



DMS geneticists explained in the journal *Science* how cells' circadian clocks sense light and thus pace their daily cycle. It's a mechanism that has implications for mental illness and cancer.

Schizophrenia: Haunted by the past

Many studies have shown that childhood abuse or other adversity is linked to physical and mental health problems in adulthood. But a recent Dartmouth-led study, published in *Psychiatric Services*, was the first to evaluate that link in schizophrenia. Researchers from DMS, the University of Medicine and Dentistry of New Jersey, and Columbia found that high rates of childhood adversity contribute to worse health outcomes in adults with schizophrenia.

Events: "We felt that probably it was the combination of schizophrenia and adverse childhood events that was even more toxic" than schizophrenia alone, says lead author Stanley Rosenberg, Ph.D., a professor of psychiatry at DMS.

Schizophrenia—a severe mental illness characterized by distorted thinking, hallucinations, and a reduced ability to feel normal emotions—affects about 1% of the U.S. population, says the National Institute of Mental Health. The illness tends to strike men in their late teens to early twenties and women in their mid-twenties to early thirties.

The researchers interviewed 569 adults with schizophrenia, asking them to recall adverse events during their first 16 years of life—such as being the victim of physical or sexual abuse; having parents who were divorced or mentally ill; witnessing domestic violence; or being in foster care. The participants were receiving treatment for schizophrenia through mental health systems in New Hampshire, Connecticut, Maryland, or North Carolina.

Half: About 14% of the patients reported no adverse events, 18% reported one, and nearly half—46%—said they'd experienced more than three. The researchers found a correlation between cumulative exposure to adverse childhood events and adult psychiatric problems, such as suicidal thoughts or post-traumatic stress dis-

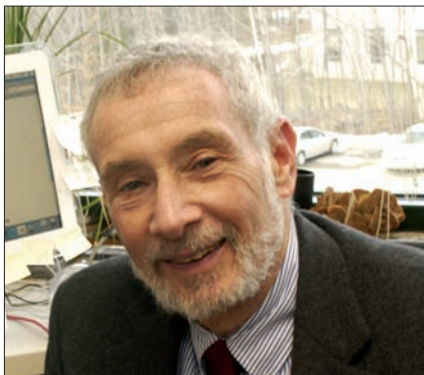
order; substance abuse; physical health problems, including HIV infection; and poor social functioning, such as homelessness or involvement in the criminal justice system. These problems are often misattributed to schizophrenia alone, according to Rosenberg.

"When you are looking at people with major mental illness, their life is a kind of perfect storm for trauma," he says. "So we started looking more intently at the whole issue of how violence and violent victimization affect this population."

The findings confirm what the researchers had long suspected—that appropriate treatment of schizophrenic patients means confronting lasting effects of adverse childhood events. But this isn't the current approach, Rosenberg says. "What caretakers are mostly concerned about . . . are the ravages of schizophrenia," not childhood trauma.

Past: The researchers acknowledge that since this study was retrospective, there's a chance that participants might have underreported past adversity, and that they may not be representative of all clients in the mental health system. Even so, Rosenberg sees a need for "tailored interventions" for those with schizophrenia to "address the consequences of adverse childhood events." **KELLEY MECK**

JON GILBERT FOX



Rosenberg studied an often "toxic" combination.

Walkabout

Elderly men, but not women, who live in pedestrian-friendly neighborhoods have lower rates of depression, found a study led by a new DMS faculty member. Even after taking into account factors such as income, education, age, ethnicity, smoking status, and chronic diseases, the association persisted. "One consequence of a poorly walkable neighborhood may be more depressive symptoms, particularly in older men," wrote Ethan Berke, M.D.,



M.P.H., in the *Journal of the American Geriatrics Society*. So, the authors wondered, should clinicians suggest that "older patients . . . live, if possible, in more-walkable areas?"

High sign

Higher malpractice awards and premiums go hand in hand with higher Medicare spending, note DMS health-policy analysts. In a state-by-state comparison of Medicare data from 2000 to 2003, they found that rising liability costs were associated with increases in physician services. "Our estimates do not imply that [the association is due to] 'defensive medicine,'" the authors wrote in *Health Affairs*. But they identified an especially strong link between higher liability costs and more imaging procedures, which are "often believed to be driven by physicians' fears of malpractice." ■

