Analysis of Psychological and Organizational Factors in the Implementation of Electronic Medical Records by Medical Records Staff at Welas Asih Regional Hospital

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ABSTRACT

This study aims to analyze the psychological and organizational factors that influence the implementation of Electronic Medical Records (EMR) by medical records staff at Welas Asih Regional Hospital. This research method uses a descriptive qualitative method in the Medical Records installation of Welas Asih Regional Hospital. A sample of 33 people was taken using a purposive sampling technique, namely officers who actively use the EMR system. Data were collected using questionnaires, observation, and documentation. Although the implementation of EMR aims to improve efficiency and quality of service, challenges that arise are changes in work culture and psychological factors such as initial anxiety. From the organizational side, the main challenges are the need for additional training and constraints on infrastructure/system smoothness. Quantitative results show that psychological factors in the form of internal motivation are at a very strong level (average score of 4.87), in line with the high awareness of officers regarding the benefits of EMR (average score of 4.67). However, aspects of initial anxiety were still identified (average score of 2.90). Organizationally, there was a strong indication of the need for additional training (average 4.41) and the persistence of technical operational barriers (average 3.31), indicating the need to optimize facility support. Optimizing RME adoption requires a holistic strategy, including the provision of psychological support programs to mitigate anxiety, as well as targeted organizational investments in improving the quality of practical training and maintaining a smoother and more stable system infrastructure.

Keywords : Organizational Factors, Psychological Factors, Electronic Medical Records

INTRODUCTION

The implementation of RME represents a new paradigm in health data governance, replacing paper-based recording methods with an integrated digital system. According to AA Izza (2024), RME is a depiction of the use of information

technology for the efficient and accurate collection, storage, and management of patient data, enabling rapid access and supporting optimal clinical decision-making. RME is defined as a system that facilitates the efficient, accurate, and real-time collection, storage, and utilization of patient clinical data. Its main benefits include reducing medical errors, time efficiency, and better support for clinical decision-making. This is in accordance with the provisions of Minister of Health Regulation No. 24 of 2022, which requires every health care facility in Indonesia to implement a digital and integrated RME system no later than December 31, 2023. This implementation aims to improve efficiency, security, and transparency in health data governance and support more effective collaboration between health workers. The success of EMR is largely determined by individual user acceptance, which is influenced by psychological dimensions. According to Kim et al. (2021) and Pavlovic et al. (2021), psychological factors are the most dominant variable capable of significantly increasing EMR usage intentions—in fact, the contribution of psychological factors to increasing intention can reach 76% in recent quantitative analyses. In the context of EMR, crucial psychological factors include:

1. Motivation and Self-Efficacy: The level of internal drive of officers to use the new system and confidence in their own ability to operate it..
2. Anxiety and Resistance: Feelings of worry, fear of making mistakes, or reluctance to adapt to changes brought about by digital systems..

The transformation of information technology in healthcare has created significant opportunities to improve the quality of patient care and human resource efficiency, particularly through the implementation of electronic medical records (EMR). In the outpatient care setting at Bogor City Hospital, an analysis of the electronic medical record processing system shows that technical challenges and staff readiness are critical to the successful implementation of this system. The selection of sampling methods and the appropriateness of the EMR design have been shown to influence system functionality and documentation compliance levels.

In addition to technical and human resource aspects, institutional readiness also plays a central role in the implementation of EMR, as identified at the Dr. Hasri Ainun Habibie Eye Clinic. A case study by Yunengsih and Oktaviani (2024) highlighted the importance of workflow adaptation, improving the competency of medical personnel, and establishing a support team that actively guides the adoption of the new system. Their findings emphasize the need for intensive training and supervision of staff, particularly the physician in charge of services (DPJP), to ensure the smooth and optimal digitalization of medical records.

