

The effectiveness of transcranial direct current simulation (TDaCS) on depressive symptoms and focused attention of depressive patients

Najmeh Hamid,
University of Ahvaz, Iran

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Abstract

Introduction: In recent years' transcranial direct current simulation (TDCS) is one of the effective and common treatments of depression disorders.

Background and Aim: The aim of this research was study the effectiveness of transcranial direct current simulation (TDCS) on depressive symptoms and focused attention of depressive patients.

Materials and Materials: The research method was experimental with pre, posttest and control group. The sample consisted of 24 depressive patients who were matched from age, educational status, acquiring one standard deviation above the mean in depression, not suffering from acute mental and physical disorder and other criteria considered in this research. Then randomly divided into two groups as experimental and control. The instruments were Beck depression inventory (BDI-21) and continuous performance test software (CPT). The experimental group

administered 10 sessions of dorsolateral prefrontal cortex TDCS but the control group did not receive any intervention.

Results: The results indicated that there was a significant difference between experimental and control group in depressive symptoms ($p < 0.001$). The rate of depressive symptoms in experimental group significantly decreased in comparison with pretest and control group.

Conclusion: Based on the findings of this research can be concluded that TDCS method by stimulating the right and left lateral-posterior prefrontal will decrease the rate of depression in depressive patients.

Keywords: transcranial direct current simulation (TDCS), depressive symptoms, focused attention, depressive patients