

## BOYHOOD AGGRESSION: WHO IS AT RISK AND WHY?

**In the spring of 1984, an ambitious longitudinal study of physical aggression in boys began. The subjects were 1,037 French-speaking kindergarten boys from low socio-economic areas in Montreal.**

They were assessed regularly from the age of six until they were fifteen years old. Over the years, the researchers identified four different kinds of aggressive boys: chronic aggressors, high but declining aggressors (very aggressive boys whose aggression diminished as they matured) moderate but declining aggressors (moderately aggressive boys who tempered their aggression as they matured), and low aggressors. The study established that most boys reduced their level of physical aggression as they grew older, while a small group (3%) maintained high levels of aggression.

The researchers wondered if it

would be possible to identify boys at risk of chronic physical aggression from the time they entered school. Further study revealed that those who remained physically aggressive until adolescence tended to be hyperactive, highly oppositional and have low verbal IQs. Particularly worrisome was the combination of hyperactivity and high opposition. Together, these two factors increased a boy's odds of becoming a chronic aggressor eightfold.

When researchers turned their attention to the parents to determine what family characteristics (if any) might predict the boys' aggressive tendencies, their findings were somewhat surprising. A father's socio-economic and educational status appeared to have no effect whatsoever on a boy's risk of chronic aggression. It was the mother's age

when she gave birth to her first child and her level of education that mattered. Thus, the son of a teenaged mother who had received limited schooling was nine times more likely to become a chronic aggressor.

Sylvie Fortin, who heads up the Family-Child-Youth program at the Association des CLSC et des CHSLD du Québec notes that the study has important implications for health professionals. Helping young women avoid unwanted pregnancies in their teens is crucial, according to Fortin. But providing support to teen mothers is also essential. We must "help young mothers provide a stable and supportive environment for their children. Mothers should be helped to develop long-term plans and a strong social network to break down isolation from peers," Fortin says.

Given the strong link between hyperactivity and long-term aggression shown in the study, Fortin says that there is a vital need to identify hyperactive children at a very young age and provide them with appropriate services. She notes that this kind of program has been instituted in Quebec and targets school-aged children. Fortin expects that the program will be extended to preschool-aged children, adding that we need "an approach that brings together family, daycare services and schools for these children."

Ref.: D. S. Nagin and R. E. Tremblay. "Parental and Early Childhood Predictors of Persistent Physical Aggression in Boys from Kindergarten to High School." *Archives of General Psychiatry*. Vol. 58. April 2001. 🦋

## ARE CHILDHOOD TRAUMAS AND EATING DISORDERS RELATED?

**Do childhood traumas such as physical or sexual abuse make women more likely to develop bulimia nervosa later in life? Current research suggests that childhood abuse is associated with anomalous serotonin and cortisol functioning in the body. Studies of bulimic women also show this same anomaly. Reduced serotonin activity is associated with mood disorders such as depression and reduced cortisol (the stress hormone) activity to prolonged intense stresses.**

A Quebec research team decided to examine the activity of serotonin and cortisol in four groups: Abused bulimic and non-abused bulimic women, and abused and non-abused normal eaters. The researchers found no systematic association between childhood abuse and bulimia. However, they did find that bulimic women were much more likely to suffer from major depression. As well,

symptoms of post-traumatic stress disorder (PTSD) occurred significantly more often in abused bulimic women.

As in previous studies, the research team found reduced serotonin activity to be associated with both bulimia and childhood abuse. However, lower cortisol activity was only associated with abuse, not with bulimia. From these findings, the researchers speculate that the same vulnerability that makes a woman more likely to develop bulimia may make her more vulnerable to the detrimental effects of abuse. This vulnerability may be manifested on the neurobiological level as reduced cortisol activity and at the behavioural level as PTSD symptoms.

"There have been questions about whether or not childhood abuse was a causative factor in eating disorders, but research has failed to show causation," noted Katherine Austin Leonard, Medical Director of the Eating Disorders Program at North York

General Hospital and a lecturer in the University of Toronto's Division of Adolescent Medicine. "These findings are consistent with prior studies. It is an elegant study and the researchers have been very responsible with their conclusions," said Leonard.

As a clinician working with eating disorder patients and their families, Leonard has seen many abused bulimic women who also suffer from PTSD and self-destructive behavior, a finding consistent with the results of this study. "This finding may be helpful to patients in terms of understanding their symptoms," she added. Patients might also want to know about the changes in serotonin activity associated with bulimia. "There were significant biological markers for eating disorders and abuse," Leonard said. "Understanding the biological factors in eating disorders has become increasingly important in terms of treatment."



"Usually I'm very cautious about findings from small studies such as this one," said Leonard. "However, their findings were striking, and they were very measured and careful in their conclusions."

Ref.: H. Steiger et al. "Association of Serotonin and Cortisol Indices With Childhood Abuse in Bulimia Nervosa." *Archives of General Psychiatry*. Vol. 58. September 2001. 🦋