Part of Incomplete Medical Record Documents: Literature Review

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Abstract: The study aimed to examine the extent of incompleteness in various sections of medical histories within Indonesian hospitals by conducting a literature review based on inclusion and exclusion criteria. The data were analyzed, and the findings were presented. The databases Google Scholar, Garuda, Emerald, and DOAJ were searched using keywords such as ‘medical records’ and ‘hospitals’ between 2018 and 2022, yielding 461 papers. Fourteen papers were selected in the final stage. The most frequently incomplete components of medical record documents include essential reports, authentication, data entry, documentation completion, and record-keeping. To prevent incomplete medical records, comprehensive interventions that provide adequate support and training to all staff members involved in completing patient medical records are necessary.

Keywords: DOCUMENT; INCOMPLETENESS; MEDICAL HISTORY

1. Introduction

A medical record is a collection of documents containing patient data at the hospital regarding the patient’s condition from admission to the hospital until the end of the treatment period (Menteri Kesehatan Republik Indonesia, 2008). Medical record documents must be filled entirely for smooth administration and to provide ongoing health services for patients. However, incomplete medical records can cause problems because these documents are the only source of detailed information about patient care at the hospital. This type of medical record can be printed in a binder folder (paper-based graphics), a computer system (electronic medical records), or a combination of the two (Spooner & Pesaturo, 2014).

Medical records are essential not only for diagnosis and treatment but also for evaluating health services, increasing work efficiency, reducing mortality and morbidity, and providing better services (Kholili, 2011). Medical records help complete various aspects, namely education, documentation, administration, medical, financial, and legal requirements (Lihawa et al., 2015). The medical record must have complete information regarding the past, present, and future medical service processes (Kholili, 2011).

The less incomplete the data, the better the quality of medical record services (Octaviani & Prasetya, 2012). Incomplete medical record documents can indicate that the hospital does not have detailed information about the patient’s condition while receiving health services from the hospital. Incomplete Medical Record documents impact the height and level of incomplete medical records (IMR) (Octaviani & Prasetya, 2012). A systematic review has previously been conducted (Saputra, 2021), but it did not mention the part of the document in the medical record that was incomplete. This study aims to provide up-to-date information regarding IMR documents applied in the healthcare system in Indonesia.

2. Methods

This research method uses a Literature Review. The articles found were identified, evaluated, and interpreted to answer incomplete medical record documents during the data-filling process. This study used two strategies for the article search. The first is done by combining Indonesian keywords: incompleteness, medical records, and hospitals. The keywords in English are incompleteness, medical records, and hospitals. Both article searches used the Boolean System strategy by adding the words AND and OR.

The article search databases were Google Scholar, Garuda Portal, Emerald, and DOAJ. Inclusion criteria were: 1) discussing incomplete medical record sections, 2) research methods using quantitative or qualitative, 3) qualitative or quantitative research designs, 4) articles using English or Indonesian published between 2018-2022, 5) research articles only conducted in Indonesia. Flow articles were tracked using PRISMA (Liberati et al., 2009).

The two authors searched for articles between 01-08
July 2022. We then combined the search results for the articles. Subsequently, narrative synthesis is carried out separately, and the results are discussed. We excluded any articles that appeared in the search results when they were the same. Screening involves selecting articles from a database to fulfill a specific purpose. The title and abstract of each article in the database were reviewed to determine the article that was most relevant to the desired results. After the selection process, the articles obtained were analyzed and synthesized in the following format: researcher, year, title, and findings (incomplete part of the medical record). The final results of the article search are shown in Fig. 1.

Identification
- 461 article from database search
- 71 similar articles were discarded

Screening
- 390 titles and abstracts were reviewed
- 272 similar articles were discarded

Eligibility
- 118 complete articles were reviewed to find articles that met the requirements based on inclusion criteria
- Number of article removed:
  - 19 systemic review
  - 18 medical record as secondary data
  - 7 medical record analysis function
  - 16 inhibiting factor is incomplete record
  - 32 cannot be accessed
  - 12 medical record in public health center

Synthesis Narrative
- 14 articles synthesized narratively

Fig 1. Article search process

3. Results and Discussion

The search yielded a total of 461 articles. There were 53 articles from Garuda, 401 from Google Scholar, one from Emerald, and seven from DOAJ. Initial selection based on the title and abstract revealed three duplicates and 71 irrelevant articles. The full 118 articles were reviewed separately by the two investigators based on the inclusion criteria. The study found 19 articles using the systematic review method, 18 using medical record data as secondary data, seven analyzing the function of medical records, 16 examining the inhibiting factors of incomplete medical record documents, and 32 papers not being accessible. Twelve papers on medical records at a public health center. Fourteen articles were deemed worthy of Synthesis Narrative (Figure 1). All articles were published in journals in the field of medical and health records. The results of the synthesis of 11 articles can be seen in the characteristics of these papers (Table 1).

