

## Understanding the influence of user context in persuasive self-management systems for Diabetes control: the example of Chinese older adults

*Keywords: persuasive technologies, motivation, diabetes, chronic disease, self-management, user experience, user context*

Self-management is a tedious task for diabetes patients. It requires high motivation which is challenging.

One problem of many persuasive technologies is that they treat users as a homogeneous group. However, ignoring user context may reduce system effectiveness (Oinas-Kukkonen & Harjumaa, 2008).

Since research into these issues has been limited in the Asian context, this study explores user experience from psychosocial perspectives in an effort to understand the motivations and experiential problems older Chinese adults have in using digital technologies in diabetes self-management. Understanding the user perspective can help at identifying user needs and the factors that affect the successful adoption of technology for medical management (Illioudi, Lazakidou and Tsironi, 2010).

The paper studies two different types of digital self-management systems: one is a multi-media web-based self-management course (Fig. 1); and the other is a group of several logbook type mobile application systems (Fig. 2 & 3). These were significantly different in forms and features, as well as in the use of persuasive strategies. Two groups of patients used the systems in their normal everyday situation for about six to ten weeks. Their trial concluded with patient experience interviews.

The results revealed that although the web-based self-management system provided higher motivation for system use, there were considerable problems in terms of understanding and the experience of accessibility by using both

kinds of system. The study shows that neither approach was sensitive enough to user context this could influence the effectiveness of the persuasive strategies and motivation in self-management and system use.

This study demonstrates that understanding the user context from the patient perspective can help to design more effective monitoring and self-management systems to improve health and well-being. This study discusses the implications of these findings for the design and future direction of research and persuasive technology.



Figure 1: Multimedia Web-based Diabetes Management Course

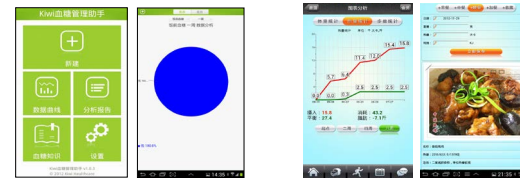


Figure 2: Diabetes Management System Figure 3: Weight Management System

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