

## **The Fifth International m-libraries conference**

### **Title:**

From Physical Exercise to Mobile Wellness: Design and Develop a Qi Gong App to enhance quality of life with seniors with mild dementia

### **Abstract:**

This pilot project explored the applicability of a mobile health and wellness app to individuals diagnosed with early cognitive impairment living in Canadian nursing homes. Exercise is a protective factor in preventing cognitive regression, however nursing home residents receive less than half of the daily recommendation, leaving this group even more compromised. This health and wellness self management tool through a mobile app featured the centuries old Chinese exercise of Qi Gong, that incorporates gentle breathing and non strenuous stretching exercises for older adults who have minimal to nil fitness levels. The mobile Qi Gong exercise app was downloaded to Apple iPads. The teaching of Qi Gong was delivered through five different, four minute training videos as demonstrated by a local Qi Gong master with an embedded audio reminder that was adapted to individual preferences and schedules.

The piloting of this health and wellness app was done in conjunction with the Centre for Family Medicine (CFFM) Memory Clinics in the Region of Waterloo, Ontario, Canada, acknowledged as clinics of excellence in the identification and treatment of dementia. Using mobile technology, this study represented an innovative, visual and accessible tool supporting daily physical activity while fostering personal empowerment and enhancing quality of life.

The opportunity to regularly participate and master an exercise is shown to elevate physical and mental well being holds multiple holistic and unequivocal benefits. Empowering an individual's sense of mastery over their body and health is fundamental to one's general outlook on life and wellness, holding potential for teaching and learning.

The technological framework exists having been developed by one of the researchers, Tony Tin. The outcome is an exercise app tailored to the fitness level of many older adults in nursing homes with the goal of supporting a general improvement in their quality of life.

### **Presentors:**

Dr. Colleen McMilliam & Tony Tin

**Bio:**

Dr. Colleen McMillan is an Assistant Professor at the School of Social Work, Renison University College, University of Waterloo and Part Time Assistant Professor at the Micheal DeGroot School of Medicine, McMaster University, Hamilton, Ontario. She has an interest in the development of self management tools for populations marginalized by traditional health care delivery, including older adults with dementia.

Tony Tin is the Director of Library and Information Services at University of Waterloo's Renison university college Library. Prior to his Renison appointment, Tony was the head, digital initiatives and electronic resources at Athabasca University (AU). Tony coordinated many AU mobile learning projects, which won the International E-Learning Association's E-learning Award 2012. His Mobile Library project received the Canadian Library Association Library Research and Develop Grant Award in 2006. His Mobile ESL project received an honourable mention for Excellence and Innovation in Use of Learning Technology from the Canadian Network for Innovation in Education in 2008. In 2012 he won the AU wellness Award by designing and developing an IOS app to promote health and wellness in the work place.

He attained his Master of Library and Information Sciences from University of Alberta, Master of Arts and Bachelor of Arts from McGill University and Bachelor of Education from University of Alberta. He is currently completing his Doctor of Distance Education degree from Athabasca University. He has published articles and book chapters and presented at conferences on topics such as library technology, digital libraries, and mobile libraries.