All articles focused on tracking incomplete parts in filling out medical records. The results of the synthesis found incomplete parts in the medical record, namely important reports, authentication, patient identification, filling out documentation, and recording. All incomplete sections found most frequently are important reports (Sugiyanto, Widodo, Warijan, & Isnaeni, 2018); (Siti Agus Kartini & Liddini Haliza, 2019); (Cahyati, Rumpiati, & Rosita, 2018); (Febrianta, Insani and Widyasari, 2022); (Made et al., 2022); (Simanjuntak, 2022); (Fauzil, Yusuf and Astiena, 2022); (Muhizarady and Meisari, 2022); (Adhytama and Yunengsib, 2022); (Devhy and Purwanti, 2022); (Pratiwi, Hidayati and Susanto, 2022); (Safitri et al., 2022); (Anggraeni and Herlina, 2022); (Halimatusasadah and Hidayati, 2022).

A patient's condition while in the hospital must be reported properly and correctly through medical record documents (Wijaya & Dewi, 2017), and patient data must be complete and accurate (Saleh, 2019). Medical records have a strong point in applying accurate diagnoses to evaluate patient and hospital conditions (Departemen kesehatan Republik Indonesia, 2006). In this regard, there is a need for sympathetic outreach to all people in the hospital, without exception for doctors, nurses, and patients, following established procedures (Sulisty & Wariyanti, 2020). Incomplete medical records harm patients and hospitals (Wirajaya & Nuraini, 2019).

Various factors were found to lead to incomplete medical record documents, namely workload (Hakman, Suhadi, & Nani, 2021), inadequate socialization (Herisa, 2017), not paying attention to the quality of writing (Maimun, 2021), busy doctors' activities and inadequate medical record infrastructure support (Riyanti, 2018), doctors forgetting to sign medical resumes, and nurses forgetting to remind themselves (Mirfat et al., 2017). Other factors that impede incomplete medical record documents are no medical record policy, medical record document guidelines and SOPs for filling out medical records, doctors forgetting to fill in medical records, incomplete medical record information, system monitoring and evaluation of medical records were not carried out, and the flow of outpatient medical record documents was not standardized (Nurhaidah et al., 2016).

Factors that also hinder filling out incomplete medical record documents are the excessive workload of medical staff; the knowledge of medical staff about the completeness of medical record documents; the thoroughness of medical record document officers (Rosita et al., 2021); lack of knowledge, motivation, and awareness of medical record staff; no punishment for staff who incompletely fill out medical record documents; inadequate socialization of procedures for filling out medical records; the arrangement of medical record forms that are not arranged sequentially; and a limited budget for improving the quality of medical record services (Siwayana, Purwanti, & Murcittowati, 2020).

