

The Design of an Outpatient Electronic Medical Record System for the Jember Health Office Using SSADM Method

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ABSTRACT

Electronic Medical Records (EMR) play an important role in supporting the management of healthcare service data. However, the Electronic Medical Record system used at Puskesmas Kaliwates still faces several issues related to system requirement suitability and the completeness of medical record metadata. This study aims to design an outpatient Electronic Medical Record system for the Jember Health Office using the Structured Systems Analysis and Design Method (SSADM). Data collection techniques employed in this study include observation, interviews, questionnaires, and documentation. The research stages consist of a feasibility study, requirement analysis, requirement specification, logical system specification, and physical design. The results indicate that the existing system has supported outpatient services electronically; however, there are still mismatches in metadata and system functionality when compared to the Electronic Medical Record standards stipulated in Regulation of the Minister of Health No. HK.01.07/MENKES/1423/2022. The requirement analysis successfully identified system development needs, particularly regarding the completeness of patient metadata and the integration of service data. The system design is visualized through a context diagram, Data Flow Diagram (DFD), Entity Relationship Diagram (ERD), as well as interface designs for each user role. The evaluation using the User Experience Questionnaire (UEQ) shows that all scales fall into the neutral category, indicating that the system design is acceptable to users without generating negative perceptions. Therefore, this study produces an outpatient Electronic Medical Record system design that can be used as a reference for future system development.

Keywords: *Electronic Medical Record, Metadata, Outpatient, SSADM, User Experience Questionnaire*