Using Mobile Health (m-Health) to enhance Patients’ Medication Adherence: An Empirical Investigation

Chong CH Gary (1), Mak LK Kathy (1), Lee SM Daisy (2)Lee KW Tebby (3)

(1)Department of Pharmacy, United Christian Hospital, (2)School of Professional Education and Executive Development, the Hong Kong Polytechnic University, (3) Department of IT, United Christian Hospital

Keywords:
mobile health
medication adherence

Introduction
Mobile health (m-Health) has been researched and examined as a method to improve patients’ medication adherence in many countries. However, factors ranging from patients’ preference to the nature of medication regimes were identified to affect the efficacy in using mobile phone messaging or smart phone apps to enhance medication adherence.

Objectives
This empirical study aims to investigate the preference of hospital patients in Hong Kong for using mobile apps as a medication adherence tool.

Methodology
A self-administrated questionnaire was distributed at the pharmacy of United Christian Hospital to patients that have smartphones and experience in digital health by hospital volunteers. The 263 completed and usable responses were analysed to examine patients’ preference for drug related apps functionality in relation to the usage intention of hospital-provided mobile apps.

Result
Findings indicated that hospital patients have high intention to use hospital-provided mobile apps. Among patients who are intended to use hospital mobile health apps, they prefer functionalities related to drug dispensing status and drug information. However, patients who have high intent to adopt m-Health shown no preference for apps that remind them to take their medicine. Multi-group analysis among patients with high m-Health intent revealed that medicine reminder apps is least preferable to patients who visit hospital pharmacy 1-2 times in 6 months but is desirable to patients using pharmacy for at least 3 times in 6 months. While m-Health is posited as a tool to enhance medicine adherence, this study found that hospital patients having different pharmacy usage frequency differ in the preference for medicine reminder apps. Further studies are recommended to understand the influence of hospital pharmacy usage frequency on the potential of using m-Health to enhance medicine adherence.