

Schizophrenia: Mothers and children

Schizophrenia sometimes appears to run in families. This may be because the condition has some genetic basis and can therefore be inherited. Or it may be that children raised in a psychologically unstable environment learn to react in ways that are eventually diagnosed as psychotic. If the environmental argument is correct, it may be preferable for children to be reared away from their schizophrenic parents. A recently completed study sponsored by the National Institute of Mental Health does not support this argument and suggests that children raised by mothers diagnosed as schizophrenic may be no worse off than children raised in foster homes or orphanages.

Jerry Higgins of the International Christian University in Tokyo conducted the study. It involved Danish children, 23 reared by mothers diagnosed as schizophrenic and 23 reared apart from their similarly diagnosed mothers. The children were evaluated between 1962 and 1963 and recently reevaluated. The reared-apart group appeared to have somewhat more pathology (but not to a significant degree). The same pattern emerged for social, academic and vocational adjustment. The reared-apart group fared somewhat more poorly than the mother-reared group. Higgins suggests that perhaps children faced with a mother diagnosed as schizophrenic (but whose basic mothering skills may have been intact during the child's infancy) learned to discount or ignore her behavior.

The XYY question

In 1965 it was reported that individuals born with the XYY chromosome configuration appeared with high frequency in penal and mental institutions. (The XYY configuration is a rare genetic condition in which males, normally XY, have an extra Y chromosome.) These findings raised the possibility that the XYY condition might be associated with deviant behavior. Subsequent investigations showed that only a small fraction of the total number of XYY individuals ever turn up in a mental or penal institution. Even so, available data suggest that the number is higher than would normally be expected.

Without sufficient evidence to link the genetic condition with deviant behavior patterns, other explanations were put forward. One was that the XYY condition might show up more frequently in lower socioeconomic groups. Social, economic and environmental conditions then might account for the incarceration of XYY individuals. This suggestion too has now been discredited.

In the Dec. 19 SCIENCE, Stanley Walzer and Park S. Gerald of Children's Hospital Medical Center in Boston report on chromosomal studies of 10,348 newborn males (12 of whom were XYY). All were compared for parental social class, maternal age and race. The number of chromosomally abnormal infants in the non-Caucasian group was smaller than among the Caucasians. Other factors had no bearing on the situation. The researchers conclude that socioeconomic factors may play a role in the confinement of XYY individuals, but that there is no evidence that these factors exert any significant effect on the frequency of XYY births.

Physical vs. psychological insomnia

Ask a physician what causes insomnia, and most will say anxiety or depression. These and other psychological problems may be responsible for keeping people awake all night and tired all day, but researchers at Stanford University's Sleep Disorder Clinic caution that a one-sided psychological approach to sleep disturbance may result in the overlooking of some serious physical problems. In the December PSYCHOLOGY TODAY they discuss some of the biological causes of sleep disturbance that

trouble many of their patients.

Monitoring a variety of bodily functions (brain waves, eye movements, muscle contractions, breathing) in their sleep lab, they have found that problems with a possible neurological basis, such as breath stoppage or muscle twitches during sleep, are responsible for much insomnia. Drug-induced insomnia, they found, is another serious problem. Tranquilizers and barbiturates are often prescribed for insomnia, but they do not always work, especially if the problem is biological. To make matters worse, people build up tolerance to sleeping pills, with the result that they increase the dosage. More and more chemicals in the body might only make sleep harder to come by. The researchers have found that, "Almost every sedative, if used regularly, will aggravate the insomnia that it is intended to cure. Anyone who has become dependent on drugs for sleep may need to go through a carefully managed withdrawal program and endure a string of restless, even miserable, nights."

Suicide and hopelessness

The survival instinct is thought to be basic in humans; therefore, suicide is one of the most puzzling of all human behaviors. A recent study of 384 suicide attempters may help solve the puzzle and may have implications for the therapy of suicidal individuals. The study was conducted by Aaron T. Beck and Maria Kovacs of the University of Pennsylvania School of Medicine and Arlene Weissman of the Philadelphia General Hospital. It is reported in the Dec. 15 JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

Beck has suggested that "hopelessness is the catalytic agent and that 'impaired reason' plays an important role in most cases of hopelessness and, consequently, in suicidal behavior." He says the suicidal behavior of a depressed patient is derived from specific cognitive distortions: The patient systematically misconstrues experiences in a negative way and, without objective basis, anticipates a negative outcome to any attempts to attain major goals.

Suicide attempters were seen twice for psychiatric interviews within 48 hours of admission to the hospital. Results of the interviews tend to confirm the hopelessness hypothesis, and the researchers say "there is now consistent evidence that hopelessness accounts for the relationship between depression and suicide intent." They conclude that by focusing on reduction of a patient's hopelessness, rather than by dealing with overt self-destructive acts, professionals may be able to alleviate suicidal crises more effectively than in the past.

Federally funded LSD research

In response to the recent interest in how LSD research was conducted on humans, a report has been prepared for the Secretary of the Department of Health, Education and Welfare. It details the history and current status of LSD research sponsored by the Alcohol, Drug Abuse and Mental Health Administration.

Between 1953 and 1973, the report says, \$4 million were spent on research projects that involved administration of LSD to humans. The estimated number of subjects is 1,750, including 300 federal prisoners at the Addiction Research Center in Lexington, Ky. Research at the ARC was partially funded (\$300,000) by the Central Intelligence Agency through the Office of Naval Research. Although all of this research has been published, knowledge of the source of the funding was restricted to a small number of senior people. Currently active research funded by ADAMHA includes studies of behavioral effects of LSD on animals, investigations of the biochemistry and pharmacology of LSD in animals and surveys of the nature and effects of illicit human use of LSD.