

Cognitive help for schizophrenics

Training that improves attention, memory and basic reasoning skills may play a key role in treating many cases of schizophrenia, according to Swiss researchers. Their findings, and comments on their work by several other researchers, appear in the current *SCHIZOPHRENIA BULLETIN*.

Schizophrenia consists of recurrent psychotic symptoms, such as hallucinations and delusions, and persistent deficit symptoms, such as emotional unresponsiveness and apathy (SN: 3/21/92, p.181). Studies suggest that schizophrenia also interferes with the ability to concentrate on and think about incoming information, but no consensus exists on the exact nature of this problem.

The Swiss approach of "cognitive rehabilitation" for schizophrenics differs from more typical programs, which focus on teaching social skills. In the last decade, psychiatrist Hans D. Brenner of the University of Bern and his colleagues have conducted several studies of hospitalized schizophrenics who completed a three-month program that first addresses simple thinking abilities. For instance, the researchers give patients a stack of cards, each of which displays a number, a geometric form, a color patch and a day of the week. Patients learn to sort the cards by one or more attributes. Training then advances to word problems and games modeled after "20 questions." Next, patients learn to interpret the meaning of social interactions shown on slides, practice listening to and conversing with others and learn more complex social skills.

As many as 18 months after completing the program, participants show substantial improvement on tests measuring attention and in overall mental condition, Brenner's group reports. But complex thought and social skills needed for independent living still elude most program graduates.

The Swiss findings offer reason for cautious optimism, but rehabilitation programs may need to target different "cognitive styles," contend social worker Gerard E. Hogarty and psychologist Samuel Flesher, both of the University of Pittsburgh. Some schizophrenic patients take an extraordinarily long time to make sense of simple bits of information because they have difficulty organizing information into relevant categories, an ability that clinicians can teach and reinforce, Hogarty and Flesher maintain. Other patients get easily distracted and must learn to remind themselves verbally of the task at hand. Still others need instruction in escaping from rigid, often paranoid views of the world, the Pittsburgh researchers add.

Long-term evidence that any form of cognitive rehabilitation fosters major improvements in schizophrenics remains scarce and uncertain, asserts psychologist Alan S. Bellack of the Medical College of Pennsylvania in Philadelphia.

Bulimia's hormonal link

A brain hormone associated with learning and stress may contribute to the development of bulimia nervosa, a disorder marked by bouts of binge eating followed by self-induced vomiting or laxative use. Previous research implicated the same hormone, vasopressin, in another eating disorder, anorexia nervosa, as well as obsessive-compulsive disorder, according to psychiatrist Mark A. Demitrack of the University of Michigan Medical Center in Ann Arbor and his colleagues.

In the June *JOURNAL OF CLINICAL ENDOCRINOLOGY AND METABOLISM*, Demitrack's team reports that average vasopressin levels in the cerebrospinal fluid of 24 women with bulimia nervosa exceeded those in 11 healthy women. Animal studies suggest vasopressin prolongs memory for learned associations. In women with bulimia nervosa, vasopressin may enhance a conditioned binge-purge cycle, the researchers theorize. The avoidance of weight gain through this tactic then reinforces a preoccupation with body image, they add.

Kathy A. Fackelmann reports from St. Petersburg, Fla., at the American Cancer Society's science writers' seminar

Predicting the return of breast cancer

High-fat diets have long been implicated in the development of breast cancer. Now, epidemiologists have evidence suggesting that obese women who have already suffered one bout with breast cancer are more likely to suffer a recurrence.

Ruby T. Senie of the Centers for Disease Control in Atlanta and her colleagues conducted a 10-year study of 923 breast cancer patients age 24 to 95. Using the Metropolitan Life Insurance height-weight charts, the researchers classified 22 percent of the women as obese — that is, 25 percent over their ideal weight. All 923 women had undergone surgery to remove the primary tumor soon after the cancer was diagnosed.

The researchers used a statistical method to account for several factors that can influence the risk of recurrence, including size of the original tumor, the patient's age at diagnosis and whether or not she received anticancer drugs after surgery. When the team accounted for those factors, they discovered that obesity increased the risk of recurrence by 30 percent. Among women who showed no sign of cancer in their lymph nodes, obese individuals ran a 60 percent greater risk of cancer recurrence than thinner women.

This supports previous data hinting at obesity's link to breast cancer recurrence, notes Rowan Chlebowski, a cancer researcher at the Harbor-UCLA Medical Center in Torrance. Obese women may eat a high-fat diet that predisposes them to another bout with cancer, he says.

On the other hand, obese women tend to produce more estrogen, a female sex hormone that fuels the growth of some breast tumors, Senie says. After surgical removal of the primary tumor, high concentrations of estrogen in the bloodstream may encourage the proliferation of tiny seeds of cancer that escaped the surgeon's knife, she notes.

Can obese women reduce the threat of breast cancer's spread by losing weight after diagnosis? Maybe. But some researchers believe that the high-estrogen environment that may have existed in obese women prior to diagnosis somehow primes a developing tumor. If that's true, then a weight-loss program after the fact won't do much good.

Senie speculates that not all tumors fall into that category and that a weight-loss program after diagnosis might indeed help some women prevent a cancer recurrence.

The best advice of all: Lose weight while you're still healthy. Scientists don't know whether obesity increases the risk of developing breast cancer, but they do know that too much body fat boosts the threat of other illnesses, including heart disease. The suggested link to breast cancer recurrence simply adds to the list of reasons to shed excess weight, Senie says.

Best time for breast cancer surgery

A separate study by Senie's group adds to evidence suggesting that breast cancer surgery is best performed during the last half (luteal phase) of a woman's menstrual cycle.

Last year, British researchers reported a similar finding and speculated that women who undergo breast surgery during the luteal phase may fare better because the production of estrogen tapers off then (SN: 6/8/91, p.365). Estrogen promotes the growth of some breast tumors, and any cancer cells that escape from such a tumor during the luteal phase may be less likely to get estrogen's message to proliferate.

Senie's new data support that controversial view. In a study of 283 women, she and her colleagues discovered that women who had undergone breast surgery during the luteal phase were less likely to suffer a recurrence than women who had surgery during the estrogen-rich first half of their cycle.

The study may spur skeptical surgeons to take a second look at the evidence on this issue, says Helene Smith of the Geraldine Brush Cancer Research Institute in San Francisco.