

Depression Gets Doleful Diagnosis

Major depression is a bedrock psychiatric disorder that afflicts an estimated one in six U.S. adults at some time in their lives.

Now, a new study of depression presents mental health workers with a diagnostic downer. The popular definition of major depression as a discrete mental ailment is misleading, the study finds, because symptoms of the disorder can vary greatly in severity and duration from one person to another.

"Our diagnostic conventions for major depression may be arbitrary," says psychiatrist Kenneth S. Kendler of the Medical College of Virginia in Richmond. "That means it's dangerous to take a Chinese menu approach to depression, simply selecting symptoms needed for a diagnosis without probing into a person's life history."

Debate has long raged over whether various mental disorders stem from specific disease-like processes or occur at the extreme end of a symptom continuum that runs from very mild to severe. This controversy has played into a dispute over how accurately family physicians can diagnose depression (SN: 3/11/95, p. 148).

Kendler and Virginia colleague Charles O. Gardner Jr. analyzed interview responses of around 1,000 sets of female twins, both identical and fraternal. Each woman granted three interviews over 5 years.

Today, major depression is diagnosed if an individual exhibits at least five of nine symptoms of depression (extreme sadness, loss of interest in all activities, and insomnia, to name a few), the symptoms last for at least 2 weeks, and they

substantially impair work or home duties. The researchers focused on the ability of these three key components of a diagnosis to help clinicians identify patients most likely to suffer from major depression in the future.

They found that the risk of episodes of major depression did not depend on having previously displayed this trio of diagnostic signposts. Later rates of major depression were proportional to the number, duration, and severity of the initial symptoms—the rates did not begin rising rapidly upon reaching the thresholds used in diagnosis.

A noticeably elevated risk appeared even in women who initially reported having experienced only three or four depressive symptoms, periods of depression lasting only a week, or symptoms that caused minimal impairment, Kendler and Gardner report in the February *AMERICAN JOURNAL OF PSYCHIATRY*.

These findings indicate that depressive symptoms lie along a spectrum that far exceeds the diagnostic boundaries of major depression, Kendler holds.

In an accompanying commentary, psychiatrist Gary J. Tucker of the University of Washington in Seattle criticizes what he sees as an overreliance on the diagnostic symptoms listed in the official manual of psychiatric disorders.

Psychiatrists tend not to establish the empathic understanding needed to elicit from a patient the events and meanings in his or her life that can guide a diagnosis and treatment plan, Tucker argues. This problem has expanded, both in training programs and in clinics, with pressures from managed care companies to limit the amount of time devoted to patient examinations, he says.

Clinicians need better tools to help them make diagnoses, concurs psychologist Ellen Frank of the University of Pittsburgh School of Medicine. She is helping to develop structured interviews to identify a broad spectrum of symptoms related to major depression and several other mental disorders.

The official diagnostic manual acknowledges that, for mental disorders, there are no sharp boundaries between health and illness, comments psychiatrist Robert L. Spitzer of Columbia University. Spitzer led the move to introduce symptom-based psychiatric diagnoses in 1980.

"All medical specialties overemphasize diagnoses and sometimes lose sight of the patient," Spitzer asserts. "This isn't the fault of [psychiatric diagnoses]. If there's a problem, it's with inadequate training of psychiatrists in how to get a patient's life story." —B. Bower

Shock wave revives fading supernova ring

First came the explosion. Now for the shocker.

Eleven years ago, astronomers witnessed supernova 1987A, the brightest stellar eruption seen from Earth since 1604. Now, a shock wave driven into the surrounding interstellar material has reached an irregular ring of gas encircling the explosion site. Although Hubble Space Telescope images reveal that the collision has thus far lit up only a small section of the ring—the initial point of contact between the innermost protrusion of the ring and the outward-moving shock wave—the finding heralds a major event.

Researchers predict that by 2007, after it absorbs the full brunt of the collision, the entire ring will be ablaze. That fiery glow may literally shed new light on several mysteries surrounding the massive star, whose spectacular death was recorded on Feb. 23, 1987 (SN: 2/22/97, p. 120).

"By lighting up the ring, the supernova is exposing its own past," says Robert P. Kirshner of the Harvard-Smithsonian Center for Astrophysics in Cambridge, Mass. He, Richard McCray of the University of Colorado at Boulder, and George Sonneborn of NASA's Goddard Space Flight Center in Greenbelt, Md., presented Hubble images and spectra this week at a briefing in Washington, D.C.

X rays and ultraviolet light emitted by the supernova reached the ring a few months after the explosion, but the glow they produced has declined steadily and never illuminated much of the material near the ring, notes McCray. The shock wave "will give us a chance to see the invisible matter for the first time."

The ring may be part of a much larger structure cast off by the bloated, massive star 20,000 years before it exploded as supernova 1987A. In this model, the swollen star would have engulfed a smaller companion, ejecting a disk of material in the process. By 2007, when the collision lights up this material and reveals its shape, astronomers may be able to deduce whether the exploded star indeed had a partner.

Astronomers are eagerly awaiting the coming fireworks, says McCray. "We've never seen a shock wave moving as fast as one-twentieth the speed of light slam into a dense [ring of] gas," he notes. —R. Cowen

The bright spot (arrow) on the gas ring around supernova 1987A indicates the area struck by a shock wave. The white spot at the bottom of the ring is a star in the foreground.

