



**C.A.R.D.**

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### **The Center for Autism and Related Disorders Publishes a Study on Treatment for Teeth Grinding in Young Children with Autism**

**Los Angeles, CA – January 10, 2010** A Center for Autism and Related Disorders, Inc. (CARD) research study, **“Evaluation of a Multi-component Intervention for Diurnal Bruxism in a Young Child with Autism,”** finds the combination of vocal and physical cueing can effectively treat teeth grinding in young children with autism. The Journal of Applied Behavior Analysis has published the findings in its current issue.

The study implemented a multi-component intervention, consisting of a vocal and a physical cue to decrease rates of bruxism. A partial component analysis suggested that the vocal cue was only effective at decreasing levels of bruxism when paired with a simultaneous physical cue.

Bruxism consists of forcefully grinding one’s teeth together. Chronic nocturnal (night-time) or diurnal (daytime) bruxism can have many negative effects for the person engaging in the behavior, including abnormal wear on the teeth, damaged gum and bone structures, facial pain, and tooth sensitivity.

Previous research on the treatment of diurnal bruxism has often used aversive procedures (for example, brief application of ice to the cheeks or chin in response to teeth-grinding) or the use of protective devices, such as occlusal splints (plastic devices placed in the mouth that prevent teeth from grinding together).

A far less intrusive option is the use of a combined vocal and physical cueing procedure, which CARD used in its study. CARD treated the bruxism of “Abby,” a 6-year-old girl with autism. All sessions conducted for the study were embedded within the girl’s ongoing home-based Applied Behavior Analysis (ABA) therapy sessions. The treatment CARD used was a combination of vocal and physical prompting procedures.

Each time that Abby began grinding her teeth together, her ABA therapist implemented a vocal prompt by asking Abby to say, “Ahh,” (a behavior that was incompatible with grinding her teeth), while

simultaneously physically prompting her to open her mouth by using one finger to apply light pressure to her chin. The treatment successfully reduced Abby's bruxism.

In order to determine whether it would be possible to eliminate the physical prompt, therefore making the procedure easier to implement and less intrusive, CARD discontinued the physical prompt and implemented the vocal prompt only.

Unfortunately, the behavior returned to high levels and so the physical prompt was reinstated, again successfully decreasing the behavior. Follow up data were also collected for three weeks, one time per week, and showed that the treatment maintained low levels of bruxism.

"We were excited to find a treatment that worked for Abby's bruxism, a behavior that is often difficult to treat and one that she had been engaging in for a long time," says CARD Researcher Emily Barnoy. "It was also encouraging to demonstrate that the procedure could be implemented successfully in a real-life setting (her regular therapy sessions) and that it did not interfere with her other ongoing skill acquisition programs."

Questions regarding this study should be directed to Dr. Jonathan Tarbox, CARD Director of Research at [j.tarbox@centerforautism.com](mailto:j.tarbox@centerforautism.com) or 818.345.2345.

**About the Center for Autism and Related Disorders, Inc. (CARD):**

CARD is committed to science as the most objective and reliable approach to evaluating treatment for autism. CARD's mission is to conduct empirical research on the assessment and treatment of autism and to disseminate CARD's research findings and derived technology through publication and education of professionals and the public. While the primary focus of CARD's research is ABA-based methods of assessment and treatment, CARD's overall approach to research includes any topic which may hold promise for producing information that could improve the lives of individuals with autism.

In addition, CARD maintains a reputation as one of the world's largest and most experienced organizations effectively treating children with autism, Asperger's Syndrome, PDD-NOS, and related disorders. Following the principles of Applied Behavior Analysis (ABA), CARD develops individualized treatment plans for children worldwide.

For more information about CARD, visit [www.centerforautism.com](http://www.centerforautism.com) . For more information about the CARD Research department, visit [www.centerforautism.com/autism\\_research](http://www.centerforautism.com/autism_research).