

# Children Under Age 6 Are Vulnerable to PTSD

BY BETSY BATES

LOS ANGELES — Nearly half of preschool children meet age-adjusted criteria for posttraumatic stress disorder after experiencing a significant traumatic event, and some children are symptomatic even after relatively minor medical procedures, according to a researcher from Tulane University in New Orleans.

"Children under 6 years of age are particularly vulnerable to stressful experiences because of the rapid neural development they are undergoing," said Dr. Stacy S. Drury at the International Conference on Pediatric Psychological Trauma sponsored by the University of Southern California, Los Angeles, and the University of California, Irvine.

In a study of 284 children aged 3-5 years who had been exposed to a traumatic event, 44% met full revised criteria for PTSD with discernable impairing symptoms, said Dr. Drury, who holds faculty positions in the departments of psychiatry, pediatrics, and neurology.

No statistically significant differences were seen in rates of PTSD based on the type of trauma children experienced: a

single-incident trauma (a motor vehicle accident, burn, or fall) (38%), observed domestic violence (42%), or Hurricane Katrina (48%).

Children were diagnosed using the structured Preschool Age Psychiatric Assessment (PAPA), a validated instrument administered to caregivers.

The study used the Preschool PTSD Criteria, which is less reliant on verbalization and abstract thought than DSM-IV PTSD criteria for adults (*J. Am. Acad. Child Adolesc. Psychiatry* 2003;42:561-70). Specifically, the criteria developed at Tulane by Dr. Michael S. Scheeringa and associates eliminate developmentally inappropriate items (such as an individual's sense of a foreshortened future) and instead include such relevant indicators as the loss of previously acquired developmental skills such as language or toilet training.

A new diagnostic cluster appears in preschool criteria for PTSD, requiring at least one of the following behaviors frequently reported in traumatized children: new separation anxiety, new onset of aggression, or new fears without obvious links to the trauma, such as fear of the dark.

A second study assessed PTSD in 69 preschool children seen at a hospital-based primary care clinic more than 12 months after events that ranged from medical encounters that involved no procedures, procedures such as receiving stitches or getting a shot, nonmedical traumas such as motor vehicle accidents, and high-risk events such as abuse or neglect.

Although specific statistics were not released, Dr. Drury showed that even "small things," like stitches, had a lasting effect on some children. "Fifteen months after the event, these symptoms were recognizable to parents—and persistent," she said.

Dr. Drury reviewed burgeoning neurobiological literature demonstrating that early stress results in changes within biocircuitry of the developing brain, altering the central nervous system, cortisol levels, and neurotransmitters.

"Altered neural circuits lead to lasting vulnerability," she emphasized, adding that much more research needs to be done to pinpoint the timing of trauma and its ramifications on early brain development and behavior.

"Trauma at 1 year is very different than trauma at 3 or at 6 years old, in part be-

cause of what areas of the brain are developing most rapidly," she said.

She and her colleagues are developing cognitive behavioral therapies that can be delivered early to parents and children following symptoms of PTSD, or even as a preventive measure for children newly diagnosed with cancer or another serious illness.

Working to reduce "learned helplessness" on the part of the child begins by teaching parents how to reduce over-control in the parent-child relationship, leading children to a new sense of efficacy and mastery.

Meanwhile, children learn relaxation techniques, including controlled breathing and muscle contraction and release, an exercise one child enthusiastically dubbed, "old man wiggles."

Traditional cognitive-behavioral therapy components such as systematic desensitization are adapted for preschoolers, and have been shown to be highly effective in reducing symptoms during 6-12 brief, manualized sessions, she said.

Dr. Drury reported no relevant financial disclosures. ■

## As Tics Decline in Tourette, Signs of OCD May Emerge

BY DAN HURLEY

NEW YORK — Clinical acumen and up-to-date knowledge about the literature remain paramount in diagnosing and treating pediatric tics, Tourette syndrome, and obsessive-compulsive disorder in the continuing absence of rigid treatment protocols, according to Dr. Barbara J. Coffey.

