



## Add-on effect of a brief internet-delivered emotion regulation intervention for eating disorders: a replicated single-case experimental design

Line Nordgren, PhD, Department of Biomedical and Clinical Sciences, Linköping University; Clinical Department of Child and Adolescent Psychiatry in Linköping,. Ata Ghaderi, professor, Division of Psychology, Department of Clinical Neuroscience, Karolinska Institutet, Stockholm, Sweden; Bjränn Ljótsson, professor, Division of Psychology, Department of Clinical Neuroscience, Karolinska Institutet, Stockholm, Sweden; Örjan Dahlström, senior associate professor, Department of Behavioural Sciences and Learning, Linköping University, Linköping, Sweden; Hanna Aabakken, MSc, School of Behavioural, Social and Legal Sciences, Center för Health and Medical Psychology, Örebro University, Sweden; Sara Svedberg, MSc, School of Behavioural, Social and Legal Sciences, Center för Health and Medical Psychology, Örebro University, Sweden; Hugo Hesser, professor, School of Behavioural, Social and Legal Sciences, Center för Health and Medical Psychology, Örebro University, Sweden.

Eating disorder patients tend to suffer from emotion dysregulation, and changes in emotional function during treatment predict better treatment outcome. Thus, emotion dysregulation is a potentially important process to target in eating disorder treatment. However, we still lack knowledge on how to best target emotion dysregulation during eating disorder treatment.

This study aimed to investigate whether emotion dysregulation may be improved in individuals with eating disorders using a brief online treatment designed specifically to increase emotion regulation skills.

A replicated single-case experimental randomized AB-design was used to investigate the added effect of emotion regulation interventions (B-phase), beyond the effects of eating disorder treatment focusing on normalization of eating and refrainment from compensatory behaviors (A-phase). Twelve adult individuals with eating disorders were recruited from psychiatric outpatient services, and eight received the 8.5-week online treatment. The start of B-phase in treatment (i.e.,

emotion regulation interventions) was randomized for each participant. Emotion dysregulation and negative affect were assessed every third day in both phases (20 assessments in total).

Visual and baseline-corrected Tau analyses revealed short-term positive experimental effects on negative affect and emotion regulation for four participants, suggesting that emotion regulation interventions may be beneficial for some, but not all, individuals.

This study provides the first evidence that a brief online intervention can improve emotional processes beyond the effects of interventions aimed at normalized eating behavior—a core component in evidence-based treatments for eating disorders. As such, findings support previous suggestions that increased focus on emotion regulation might be favorable. However, future studies are needed to explore long-term effects and relations to eating disorder outcomes.