



Thesis Title	Mobile Health Application for Proactive Self-management: A Case Study of Hypertensive Diabetic Patients in Thailand
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ABSTRACT

This study addresses the global health issues associated with diabetes and hypertension, two widespread chronic conditions. Conducted in Chiang Rai, Thailand, the study investigates the effectiveness of a mobile application designed to support self-management among patients with both hypertension and diabetes. The mobile application enables users to track their personal and clinical data while receiving individualized health recommendations. These recommendations are based on the user's health trend and level of engagement. To identify health condition trends categorized as positive, negative, or neutral, agent-based methods were utilized. Personalized recommendations were generated using association rules that assess each patient's engagement level. The application was evaluated for both effectiveness and user satisfaction among healthcare professionals and patients in Thailand. Results from the evaluation indicated a moderately high level of effectiveness and satisfaction, with a 78% success rate and an average user rating of 4.18 out of 5.

Keywords: Hypertension, Diabetes, Mobile Application, Patient Modeling, Self-Management, Association Rule