Educational/Biomedical Update:

Tackling problem behaviors in the grocery store

Taking aggressive, destructive, or self-injurious autistic children out to public places can be nerve-wracking or even dangerous. But a new study by Edward Carr and Jane Carlson indicates that such behaviors can be brought under control quickly and effectively using a multi-pronged behavior modification approach.

Carr and Carlson worked with three autistic teenaged boys who had been excluded from participating in community activities because of their serious behavior problems, including screaming, hitting or biting others, and destruction of property. The researchers focused on teaching the boys to behave for extended periods of time during grocery shopping trips. Staff members working with the boys were trained to implement a variety of procedures including:

—choice making. The boys were allowed to participate in choosing both grocery items and activities in the store. For instance, one boy who enjoyed reading labels on store products was allowed to choose this activity during part of his shopping trip. If inappropriate items were selected, staff members attempted to find appropriate substitutes; for example, one boy who misbehaved when not allowed to buy unhealthful snack items was allowed to choose from several brands of more nutritious snack foods.

—"embedding." In this procedure, non-preferred activities—for instance, buying cleaning products—were interspersed with preferred activities, such as buying snacks.

—functional communication training—for instance, teaching one of the boys to say, "I want cookies," instead of grabbing cookies from another shopper's cart.

—building tolerance for delay. Initially, the boys' requests were granted after one demand was fulfilled (e.g., "You can have the box of cookies, but first, let's get one of the things on our shopping list"). Staff members gradually increased the number of tasks to be completed before allowing the boys to pick out reinforcing items.

—offering items associated with non-problem behaviors when the boys were in problem-provoking situations. For instance, one young man who became aggressive while waiting in the grocery line was allowed to read a magazine while waiting—an activity during which he normally behaved. Other boys who had difficulty behaving in line were allowed to consume cookies, chips, or other items they had purchased.

The researchers report that following the treatment program, "all three residents were able to complete a shopping expedition in the community with virtually no problem behavior." These results were achieved, they add, "after a short period of training that varied from approximately one hour to 1.5 hours for each resident." In addition, the boys showed an increase in independent shopping skills, and could be controlled almost completely by natural nonverbal and verbal cues. Both staff members and grocery store employees reported that the boys' behavior following treatment was within acceptable limits.

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"Reduction of severe behavior problems in the community using a multicomponent treatment approach," Edward G. Carr and Jane I. Carlson, *Journal of Applied Behavior Analysis*, Summer 1993, No. 2, pp. 157-172. Address: Edward Carr, Department of Psychology, State University of New York, Stony Brook, New York, NY 11794-2500.

Curing sleep problems: successful approach uses "substitute mom"

A new study by David Allison et al. offers an unusual approach to solving a sleep problem common among mentally disabled children. Allison and colleagues, working with an eight-year-old girl with Down's syndrome, developed a treatment plan to overcome the child's insistence on having her mother sleep with her. The plan included:

—implementing a structured bedtime routine including a bath at a regular time each night, followed by a bedtime story or brief conversation.

—eliminating all non-sleeping bedtime activities, such as eating or watching TV.

—placing a large rag doll in bed with the girl. The doll was sprayed with a little of the mother's perfume, and had a small ticking clock placed inside to simulate the sound of the mother's pacemaker.

—having the mother gradually withdraw from the room, beginning by sitting in a chair until the girl fell asleep. The chair was gradually moved away from the bed, until it was out of the room entirely.

Before the study began, the girl was spending only about six percent of the night sleeping alone. At a six-month follow-up, this had risen to 87.5 percent. Significant decreases in crying and distress during the night also were noted.

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"Treatment of non specific dyssomnia with simple stimulus control procedures in a child with Down's syndrome," David B. Allison, John C. Burke, and Jane A. Summers, *Canadian Journal of Psychiatry*, Vol. 38, May 1993, pp. 274-276. Address: David B. Allison, Obesity Research Center, Saint Luke's/Roosevelt Hospital Center, New York, NY.

Epilepsy: new drugs may control formerly untreatable seizures

A "new generation" of drugs for epilepsy, some already nearing approval and others in clinical trials, may aid individuals whose seizures cannot be controlled by current medications.

About one third of autistic individuals have seizures, often beginning in puberty. While current antiepileptic drugs effectively control seizures in most cases, about 15% of individuals with epilepsy cannot obtain complete seizure control with these drugs—and another 15% or so are not helped at all.

Three new seizure drugs currently awaiting final FDA approval—felbamate, gabapentin, and lamotrigine—were tested on groups of patients who failed to respond to other seizure drugs. "A significant number in each of the trials responded," researcher Eugene Ramsay noted in a recent issue of *Drug Topics*, "which means the new drugs must be working in a way complementary to or different from previous ones. So, we can expect that some people who now are not controlled with our standard drugs are likely to have some response to the new ones."

In addition, the new drugs apparently have fewer and milder side effects than the drugs currently in use. Researchers warn, however, that since the drugs are new and have only been used in limited trials, there may be as-yet-undiscovered side effects—particularly when the drugs are used in combination with other medications.

Furthermore, the effects of such drugs on people with specific conditions such as autism is not yet known. Seizure medications often have significant effects on the behavior of autistic individuals; for instance, carbamazepine (Tegretol) frequently improves behavior, while phenobarbital often exacerbates hyperactivity and other behavioral problems.

Several other anticonvulsant drugs currently are undergoing investigation, with highly promising initial results. In addition, new forms of older medications are under development. One, a slow-release form of carbamazepine (Tegretol XR), is designed to reduce breakthrough seizures and other side effects related to uneven "peak and trough" blood levels. Two other drugs under development are an improved version of injectible phenytoin, and a rapid-onset rectal form of diazepam, which works about as fast as IV-administered diazepam and can be administered by caregivers, family members or emergency care personnel.

Editor's note: DMG often controls intractible seizures. Send SASE for information.

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"Antiepileptic drugs: new hope on the horizon," Cynthia Starr, *Drug Topics*, Vol. 137, No. 15, August 2, 1993, pp. 30-35. For additional information, the author suggests contacting: Epilepsy Foundation of America, 1-800-EFA-1000, 4351 Garden City Drive, Landover, MD 20785-2267, or local EFA office.