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Strengthening attachment-based therapies: A case for cognitive bias modification?

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A recent article published in the Journal describes the effectiveness of attachment-based family therapy in decreasing suicidal ideation and depressive symptoms in adolescents.[1] Because insecure attachment is a transdiagnostic risk factor in the development of psychological problems in children and adolescents, improving attachment relationships is an important therapeutic endeavor. In their article, Diamond et al. suggest that programs such as attachment-based family therapy might become more effective or "fortified by integrating more specific cognitive and emotional skills training."[1] In the current letter we want to argue that such a claim is theoretically meaningful, how such fortification might be achieved, and which training components might be added. Most importantly, we want to plea for clinical research that puts this claim to a test.

Attachment-focused therapies generally aim to enhance children's trust in their caregivers' availability and support in a bottom-up manner. More specifically, such therapies build on the assumption that exposing children to a more sensitive caregiver can restore ruptured trust. However, in line with the concern expressed by Diamond et al., this assumption might be too optimistic because existing attachment expectations alter the cognitive processing of attachment-related information on an automatic level.[2] More specifically, children who are less securely attached interpret and remember attachment-related information more negatively, and they focus their attention less to caregivers in the service of support-seeking. It is well-demonstrated that these information processing biases top-down decrease the likelihood that novel information that is incongruent with existing expectations will be perceived. As a result, these automatic biases might limit the corrective effect of being exposed to a more sensitive caregiver.[3] Therefore, therapies that focus on improving attachment relationships might benefit from additionally implementing procedures that can alter these biases.

One promising approach is to use cognitive bias modification (CBM) procedures. With CBM, information processing biases are modified by systematically training a targeted processing bias. Although there is some debate about the best way to implement CBM procedures, attempts in different domains of child and adolescent psychology have shown that it is indeed possible to effectively train and change information processing biases. Recently, CBM procedures have been developed that specifically target attachment-related information processing biases in middle childhood and early adolescence.

One of these CBM procedures targets secure attachment-related interpretation bias, and tries to strengthen children's tendency to interpret attachment figures' behavior as supportive. In this training, children are provided with a series of distressing story scenarios in which maternal support might be needed. These scenarios are ambiguous as to whether the mother provides support. Children are trained to interpret the scenarios securely, that is, to interpret the ambivalent maternal behavior as supportive.[4] In three independent samples (N = 49, N = 60, N = 84), one-session CBM training was effective at enhancing secure interpretation bias.[4,5] In addition, CBM training increased trust in maternal support. Another attachment-related CBM procedure focuses on training secure attachment-related attentional biases, that is, children's inclination to direct their attention to their attachment figures when the context is distressing. Preliminary results of this attentional CBM procedure in one sample (N = 85) indicated that attachment-related attentional biases also can be trained, and that training secure attentional biases can increase trust in caregiver support.

All in all, attachment-related CBM procedures might provide an important adjunct for interventions aimed at enhancing trust in caregiver support. As the currently discussed studies were limited to one session in community samples, these CBM procedures need to be further developed and tested before implementation in clinical practice. Nonetheless, pilot work in 11 children staying in residential care for emotional and behavioral problems suggested that a

clinical population can also benefit from CBM training. For this pilot study, the existing CBM procedure for attachment interpretation bias[4,5] was extended such that it comprised three different training sessions. These training sessions were each administered twice over a 2-week period, resulting in a total of 6 sessions. Medium-to-large positive effects on trust were obtained in the first and second training session, after which the effect stabilized until after the sixth session (Figure 1). Combined, the results discussed in the current letter call for much needed research that would further explore whether adding attachment-related CBM to treatments aimed at restoring attachment ruptures could increase such treatments' effectiveness.

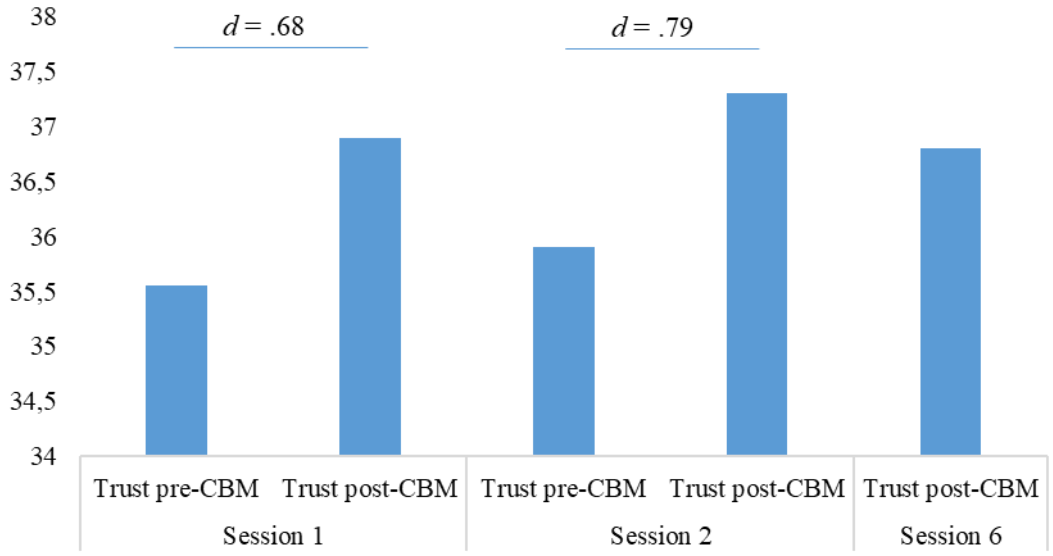

Figure 1. Cognitive Bias Modification (CBM) effects on trust in a clinical sample (N =11).

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