

Exploring Schizophrenia

Summarized by Thomas T. Thomas

Schizophrenia presents many challenges, both from the family's and the patient's point of view. At our September 26 meeting we saw the video *Exploring Schizophrenia*, featuring **Christopher Amenson, PhD**. He was formerly director of the Pacific Clinic in Southern California and is now a teacher of professionals. Dr. Amenson was recently presented the NAMI award for distinguished service.

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“The voices won't go away.”

“They tell me I have no meaning.”

“The voices come from the television set.”

“I thought I was Albert Einstein and able to do all these equations...”

“I thought I was God.”

“I could move the clouds by thinking at them.”

“What I say is going to come true. I have control of everybody.”

... These are the words of people with schizophrenia, reflecting the hallucinations and delusions that shape their illness.

“Schizophrenia is the number one health problem in the United States,” Amenson says. “Schizophrenia fills 25 percent of the medical beds—not just in mental hospitals, but in all hospitals. The illness costs \$25 billion a year, or about two percent of the gross national product.” Although it affects only one percent of the population, schizophrenia creates tremendous costs, because it first occurs at about age 20 and leaves patients with residual impairments for the rest of their lives. Most cannot support themselves. Ten percent of patients kill themselves.

This is a neurobiological disorder characterized by hallucinations and delusions. It has been poorly understood for centuries, because the brain is hidden from examination, both by the encasing skull and by a fatty barrier that separates brain chemicals from the bloodstream. Doctors cannot test the brain by taking a blood sample, in the same way they can test for liver or kidney dysfunctions.

Only with recent advances in medical imaging techniques can we see the brain, both to directly map its structure and to examine energy releases and metabolic effects that map its functions. This capability reveals several things about schizophrenia.

First, that the illness usually involves structural deficits. People with schizophrenia are largely missing their frontal lobes, the part of the brain responsible for drive, ambition, social judgment, empathy, planning, and abstract thinking. So schizophrenia is marked by a reduction in or difficulty with these normal abilities.

Second, that key cells are misaligned in the basal ganglia. This structure acts like a “switchboard” delivering messages to different parts of the brain. The misalignment creates great difficulty with linear thinking—being able to concentrate and link one idea to another in a direct fashion.

Third, there is often functional damage as well. The brain may be physically intact, but it is not working correctly. Individual symptoms depend on where this damage may be located.

“If we heard all the sounds around us, responded to every thought we had, we would never be able to focus,” Amenson says. “Ninety percent of the brain is involved in *not* hearing things, so that we can focus on the particular thing we want to think about. People with schizophrenia hear so many things that they can’t distinguish between background noise and what’s important.”

Schizophrenia is a biologically based illness with causes that are largely genetic. Your chances of developing the disease are highest if your blood relatives, parents or siblings, have it. But even if your identical twin has schizophrenia, the likelihood you will develop it yourself is still less than 50 percent. So there is clearly a biological component associated with the genetic vulnerability. Scientists suspect this biological element may be a brain virus or an intra-uterine insult during the second trimester, when brain development is at its peak.

Scientists now know that there is no *environmental* component to schizophrenia. Adopted children in a family with schizophrenia develop the disease at a rate no higher than the general population, while identical twins raised in separate homes have a near-50 percent chance of sharing the disease.

While drug and alcohol abuse do not appear to cause schizophrenia, they do affect the brain in the same way. Images of the brains of people with schizophrenia are remarkably similar to those of people using cocaine or PCP. “Illicit drugs are poison to people with schizophrenia,” Amenson says. “They not only enhance the effects of the illness, but they reduce the effectiveness of antipsychotic medications. It’s a double whammy.”

The natural course of the disease is a normal childhood with no indication of anything wrong. Onset of the first psychotic episode—loss of contact with reality—comes in the late teenage years or by about age 20. For the next five years, the patient has periods of recovery followed by relapses into ever-deepening illness. From age 25 to 50, the patient stabilizes, with the intervening periods of illness remaining at about the same level of intensity. Finally, after about age 50, the relapses stop and the patient is left functioning at generally low level.

Various courses of treatment can affect the chances of a patient’s having a psychotic break or a relapse during a given year. Amenson characterized the treatment levels as follows:

- With no treatment, or with only traditional “talk therapy”—70 percent chance of relapse.
- With antipsychotic medication alone—30 percent chance.
- With medication plus specialized treatment—20 percent.
- With medication plus psycho-social rehabilitation and family training—8 percent.

Clearly, with more and better support, the patient has a greater chance of staying healthy. Patients also need to relearn social and coping skills to keep their handicap from becoming a disability.

Antipsychotic medications reduce the incidence of hallucinations and delusions, the bizarre behavior, the insomnia and agitation, and the patient’s

hostility. Sometimes also medication can increase drive and enable the patient to participate in therapy. The medications are not dangerous in themselves but they do have side effects, like dry mouth and constipation, that patients dislike.

The newer medications Clozaril and Risperidone are not necessarily more effective, but they have fewer side effects, so patient compliance is better. Some of these medications also work on different neural transmitters, so they are able to treat a slightly different patient population.

While the medications can help prevent relapses, they do not restore functioning. For that, the patient needs psycho-social training. This helps the person understand his or her illness and its symptoms, the medications and their side effects. The patient learns to manage residual symptoms and to function in a social setting. Peer support is also a powerful influence on the success of this training.

Amenson says that treatment in the U.S. is not very good. We tend to isolate the patient, which can lead to passiveness and dependence. Most patients in this country live with their parents (40 percent) or in some kind of board-and-care or nursing facility (40 percent). Only 10 percent live independently.

In contrast, tribal societies in developing countries do better with schizophrenia. They find a job that the person can do and so become accepted as part of the community. Because manifestations of the illness may resemble “talking to the gods,” patients often become part of religious ceremonies.

In more developed countries, people with schizophrenia need the right kind of environment, usually provided by families, but without a high level of stimulation and activity. A supportive, helpful setting with a positive outlook can reduce the relapse rate from 30 percent to 8 percent.

Some of the key elements of this family environment, which families can learn through training, include:

- Accepting the person as ill.
- Attributing symptoms to the illness and not taking them personally.
- Setting realistic, attainable goals, usually involving small steps and positive reinforcement.
- Including the person in family life in ways that let him or her be useful. One family made an overly talkative son the family photographer, which gave him a positive role in holiday events.
- Keeping a loving distance, which means allowing the person to take risks and try new things.
- Maintaining a calm atmosphere that balances the needs of the patient with those of other family members.
- Giving frequent praise and being careful to not mix it evenhandedly with criticism, which only confuses the patient.
- Giving specific and constructive criticism when needed, so that the patient is able to learn and grow.

Christopher Amenson concludes: “People with schizophrenia do better if the family helps them. Schizophrenia is a biological illness. It is no one’s fault.”