



Research Brief

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The effectiveness of Cognitive Behavioral Therapy intervention for anger and anxiety management in children with Asperger Syndrome

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A Note from the Editor

by Angela Scarpa, Ph.D.

The VTAC newsbrief was launched two years ago "to provide parents, caregivers, and teachers in the New River Valley community with up to date information about ongoing treatment research relevant for children and adults with autism." We hope this serves as a useful platform for sharing information that researchers have uncovered, and we urge you to seek further evidence-based information in your quest for the best services for your child. The current newsletter focuses on a program that teaches children with ASD how to manage their emotions. What better time to talk about stress management than the holiday season! When you or your child are feeling tense this season, try one of these simple exercises, adapted from the two studies reviewed in this newsletter:

1. Stop and count to ten
2. Take 3 deep breaths
3. Close your eyes/meditate
4. Take a break
5. Tell someone how you feel
6. Distract yourself with something fun

From everyone here at the VTAC Research Unit, we wish you and your families Happy Holidays, peace and joy in the New Year.

Summary: We summarize two studies that examine the efficacy of Cognitive Behavioral Therapy (CBT) for improving anxiety and anger, respectively, in children with Asperger Syndrome or AS (Sofronoff, Attwood, & Hinton, 2005; Sofronoff, Attwood, Hinton, & Levin, in press). This treatment focuses on improving emotion regulation, which may lead to improvements in communication and social interaction. One study examined the efficacy of CBT for managing anger in 45 children (ages 9-13) with AS who were randomly assigned to either a wait-list control group or to a group treatment while their parents were also in a parent group. Results indicated a significant drop in anger episodes after treatment. The other study examined the efficacy of CBT for managing anxiety in 71 children (ages 10-12) with AS who were randomly assigned to being treated alone, with parental involvement, or in a wait-list control condition. Results indicated that both intervention groups decreased parent-reported anxiety in their children, and the addition of parental involvement enhanced the usefulness of the program. These studies provide encouraging support for the efficacy of CBT to treat emotion regulation in children with ASDs.

It is important to help children with ASD understand and manage their emotions

Introduction: Although it is not part of their symptom profile, children with ASD often have difficulty managing their emotions. It is not uncommon, for example, to see tantrums, crying, freezing, or other behaviors that result from anxiety or anger in these children. While such behaviors are typical in the normal development of toddlers, they become less prominent during the preschool years when children learn to use their words or other self-soothing techniques to solve problems and express their needs. Because of delays in language, problems with communication, sensory issues, and a nervous system wired for defensiveness, children on the autism spectrum have particular difficulty in this area. Indeed, they may express these problematic behaviors well into their middle-childhood and teenage years as a result of not knowing how to manage their stress and frustration. As such, it is important to help children with ASD understand and manage their emotions. This newsletter will describe two research studies that evaluate the efficacy of a cognitive-behavioral program for managing anxiety and anger in children with ASD, developed by Tony Attwood at the University of Queensland, Australia.

Study 1: Cognitive Behavioral Intervention for Anger Management (Sofronoff et al., 2006)

This study examined the efficacy of cognitive behavioral therapy in improving anger management. Forty-five children aged 9 to 13 with diagnosed AS participated in the study. To be eligible for the study, children had to display the presence of anger. The children were randomly assigned to an intervention group or to a wait-list control group (whose treatment

was delayed so they could be compared to those receiving the intervention earlier). The intervention was conducted over six 2-hour weekly sessions designed to be highly structured, informative and entertaining. The children were taught anger management strategies such as relaxation, anger recognition, emotional release and social contact. The children developed individualized plans based on the strategies learned. Meanwhile, the parents engaged in a parent group, where a therapist discussed the principles of the sessions with them.

Parent reports indicated reduced anger episodes and improvement in the areas of frustration, peer relationships and authority relationships. Parents and children also reported increased confidence with managing the child's anger. In a teacher survey, 88% reported a positive change in the children and 12% reported no change in behavior following the intervention. Of those who noticed a change, 19% reported the child would ask to withdraw from class when angry, 56% reported that the child would discuss their anger and reduce bursts. Teachers who reported no change in behavior reported bursts at least once a week with the child being removed from school by a parent as the solution.

Study 2: Cognitive Behavioral Intervention for Anxiety (Sofronoff et al., 2005)

This study examined the efficacy of cognitive behavioral therapy for improving anxiety management. This study also examined if intensive parental involvement would increase a child's ability to manage anxiety outside of the clinic. Seventy-one children aged 10 to 12 with diagnosed AS

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participated in the study. The children had to display anxiety to be eligible for the study. The children were randomly assigned to one of three groups: an intervention group where the child was treated in a group without parents, an intervention group with parental involvement, or to a wait-list control group. The intervention was conducted over six 2-hour weekly sessions designed to be highly structured, instructive and engaging. The children were taught anxiety management strategies such as relaxation, anxiety recognition, emotional release and social contact. The reality and probability of their fears were also discussed in one of the sessions. The children developed individualized plans based on the strategies learned. Five children did not complete the study, one from each intervention type and three from the wait-list.

The results of the parent reports showed overall improvement between pre-treatment and follow-up with greater improvement in the intervention with added parental involvement. The subscales measuring anxiety tendencies, obsessive compulsive tendencies, generalized anxiety tendencies, and social phobic tendencies all showed improvement. Children in both intervention groups showed an increase in strategies generated to manage anxiety, again with greater increases in the group with parental involvement.

Discussion:

Taken together, these two studies provide encouraging support for the use of CBT to treat anger and anxiety in children with AS. The advantages of the studies included random assignment to treatment or control conditions and multiple informants to assess the children's

behavior. Limitations included a reliance on parent report, and relatively small sample size (about 20-25 children per group). It is also worth noting that these findings were both obtained from the same research group. As such, while encouraging, they need replication with larger samples, objective assessments, and in an independent research group. Moreover, it would be beneficial to extend the treatment to younger children, since early intervention is optimal and recommended for children with ASD.

Emotion regulation is defined as the ability to modify an ongoing emotion in order to achieve some goal. Developmentally, emotion regulation begins with the infant's ability to self-soothe when physiologically aroused, and is often dependent upon the help of caregivers. Such regulation is believed to become more self-guided as the child matures, and these abilities are typically in place by 36 months of age (Kopp, 1982). Children with ASD often have barriers that interfere with emotion regulation as they grow, including sensory issues, poor facial processing and social orienting in infancy, and difficulties with communication. These challenges can offset early emotion regulation by increasing arousal and frustration and interfering with ability to use caregivers or others as soothing social agents. Poor emotion management, in turn, can disrupt learning and social interactions.

Therefore, it is crucial that we find ways to help children with ASD learn to manage their stress and anger as early as possible. The findings reported here suggest that CBT is a viable option and is most useful when combined with parent-training.

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References

- Kopp, C.B. (1982). Antecedents of self-regulation: A developmental perspective. *Developmental Psychology, 18*(2), 199-214.
- Sofronoff, K., Attwood, T., & Hinton, S. (2005). A randomized control trial of CBT intervention for anxiety in children with Asperger syndrome. *Journal of Child Psychology and Psychiatry, 46*, 1152-1160.
- Sofronoff, K., Attwood, T., Hinton, S., & Levin, I. (in press). A randomized controlled trial of cognitive behavioural intervention for anger management in children diagnosed with Asperger syndrome. *Journal of Autism and Developmental Disorders, 46*, 1152-1160.