

BEHAVIOR

Battered wives: A vicious syndrome

There is an elementary assumption that any reasonable person, having been beaten and battered by another person, would avoid being victimized again. But this does not appear to be the case with many battered wives, reports Richard J. Gelles of the University of Rhode Island in Kingston. He interviewed 80 families and found that 47 percent of the wives had been beaten or had received some sort of physical abuse from their husbands. Some of the women viewed violence between husband and wife as normal and even expected it. Of the 41 women who had been beaten, 11 had never even complained to or sought help from any authority or agency.

Why would a battered wife stick it out with a brutal husband? Gelles found that the more violence a wife experienced as a child, the more she was apt to expect it as an adult. "It appears," he says, "that victimization as a child raises the wife's tolerance for violence as an adult." A similar relationship between battered children and battered parents has been reported by Gelles and others. Many parents who abuse their children were themselves battered children. "It would seem," says Gelles, "that experience with violence either as a victim or observer teaches the individual to be violent as well as leads her to approve of the use of violence."

Degrees and earning power

Because many college-educated people are out of work or are holding jobs for which they are overqualified, it has been suggested that advanced education no longer helps a person to get a better job. The facts do not support this conclusion. David L. Featherman and Robert M. Hauser of the University of Wisconsin in Madison have found that each additional year of education gives workers more economic power than it did in the 1960s. Their conclusions are based on a national survey of 30,000 men in the labor markets of 1962 and 1973. Compared with the early 1960s, they found, there is now an even wider spread in the economic and occupational returns for each additional year of schooling.

The researchers do point out, however, that white workers today need more education than they did in 1962 to hold the same job, even though they are making more money for each year of education. The situation is not quite the same for blacks. Black workers at every educational level now get better jobs than they could get with the same education in 1962. But job discrimination persists. White workers applying for jobs still need fewer years of education than black workers applying for the same job.

Psychologists and malpractice insurance

Medical malpractice has been much in the news in recent months, and now the psychologists are getting into the act. Until Jan. 31, 10,000 members of the American Psychological Association were covered by a professional liability or malpractice group plan issued by Central Mutual of Ohio. But according to the APA MONITOR, the coverage was dropped because of the insurance company's fear of large claims against psychologists for sexual abuse of their clients during therapy. Of 45 claims made since 1974, 5 have been for sexual abuse. The claims are still in court, but the payoff could be expensive. One claimant is asking for \$2 million. In the meantime, American Home Assurance Co. of New York has picked up the psychologists' coverage—with a stipulation. The company will not pay claims involving sexual intimacies between therapists and their clients. The APA, for its part, is investigating the whole question of sex between therapist and client.

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BIOMEDICINE

Hormones enhance learning and memory

Specific amino acid sequences present in pituitary hormones are able to improve learning and memory in animals, David De Wied, director of the Rudolf Magnus Institute for Pharmacology in Utrecht, Holland, and some other endocrinologists found during the 1950s and 1960s. This discovery was intriguing. Pituitary hormones were thought to exclusively modulate hormonal activity throughout the body, not to interact with nerves.

So in 1972 De Wied predicted: "It is quite possible that disturbances in pituitary hormones may underlie certain behavior disorders, and that injections of the crucial pituitary peptides might bring relief from such disorders" (SN: 5/20/72, p.334).

It now looks as if his prediction is coming true, according to a report in the January HOSPITAL PRACTICE. The critical amino acid sequences of the pituitary hormone ACTH have now been injected into human volunteers and have improved learning and discrimination of performance, have increased visual retention and have reduced anxiety. One of the critical sequences has also been injected into patients with myasthenia gravis, which causes fatigue and severe muscle weakness. The peptide improved their neuromuscular transmission. A critical sequence in the pituitary hormone vasopressin also looks promising for treating people with memory disturbances.

Drugs plus X-rays equal birth defects

X-rays are known to trigger birth defects in the unborn fetus. Some drugs are, too. Now it appears that certain drugs that cannot cause birth defects by themselves are capable of doing so if X-rays are also present, Lemone Yielding and her biochemistry team at the University of Alabama report.

Yielding and her co-workers first injected two drugs—chloroquine, an antimalarial drug, and caffeine—into female mice during their second trimester of pregnancy. On the same day they injected a saline solution into a control group of female mice. A comparison of control and test-group offspring showed that neither chloroquine nor caffeine induced birth defects on its own.

Then Yielding and her team injected second trimester-pregnant mice with either chloroquine, caffeine or a saline solution and exposed them to X-rays. Examination of offspring showed that each drug significantly enhanced the tendency of X-rays to trigger birth defects. Cleft palate and skeletal deformities were the two most striking abnormalities observed.

Trace metals and enzyme activity

Trace metals are known to bind to enzymes and thereby increase their ability to catalyze reactions. There is increasing evidence now that trace metals also influence how much of an enzyme is active in cells.

Edward D. Harris, a biochemist at Texas A&M University, raised chicks on diets lacking copper. The deficiency severely depressed the activity of lysyl oxidase, an enzyme in the aorta of the heart. Then the chicks were fed copper, and the enzyme resumed its activity. In fact, within 4 to 6 hours after the chicks received copper, the enzyme became up to 20 times more active than when the chicks were deprived of copper.

These and other data "suggest that copper is a key regulator of lysyl oxidase activity in the aorta and may in fact be a major determinant of the steady-state level of the enzyme in that tissue," Harris concludes in the February PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES. For instance, copper might bind to the enzyme in such a way that not only is its catalytic power increased but also it becomes less resistant to degradation.

169