C.E.N.T. Computer Enabled Neuroplasticity Treatment

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C.E.N.T.

Computer Enabled Neuroplasticity Treatment

Research was conducted into the disorder, research phase. Parallel work have been ongoing, ramping up in stages until the

Figure 2. shows the study design, with tasks interrelated in time-

neurological symptoms of adult ADHD/ADD using laboratory-

The CENT project will conduct a study on the effects of NFB on adult ADHD within Finland. Research is being conducted by the Cognitive Science Unit at the Institute of Behavioural Sciences, University of Helsinki, with NFB conducted by trained technicians supervised by qualified psychotherapists. Software is custom-built for the project, with games sourced from local companies.

STUDY DESIGN

The experiment aims to test the efficacy of neurofeedback for adults with either ADHD or ADD by randomized controlled clini-

Figure 2 shows the study design, with tasks interrelated in time-

The training is based on thresholds calculated from baseline

REFERENCES


Joensuu, K., Helenius, P., Laasonen, P. (1990). NFB conducted by trained technicians supervised by qualified psychotherapists. Software is custom-built for the project, with games sourced from local companies.

HARDWARE

The study is using Neurolectrics’ Enabio system to feedback pa-

SOFTWARE

A new software platform was developed by the Finnish company Ludocraft for the study, integrating OpenVibe platform’s signal analysis capabilities with a graphic user interface designed for the project. The platform gives the researcher or clinician the option to use different neurofeedback protocols and activities, for example, different games or auditory content. The program records relevant background information on the patient’s state before each session and tracks the patient’s progress as the treatment proceeds.

The training is based on thresholds calculated from baseline measurements. Currently two NFB protocols are supported, theta/beta (the default option) and SMR, one of these is chosen by the trainer at the beginning of a session.

The program is designed for a dual-monitor setup, with separate

The program provides the therapist with a real-time feedback of the patient’s state before each session and the therapist’s progress as the treatment proceeds.

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Figure 3 Screenshot of the software used in CENT

RESEARCHERS

Clinical

PARTNERS

Clinical

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YHFT

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