

Troubling tally of kids' mental disorders

Two large surveys, one focusing on U.S. pediatric practice and the other sampling communities throughout Puerto Rico, indicate that a surprisingly large percentage of children — about 1 in 5 — have moderate to severe psychiatric disorders. The reports, both in the December ARCHIVES OF GENERAL PSYCHIATRY, reinforce similar estimates in recent studies in New Zealand and North America and suggest that many such children do not receive mental health care.

"Rates this high would clearly imply a major public health problem, if these disorders led to significant long-term impairment," write psychologist Elizabeth J. Costello of Duke University Medical Center in Durham, N.C., and her colleagues, who conducted the U.S. pediatric study. Unfortunately, they note, researchers know little about what happens to children with untreated psychiatric disorders as they reach adolescence and adulthood.

Nevertheless, according to psychiatrist Hector R. Bird of Columbia University College of Physicians and Surgeons in New York City and his co-workers, their findings in Puerto Rico "indicate a major public health problem for the children in the island."

Costello and her colleagues studied 789 children aged 7 to 11 years visiting their pediatrician over a one-year period. Each child and his or her parent (usually the mother) filled out a standard questionnaire on the child's behavior problems and social skills. The children attended two medical centers run by a health maintenance organization. One is located in Pittsburgh and serves both affluent and poor families; the other serves a suburban, mainly blue-collar population.

To estimate the occurrence of different psychiatric disorders, the experimenters interviewed 126 children with high scores for behavior and emotional problems, as well as their parents. They also interviewed another 174 children scoring in the normal range and their parents. A statistical analysis was used to calculate the prevalence of mental disorders in the entire sample.

Based on interviews with the child, the parent or both, 22 percent of the children had one or more psychiatric disorders. The most frequent diagnoses include phobias (such as intense fear of closed spaces or a variety of animals), oppositional disorder (persistent confrontations and temper tantrums aimed at parents, siblings and teachers), overanxious disorder (excessive worrying about future events and how one is viewed by others) and separation anxiety (panic or anxiety when not at home or with parents).

The researchers say emotional and behavioral problems were the third most

frequently occurring group of disorders among the children, behind respiratory problems and nervous system and sensory organ disorders, such as middle ear infections. Yet fewer than 4 percent of the study sample received a mental health referral from a pediatrician. This rate is consistent with that for psychiatric referrals by pediatricians in general.

Only long-term studies of children with untreated mental disorders will allow researchers to develop screening measures to help pediatricians identify those children most in need of help, conclude the researchers.

Bird and his colleagues administered the same questionnaires used in Costello's study to 777 Puerto Rican children aged 4 to 16 and their mothers, all part of

a random national sample. To establish specific diagnoses, the researchers re-interviewed children with high scores on the questionnaire and a randomly selected group of those scoring in the normal range.

Nearly 16 percent of the children suffered from moderate to severe psychiatric disorders, the researchers say. Diagnoses were roughly the same as those in Costello's study, although more cases of attention-deficit disorder (hyperactivity) turned up in Puerto Rico.

The data indicate that about 150,000 Puerto Rican children in the same age range have comparable mental disorders, the investigators maintain. Fewer than 10,000 children received mental health services during the eight months in which the survey was conducted, according to the Puerto Rico Division of Mental Health, in San Juan.

— B. Bower

Scottish clues to a viral cause of leukemia

Scientists have long speculated that viruses can cause certain kinds of leukemia. Now a Scottish researcher adds new backing to the theory that childhood leukemia is caused by an infectious agent, probably a virus.

Leo Kinlen of the Cancer Epidemiology Unit at the University of Edinburgh says the increased incidence of childhood leukemia seen in several British towns may be related to their extreme geographic isolation followed by a population boom. His study, published in the Dec. 10 LANCET, postulates that clusters of childhood leukemia near Britain's Dounreay and Sellafield nuclear power plants cannot be explained by radiation exposure alone. Kinlen suggests leukemia clusters in remote areas may result from exposure to a common virus brought in by outsiders.

"It's an intriguing idea," comments Clark Heath of the American Cancer Society in Atlanta. He says a similar hypothesis was discussed during the 1960s, when U.S. scientists investigated leukemia clusters in rapidly growing suburban areas.

Both Dounreay and Sellafield reprocess nuclear fuel, and both are located in secluded areas: Dounreay at the tip of Scotland about 300 miles north of Edinburgh and Sellafield near the English Lake District. Both grew rapidly as power plant workers and their families moved there during the 1950s. Thurso, a small town 8 miles from Dounreay, saw its district population rise by 147 percent, from 3,249 in 1951 to 8,037 in 1961. The area around Seascale, a town near Sellafield, grew by 50 percent, from 1,328 to 1,990, during the same period.

To test his theory, Kinlen had to find an isolated area that had undergone a similar population boom but without a nuclear power plant. His search turned up

only one town that fit the description: The New Town of Glenrothes, located in a rural region of Scotland that had undergone a 96 percent population increase during the 1950s from its base of 10,069 in 1951.

Kinlen studied death records for the area and found an excess of childhood leukemia from 1951 to 1967. "There is a significant excess of leukemia deaths below age 25 in the Glenrothes area — 10 observed and 3.60 expected," Kinlen reports. "The finding of a significant excess of childhood leukemia in this area therefore supports the hypothesis."

Kinlen's research findings may represent a long-awaited first step. "The ideas have been talked about for 25 years with respect to leukemia, but the evidence is hard to come by," Heath says. Kinlen agrees, saying larger studies of rural areas should be conducted. Yet the hypothesis accurately predicted an excess of leukemia in Glenrothes. "It is difficult to escape the conclusion that at least some of the excesses near Dounreay and Sellafield have a similar explanation, since they represent more extreme degrees of isolation combined with population influx," he adds.

Kinlen's evidence supports the idea that childhood leukemia may be caused by a virus. But in the end, proof of that theory rests on discovery of an infectious agent. "One would hope that virologists would renew their efforts to identify a virus," Kinlen says.

Scientists already have implicated several viruses in the development of certain types of adult leukemia. The HTLV-1 retrovirus is associated with adult T-cell leukemia, a disease that is endemic in parts of Japan and the Caribbean. HTLV-2 has been linked to the T-cell variant of hairy-cell leukemia that also strikes adults.

— K. A. Fackelmann