

*What is mental illness? How is mental illness like or unlike medical illness?*

Mental illnesses are diseases or medical conditions that disrupt the way a person is able to think, feel, or behave, or that interfere with their functioning in daily life. These are very common diseases: one in four adults have one or another of the mental disorders at some point during in a given year, so a huge number of people are affected. One in 17 people in this country have a severe mental illness, and about one in ten children have a mental illness. Mental illnesses as a group account for a large amount of lost productivity, estimated at about 63 billion dollars per year, so the treatment of mental illness is extremely important for our society. The serious mental illnesses account for about 15% of what is called the burden of disease. This is a composite score that measures years of life lost and years of life spent struggling with an illness. This 15% is more than that for all cancers counted together, so mental illnesses cause a huge burden on our population and our society.

How are these illnesses like medical illnesses such as diabetes or heart disease? The two types of illness are more alike than different. Many of the mental illnesses tend to run in families, but not all. For instance, in schizophrenia there is a 45% chance that if one identical twin has schizophrenia, the other identical twin will have it also. This is a little like saying a glass is either half full or half empty. There is a large genetic component, but are also many other factors that determine who will have schizophrenia and who will not. Mental illnesses are similar to diabetes and many medical illnesses in that they are not caused by a single gene. Rather, as with diabetes, heart disease, and other medical illnesses, there are multiple genes that each confer a small amount of vulnerability to the illness.

Medical illnesses and mental illnesses interact with each other. There is a large mind-body connection. For instance, someone with depression will often have physical symptoms, and the physical symptoms of medical illnesses can sometimes lead to mental illnesses such as depression. So there is reciprocity in the mind-body connection. Like diabetes and many other medical illnesses, the outcome for a given person with a mental illness is a result of their genetic background, the treatment that they receive or don't receive, their adherence to that treatment, their social supports, the environment in which they live, and whatever resilience factors the individual may have.

*What exactly is resilience and why does it seem that some people are more resilient than other? Are there factors that are know to increase or decrease one's resilience?*

Resilience is the ability of a person or animal to adapt to adversity, stress, or trauma in a positive way and not be overwhelmed. Resilience is a result of the environment during childhood, the current environment, and genetics. A very famous recent study by Caspi et al. showed a gene-environment interaction such that the presence of a particular allele in a serotonin gene predicted an increased risk of depression in people who had experienced a severe stress. There is a concept called stress inoculation. This is the idea, stemming from rodent and monkey studies, that a manageable amount of stress during early life is actually adaptive and promotes greater

resilience in the long run. However, extreme or unmanageable stress is associated with reduced resilience.

What factors for the average person can promote resilience? The use of active coping strategies, a good social support network, and having a sense of purpose all can promote enhanced resilience. There is evidence that physical exercise can reduce an unhealthy stress response and promote the growth of new neurons.

*Medications for depression cause suicide. What can be done to protect the patient from these dangerous medications?*

That's a very important question. There is a phenomenon in which a person who is extremely depressed can be too depressed to act even if they are having thoughts of harming or killing themselves. Rarely, when people like this begin to get a little bit better, they realize they can end their pain by killing themselves. We think this phenomenon accounts for the small signal in the literature regarding people committing suicide shortly after they are started on medication. But these medications are life saving for the vast majority of those who suffer from depression.

Any practitioner who is giving medication to a patient thinking about suicide will want to watch them very carefully, maintain contact with them frequently, make sure they have a support system in place who will keep a close eye on them until they get better, and make sure the patient and their family or support system know of emergency resources if that person becomes acutely suicidal.

*What resources are available at Emory to assist persons with mental illness?*

The Atlanta Veterans Administration Medical Center is one of the Emory teaching hospitals. The Atlanta VA has a very large Mental Health Service that offers a variety of treatments for veterans with mental illness.