Another perspective comes from research at Hermina Pasteur Hospital, which confirmed that the implementation of EMR can improve work effectiveness in the medical records unit, optimize service quality, and support collaboration between healthcare professionals. The performance of medical records staff improved across various aspects, from data security and time efficiency to the quality of medical

record information. These positive impacts reinforce the argument that EMR is not only a documentation tool but also a strategic foundation for strengthening hospital management and patient safety-based services.

Implementing Electronic Medical Records (EMR) requires more than just technology investment; it relies heavily on a supportive work environment within a healthcare institution. Organizational factors play a crucial role in building the foundation that either facilitates or hinders this transformation process.

According to Saniasl, Ebrahimi, and Alami (2015), organizational readiness is a crucial determinant of successful RME implementation. This readiness encompasses several key dimensions that organizations must meet, including:

1. Management Support:
    o This dimension reflects the commitment and active involvement of hospital leadership. This support is demonstrated through the provision of adequate resources, clear budget allocation, and the establishment of formal policies that explicitly support and facilitate the RME adoption process.
2. Training and Infrastructure:
    o The availability of qualified technological and human resources is a vital component. This includes a comprehensive training program for all user staff, as well as ensuring that the information technology infrastructure (such as hardware, RME software, and internet network) functions reliably and smoothly.
3. Organizational Culture:
    o This aspect emphasizes the importance of creating a work environment that is adaptive to change. An organizational culture that supports innovation, promotes open communication across departments, and encourages collaboration between clinical and technical teams is essential for the effective adoption and maintenance of RME use.

Based on this description, psychological and organizational factors are two interrelated elements that are crucial for the successful implementation of RME at Welas Asih Regional Hospital. By addressing challenges related to anxiety and resistance to change, as well as providing adequate support in terms of training and policies, it is hoped that the successful adoption of RME will provide optimal benefits to healthcare services at this hospital.

METHODS

This study uses a qualitative approach with a descriptive method. This approach was chosen because it can describe and understand in depth the influence of psychological and organizational factors on the implementation of Electronic

Medical Records (EMDR) by medical record staff at Welas Asih Regional General Hospital. This study does not aim to measure variables statistically, but to gain contextual understanding based on the results of interviews, observations, and documentation conducted directly in the field. This study was conducted at Welas Asih Regional General Hospital, specifically in the Medical Record installation. The study began from August to October 2025, according to data availability and service schedules at the hospital. The study population consisted of all medical record staff who use the EMR system at Welas Asih Regional General Hospital. Based on the inclusion criteria, the sample taken was medical record staff who actively use the EMR system. A total of 33 people were selected as samples using a purposive sampling technique, which means that only medical record staff who meet certain criteria (i.e., those who use EMR) are involved in this study. The purposive sampling technique was chosen to ensure that the sample used is truly relevant to the research topic.

The data collection technique used in this study was a questionnaire. The questionnaire consisted of several closed-ended and open-ended questions aimed at eliciting information regarding psychological factors, organizational factors, and the experiences of medical records personnel in using EMR. The questionnaire data collection instrument consisted of questions tailored to the variables studied. The questionnaire was divided into two sections: one section to measure psychological and organizational factors, and the other section to assess the level of EMR implementation by medical records personnel.

As part of the observation, the researchers compiled a description of the activities of Medical Records officers using psychological and organizational factor analysis. The use of psychological and organizational factor analysis in this study was not intended for quantitative purposes, but rather as an observational tool to more systematically describe the variation and intensity of officers' activities. Tables containing this data were used as supporting data to help explain workload conditions descriptively.