Tabel 1. Summary of 11 articles regarding incomplete medical record documents
<table>
<thead>
<tr>
<th>AUTHOR, YEAR, TITLE</th>
<th>FINDINGS (INCOMPLETE PART OF THE MEDICAL RECORD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author and year:</td>
<td>(Cahyati et al., 2018)</td>
</tr>
<tr>
<td>Title</td>
<td>Incomplete filling out of the medical resume form for Caesarean section inpatients in the Bethlehem room for the 1st quarter of 2017 at Griya Waluya Hospital, Ponorogo</td>
</tr>
<tr>
<td>Method:</td>
<td>Quantitative, descriptive</td>
</tr>
<tr>
<td>Author and year:</td>
<td>(Siti et al., 2019)</td>
</tr>
<tr>
<td>Title</td>
<td>Incomplete Review of Inpatient Medical Resume Writing at Mitra Medika General Hospital in 2019</td>
</tr>
<tr>
<td>Method:</td>
<td>Quantitative, descriptive</td>
</tr>
<tr>
<td>Author and year:</td>
<td>(Sugiyanto et al., 2018)</td>
</tr>
<tr>
<td>Title</td>
<td>The Completeness Analysis Of Medical Resume Form On The Inpatient In 2015 At RSUD R.A Kartini Jepara</td>
</tr>
<tr>
<td>Method:</td>
<td>Quantitative, descriptive</td>
</tr>
<tr>
<td>Author and year:</td>
<td>(Febrianta et al., 2022)</td>
</tr>
<tr>
<td>Title</td>
<td>Analysis of the Completeness of Filling Out Outpatient Medical Record Files at the Samigaluh one Health Centre in 2020</td>
</tr>
<tr>
<td>Method:</td>
<td>Quantitative, descriptive</td>
</tr>
<tr>
<td>Author and year:</td>
<td>(Made et al., 2022)</td>
</tr>
<tr>
<td>Title</td>
<td>Analysis of medical records of inpatients with limb fracture fractures at Bhayangkara Hospital, Denpasar</td>
</tr>
<tr>
<td>Method:</td>
<td>Quantitative, cross-sectional</td>
</tr>
<tr>
<td>Author and year:</td>
<td>(Simanjuntak, 2022)</td>
</tr>
<tr>
<td>Title</td>
<td>Review of the Completeness of Medical Record Documents for Obgyn Surgery, Patients at RSU, Imelda Pekerja Indonesia, 2021</td>
</tr>
<tr>
<td>Method:</td>
<td>Quantitative, descriptive</td>
</tr>
<tr>
<td>Author and year:</td>
<td>(Fauzil et al., 2022)</td>
</tr>
<tr>
<td>Title</td>
<td>Analysis of DPJP Compliance in Completion of Filling in Medical Records and Factors Affecting It at Dr Rasidin Padang Hospital</td>
</tr>
<tr>
<td>Method:</td>
<td>Mix Methods</td>
</tr>
<tr>
<td>Author and year:</td>
<td>(Muhlizardy &amp; Meisari, 2022)</td>
</tr>
<tr>
<td>Title</td>
<td>Analysis of Completeness of Electronic Medical Record Files in Covid-19 Patients in Hospitals</td>
</tr>
<tr>
<td>Method:</td>
<td>Quantitative, descriptive</td>
</tr>
<tr>
<td>Author and year:</td>
<td>(Adhytama &amp; Yunengsih, 2022)</td>
</tr>
<tr>
<td>Title</td>
<td>Review of Completeness of Medical Record Documents in Assembling Functions at Bunda Prabumulih Hospital</td>
</tr>
<tr>
<td>Method:</td>
<td>Quantitative, descriptive</td>
</tr>
<tr>
<td>Author and year:</td>
<td>(Devhy &amp; Purwanti, 2022)</td>
</tr>
<tr>
<td>Title</td>
<td>Completion of Filling in Medical Records Inpatient Dengue Hemorrhagic Fever (DHF) Cases in Denpasar City</td>
</tr>
<tr>
<td>Method:</td>
<td>Quantitative, cross-sectional</td>
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<tr>
<td>Author and year:</td>
<td>(Pratiwi et al., 2022)</td>
</tr>
<tr>
<td>Title</td>
<td>Analysis of the Completeness of</td>
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<td></td>
<td>Important reports</td>
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</table>
Finally, this study reveals the problem of urgency in filling out medical record documents. The most common medical record documents are important reports. This study proposes to improve the medical record document system using electronic methods that can facilitate the filling out of medical record documents.

This study only selected articles for research in Indonesia. This may be different in some countries. The study’s results can be a reference for medical record document improvement interventions, and this is also recommended for further research.

4. Conclusion

Based on our examination of the 14 articles included in this study, we determined that a large number of medical record documents, particularly those related to important reporting, authentication, patient identification, documentation, and recording, were incomplete. The incomplete medical records were attributed to various factors. Therefore, it is crucial to implement targeted interventions to ensure the accuracy and reliability of patient data admitted to the hospital, which will ultimately lead to improved overall quality of medical record documents.

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Conflict of interest

The authors state that they do not have any identifiable conflicting financial interests or personal relationships that could have potentially influenced the findings presented in this study.

References


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