BEHAVIOR

Behavior problems of Indian children

Native American children younger than 5 and older than 9 years of age are more likely to be treated for emotional disorders than are their non-Indian counterparts in the United States, according to a report in the February AMERICAN JOURNAL OF PSYCHIATRY. Comparing 1974 data on use of outpatient mental health services by Indian children with corresponding data in 1969 for non-Indians, the researchers report a significantly higher use among Indians, except for the 5 to 9 age group.

"Part of the difference was undoubtedly real," report Morton Beiser of the University of British Columbia and Carolyn L. Attneave of the University of Washington. The researchers suggest the data may be explained by one of two alternatives: "either that Native American children experienced an increased risk of mental illness or that the social institutions with which they came into contact, such as schools, were less tolerant of troublesome behavior among Indian than among non-Indian children."

While they were hard-pressed to interpret the findings for the under-5 age group, the researchers correlate the sharp rise among Indian children after age 9 with the "well-known 'crossover phenomenon'" that has also been observed among black children. This phenomenon, which is characterized by a deterioration in school performance beginning at the third grade level, may be attributed to less well-developed reading and English language verbal skills, say the researchers.

On the other hand, they say, "it is equally possible that Indian children perform more poorly than whites because they suffer a higher prevalence of emotional disturbances...poor school performance may be an effect rather than a cause of mental disorders." Previous studies, they note, have indicated that the cultural discrepancies to which Indian youngsters are exposed when they attend school may contribute to feelings of low self-esteem and other problems that could affect their performance. "Under these pressured conditions, they mature either into older children who are viewed by the majority culture as shy, noncompetitive and nonlearning or as older, rebellious youth who are rude, aggressive and destructive," write Beiser and Attneave. It is also possible, they say, that "agencies that deal with Indian adolescents—particularly the schools—[are] more likely to resort to the mental health system to control difficult behavior than is the case in non-Indian settings."

Study: Psychiatric labels are accurate

In his famous 1973 study in which he and other colleagues feigned schizophrenia to gain admittance to mental hospitals, Stanford University psychologist David L. Rosenhan argued that the very label of schizophrenia—more than the patient's actual behavior—influenced the psychiatrists' behavioral evaluations. Now, in a six-patient study designed to test Rosenhan's findings, psychologist William R. Lindsay of Monklands District General Hospital in Scotland reports that he can find "little support [for] the assertion ... that a psychiatric label colors others' perceptions of an individual."

In the blind rating procedure, where evaluators were only sometimes told correctly which three patients were schizophrenic, the schizophrenics were consistently rated more deviant in their speech and behavior, Lindsay reports in the February AMERICAN JOURNAL OF PSYCHIATRY. "The differences between the matched pairs far outweighed any effects due to labeling," Lindsay says. "Specifically, the rigorous experimental conditions of this study did not give much support to Rosenhan's statement that 'having once been labeled schizophrenic there is nothing the pseudo-patient can do to overcome the tag. The tag profoundly colors others' perceptions of him and his behavior.'"

LIFE SCIENCES

Julie Ann Miller reports from the New York Academy of Sciences Conference on Cell Proliferation, Cancer and Cancer Therapy

Short chemotherapy reduces side effects

First-line treatment for some forms of cancer includes anticancer drugs as well as surgery or radiation therapy. Many doctors remain reluctant to use intensive chemotherapy because they are worried about severe, even life-threatening, side effects. Bridget T. Hill of the Imperial Cancer Research Fund Laboratories in London argues that many of the side effects can be avoided by a short but intensive course of drug treatment. She suggests that administering a full dose of drug combinations over approximately 24 hours reduces side effects without loss of therapeutic efficacy.

The goal of chemotherapy is to kill malignant cells, while leaving normal cells intact. Animal studies cited by Hill indicate that the timing of drug administration can make a dramatic difference in which cells are affected. When drugs are given over 24 hours, malignant cells in mice were killed with little effect on normal cells. When the drugs were administered over a period of 48 hours, damage to normal cells increased. The initial sensitivity of malignant cells is thought to reflect the continual proliferation of these cells, while most of the normal cells are in a resting state.

"By applying these observations, we can introduce a safety factor," Hill says. She and others have already applied these principles to several thousand patients. For some drug combinations, a full dose of each can be safely administered simultaneously; for other drug combinations, doses must be somewhat reduced. In most cases, with normal medical precautions, nausea and vomiting are the only side effects among patients receiving the 24 hour treatment. These symptoms are of short duration, so patients experience "very satisfactory" quality of life between treatment cycles. The frequency of treatment and types of drugs vary with the type of cancer. But a typical schedule with the short, intensive treatment involves receiving drugs for 2 days, instead of 14 to 17 days, in a 4-week period.

Prospective, controlled studies are underway to determine long-term survival among patients receiving the 24-hour drug treatment. New anti-tumor agents in these treatments and specific sequences of drugs used in combination are being evaluated. Over the next decade, Hill predicts more intensive chemotherapy both for treatment of advanced disease and as an early treatment in combination with surgery and regular therapy. She concludes, "There is a significant chance that in the next decade increased cure rates can be achieved in certain common tumors for which effective drugs are available, such as tumors of the breast, head, neck and lung, and perhaps for bladder, prostate and ovarian cancers."

Protein trigger to cell proliferation

Much work involving how cancer cells differ from normal cells focuses on control of cell division. The rampant proliferation of malignant cells suggests loss of normal controls, most of which have not been successfully identified. One protein, however, now has been identified as a trigger of cell division. Renato Baserga of Temple University Medical School in Philadelphia describes it as "the first gene product [to be identified] that controls cell proliferation at a very early stage." The protein, called p53 because its molecular weight is 53,000 daltons, is located in cell nuclei. In recent experiments Baserga and colleague W. Edward Mercer injected into cell nuclei a monoclonal antibody to inactivate the protein. They worked with cells in laboratory culture that could be stimulated to proliferate. The antibody to p53 dramatically inhibited cell division only if it was injected within 2 hours of stimulation. "We conclude p53 protein does play a role in cell proliferation," Baserga says. "It is one of the few cases where we can locate a control very early after stimulation."