

Neurofeedback Against Binge Eating: A Randomized Controlled Trial in a Female Subclinical Threshold Sample.

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Abstract

Brain-directed treatment techniques, such as neurofeedback, have recently been proposed as adjuncts in the treatment of eating disorders to improve therapeutic outcomes. In line with this recommendation, a cue exposure EEG-neurofeedback protocol was developed. The present study aimed at the evaluation of the specific efficacy of neurofeedback to reduce subjective binge eating in a female subthreshold sample. A total of 75 subjects were randomized to EEG-neurofeedback, mental imagery with a comparable treatment set-up or a waitlist group. At post-treatment, only EEG-neurofeedback led to a reduced frequency of binge eating ($p = .015$, $g = 0.65$). The effects remained stable to a 3-month follow-up. EEG-neurofeedback further showed particular beneficial effects on perceived stress and dietary self-efficacy. Differences in outcomes did not arise from divergent treatment expectations. Because EEG-neurofeedback showed a specific efficacy, it may be a promising brain-directed approach that should be tested as a treatment adjunct in clinical groups with binge eating.

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binge eating; food craving; neurofeedback; overeating; randomized controlled trial

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