

behavioral sciences

Suicide after a double failure

When a person fails in a major socially prescribed role (marriage or career), he or she often turns to a deviant role such as alcoholism, prostitution or robbery. Failure in this second role constitutes a double failure and may prompt a person to commit suicide, says Kenneth R. Whittemore of the Fulton County Health Department's Mental Health Division in Atlanta, Ga.

Whittemore bases his conclusions on a study of the life histories of 59 persons who committed suicide in Los Angeles. He found that 71 percent, or 42, of the suicide victims exhibited what he called a double failure pattern. An additional four persons exhibited a variation of the pattern by failing in both marriage and career roles rather than in a prescribed role and a deviant one. The researcher defined failure as divorce, separation or desertion in marriage, and firing or demotion in a career. The pattern of double failure, Whittemore said, "is seen as reflecting a particularly intolerable situation with suicide seen as the only untried way out."

Thought processes in apes

Researchers at the Yerkes Primate Research Center in Atlanta, Ga., have shown that apes are capable of thought processes similar to those required for speech and reading. Richard K. Davenport and Charles M. Rogers, working with two chimpanzees and an orangutan, demonstrated that apes can match objects by touch to photographs of identical objects.

To do this the brain must compare information from two senses, an operation called cross-modal integration. For instance, learning to read requires the association of sounds with written words, and the association of written words with their meanings. Researchers previously believed only humans had this ability.

In the case of the apes, information from visual and tactile senses was compared. A frame was used that allowed the apes to see a picture of an object, and at the same time to feel two objects, one of them identical to the pictured object. In 80 tests each of the apes chose the matching object more than 75 percent of the time.

Eating and drinking

An improper diet—low in some vitamins and minerals, high in sugar and other carbohydrates—may lead to heavy drinking, according to a new research report. At Loma Linda University in Loma Linda, Calif., experimental rats were given the choice of water or 10 percent alcohol to drink. Those rats on an improper diet chose to drink at least five times as much alcohol as did rats on a nutritionally adequate diet.

The researchers report that changing the diet also changed drinking habits. Given an adequate breakfast, for example, the rats drank almost 50 percent less alcohol. The researchers also found that when they take animals that drink large quantities of alcohol and place them on a good-quality diet, the alcohol consumption decreases. When the animals are then placed on the poor-quality diet, there is a sharp increase in alcohol consumption. "If people are becoming problem drinkers," says U. D. Register, head of the research team, "a good diet may be greatly beneficial in helping to divert them away from becoming chronic alcoholics."

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Resuscitating the suicidal

Mouth-to-mouth breathing is an ideal emergency resuscitator for people who have taken an overdose of sleeping pills or for other victims of depressed respiration through drug poisoning, Jerome Modell of the University of Florida College of Medicine reported at the annual meeting of the American Society of Anesthesiologists this week in Atlanta.

"It is the only method instantly available . . . that is simple, portable, reliable, has a self-contained power source, can supply variable rate and volume, and is inexpensive enough to be available in all locations," the physician said. Once the patient is brought to the hospital, mechanical breathing support can be provided along with cardiovascular support and specific therapy. Mouth-to-mouth resuscitation accompanied by such support can save 99 percent of the patients who take an overdose of sleeping pills, he said.

Modell noted that suicide is the fourth cause of death among Americans ages 15 to 44; and poisoning by sedatives, pain relievers and tranquilizers now account for 12 percent of all suicides.

Drug interactions and anesthesia

Drug interactions, an increasingly rampant problem in this pill-popping age (SN: 5/29/71, p. 365), are perhaps most crucial where anesthesia and surgery are involved. At the meeting of the American Society of Anesthesiologists this week, Lawrence Berman and his colleagues at the University of Chicago and Northwestern University reported that phenobarbital, a popular sedative, increased the breakdown of a general anesthetic in rats and the amount needed to anesthetize the animals. The experiment suggests that significantly more anesthesia may be required for the surgical patient who has been taking drugs before entering the hospital.

The rats on phenobarbital also acquired higher levels of anesthesia metabolites, or breakdown chemicals, than controls. Such a concentration of metabolites, Berman believes, may explain why some patients on various drugs experience adverse reactions to anesthesia.

Local anesthesia and the newborn

Although local anesthetic agents given during childbirth are believed to be generally safer for newborn infants than a general anesthetic, studies reported at the meeting of the American Society of Anesthesiologists suggest that they too carry some risks.

John Scanlon and Walter Brown of the Harvard Medical School reported that when mothers were given an epidural anesthetic (introduced around the spinal cord), their babies' blood at birth generally contained about half the amount of drug found in their own blood. This indicates a transfer of the drug to the fetus through the placenta. In one infant, the level of anesthetic in the blood was equal to the level in the mother.

Those infants whose mothers received epidural anesthesia also scored lower in cortical and neuromuscular function tests than did unmedicated infants. These lower scores held only during the first eight hours, though. All the infants were discharged from the hospital in good condition according to the usual clinical standards.

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