in the medical record, does not know that completing the medical record must be less than 24 hours after the patient returns home. , do not know the benefits and uses of medical records and do not know the impact of incomplete filling of medical records. The implementation/method is the work procedure of the operator where there is no/lack of socialization of SOPs for medical records, there is no evaluation of the implementation of work procedures, and they do not know that there are SOPs on medical records. Machine/policy is communication, leadership, control, such as the ineffectiveness of meetings discussing the completeness of filling out medical records, unknown evaluation, routine reporting of medical records. Materials/tools are medical record forms that are not arranged neatly and sequentially, and there is no particular room to complete medical record documents by doctors or nurses. And lastly, money/funding is a limited source of funds to support the completeness of filling out medical records.

Nurhaidah (2016) conducted research at the University of Muhammadiyah Malang Hospital using descriptive data analysis methods with document study techniques, interviews, and observations. Document studies were conducted on 40 medical records that had not been assembled. In contrast, interviews were conducted with related officers to determine the factors that influenced the incomplete filling of medical records. Observation to complete the data from the interview. From the results of the document study, it was found that the medical records were not filled out 100%. From the results of interviews and observations found factors that affect the incompleteness of filling out medical records, namely the awareness of doctors to fill in medical records that are still lacking, perceptions of the completeness of medical records between different medical record officers and nurses, no monitoring and evaluation team of medical records, there are no SOP policies or guidelines for filling out medical records, there is no reward and punishment system for related officers, monitoring and evaluation of incomplete medical record documents is less effective, the recording system by medical record officers has not worked well, the flow of medical record files are not following SOPs, no there is data about the incomplete

filling of medical records, and there is no checklist for assessing the completeness of medical records, and the last is the limited source of funds to support the completeness of filling out medical records.

Pamungkas (2015) conducted research at the Ngudi Waluyo Wlingi Hospital from September 25, 2014, to October 2, 2014, using quantitative analysis methods and obtaining 100 medical record documents. There were five factors in the formulation of the problem, namely man seen from the level of discipline of doctors in filling out medical record documents which were still lacking due to limited time to fill out medical records because service was a priority for doctors to patients, the level of awareness of doctors in filling out medical records was still lacking, there was no socialization that discusses filling out medical record documents, doctors' motivation in filling out medical record documents is still lacking, and there is no reward and punishment. The machine is seen from the absence of monitoring and evaluation of the incompleteness of medical record documents. The method is seen from the policies that need to be reviewed in filling out medical records. The material is seen from the need to simplify medical record documents/forms, which are too many and have various functions. The last is money, namely the source of funds or funding to support the completeness of filling out medical records limited. This is in line with several previously disclosed studies that state five factors influence the incomplete filling of medical records, namely man, / method, material. machines, money.

Several other studies reveal different opinions, namely that only three factors affect the incompleteness of filling out medical records, namely man, material, and method. Dewi (2016) conducted research at RSUP Dr. Kariadi Semarang. The qualitative approach is used to get a clear picture of the problems studied. Collecting data by conducting observations, interviews, and documentation. The results of this study indicate that Dr. Kariadi already has a written SOP regarding the service and management of medical records. The compliance of medical officers, in this case, the doctors in charge, is still lacking due to their busyness, so there are still those who have not filled out the complete medical record documentation, there are still missing or forgetting to fill in, for example, signature, date, time and complete diagnosis due to illegible writing. There is still a lack of room for storing medical record documents because medical records are still manual, and the number of patients increases daily.

According to Henny Maria Ulfa (2018), conducting research at the TNI AU-LANUD Roesmin Nurjadin Hospital with a qualitative descriptive method with interview guidelines, observations, checklist lists with six informants, the results of the observation were man/HR with the lack of human resources in the unit medical records so that many medical record officers are concurrent. Medical record recording is still manual from the material factor, so there is not enough SIMRS and tracer in storage. The method does not have an SOP for medical records, so storage, coding, and reporting only follow the habits of the hospital.

Nugraheni (2015) conducted a study at Hospital X in Kediri, Central Java. This type of descriptive research used the Simple Random Sampling technique for as many as 152 nurses and 48 doctors. The variables used are service systems/methods,

infrastructure/materials, and human/human resources. From the method factor, it was found that 64.5% was classified as a suitable category, the SPO that was carried out rarely experienced problems both from storage and recording. The material/facility/tools factor got good results because the hospital continuously updated its technology system, recording, and storage. However, there are still shortcomings because the data storage and processing space are still in one room. The HR/man factor in terms of quantity is sufficient, but the quality is still not suitable due to the lack of knowledge of doctors and nurses in filling out medical records.

Riyantika (2018) conducted a factor analysis of the incomplete medical records at the Aisyiyah Hospital in Ponorogo. This type of research uses descriptive research with a qualitative approach. Sampling in this study uses purposive sampling and accidental sampling. The subjects in this study consisted of a doctor, nurse, and medical record officer. With the results of the discussion of HR / Man, the obstacles that often arise are due to the workload that is too much, and there are still those who concurrently work at work.

On the other hand, busyness is an obstacle that often arises. Lack of awareness of the importance of completing medical record filling and lack of discipline of doctors and nurses in filling out medical record documents. Materials/facilities already have a medical record committee room and checklist sheets to support the completeness of filling out medical records. There are no problems in the method/implementation because there has been socialization related to SOPs for filling out medical records, but it is still rare.

