



The Effect of Mobile Health LineApplication Based on Diabetes Self-management Program on Health- related Quality of Life

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Abstract

People living with Type 2 Diabetes Mellitus (T2DM) have a poorer health-related quality of life (HRQOL). Currently, more people have access to smartphones technology which creates opportunities for diabetes self-management. Reviewing related literature, it was found that specific evidence dealing with mobile health application on health- related quality of life among the T2DM patients in Thailand was rather limited. This study then aimed to investigate the effect of mobile health line-application based on diabetes self-management on HRQOL among the T2DM patients. In this randomized controlled control trial, mobile health line-application based on diabetes self-management plus usual health care program were assigned to intervention group (n=52) while the control group received usual health care program (n=52). The Thai version of the Diabetes-39 questionnaire was used to measure HRQOL. Higher scores indicated a greater impact of HRQOL. Pair t-test was used to compare the means of HRQOL before and after intervention within the intervention and the control group. The results showed that the HRQOL mean score of the intervention group at baseline was 97.90 (SD 4.04), which decreased to 66.44 (SD 34.19) while the HRQOL mean score of control group at baseline was 102.40 (SD 47.09), which increased to 105.09 (SD 44.87) afterward. Noticeably, the intervention group had a lower score of HRQOL after intervention which indicated that mobile health line-application based on diabetes self-management plus usual health care program could increase the HRQOL. This novel mobile health line-application based on diabetes self-management plus usual health care program had positive effect on the HRQOL among T2DM. These findings would be able to offer a new practical program to promote the improvement of HRQOL in T2DM patients.

Keywords: *Diabetes, Mobile health, Line-application, Self-management, Quality of life*