

Cognitive Rehabilitation in Addictive Disorders: Effects of Cognitive Training in Groups with the Stengel-Therapy. The SuCog Study.

Melanie Quiring^a, Sabine B. Ladner-Merz^b, Ingolf Bühler^c, Kenneth Robinson^a

Abstract

Objectives:

To evaluate the effectiveness of cognitive training in groups with the Stengel-Therapy for the cognitive and mental rehabilitation of patients with addictive disorders.

Design:

Prospective non-randomized clinical controlled trial.

Setting:

Study at a socio-therapeutic Center for patients with substance abuse undergoing a rehabilitation program for integration back into life outside an institution.

Participants:

Data of fourteen patients were evaluable; all with alcoholism, two patients comorbid with addiction to cannabis, all patients were abstinent for at least six months.

Interventions:

Initially, patients underwent neuropsychological testing. After three months without cognitive training, patients were tested again. Then patients received socio-communicative cognitive training in groups once a week for three months followed by a third neuropsychological testing.

Patients received 10 ± 1.6 units of cognitive training, each unit 60 minutes with up to 15 participants per group, once a week.

Main outcome measures:

Neuropsychological testing (memory, executive functions/word fluency, cognitive speed), measuring of mental state (Bf-S- and Bf-S'-Scale) and state of health (SF-36) pre- and post-therapy, respectively.

Results:

Overall, 100% of the patients demonstrated cognitive deficits pre-therapy. The affected cognitive domains were cognitive speed (57%), memory performance (57%) and executive functions/word-fluency (85%). During the three months without cognitive training patients developed significant loss of memory performance especially in memory span (-13.3% and -13.6%). After three months of socio-communicative cognitive training in groups executive functions/word fluency improved significantly (36.2% and 63.3%). Memory performance and cognitive speed also improved (16% and 6.6%/11.2%). At the end of therapy with cognitive training only 57% of the patients still demonstrated cognitive deficits, 43% had no deficits anymore. Mental state and state of health remained stable.

Conclusions:

Many patients with addictive diseases have cognitive deficits mainly in executive functions / word-fluency. Without cognitive training some patients develop new cognitive deficits within three months. Socio-communicative cognitive training in groups with the Stengel-Therapy improves executive functions, word-fluency, memory performance and cognitive speed. In conclusion, the Stengel-Therapy is a cost-effective and novel therapeutic approach to improve cognitive abilities in patients with addictive diseases, to avoid development of new cognitive deficits and to improve the effectiveness of a rehabilitation program for integration back into work and life outside an institution.

Key words:

cognition, rehabilitation, cognitive, training, Stengel-Therapy, addictive disorders

^a Haus Noah, Soziotherapieverbund Spessart, Bad Orb, Germany

^b Academy of Cognitive Training, Stuttgart, Germany

^c Klinik für Psychiatrie und Psychotherapie, Main-Kinzig-Kliniken gGmbH, Schlüchtern, Germany

Correspondence concerning this article should be addressed to Sabine Ladner-Merz, Academy of Cognitive Training, Nöllenstr. 11, 70195 Stuttgart, e-Mail: sabine.ladner-merz@kognitives-training.de

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