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Evaluating the Usability of a Simple Home-Care App for Family Caregivers

Tzu-Ning WEN^{a,b,l}, Tzu-Chuan HSU^c, Pei-Shiun CHANG^g, Hsiu-Yen HUANG^c, Ya-Ling CHEN^c, Qi-Guang CHEN^b, Tzu-Hui HSIA^c, Yi-Ru CHIU^b and Po-Lun CHANG^b ^aSchool of Nursing, Chang Gung University of Science and Technology, Taoyuan, Taiwan, ROC ^bInstitute of Biomedical Informatics, National Yang-Ming Chiao Tung University, Taipei, Taiwan, ROC ^cDepartment of Nursing, Taiwan Adventist Hospital, Taipei, Taiwan, ROC ^dInformation Technology Office, Taiwan Adventist Hospital, Taipei, Taiwan, ROC ^cDepartment of Home Care, Taiwan Adventist Hospital, Taipei, Taiwan, ROC ^cInstitute for Information Industry, Taipei, Taiwan, ROC ^gDepartment of Community & Health Systems, Indiana University, Bloomington, Indiana, USA

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1. Introduction

At present, home patient care is supported by not only direct care providers but also family members, case managers, health educators, preventative medicine specialists, judges, professional coordinators, case spokespersons, consultants, community health issues researchers, and community health data managers [1,2]. Among them, the role of home nurses in health education and counseling is critical [3]. Providing health education and counseling with timely empowerment and partnerships can improve care by primary family caregivers and prevent unnecessary hospitalization [3,4]. The effective provision of home-care health education and health-related counseling is important for caregivers.

2. Approach

This experimental study, including 30 primary family caregivers, was conducted from October 2017 to May 2018. The questionnaire, divided into eight parts, was designed to analyze effort expectations, performance expectations, social impact, compatibility, entertainment motivation, habits, and behavioral intentions.

¹ Corresponding Author, Tzu-Ning Wen; E-mail: wtzuning@gm.ym.edu.tw.

3. Body

Of 46 primary family caregivers using Android smartphones, 30 agreed to participate in the survey (Figure 1). Most primary family caregivers demonstrated favorable acceptance of the app; they considered it a good learning tool and useful for managing the physiological data of patients at home. The app's internal functions, such as the options and description of each function, could be understood without the need of other auxiliary methods; thus, the caregivers expressed willingness to use the app long term.

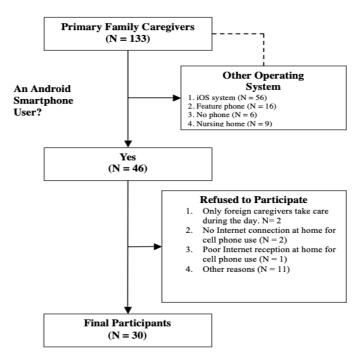


Figure 1. Study flowchart.

4. Conclusions

By using a UTAUT2-based questionnaire to collect data, this experimental study investigated the use of homework and problem handling by primary family caregivers. Because of geographical factors and shortage of manpower, it takes relatively more time to solve the care their family health data record problem. In addition, we recommend investigating the habits and needs of family caregivers in the future.

References

- [1] [1] Hall LW, Moore SM, Barnsteiner JH. Quality and nursing: Moving from a concept to a core competency. Urologic nursing. 2008 Dec;28(6):417-25. PMID: 19241779.
- [2] Corazzini KN, Anderson RA, Rapp CG, Mueller C, McConnell ES, Lekan D. Delegation in long-term care: Scope of practice or job description? Online J Issues Nurs. 2010 May 31;15(2). PMID: 25006330. doi: 10.3912/OJIN.Vol15No02Man04
- [3] Ploeg J, Kaasalainen S, McAiney C et al. Resident and family perceptions of the nurse practitioner role in long term care settings: A qualitative descriptive study. BMC nursing. 2013;12(1):24.
- [4] Imhof L, Naef R, Wallhagen MI, Schwarz J, Mahrer-Imhof R. Effects of an advanced practice nurse inhome health consultation program for community- dwelling persons aged 80 and older. Journal of the American Geriatrics Society. 2012 11/29;60(12):2223-31. PMID: PMC3557710. doi: 10.1111/jgs.12026