

Summary of Neuroscience Caucus Briefing

The Science of Mental Illness: Correlations between Mental Illness and Violence

March 18, 2012

Dr. Tom Insel, Director of the National Institute of Mental Health, spoke first at the briefing. He discussed how the national conversation about violence, mental illness, commitment laws, etc is happening parallel to a series of exciting advancements in understanding the brain, such as the connectome and brain mapping initiatives. Dr. Insel believes that these two conversations should be connected and that more brain research can provide context to the violence conversation.

Dr. Insel further emphasized that most mental illness and most violence have nothing to do with each other, with two exceptions. First, is suicide – people with mental illness are more likely to commit suicide, which occurs in about 37,000 cases per year. The second is that young adults with untreated psychotic illness are linked to violent episodes. Once treated, they are not greater risk for violence against others. The problem is that it takes on average of two years between the onset of symptoms and start of treatment, due to poor access to care and challenges in treating people with an illness who don't necessarily think they are sick.

Dr. Insel provided several suggestions for how to improve this situation. First, we need more brain research to improve detection, so that the two year delay between onset of symptoms to starting treatment can be cut to two months. Second, we need to change how we think about mental/behavioral disorders – the behavioral changes are the last effect of brain changes. Mental disorders are brain disorders, and they shouldn't be defined only in terms of the behavioral changes.

Dr. Elizabeth Childs, a child/family psychiatrist from Boston and former Mental Health Commissioner in Massachusetts, spoke next. She discussed how access struggles manifest in the trenches, where she works with patients every day. She described a fragmented system where stigma and a lack of coordinated care harms patients and their families.

Dr. Childs described the experiences of two patients she has recently treated, one of which was a failure and one of which was a success. The ability to secure effective, continuous treatment made the life or death difference between her two patients. She also echoed Dr. Insel's comment about how earlier treatment make a huge difference in the life of young people with psychotic illness.

Dr. Childs identified several challenges and potential solutions. First, she argued that mental illness must be recognized as a public health issue. Denial and fear are best met with empathy. Second, stigma is best met with education. She advocated for a nationwide public awareness campaign concerning psychosis, including warning signs and symptoms of these disorders. Or, having a question about brain disorders on standardized tests would require teachers to learn enough about them to teach their students. Finally, the

Adverse Childhood Experiences Study, which is used in 16 states, could be expanded to include data on psychotic illnesses. Third, she discussed the isolation that patients and their families feel. She supports model youth programs (such as Big Brother, Big Sister, anti-bullying programs, etc) and NAMI's family-to-family program that help nurture relationships. Fourth, she argued that services aren't visible enough. People can only be forced into treatment after the behavioral symptoms are displayed, which is late in the development of the disease. The solution to this problem is to meet a crisis with engagement. She supports diversion programs created by police departments and court systems that link people with mental health services. In Massachusetts, they created a child psychiatrist hotline that pediatricians can use to access specialized services and expertise, which is very popular. Dr. Childs argued that overall, these investments in mental health systems are worth making.

Dr. Raquel Gur, Director, University of Pennsylvania Schizophrenia Research Center, shared a neurodevelopmental perspective on the issue. She argued that mental health and medical health share common goals – prevention, early identification and early intervention. However, there are some particular challenges with respect to brain disorders – there is a need for big science, for a team of researchers and providers to have an integrated, multifaceted approach to care.

Dr. Gur shared research concerning brain development and how psychotic illnesses develop. She discussed how different parts of the brain work together to detect threats and curb impulses. Brain maturation occurs well into the 20s, and the early course of psychosis manifests in the teenage years in part because this is a period of transition and vulnerability, where significant stress occurs in youth with developing brains. Brain changes can be identified early on while individuals are at risk for developing psychosis, since this is a process that spans over two to three years. Dr. Gur advocates for studying young people who are at risk and at their first psychotic episode; MRIs provide significant information.

Dr. Gur argued that there are several steps to take to better identify and treat those with psychotic illnesses. First, researchers should investigate precursors and biomarkers that will allow for early detection. Second, there should be focused research on informative populations with advanced neuroscience methodology. Families, schools and communities must be educated, so that integrated, science-based interventions can be employed.

During the question and answer period, questioners asked several follow-up questions. One asked about stigma, and all of the speakers agreed that science can overcome stigma – as we know more about the physical changes in the brain that manifest in behavioral changes, mental illnesses will be less foreign. Another person asked a question about the Affordable Care Act and its provisions concerning mental illness. Dr. Childs responded that the mental health parity provisions in the law are very important, but that there remain opportunities to improve it – she identified challenges in inadequate reimbursement for mental health providers, and a need to have a thoughtful discussion about risk, since some providers may be unwilling to take on a patient who is having a psychotic event because they are concerned about liability.