

審査の結果の要旨

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This RCT study provides important results to the application of workplace mental health programs for nurses in low- and middle-income country. Healthcare workers, including nurses in LMIC are at high risk of work-related mental disorders which have detrimental impacts on their health and quality of health services they provide. Meanwhile, low cost technology based mental health programs with easy access have showed effectiveness on improvement of workers' mental health in high-income countries. This RCT study aimed to investigate the effect of newly adapted smartphone based mental health programs on depression and anxiety among nurses in Vietnam, and the following results have been obtained.

1. Both programs (a fixed-order, internet cognitive behavioral therapy (iCBT) program B and a multimodule stress management techniques program A with a free-choice sequence) showed nonsignificant effectiveness on improvement of anxiety and depression among nurses at the end of the study.
2. Program B significantly improved nurses' depressive symptoms at three-month ( $p=0.048$ ; Cohen's  $d: -0.18$ , 95% Confident interval:  $-0.34$  to  $-0.02$ ), but not at seven-month ( $p=0.92$ ). Program A showed a nonsignificant effect on depression. Both intervention programs were not efficacious in anxiety improvement at any follow-up.
3. The iCBT program B is a potential, low cost stress management intervention to improve depression for hospital nurses in Vietnam.

As described above, this study provides new insights on mental health intervention for nurses, an indispensable workforce of the health system in Vietnam. This is the first RCT to show the effectiveness and feasibility of a smartphone-based CBT intervention to improve depression among nurses in a LMIC

よって本論文は博士（保健学）の学位請求論文として合格と認められる。