Mental health problems appear to be on the rise in the United States, not only among younger people — such as the university students I treat as a college counseling center psychiatrist — but among older cohorts, as well. Along with other chronic conditions, such as diabetes and obesity, depression has been dubbed a “disease of modernity.” For example, large-scale natural disasters, such as Superstorm Sandy, may be more common due to climate change and can contribute to anxiety, distress, and post-traumatic stress disorder (PTSD) in those who are exposed, depending on the intensity of the exposure. Natural disasters trigger less PTSD than do man-made or technological disasters, but across all these, some individuals maintain resilience and recover with minimal symptoms while others flounder. Especially given the limitations of our existing treatments for psychiatric illness, the slow pace of innovation in treatment, and in the context of rising health care costs, it’s critical to consider whether — and how — psychiatry might practice more prevention. How might bolstering resilience prevent distress from becoming disease? This is a particularly timely question, since an emphasis on prevention and wellness promotion is written into the Affordable Care Act in the form of the Prevention and Public Health Fund. This issue of *Psychiatric Annals* focuses on resilience across the life cycle as it relates to psychological well-being and psychiatric disease. Resilience is defined in a variety of ways, but generally refers to the ability to bounce back or adapt to adverse or even traumatic circumstances. Resilience results from a complex combination of genetic, epigenetic, and environmental factors. DNA studies suggest that reactivity to stress is affected by polymorphisms in a number of genes, including the human serotonin transporter gene, the alpha-2C adrenergic receptor gene, and neuropeptide Y, among others. Imaging studies show that people who experience trauma but do not develop PTSD have stronger connections between the prefrontal cortex and the hippocampus via the cingulum bundle, perhaps allowing their cognitive abilities to calm their emotional reactivity in a crisis. Developmental factors, including childhood abuse or neglect, or their opposite — a nurturing, enriched early life — can accentuate or attenuate genetic vulnerabilities. However, a “stress inoculation” effect has also been observed: exposure early in life to a mild-to-moderate stressor over which the child can achieve mastery may have the effect of boosting resilience and helping that person subsequently develop a more adaptive stress response.

This has interesting implications for college students and other mental health professionals, who work with individuals who often feel overwhelmed by inhibitory social and academic pressures. For example, one of the first papers I came across when I was a graduate student was a study that showed that the use of caffeine increased the likelihood of students from lower socio-economic backgrounds being able to achieve better performance on a task involving executive function. This led me to think about the role of resilience in the face of such challenges, which I believe may be more important than ever in today’s world. 

### Resilience results from a complex combination of genetic, epigenetic, and environmental factors.

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emerging adults, who are growing up in an age of both heightened exposure to trauma, via unrelenting mass media coverage of every act of terror and natural disaster, and “helicopter parenting,” an attempt to shelter them from all adversity. College students today report record levels of “stress” and the lowest level of emotional well-being in a quarter-century.7 Less than half of students entering 4-year colleges will graduate within 4 years, and educational delays or drop-outs are frequently due to mental health difficulties. There is a dearth of research specifically delineating best practices for mental health care of college students, and there’s concern that many underutilize or fall through the cracks of current systems of care. Understanding the specific factors that contribute to resilience and how these might be incorporated into community-wide interventions is an important step toward broadening the evidence base and improving well-being.

Although many psychiatric issues first present during late adolescence or the college years, it’s clear that interventions that plant the seeds for resilience should begin much earlier. According to Sarah Richards Kim, MD, and colleagues, despite clear evidence that deprivation or trauma leads to poorer mental health outcomes in children, there’s a paucity of studies investigating whether treatment of parents, especially in the prenatal and early postpartum period, enhances childhood resilience. Nevertheless, they present compelling evidence that treating maternal depression during early childhood does reduce psychopathology in the children, even when the children themselves receive no direct treatment. Dr. Kim and colleagues describe a novel mother-baby treatment approach, the Prenatal Inpatient Psychiatry Unit at the University of North Carolina at Chapel Hill’s Neuroscience Hospital, which focuses on supporting maternal-infant attachment. They also review evidence that treating parental psychopathology appears to confer benefits on the physical health of these parents’ medically ill children, such as those with inflammatory bowel disease.

Melissa E. DeRosier, PhD, and her colleagues report on an intriguing study of more than 600 first-year students from seven colleges, which found that resilience promoted positive mental well-being for students independent of levels of stress or even whether students engaged in maladaptive responses to stress. Dr. DeRosier, a clinical psychologist, is president of the 3-C Institute for Social Development, a company designed to bridge the research-practice gap by disseminating evidence-based interventions to schools and other community settings. Their innovative collaboration is part of a larger study on the Student Curriculum on Resilience Education being developed by Dr. DeRosier and colleagues, and which may present new avenues for enhancing resilience in the emerging adult population.

Building on the idea that certain factors, such as positive affect and social connectedness, can enhance resilience, Holly B. Rogers, MD, examines mindfulness meditation as another intervention with particular promise in building resilience in college students. Dr. Rogers, a psychiatrist and colleague at Duke University’s Counseling and Psychological Services, has developed a mindfulness meditation program called Koru, specifically designed to meet the needs of the college population. The program fits into a public health model, offering benefits to community members as well as to students who are clinically referred for specific psychological problems. Anecdotally it has been successful at decreasing stress and perhaps increasing resilience, and now a randomized, controlled trial confirms it can improve common student symptoms such as insomnia.

The link between resilience and physical and mental well-being is even more strongly supported at the other end of the lifespan, as Richard H. Fortinsky, PhD, and colleagues describe in their review of resilience in the face of chronic illness and family caregiving in middle and later life. Dr. Fortinsky, a professor in the University of Connecticut Center on Aging, identifies the ability to move from primary to secondary control — shifting from expecting to change the world to conform to our wishes...
to learning to adapt to circumstances that may not be changeable, such as chronic illness — as one key element of resilience in older adults. Another is positive affect. Dr. Fortinsky and colleagues propose a useful preliminary model to guide future research and practice in linking conceptualizations of resilience with strategies for beneficial interventions in older adults.

Although the specific stressors may differ at different times during life, common mechanisms likely underlie resilience. A clearer understanding of both the biological and environmental underpinnings and age-appropriate interventions may widen the focus in psychiatry from one of simply treating problems to one that also includes prevention and fostering well-being.

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REFERENCES


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