RESULTS AND DISCUSSION

The questionnaire results showed that medical records staff had a very good level of internal motivation in using the Electronic Medical Records (EMR) system.
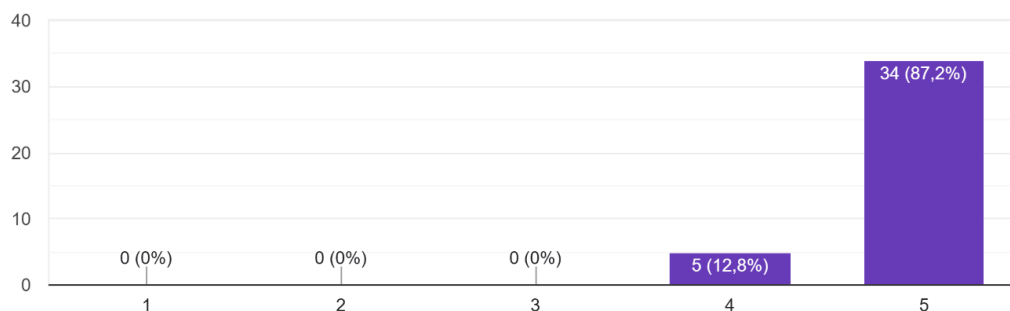
Picture1User motivation for using Electronic Medical Records

Questions regarding motivation showed an average score of 4.87 on a scale of 1–5, indicating that almost all respondents felt motivated to use RME in their daily work. Furthermore, self-confidence in operating RME was also high, as reflected in an average score of 4.79.

Awareness of the benefits of EMR for improving service quality was also
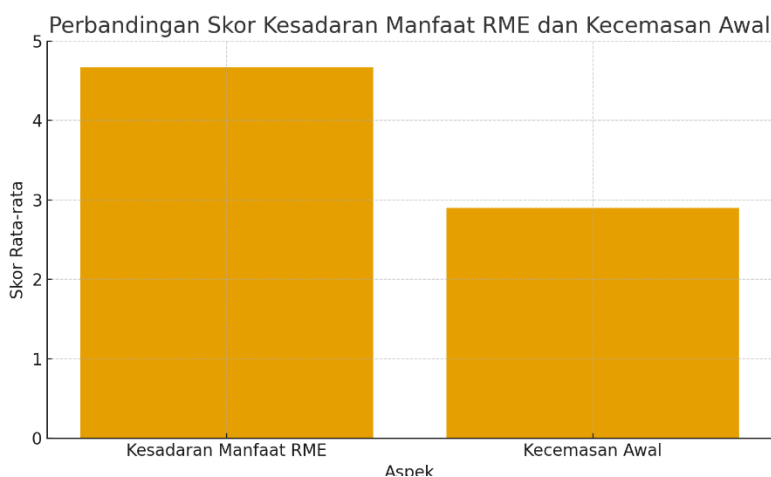
Picture2Comparison of RME Benefit Awareness Scores and Anxiety

strong, as indicated by an average score of 4.67. However, some respondents still experienced initial anxiety, with an average score of 2.90. This suggests that participants experienced some hesitation or apprehension during the initial implementation phase, but this anxiety was not particularly significant.

Respondents assessed that organizational support still requires improvement, particularly in terms of training and facility readiness. The need for additional training received an average score of 4.41, indicating that most medical records staff feel the need for further competency development.
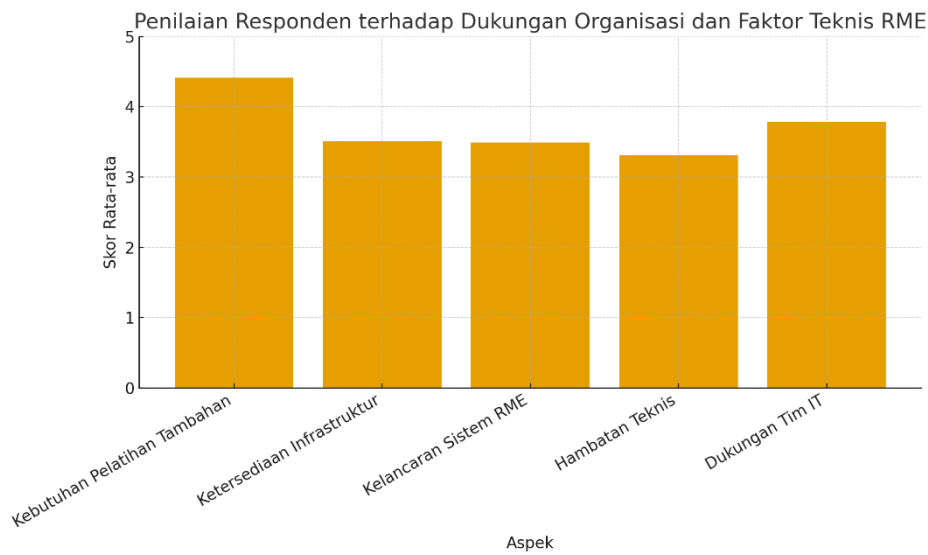
Picture3Respondent Assessment Results regarding Organizational Support and RME Technical Factors