Cahyati (2018) conducted research at the Griya Waluyo Ponorogo Hospital in 2017 with a descriptive study using a qualitative approach and involving two medical record officers and 158 medical record documents. The sampling technique was taken using a total sampling technique, collecting data using interviews and checklists. Based on the results of observations that have been made on November 21, 2017, by taking ten samples of medical record documents, an outline of the problems that arise such as filling out the action, the date of discharge of the patient, physical examination, supporting examinations, and the condition of the patient when leaving the hospital is taken. From the results of the discussion of the Man factor, it was obtained from the results of interviews that the fulfillment of human resources in the assembling section returns regularly. If anything is incomplete, it will be returned to the doctor, but there are often delays in returning doctors to the medical record party due to the lack of time to fill out medical records. The material factor showed that the arrangement of medical record documents was easy to understand, the supply of medical record documents and ATK was adequate. However, the Griya Waluyo Ponorogo Hospital does not yet have a particular room for assembling or recapitulating medical record documents. It is still one with the filling and registration room. The method factor found that the Griya waluyo ponorogo hospital already had an SOP for the completeness of medical record documents, but it had not been implemented optimally.

Based on the ten studies above, although the results of the problems in the man, method, and material sections are the same as time constraints caused by the high workload of doctors and nurses, lack of awareness, knowledge, and discipline, medical record forms that are not well organized and neat, the hospital does not have a particular room and facilities that are still lacking, as well as the SPO that has not run optimally due to the lack of socialization and hospital policies in filling out medical records. However, other researchers reveal additional factors such as machine/policy money/funding. This difference can be caused by the fact that the problems in each hospital are not known for sure because the issues in each hospital are different. This is the difference of opinion from each research.

2. Discussion

Based on several studies, the completeness of filling out medical record documents is critical because it affects the process carried out by medical record officers and affects the quality of health services. There is a factor in the incomplete filling of medical records as seen from man, machine (policy), method (method), material (tool), and money (funding). On the other hand, some reveal that the incompleteness factor in filling out medical records is only three methods: man and material. Based on the discussion, both these five and three factors are interrelated, and this difference is caused by the characteristics of the problem in each hospital.

The man/HR factor is illustrated in several common cases, such as insufficient time for doctors and nurses to fill out or complete medical record documents, lack of knowledge from doctors that filling out medical records for outpatient treatment is 1x24 hours after the patient returns and returning to the medical record section for inpatient treatment. 2 x 24 hours, lack of human resources in hospitals, doctors, nurses or medical record officers, do not know the impact and benefits of filling out medical records.

A typical case is machine factor/policy fulfillment in the absence of rewards and punishments for doctors and nurses who fill out complete or incomplete medical record documents. There is no evaluation schedule and monitoring of incomplete medical record filling. However, this factor is also closely related to the man/HR factor.

The two factors above, both man and machine, originate from the same problem: human problems, especially those related to competence and habit characteristics. To overcome this, an improvement intervention is needed, one of which is by conducting intensive and continuous training. This is in line with the opinion of Kasu Tola et al. (2017), who revealed that program interventions, primarily through intensive and constant training, improved the completeness of medical record recording significantly.

Furthermore, the method/method factor is generally illustrated that the absence or weakness of policy guidelines and standard operating procedures for filling out medical records can impact the non-operation of or delay in the optimal

implementation of medical record procedures. These concerns appropriate policy standards to fulfill the completeness of medical records in the field.

In terms of material/equipment factors, it is generally illustrated that the lack/absence of the main supporting tools such as 1) printing equipment to print medical record forms; 2) a particular room that is needed by medical record officers, doctors, and nurses to fill out medical records and storage, or 3) a checklist tool to assess the incompleteness of filling out medical records, not well structured or lack of systematic medical record forms.

The two factors, both method and material, are based on one essential thing, namely the existence of standardization and compliance with these standards. Standardization and commitment to its fulfillment are critical to be fulfilled as the opinion of Zegers et al. (2011), where an evidence-based standard and standard medical record format are significant to standardize patient medical records, and the fulfillment of this will lead to an increase in the completeness of patient information.

Finally, in terms of the money/funding factor, generally, limited costs cause the weak completeness of medical records. The funding factor is the cause of the weak supply of supporting materials/tools and the reason for the inadequate evaluation of the completeness of medical records to the weak standardization and inadequate training carried out. The money factor, especially the emphasis on the quality of medical records as a top priority for programs and budgeting in health facilities, will encourage the fulfillment of other factors, especially in two major areas that require improvement: improving the quality of human resources (intensive and continuous training) and improving the quality of medical record standards (supporting tools, standardization of medical records).

E. CONCLUSION

Based on this description, it can be concluded that basically, both five factors and three factors causing incomplete medical records originate from two interrelated areas of improvement that every health service facility must consider. The primary areas of improvement are improving the quality of human resources (Man and Machine factors); quality standard compliance area (Method and Material Factors). The fulfillment of these two areas of improvement depends on the commitment of Health Facilities to prioritize the improvement of these two areas in the budget (money factor).

Health facilities can improve both areas by increasing budgets and programs that are able to intervene in improving the quality of human resources (intensive and continuous training) and ensure the fulfillment of quality medical record standards (adequate supporting tools, standardization of medical records).

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