

Behavior

From San Francisco at the annual meeting of the American Psychological Association.

Drugfree dose of help for hyperactivity

Stimulant drugs such as Ritalin are commonly prescribed for children whose impulsiveness, distractibility, and frenzied behavior earn them a diagnosis of attention-deficit hyperactivity disorder (ADHD). Now, a program that trains parents how to deal with such youngsters shows promise as an effective, lasting ADHD treatment that avoids the potential dangers of extended stimulant use.

"With rigorous management of behavioral consequences by the parents, these children can function well, at home and at school, without medication," holds David B. Stein of Longwood College in Farmville, Va.

Current ADHD treatments combine medication with behavior therapy, which includes rewarding a child's good behavior with tokens redeemable for toys and having parents remind him or her about daily duties. ADHD responds to this approach but typically flares up once treatment stops, Stein says.

His program teaches parents to encourage children to pay attention to their own behavior and to plan ahead, thinking skills that Stein suspects become ingrained as children gradually discover that they reap social benefits.

Parents of 37 children, ages 5 to 11, received six training sessions. The tactics taught included identifying a child's problem behaviors, punishing children immediately after a misdeed and having the child recall what he or she did wrong, and using social activities as rewards for good behavior.

At the same time, each child stopped taking previously prescribed stimulant medication and attended six sessions of cognitive therapy. Therapists helped the children think about situations that trigger problem behavior, discussed alternative ways to act, and instructed them in social skills.

Once parents put their training into practice, children's ADHD symptoms worsened slightly for one week and then improved over the next 3 weeks. At that point, only seven kids continued to frequently misbehave at school and skip homework. Their parents completed four more training sessions, which focused on enforcing after-school attention to academic material.

One year after completing the training, parents reported that the children's improved behavior, obedience, and attention had not faded, although they still became overly aggressive at times. None of the children had resumed taking medication.

Much prior evidence indicates that ADHD responds best to a combination of Ritalin and behavior therapy, cautions George J. DuPaul of Lehigh University in Bethlehem, Penn. —B.B.

Up close and cultural

Research conducted in Western nations suggests that adults develop close relationships based on attachment styles formed during childhood. Secure attachment helps folks seek and be comfortable with social intimacy.

Attachment, however, has different meanings in cultures that emphasize group identities and interpersonal duties rather than Western notions of independence, report Kimberly A. Rapoza and Alev Yalcinkaya, both of Boston University.

Rapoza and Yalcinkaya administered questionnaires to 133 Turkish women and 125 white U.S. women. Volunteers had an average age of 21 years. The responses of the U.S. women, but not their Turkish counterparts, fit the secure and insecure attachment styles described in previous research (SN: 9/9/97, p. 94).

Fears of closeness to others and also of abandonment were cited by nearly all young Turkish women. These views probably reflect secure attachment in their culture, the researchers argue. Turkish society endorses compliance with others and emotional dependency in close relationships, especially for women, the researchers say. Given this cultural emphasis, they theorize, fears about forming and then losing close relationships may be part of an adaptive interpersonal style. —B.B.

Biomedicine

Alzheimer's link to eye disease seen

A genetic variation blamed for putting people at higher risk of Alzheimer's disease may offer protection from an age-related eye disease, two teams of researchers report.

Another variant of the same gene may lower the risk of Alzheimer's disease but is associated with a higher incidence of the eye disease, macular degeneration, which is a leading cause of blindness in older people. The disorder progressively scars the retina and damages light-sensitive cells.

The findings defied the scientists' expectations but suggest a link between the two diseases, says epidemiologist Caroline C.W. Klaver of Erasmus University Medical School in Rotterdam. She and her colleagues from two other Dutch institutions describe their results in the July *AMERICAN JOURNAL OF HUMAN GENETICS*.

The scientists compared 88 older people with macular degeneration and 901 without the disease. They identified which variations of an Alzheimer's-related gene each participant carried. That gene makes a protein called apolipoprotein E (apo E).

After adjusting for age and gender, the researchers found that people who carried at least one copy of the apo E-II form of the gene were 1.5 times more likely to have macular degeneration than people who carried two copies of the most common version of the gene. Other studies have found that apo E-II conveys a reduced risk of Alzheimer's disease.

However, people who had the apo E-IV form, which is associated with a higher risk of Alzheimer's disease, were less than half as likely to be afflicted with macular degeneration.

The scientists also examined retinas from cadavers of people with macular degeneration. They found apo E in deposits of fats and proteins linked with the eye disease.

Klaver suggests that the mutations influence the stability of cell membranes in both the eye and the brain, but through different mechanisms. There is insufficient evidence, however, to say whether the apo E-II variation causes the eye disease, she adds.

A team of French researchers has also reported that apo E-IV is linked with lower incidence of macular degeneration. In their study, reported in the March issue of the *AMERICAN JOURNAL OF OPHTHALMOLOGY*, the investigators tested 116 people with the eye disease and 168 without it.

Researchers suspect that several genes act together to cause macular degeneration. The new findings add a "very interesting" piece of evidence, says ophthalmologist Richard A. Lewis of the Baylor College of Medicine in Houston. —J.B.

Reducing the risk of ovarian cancer

Birth control pills lessen risk of ovarian cancer even among women carrying harmful mutations in one of the so-called breast cancer genes, *BRCA1* and *BRCA2*, a new study finds.

A team led by researchers at the University of Toronto and Women's College Hospital in Toronto compared 207 patients who had ovarian cancer and a mutated *BRCA* gene with 161 of these women's sisters who didn't have the cancer. The patients averaged 54 years old and the sisters 52 years old. Half of the patients reported having used birth control pills at some point in their lives, on average for 4 years. Among the 50 sisters without cancer who carried the *BRCA1* mutation, 77 percent had taken oral contraception, averaging 5 years on the pill. Only three of the sisters showed the *BRCA2* mutation.

The data demonstrated that risk of ovarian cancer decreases as years of birth-control pill use increases. Taking birth control pills for 6 years lowers the risk by nearly two-thirds, the authors report in the Aug. 13 *NEW ENGLAND JOURNAL OF MEDICINE*.

"This tells us that genetics isn't entirely determining our fate," says study coauthor Steven A. Narod, a cancer geneticist. He and his colleagues estimate that 10 percent of all ovarian cancer cases are due to heredity. —N.S.