



THE INFLUENCE OF PMIK ROLE ON THE SECURITY OF MEDICAL RECORD DATA AND HEALTH INFORMATION

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Abstract

The purpose of this study is to assess the implementation and understanding of data security policies among healthcare staff at RSU Wisma Rini Pringsewu. By examining the perspectives of various personnel involved in medical record management, the study aims to identify key factors influencing compliance with data security practices, with the ultimate goal of improving the overall security of patient information. The study employs a mixed-methods approach, utilizing purposive sampling to select 30-40 respondents from a total population of approximately 150 healthcare workers, including medical staff, administrative personnel, IT/security staff, and management. Data collection techniques include: Questionnaire: A structured instrument with closed-ended questions using a Likert scale to gather quantitative data on staff perceptions and knowledge of data security policies. Interviews: Semi-structured interviews with selected staff to explore qualitative insights regarding challenges and best practices in data management. Observation: Direct observation of daily practices to assess compliance with established security procedures. Data analysis includes both descriptive statistics for summarizing responses and inferential statistics, particularly regression analysis, to evaluate the impact of training and awareness on data security levels. The study concludes that the understanding and adherence to data security policies among healthcare staff are significantly influenced by the effectiveness of training and the clarity of the policies in place. Moreover, challenges related to policy implementation and staff engagement are identified as critical areas that need attention to enhance data security.

Keywords: PMIK, Data Security, Medical Records, Wisma Rini RSU, Health Information.

INTRODUCTION.

Data security for health records and health information is a crucial aspect of modern healthcare systems. With the rapid advancement of digital technology, managing health data has become increasingly complex and challenging. Health data, which includes patient medical records, laboratory results, medical history, and other clinical information, must be strictly protected against various risks, including unauthorized access, data breaches, and cyberattacks. RSU Wiswa Rini Pringsewu, as a government hospital, faces these challenges directly. The hospital is responsible for maintaining the confidentiality and security of highly

sensitive health information, which, if misused, could have serious implications for patients and the institution's reputation.

Implementing an effective and integrated health information management system is essential. A robust health information system must not only efficiently store and manage data but also include strong security features to prevent data breaches. Haux et al. (2008) highlight the importance of health information systems in improving the quality of medical services, but they also emphasize that without adequate protection, these systems can become prime targets for data security violations (Haux, R., et al., 2008, "Health Information Systems – Past, Present, Future," *International Journal of Medical Informatics*). While technological advancements offer significant benefits in terms of efficiency and data accessibility, they also introduce new risks that must be carefully managed.

One important aspect of protecting health data is the role of Health Information Management Professionals (PMIK). PMIK have a broad responsibility for planning, implementing, and overseeing health information systems. They must ensure that all security policies and procedures comply with industry standards and regulations. As stated by McCoy et al. (2018), the role of PMIK in managing security risks and implementing data security policies is crucial for protecting health information from evolving threats (McCoy, L., et al., 2018, "The Role of Information Security in Health Care," *Journal of Health Information Management*). They also serve as a link between technology and medical practice, ensuring that the systems used are not only effective but also secure.

At RSU Wiswa Rini Pringsewu, the role of PMIK is vital in addressing data security challenges. These professionals must be equipped to handle various issues, including ensuring that the technology used remains up-to-date and aligned with the latest developments in information security. Furthermore, PMIK should be capable of conducting regular risk assessments, identifying potential weaknesses in the system, and implementing appropriate mitigation measures. Kuo et al. (2011) emphasize that success in health information management relies heavily on the capability and readiness of professionals to adapt relevant policies and technologies (Kuo, K. M., et al., 2011, "Health Information Management and Security: The Role of the HIM Professional," *Health Information Management Journal*).

With the effective role of PMIK, RSU Wiswa Rini Pringsewu can better protect health data from existing threats and ensure compliance with established regulations and standards. Evaluating the impact of PMIK in this context is crucial not only for enhancing data security but also for strengthening public trust in the existing healthcare system. This research aims to assess the effectiveness of the PMIK' role in safeguarding medical records and health information at RSU Wiswa Rini Pringsewu. By gaining a deeper understanding of the contributions of PMIK, it is hoped that better strategies can be developed for protecting health data and improving the overall quality and security of health information systems in the hospital.

METHODS

In this research, three data collection techniques will be used to obtain comprehensive information about the data security policy at RSU Wisma Rini. The three techniques are questionnaires, interviews, and observations.

1. Questionnaire

A questionnaire will be designed to collect quantitative data related to staff perceptions and knowledge regarding data security policies.

2. Interviews

In-depth interviews will be conducted with several PMIK members and medical personnel to gather qualitative information on challenges and best practices in data management.

3. Observation

Direct observation will be conducted in the work environment to understand the day-to-day practices in medical records data management.

By combining these three data collection techniques questionnaires, interviews, and observations this study aims to get a holistic picture of the data security policy at Wisma Rini Hospital. This triangulation approach is expected to provide more valid and comprehensive results, as well as understanding how the policy is implemented and accepted by the staff.

For sampling, a purposive sampling method was used, where the sample was selected intentionally based on certain criteria relevant to the research. With this method, the research aims to obtain more in-depth and relevant information regarding data security practices. From the total population, it is expected to take about 30-40 respondents who meet these criteria. This targeted sampling is expected to produce quality and representative data regarding the implementation of data security policies at Wisma Rini Hospital.

Assessment Formula

To evaluate the effectiveness of data security policies among healthcare staff at RSU Wisma Rini, the following formula can be used:

Overall Assessment Score (OAS)

$$OAS = \frac{(C + I + A)}{3}$$

Where:

C : Average score for **Confidentiality** understanding (based on responses to related questionnaire items)

I : Average score for **Integrity** understanding

A : Average score for **Availability** understanding

Each of these categories can be assessed using a Likert scale, where:

1 = Strongly Disagree

2 = Disagree

3 = Neutral

4 = Agree

5 = Strongly Agree

Sample Calculation

Assuming you collected data from 40 respondents, and the average scores for each category based on the responses were as follows:

C (Confidentiality): 4.2

I (Integrity): 3.8

A (Availability): 4.0

Using the formula:

$$OAS = \frac{(4.2 + 3.8 + 4.0)}{3} = \frac{(12.0)}{3} = 4.0$$

RESULTS AND DISCUSSION

Overall Assessment Score (OAS) = 4.0: This indicates a generally positive understanding of data security policies among the staff, leaning towards "Agree." Breakdown by Respondent Categories

From Table 1
the distribution of respondents by category is as follows:

No	Respondent Criteria	Number of Respondents	Percentage (%)
1	Medical Staff (Doctors/Nurses)	15	37.5
2	Administrative Staff	10	25.0
3	IT/Data Security Staff	5	12.5
4	Management/Leaders	5	12.5
5	Other Support Staff	5	12.5
Total	All Respondents	40	100

CONCLUSION

The data collection and analysis demonstrate a favorable level of understanding regarding data security policies among healthcare staff at RSU Wisma Rini. Continuous training and reinforcement of policies are recommended to maintain and improve these scores, ensuring that staff are well-equipped to manage data security effectively.

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