

## **A randomized control trial to study the effectiveness of the Mobile Functional Cognition Program for persons who have substance abuse**

People with substance use disorder (SUD) manifest cognitive deficits which affect their everyday functioning. The research on cognitive training for SUD is limited. We developed the Mobile Functional Cognition Program (MFCP) and piloted tested in 2015-2017. In this study, we carried out a randomized controlled trial. We hypothesized that participants going through MFCP would improve cognitive and everyday functioning compared to those who received social activities. A total of 134 service users at the Counselling Centers for Psychotropic Substance Abusers (CCPSAs), the Drug Treatment and Rehabilitation Centers (DTRCs), the Methadone Clinic, and the Substance Abuse Clinic at United Christian Hospital were recruited into this study. The final study sample included 53 in the experimental group (go through MFCP) and 57 in the control group (go through social activities). Sociodemographic information were collected. Participants' cognitive function and everyday functioning were measured by Cognistat (NCSE) and Canadian Occupational Performance Measure (COPM) at baseline and after treatment. Repeated measure analysis of variance (ANOVA) revealed no significance in the outcome x group interaction terms. A post hoc Schèffe test found that both the experimental and control group had significant improvement after treatment. According to this study and past experience, the MFCP was practical and easy to use and have potential benefit for people with SUD. Further study using time-series design is suggested to investigate if the MFCP would lead to a better rate of improvement over social activities.