

## Mental disorder numbers outpace treatment

Mental disorders, drug abuse or dependence, or a combination of the two afflict an estimated 28 percent of U.S. adults annually, a statistic that translates into about 44.7 million persons, according to the most recent analysis of the largest U.S. survey of mental illness to date. However, fewer than one-third of those suffering from these problems seek help from physicians, mental-health clinics, self-help groups, or other caregivers, federal researchers report.

The survey offers no clear guidelines for revamping the health-care system or ensuring accessibility to treatment for mental disorders, assert Darrel A. Regier and his colleagues. Regier, a psychiatrist, serves as director of the Division of Epidemiology and Services Research at the National Institute of Mental Health (NIMH) in Rockville, Md.

"One is left with the dilemma of deciding how a more equitable and efficient system may be developed," the investigators say.

The Epidemiological Catchment Area (ECA) survey covers five communities: Baltimore; Durham, N.C.; Los Angeles; New Haven, Conn.; and St. Louis. Between 1980 and 1985, researchers interviewed 20,291 individuals; a year later, they conducted follow-up interviews with 15,849 members of that group.

Though the ECA survey concentrates on urban areas, it stands as the most comprehensive look at the prevalence and treatment of mental disorders nationwide.

Initial interviews revealed that 15.7 percent of those surveyed reported symptoms of a mental disorder or substance abuse in the month before their questioning (SN: 11/12/88, p.311). During the one-year follow-up, an additional 12.3 percent of the sample either developed a new mental disorder or serious drug problem or experienced the return of a mental disorder that had not been present at the time of the first interview.

Phobias and abuse of or dependence on alcohol and illicit drugs account for much of the overall increase in prevalence, from 15.7 percent at one month to 28 percent at one year, the researchers report in the February ARCHIVES OF GENERAL PSYCHIATRY.

Phobias affected 10.9 percent of the participants at one year. Another 7.4 percent reported alcohol abuse or dependence, 5.4 percent reported dysthymia (mild depression), 5 percent cited severe depression, 3.1 percent suffered nonalcohol drug disorders, and 2.1 percent reported obsessive-compulsive disorder. Other disorders occurred in 8 percent of the population.

A mental disorder appeared simultaneously with substance abuse among 3.3 percent of the volunteers.

Over a one-year period, 14.7 percent of all participants — the equivalent of about 23.1 million people in the United States — received mental health services, the NIMH scientists say. Of that number, slightly more than half qualified as suffering from a current mental or substance abuse disorder. Most of the rest had a history of psychiatric problems.

Among those seeking help who met the criteria for a current psychiatric disorder, the majority of visits occurred at facilities specializing in mental or substance abuse treatment and among support networks of friends, relatives, and self-help groups, the researchers say.

However, nearly half of those with active mental or substance abuse disorders who sought treatment spoke with a primary-care physician or with the staff at a hospital emergency room about their symptoms. This confirms previous reports that practitioners of general medicine often serve as gatekeepers to mental

health care, the scientists assert.

Of those participants with a mental disorder, only 28.5 percent sought mental health services during the one-year study. Such treatment apparently continues to arouse much stigma and shame, the NIMH team contends.

Individuals suffering from schizophrenia, manic depression, and somatization disorder (multiple physical complaints associated with no biological cause) proved most likely to receive some type of mental-health treatment.

Regier and his associates are now analyzing ECA data to determine the characteristics of people most in need of outpatient and hospital treatment for mental disorders. They also plan to chart the typical duration and chances of recurrence for each mental disorder included in the survey.

For now, the investigators conclude that mental-health services available in the United States often fail to provide rapid treatment for psychiatric disorders and early care to prevent the worsening of symptoms.

— B. Bower

## Starbirth model fixes our galaxy's age

How old is the Milky Way? The answer has profound implications not only for the evolution of our galaxy, but also for the cosmos as a whole. Alas, every method of determining our galaxy's age seems to yield a different number.

For instance, the color and brightness of ancient, densely packed groups of stars known as globular clusters indicate that the Milky Way is 12 to 18 billion years old. The relative abundance of certain long-lived radioactive isotopes in stony meteorites suggests that the galaxy ranges in age from 9 to 15 billion years. The luminosity of white dwarfs, the end stage in the long lives of low-mass stars, gives a still younger age, some 7 to 11 billion years.

Now, two researchers suggest a way out of the numbers game. By hypothesizing that the galaxy underwent two major bursts of star formation spaced several billion years apart, the scientists say they can reconcile the apparent disparities in age estimates.

The model provides a framework in which the time scales for the birth of stars in different regions of the Milky Way "all fit together in a coherent picture," asserts study coauthor Grant J. Mathews of the Lawrence Livermore (Calif.) National Laboratory. He and David N. Schramm of the University of Chicago report the work in the Feb. 20 *ASTROPHYSICAL JOURNAL*.

In their model, individual gas clouds ignite the first wave of starbirth as they merge to form the building blocks of our galaxy. As the clouds collide and coalesce, bunches of newborn stars —

including globular clusters — form throughout the budding galaxy, creating the Milky Way's halo. The oldest clusters indicate the true age of the galaxy, Mathews and Schramm suggest. But the burst of star formation in which these clusters are born ends as the expansion of the universe swells the size of the gas clouds, they add.

Some 5 to 6 billion years later, gravity's pull triggers the clouds' final collapse, forming the disk of our spiral galaxy and prompting a second wave of starbirth. Mathews notes that the younger age of our galaxy indicated by the abundance of heavy-element isotopes merely reflects an average abundance from the two distinct eras of starbirth. After gas clouds sculpt our galaxy's disk, the remaining gas settles there, accounting for the slow, continuous birth of stars near the solar system.

This scenario also explains the youthful age of our galaxy suggested by the brightness of white dwarfs. Distant white dwarfs are too faint to be seen, and nearby dwarfs in this model ignited after formation of our galaxy's disk — much later than the birth of stars in the halo.

Rosemary Wyse of Johns Hopkins University in Baltimore says the work neatly explains the age difference between stars in our galaxy's halo and its disk. The researchers note that if our galaxy is actually about 15 billion years old, then the Hubble constant, which indicates the age and expansion rate of the cosmos, lies close to a recently reported value (SN: 7/4/92, p.4).

— R. Cowen