DESIGN OF MOBILE E-BOOKS AS A TEACHING TOOL FOR DIABETES EDUCATION

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ABSTRACT

To facilitate people with diabetes adopting information technologies, a tool of mobile eHealth education for diabetes was described in this paper, presenting the validity of mobile eBook for diabetes educators This paper describes the design concepts and validity of this mobile eBook for diabetes educators delivering diabetes electronic self-care.

KEYWORDS

Diabetes education, self-care, mHealth, eHealth, health literacy.

1. INTRODUCTION

While increasing the numbers of people with diabetes, mobile eHealth technology-driven solutions emerge to assist chronic care. A gap is still existed between current end users and these technology-driven solutions (Boren, 2009). To facilitate their adoption, the ability of using mobile eHealth technologies and application, as known 'mobile eHealth literacy', is required for all participators involved in the technology-based diabetes education programs. Clinical nursing staff and nursing students play a key role of patient education that teaches patients to perform self-care in outpatients or medical wards. However, they are not ever to instruct patients that how to use mobile eHealth technologies in their daily self-care. This paper describes the design process of a mobile eBook as for diabetes educators delivering diabetes electronic self-care.

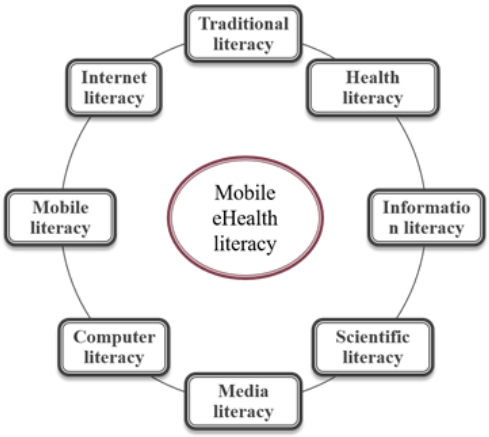
2. DESIGN PROCESS

Content and concepts

The importance concepts of the study consisted of eight elements of eHealth literacy: traditional literacy, health literacy, information literacy, scientific literacy, media literacy, computer literacy, mobile literacy, and Internet literacy (Figure 1). A mobile eHealth literacy program was proposed for patient with diabetes in this study. Firstly, the partial content of the diabetes mobile eBook referred a toolkit for trainer original from by NIH Senior Health National Institute on Aging (NIA, 2010). This toolkit, an educational material, has been validated its effectiveness by Xie(2011). To enhance the ability of patients with diabetes on using diabetes applications (apps), this study also added new content in eBooks to provide the detailed instructional information of diabetes apps practice. The content validity index of the mobile eBook for diabetes e-healthcare was 0.86 performed by six experts. Figure 2 shows the screen shot of the mobile eBook designed in the study.

Development software

The eBooks was developed with iBook Author software built in iOS operational environment and deployed the eBook onto iPad. Advantage of iBook Author software are friendly interface, easy to use and interactive media.



Figures 1. Eight concepts of mobile eBook.

Figure 2. Screenshot of diabetes mobile eBook.

3. CONCLUSION

The potential benefits of the diabetes mobile eBooks can be a useful tool to enhancing eHealth literacy for people with diabetes and assisting clinical patient education. The performance of this programs is ongoing up-to-date.

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