Behavior

When guilt goes awry

Researchers have long noted that children reared by depressed mothers show a high rate of depression, anxiety and other emotional problems. Now, evidence reported in the January Developmental Psychology indicates that guilt — a much-maligned emotion that psychologists deem critical to the formation of a conscience — often becomes distorted in these youngsters, setting them up for future mental distress.

The term guilt refers to feelings of remorse and responsibility caused by real or imagined wrongdoings. Several psychological theories assert that an individual's ability to experience guilt blossoms during the elementary school years, though strong feelings of responsibility and emotional concern for others have been observed among preschoolers as well.

Carolyn Zahn-Waxler of the National Institute of Mental Health in Bethesda, Md., and her colleagues studied 52 children, aged 5 to 9, whose mothers received a diagnosis of severe depression or manic depression within the children's lifetime. A comparison group of 35 youngsters in the same age range had mothers with no history of mental disorders.

The researchers first assessed guilt in interviews during which an experimenter asked each child if he or she encountered various problems — such as difficulties in getting along with parents — and felt responsible for causing them. Children were then read fictional stories involving emotional conflict. In one story, a child watches his angry mother leave the house, gazes after her and then plays with a friend. An experimenter asked children for their interpretations of the characters' motives and feelings.

Among children with healthy mothers, the younger subjects — between 5 and 6 years old — reported few symptoms of guilt and little emotional involvement in the problems of others, but the older children in this group displayed a marked increase in guilt. Their guilt was openly and consistently expressed, revolving around themes such as remorse and making amends for bad behavior.

The younger children of depressed mothers reported significantly more guilt than did those with healthy mothers, expressing extreme sensitivity to others' problems in the stories and blaming conflict on the children. Older children of depressed mothers did not report an inordinate amount of guilt, but their guilt took unusual forms, often revolving around themes of violence, bizarre behavior and hypersensitivity to others' feelings.

Although guilt takes on potentially destructive forms among children of depressed mothers, it remains unclear why some go on to become depressed or extremely angry as adolescents while others cope remarkably well, the researchers maintain.

Drugs that brake the brain

Many mood-altering drugs cause a slowdown of brain metabolism that may play an important role in promoting further drug consumption, according to a report in the January Archives of General Psychiatry.

Edythe D. London of the National Institute on Drug Abuse in Baltimore and her co-workers studied 12 men who reported a history of using two or more illicit drugs. Each received an injection of morphine or saline solution along with radio-actively labeled glucose. Positron emission tomography (PET) scans revealed that morphine injections reduced overall glucose utilization in the brain by 10 percent.

In studies by others, PET scans have revealed similar reductions in brain metabolism after people took amphetamines, barbiturates, cocaine or antianxiety drugs. Lowered brain metabolism may be a physiological mechanism that somehow helps to reinforce the continued use of many mood-altering drugs, the researchers conclude.

Biomedicine

Mystery microbe may cause 'AIDS cancer'

Kaposi's sarcoma — an otherwise rare malignancy that frequently strikes AIDS patients—may be caused by a sexually transmitted microbe, probably a virus, according to two reports in the Jan. 20 Lancet. The new research has spurred an intensified search for the unidentified organism.

The cause of Kaposi's sarcoma has long puzzled AIDS researchers, who noted in the early 1980s that homosexual men with AIDS had a high risk of developing this disease, which affects the cells lining blood vessel walls and shows up as purple skin blotches. Some suggested it was triggered by recreational use of nitrite inhalants, called poppers. But the LANCET reports reject that theory and provide strong evidence implicating an infectious microorganism as the culprit.

In one study, Valerie Beral, Thomas A. Peterman and their colleagues at the Centers for Disease Control in Atlanta found Kaposi's sarcoma far more common among people who developed AIDS after having sex with homosexuals or bisexuals than among people who became infected with the AIDS virus (HIV) after exposure to infected blood. For example, 21 percent of homosexual men with AIDS in this study had Kaposi's sarcoma, while the malignancy struck only 1 percent of the AIDS patients with hemophilia, an inherited disorder that requires transfusions of blood-clotting factors. Many hemophiliacs got infected with HIV in the early 1980s, before HIV was shown to spread via contaminated blood.

Like HIV, the mysterious microbe that seems to trigger Kaposi's sarcoma appears to be spread sexually; unlike HIV, it does not seem generally present in blood, Peterman says.

In a separate report, Alvin E. Friedman-Kien of the New York University Medical Center and his colleagues suggest some homosexual men without HIV infection can nonetheless become infected with an agent that causes Kaposi's sarcoma. The authors detail six reports of homosexual men who had Kaposi's sarcoma but showed no hint of HIV infection, even in a highly sensitive test for detecting HIV.

Friedman-Kien says he suspects the agent causing Kaposi's sarcoma was a virus prevalent in Africa and the Caribbean at about the same time HIV gained a foothold there. He and his colleagues are "avidly pursuing" its identity.

Sex, seniors and coffee-drinking habits

At least one cup of coffee per day appears to help keep a senior citizen's sex life perking. That's the conclusion drawn from a study of 744 noninstitutionalized men and women aged 60 and older.

Ananias C. Diokno and his colleagues at the University of Michigan in Ann Arbor found that 62 percent of married elderly women who drank coffee daily were sexually active, compared with 38 percent of similar women who did not drink coffee.

For men, a daily dose of coffee would appear to stave off potency problems: 59 percent of married men who didn't drink coffee reported trouble getting or maintaining an erection. Only 36 percent of married men who did drink coffee reported similar problems, the team reports in the January Archives of Internal Medicine.

Diokno says he believes caffeine may hold the secret to a better sex life for senior citizens. Caffeine belongs to the family of methylxanthines, potent central nervous system stimulants known to enhance the body's response to sensory stimuli.

On the other hand, the correlation between coffee and sexual activity may be a statistical artifact. Older people who drink coffee may tend to have other attributes related to their sexual behavior. For example, Diokno says, elderly people who choose to drink coffee despite accounts of caffeine's adverse effects may do so because they have fewer medical problems—such as heart disease—that might lead a person to limit sexual activity.

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