

Images in Neuroscience

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Schizophrenia, I

Schizophrenia is an illness of thought, cognition, and affect. Symptoms are usually lifelong and continual, making the illness of considerable personal consequence. Recovery of function is always effortful. Reality distortion is a prominent manifestation, with hallucinations, delusions, and thought disorder being the most notable symptoms and the ones most widely associated with the diagnosis. But the affective blunting/asociality, known as negative symptoms, and the cognitive dysfunction are the manifestations associated with poor psychosocial outcome. The cognitive characteristics of the illness include attentional dysfunction, failure of working memory, and impairments of learning and memory; these cognitive dysfunctions are selective, not diffuse. Brain mechanisms underlying the symptom profiles remain unknown, but research in these areas is very active. Genetic vulnerabilities for the illness exist, but no single genetic determinant has

been identified. Treatments for schizophrenia are available, some say of greater efficacy than could be expected for the level of understanding of the illness. Effective current treatments are based on the serendipitous clinical observation that drugs that diminish dopamine-mediated neurotransmission reduce psychotic symptoms. First- and second-generation antipsychotics provide a variety of choices for clinical treatment and for further treatment research. These drugs are more potent at reducing psychotic symptoms than correcting the cognitive manifestations. However, other neurotransmitters (e.g., glutamate, norepinephrine, nicotine) may be involved in the manifestations of the illness and potentially in symptom reduction. Research into the causes and treatments for schizophrenia remains active and the expectation for meaningful answers is high.

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