The mobile health care system for self-management among cardiovascular with early chronic kidney disease patients: A feasibility study

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Background: Kidney disease is a common complication of cardiovascular diseases within adults and elderlies population. The early stage CKD is asymptomatic, so it is easily ignored by patients and without implementing self-care. In addition, the shortage of case management and difficult follow-up, the high incidence rate of CKD become a global health issue. Although the advances of medical technology have prolonged the life of patients with end stage of renal disease, for patients with CKD, engagement in self-management behaviors is crucial to enhance the disease control.

Aim: To develop and evaluate the feasibility of an early CKD self-management mobile health (mHealth) care application device system.

Methods: The Delphi consensus method was applied to develop the functions of self-management mHealth care system. The evaluation study design was used to test the feasibility of this system.

Result: The self-management mHealth care system based on health promotion theory (calling “Caring-I’m Health CKD). It included: Exercise record, diet record, health monitor, the scales of physical activity, internet messenger and laboratory reports. This application was downloaded by patients to a mobile device. Patients used their smart phones to record and inquire health information. The records were tabulated by this system and displayed in graphic. After six weeks pilot study, 30 patients reported highly scores in overall satisfaction of the system (8.32±0.34). Specifically, the item the easily to use was the most satisfied items. Moreover, the score of acceptable was also high (8.52±0.74). All of 30 patients had improved self-management behaviors.

Conclusion: Applying the user friendly and individualized mHealth system, patients with CKD presented significant improvement on engaging self-management behaviors. Therefore, it is important to design the patient-centered mobile health system and help them familiarize the function used in their daily life. Simplicity is the essential element of developing the mobile health care system.

Biography
Yu-Chi Chen is an Associate Professor in School of Nursing, Yang-Ming University, Taiwan. She has the nursing experience in community health care and chronic illness care. She has become aware that in all realms of nursing, we need to discover and solve people’s health problems not only focusing on the clinical experiences and professional opinions, but also on evidence-based research and people’s health needs. She would like to become an expert in research methods and have opportunities to develop and test interventions to precisely and effectively measure their impacts in usable and sustainable ways that are relevant to people’s health needs.

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