Outpatient Department Clinic Management System at Adventist Medical Center Bacolod

Junic B. Diplomo[1] and Jake R. Pomperada[2]

[1,2]*University of Negros Occidental-Recoletos, Bacolod City, Philippines*

Introduction: The increasing demand for efficient and secure healthcare systems calls for innovative digital solutions. Adventist Medical Center Bacolod identified the need for a more streamlined, patient-centered outpatient clinic management system to address challenges such as manual processes, long waiting times, and fragmented patient records. This capstone project presents the development of an Outpatient Clinic Management System for Outpatient Department of Adventist Medical Center Bacolod, aiming to transition from a paper-based process to a hybrid application. The system is designed to streamline clinical operations, improve patient record management and long waiting times, and support administrative decision-making.

Methodology: The Rapid Application Development (RAD) model was utilized to design and implement the Outpatient Clinic Management System (OCMS). RAD emphasizes quick development cycles with continuous user feedback, allowing iterative improvements based on clinic staff and patient input. Data collection involved interviews, observations, and system analysis to ensure that the system aligned with user requirements and operational workflows.

Results: The deployment of the OCMS led to notable improvements in clinic performance. Patient waiting times were reduced by approximately 35%, and the efficiency of medical record management increased by 50%. Surveys showed that 92% of clinic staff and users reported enhanced ease of use, greater satisfaction with the patient management process, and improved overall workflow coordination.

Conclusion: The implementation of the Outpatient Clinic Management System effectively addressed the operational inefficiencies of the previous manual system. It contributed to faster patient service, more organized medical record keeping, and overall better healthcare service delivery at Adventist Medical Center Bacolod Outpatient Departments.

Practical Value: This project highlights the importance of adopting digital systems in outpatient healthcare settings. It demonstrates that user-centered, rapid development approaches like RAD can successfully deliver systems that significantly improve administrative processes and patient experiences. The Outpatient Clinic Management System provides a scalable and adaptable framework that other healthcare institutions can replicate or customize according to their specific operational needs. By digitizing key functions such as appointment scheduling, patient records management, electronic prescription and doctor's order, medical document archiving, and reporting, the system reduces human error, enhances data security, and promotes more efficient use of healthcare resources.

Direction for Future Research: Future studies may focus on expanding the system's functionalities by integrating it with the hospital's legacy systems, incorporating telehealth services for online patient accessibility, and enhancing machine learning capabilities for advanced data analytics, reporting, and patient statistics prediction, thereby further improving outpatient clinic service efficiency.

Keywords: outpatient clinic management system, healthcare information system, healthcare digitalization, rapid application development, workflow improvement, Philippines

CORRESPONDENCE: *jdiplomo90g@gmail.com*
ORCID: *http://orcid.org/0009-0008-1232-1385[1]*