The availability of infrastructure and supporting networks scored 3.51, and the smoothness of the RME system averaged only 3.49, indicating that technical issues still frequently occur. This is consistent with the high technical barriers score of 3.31, indicating that operational challenges persist in the implementation of RME. IT team support scored 3.79, indicating that assistance is available but not yet optimal in addressing all implementation issues.

Analysis of the findings indicates that the implementation of RME at Welas Asih Regional Hospital is supported by strong intrinsic motivation among medical records staff. The very high level of motivation (average 4.87) and awareness of benefits (average 4.67) are positive indicators that staff have a strong intention to utilize RME, in line with the understanding that the system will improve work efficiency and data accuracy.

Despite this, the study identified that initial anxiety (averaging 2.90) persisted among some respondents. This anxiety was indicated to stem from fear of operational errors and system failures, a logical consequence of the shift from a long-standing manual system. In the Welas Asih Regional Hospital environment, this suggests the need for interventions focused on psychological support and strengthening staff self-confidence through structured coaching sessions.

From an organizational perspective, the study highlighted a deficit in support provision. While managerial support is important, the high score for additional training needs (average 4.41) suggests that the training program is suboptimal or impractical, leading officers to feel their competency needs further improvement.

In addition to training issues, technical and infrastructure constraints also pose significant operational challenges. The smoothness of the EMR system only reached an average of 3.49, and technical barriers were recorded at 3.31. This directly impacts daily work effectiveness and has the potential to increase staff

resistance to EMR. Therefore, the organizational commitment at Welas Asih Regional Hospital must translate into concrete investments in infrastructure upgrades and strengthening IT support services (average score of 3.79) to address implementation issues quickly and optimally.

Overall, the findings at Welas Asih Regional Hospital confirm that psychological and organizational factors are interconnected. A holistic approach that integrates practical training with emotional support is a key strategy for achieving sustainable RME adoption.

CONCLUSION

Based on the research results and discussions conducted, it can be concluded that the implementation of Electronic Medical Records (EMR) at Welas Asih Regional General Hospital is significantly influenced by psychological and organizational factors among the medical records staff involved. This study shows that staff intrinsic motivation is quite high and awareness of the benefits of EMR is quite strong, which are key factors for the successful adoption of this digital system. However, the transition to EMR causes anxiety in the initial stages, so interventions such as guidance and trust building are needed to ensure optimal adaptation of medical personnel.

From an organizational perspective, the implementation of EMR at Welas Asih Regional General Hospital has not yet reached optimal levels due to the need for additional training and various technical constraints related to infrastructure and system performance. The availability of networks, equipment, and technical/IT support are major challenges hindering effective implementation; this is reflected in respondents' responses emphasizing the need for enhanced training and better technical facilities. Therefore, targeted follow-up, including investments in human resource competency development and infrastructure improvements, should be a strategic priority for the hospital.

Therefore, the successful implementation of EMR at Welas Asih Regional General Hospital will only be achieved if the synergy between the psychological readiness of medical personnel and organizational readiness is continuously built. A crucial step is the integration of practice-based training accompanied by ongoing emotional support, as well as management commitment to addressing technical and operational needs. These efforts are crucial to ensure that EMR adoption is not merely administrative but also has a tangible impact on improving the quality of healthcare services and operational efficiency within the hospital.

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