Improving outcome through improving cognition in Severe Mental Illness

Cognitive Remediation Training combined with transcranial Direct Current Stimulation.

Lisette van der Meer[1,7], Leonie Bais[7], Branislava Ćurčić-Blake[2], Danielle van Duin[3,8], Lies Korevaar[4], André Aleman[2,5], Gerdina HM Pijnenborg[5,6]

[1]University of Groningen, Dpt of Clinical and Developmental Neuropsychology; [2]University Medical Center Groningen, Cognitive Neuroscience center; [3]Trimbos Institute Utrecht; [4]Hanze university of Applied Sciences, School of Rehabilitation; [5]University of Groningen, Dpt of Clinical & Experimental Psychopathology; [6]Drenthe Psychiatric Institute; [7]Lentis Psychiatric Institute; [8]Phrenos Center of Expertise

Email: L.van.der.meer@rug.nl

Seven percent % of service-users (SU) with a severe mental illness need long-term intensive (clinical) psychiatric treatment.

Illness is often characterized by an incomplete recovery

Problems in multiple life domains, e.g.:
- persistent complaints due to medication resistance
- physical health problems
- self-care
- psychosocial dysfunction.
- cognitive dysfunction

Neural plasticity in service-users with SMI appears to be reduced

➔ might hinder newly learned cognitive skills to sustain

Feasibility study

12 SU randomly assigned to two cognitive remediation training programs

➔ 7 people tested adapted version of Compensatory Cognitive Training (Mullen et al., 2017; Twamley et al., 2008)

➔ 5 people tested Computerised Interactive Remediation of Cognition – a Training for Schizophrenia (CIRCuiTS; Reeder et al., 2016)

"Well, I let my brain work for a bit. You know. Just being active again."

New study in preparation

Transcranial direct current stimulation (tDCS) for the program with the best tolerability

Results & Conclusions

Training program tolerable for:
- one SU (out of seven) testing CCT
- four SU (out of five) testing CIRCuiTS

Tolerability simultaneous tDCS + CIRCuiTS well for all SU in the CIRCuiTS group

'A little proud perhaps"