# Emotion Regulation Training for Adolescents With Borderline Personality Disorder Traits: A Randomized Controlled Trial

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**Objective:** To evaluate the effectiveness of Emotion Regulation Training (ERT), a 17-session weekly group training for adolescents with borderline personality disorder (BPD) symptoms. **Method:** One hundred nine adolescents with borderline traits (73% meeting the full criteria for BPD) were randomized to treatment as usual only (TAU) or ERT + TAU. Outcome measurements included severity of BPD symptoms, general psychopathology, and quality of life. Multilevel analyses were conducted on an intent-to-treat basis. Clinical significant change was determined by normative comparisons on a primary outcome measurement. **Results:** Independent of treatment condition, the two groups improved equally on the severity of BPD symptoms, general psychopathology, and quality of life. Nineteen percent of the ERT group was remitted according to the cutoff score after treatment (at 6 months) versus 12% of the control group. Follow-up assessments in the ERT group at 12 months showed some further improvement (33% remittance). With regard to predictors of outcomes, adolescents with higher levels of depression or attention-deficit/hyperactivity disorder or oppositional-defiant disorder at baseline and who reported a history of abuse had worse outcomes, regardless of treatment condition. The attrition rate for the ERT sessions was remarkably low (19%). **Conclusions:** Early interventions for BPD symptoms in adolescence are feasible and necessary. No additional effect of ERT over TAU could be demonstrated in the present study. There is a clear need for developing effective interventions for adolescents with persistent BPD symptomatology. Clinical trial registration information—Evaluation of Group Training for Adolescents (Emotion Regulation Training) with Emotion Regulation Problems: A Randomized Controlled Clinical Trial; http://trailregister.nl/; ISRCTN97589104. J. Am. Acad. Child Adolesc. Psychiatry; 2012; 51(12):1314-1323. **Key Words:** borderline personality, randomized controlled trial, treatment, adolescents.

Borderline personality disorder (BPD) is a complex and severe disorder that usually has its onset in adolescence.[1] Diagnosing BPD in adolescence has long been controversial, despite the growing body of evidence of a valid and reliable diagnosis before 18 years of age.[2,3] There is convincing evidence for the continuity of BPD from adolescence into adulthood.[4] Early symptoms of BPD are associated with several serious functional and psychopathologic problems in the long term.[4] BPD in adolescents has been found to be a better predictor than Axis I disorders for psychopathology and psychosocial dysfunctioning later in life.[5] Furthermore, borderline symptoms in adolescence are a predictor for social impairment and lower life satisfaction, lower academic and occupational functioning, less partner involvement, and a higher consumption of health care services at 20-year follow-up.[4]

Although there are no reliable figures, the prevalence of BPD in adolescence is estimated at 1% to 3%.[6,7] This figure increases to 10% to 14% when milder cases are included[6] or when self-reports are used.[8]

Despite the high prevalence and adverse consequences of BPD symptoms in the long term,

This article is discussed in an editorial by Dr. David J. Miklowitz on page 1238.

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only few treatment protocols have been developed and evaluated for adolescents. The available interventions are rather intensive and therapists generally need extensive training (e.g., Cognitive Analytic Therapy [CAT], Dialectic Behavior Therapy for Adolescents [DBT-A], Mentalization-Based Treatment for Adolescents [MBT-A]). Of those, only CAT has been evaluated in a randomized controlled trial (RCT). In this RCT, 86 youngsters with BPD symptoms (15–18 years old) were randomized to Good Clinical Care or to CAT.[2] CAT is comprised of 16 to 24 individual sessions of psychotherapy based on elements of psychoanalytic object relations theory and cognitive psychology.[9] These interventions showed equal and significant improvements over a 2-year period (Cohen $d$ = 0.54–1.38). The rate of improvement was (moderately) faster for the secondary measures, but there were no differences between Good Clinical Care and CAT on BPD symptoms.

Although DBT has frequently been evaluated in adult samples, with good results,[10] the adolescent version has been evaluated only in nonrandomized, small samples.[11,12] DBT focuses on (para)-suicidal behavior, therapy-interfering behaviors, and other dangerous or destabilizing behaviors. The DBT-A consists of 16 weekly multifamily sessions and family therapy can be added. All studies found a decrease in (para)suicidal behavior and/or depressive symptoms, with effect sizes (Cohen $d$) ranging from 0.23 to 3.40.

The last treatment available for youngsters is the MBT-A.[13] Mentalizing is the capacity to make sense of others and of oneself, to be aware, and to understand the subjective states and mental processes of oneself and of others. Patients with BPD are considered to have a fragile mentalizing capacity, which makes them vulnerable in interpersonal relationships.[14] The MBT-A has not yet been evaluated.

All these interventions require extensive additional training for therapists. Moreover, the DBT-A and MBT-A are directed at adolescents with severe BPD symptoms and are time intensive. However, early intervention might prevent adverse outcomes in the long term.[4,5] Therefore, the authors developed low-threshold care, not only for adolescents with full-syndrome BPD but also for (referred) subsyndromal cases, which is time limited and easy to implement in general mental health care. Emotion Regulation Training (ERT) is a manual-based group training for adolescents (14–19 years old) with BPD traits[15] and was developed as an add-on to treatment as usual (TAU). The training is an adaptation of the Systems Training for Emotional Predictability and Problem Solving developed by Bartels et al.[16] Problems in emotion regulation are often considered to form the core symptom of BPD.[17,18] ERT focuses on this symptom, using the structure of the Systems Training for Emotional Predictability and Problem Solving, complemented with elements of DBT skills training and cognitive-behavior therapy. Age-specific adaptations are the duration of the program (17 weeks), the length of the sessions (105 minutes), and specific topics to meet the developmental stage of self-exploration.[19] ERT has been evaluated in a randomized pilot study.[20] Forty-three adolescents were randomized to TAU (n = 20) or to a combination of TAU and ERT (ERT + TAU; n = 23). The two groups showed an equal significant decrease in borderline symptoms over a 6-month period. The ERT + TAU group improved significantly more on locus of control than the TAU group. The ERT protocol has been adapted according to the findings of the pilot study.[15]

The present study evaluated the effectiveness of ERT at a larger scale. The study was conducted in four mental health centers in the Netherlands. Adolescents (N = 109) were randomized to TAU or ERT + TAU. The authors hypothesized that adolescents in the ERT + TAU group would improve more on borderline symptoms, general psychopathology, quality of life, and locus of control than those in the TAU group.

Next, the authors explored the predictive value of a history of abuse and/or trauma and depressive and externalizing symptoms. There is a paucity of studies that have addressed the identification of predictors in BPD treatment and hardly any in adolescents. Barnicot et al.[21] reported a systematic review and meta-analysis on 41 treatment studies, three of which concerned adolescents. Predicting factors for dropout were a commitment to change, impulsivity, and therapeutic alliance. In the present study, the authors examined predicting factors for the effectiveness of ERT.

## METHOD

### Sample

Participants were 109 adolescents 14 to 19 years old (mean = 15.98 years, SD = 1.22 years) who were referred for emotion regulation problems and/or BPD features to