"Until we reach the point of having genomics and medical data available to help us treat our patients, we have to rely upon our own clinical acumen and a whole array of treatments," Dr. Coffey, director of the Tics and Tourette's Clinical and Research Program at NYU Child Study Center, said at a psychopharmacology update sponsored by the American Academy of Child and Adolescent Psychiatry.

She began by pointing out that not all tics need to be treated.

The way in which young patients who need treatment are identified is the challenge, said Dr.



Parents often want to know, she said, whether the child's Tourette will last the rest of his or her life.

"The DSM says the duration is usually lifelong," Dr. Coffey said. "The good news is that research in the past decade finds that peak lifetime severity occurs at about age 10 or 11, with improvement through adolescence." To support that view, she cited her 2004 prospective study in the *Journal of Nervous and Mental Disease* (192:776-80).

"The take-home point is this is a childhood disorder," Dr. Coffey said. "About two-thirds of children will have their symptoms attenuated by adolescence, if not in complete remission."

Still, she added: "There's good news and bad news about clinically referred children with Tourette's. The bad news is that OCD tends to kick in and become more prevalent after puberty. Tic severity goes down over time; OCD severity goes up over time. You're kind of trading one disorder for another. When you

DR. COFFEY

see a child in the clinic, there's a great likelihood they're going to have these together."

When parents ask her what they can expect from medications to treat Tourette, Dr. Coffey said she tells them they generally provide about a 30% improvement on symptom scores. "This doesn't fly too well with the parents," she said. "But this is what we have. If you treat kids with Tourette's, you're always looking for something new in terms of efficacy and tolerability."

She pointed to an open-label safety and tolerability study she recently published on the use of aripiprazole for children and adolescents with Tourette disorder (*J. Child Adolesc. Psychopharm.* 2009;19:623-33).

"We saw this as a pilot study," Dr. Coffey said. "We found it really did seem to help tics over time. The downside is we did see a fair amount of appetite increase and weight gain."

For the treatment of OCD, she described the Pediatric OCD Treatment Study (POTS), and early, un-

published results from the new Pediatric OCT Treatment Study (POTS II).

"If there's a trend in our field, we have to pay attention to this: The treatment effect size was higher for cognitive-behavioral therapy (CBT) than for sertraline alone," Dr. Coffey said. "The challenge in real life is that it's very hard to find well-trained cognitive-behavioral therapists for children. But I think CBT is going to be the wave of the future."

A particularly effective use of CBT, she said, is for the treatment of tics, using procedures that train patients to become aware of premonitory sensations prior to the tic, and then taught a competing response. "It can be done with motor tics, complex tics, simple tics," Dr. Coffey said. "The effect size is at least comparable to what we're getting with medication, and there are no side effects."

So effective is CBT for tics, she said, that she generally tries it first, before medications. For physicians who wish to learn the technique, she said, "the manual is out there" (see "Managing Tourette Syndrome: A Behavioral Intervention for Children and Adults: Therapist Guide," New York: Oxford University Press, 2008).

The most difficult tic to treat with CBT, she said, is eye blinking. An alternative response for the child to try when feeling the urge to blink, she said, is to widen the eyes. But, Dr. Coffey added: "The response doesn't always need to be in the muscular area where the tic is occurring. You could suggest that the child clenches his fist, or takes a deep breath."

When a medication is used and found effective, she said, treatment should generally be continued for at least 12 months and then reevaluated.

"I've had parents who are extremely anxious about taking their child off the medication, even though I know it's time to do that," Dr. Coffey said. "A lot of support during that time is essential."

Dr. Coffey disclosed that she has served as an adviser/consultant to Jazz Pharmaceuticals and the Novartis Pharmaceutical Corp. She has received research support from several pharmaceutical companies, including Bristol-Myers Squibb, maker of aripiprazole. ■