Structural equation model of smartphone application use and therapeutic lifestyle change among the patients with schizophrenia

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Mobile technologies such as cellular phones and smartphones have been proven useful to serve as platforms for self-management of psychiatric illness as they are handy and accessible, ubiquitous, and have near constant connectivity and access to multimedia resources. One out of three adults in Korea is obese, and mentally disabled people account for 48.4% of the entire disabled population suffering from obesity, and the rate of increase is the highest. Schizophrenia patient’s account for 72.6% of the entire mentally disabled population in Korea, and such high prevalence rates of obesity and other physical diseases are related to sedentary lifestyles, unhealthy dietary habits, and effects of psychotropic medications, such as second generation antipsychotics. We aimed to construct and test the structural equation model that analyzed the utilization of smartphone technology for therapeutic lifestyle change (TLC) among people with schizophrenia. A survey using a structured self-questionnaire was conducted from 330 male and 225 female subjects. The data was analyzed by SPSS 23.0 and AMOS 21.0. The model fit for the modified hypothetical model was shown: $Q(\chi^2/df)=4.259$, GFI=0.946, NFI=0.922, RMSEA=0.077. In hypothetical model, the opinions about smartphone use affect the willingness to use smartphone applications. And the willingness to use smartphone applications had an effect on dietary habits and living styles. The opinions about smartphones did not have direct effects on dietary habits and living styles but willingness to use applications had a mediate effect on the dietary habits and living styles. Therefore it is necessary to adopt smartphone applications for therapeutic lifestyle change, which is available to prevent the metabolic syndrome among people with schizophrenia.

Biography

Kyunghee Lee has completed her Doctor of Nursing Science from Seoul National University in South Korea and Postdoctoral studies from University of Illinois at Chicago College of Nursing in USA. She is currently a Professor of Mental Health Nursing at College of Nursing, Keimyung University in South Korea (1993-now). She was also a Professor at Gongju National Nursing College (1983-1992). She served as the President of Yeongnam Branch of Korean Psychiatric Mental Health Nurse Practitioners’ Society (2004-2006). She also served as an Editor-in-Chief of Keimyung Journal of Nursing Science and a Director of Research Institute of Nursing Science, Keimyung University (2015-2017). Her nursing background includes mobile phone-based therapeutic lifestyle change, autonomic balance, obesity management and metabolic syndrome. She has received research grants from various institutions including Korea Research Foundation. Her representative paper is as follows: Heart rate variability and metabolic syndrome in hospitalized patients with schizophrenia (2011). She has published more than 100 papers.

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