

Internet-Delivered Emotion-Regulation Therapy for Adolescents with Self-Harm: Treatment Effects, Mediation, Moderation, and Cost-Effectiveness

2. Digital and other technological treatment and interventions

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Abstract text

Introduction: Self-harm is a global health problem linked to suicide. A series of unpublished and recently published studies aim to investigate (1) the effect of therapist-supported internet-delivered emotion-regulation individual therapy for adolescents (IERITA) on self-harm frequency, (2) the mechanisms underlying therapeutic change, (3) treatment moderators, (4) effects on parents, and (4) the cost-effectiveness of the intervention.

Methods: The current study was a 3-site single-masked randomized controlled trial comparing IERITA adjunctive to treatment as usual (ETAU) with ETAU including adolescents with recent self-harm and their parents. The Clinician-Rated Deliberate Self-Harm Inventory Youth Version (DSHI-Y) and parent reports of the Coping with Children's Negative Emotions Scale, were rated post-treatment and at 3 months follow-up, analyzed using linear mixed effects models. Self-rated versions of the DSHI-Y and Difficulties in Emotion regulation-16 Item Version (DERS-16), administered once every week during treatment, were used in the mediation analyses employing parallel process latent growth curve modeling. Costs were assessed using the Trimbos-iMTA questionnaire.

Results: 166 (mean [SD] age, 15.03 [1.25] years; 92.8% female) were randomized to 12 weeks of IERITA+ETAU (n=84) or ETAU (n=82). IERITA+ETAU was more efficacious than ETAU in reducing self-harm (IRR = 0.34 [95% CI 0.21-0.55]) at post-treatment and at 3-month follow-up (IRR = 0.54 [0.32-0.91]) and improving parental minimizing responses to adolescents' expressions of emotions ($d=0.69$ [0.39-0.99]). Emotion dysregulation mediated the effect of IERITA+ETAU compared to EATU ($ab = -0.028$ [-0.053, -0.010]). No significant moderators of treatment outcome were found. The treatment gains were achieved with additional healthcare costs of \$3663 (95% CI \$2182 to \$5002) and societal costs of \$4458 (\$-577 to \$9509).

Conclusion: IERITA is a brief, scalable, and transportable intervention focusing on emotion-regulation ability that has the potential to reduce self-harm among adolescents. Difficulties in emotion regulation is potentially a key therapeutic process of change. Future directions will be discussed.