

## Schizophrenia

Schizophrenia: A psychological disorder in which the ability to function is impaired by severely distorted beliefs, perceptions and thought processes ([page 557](#)).

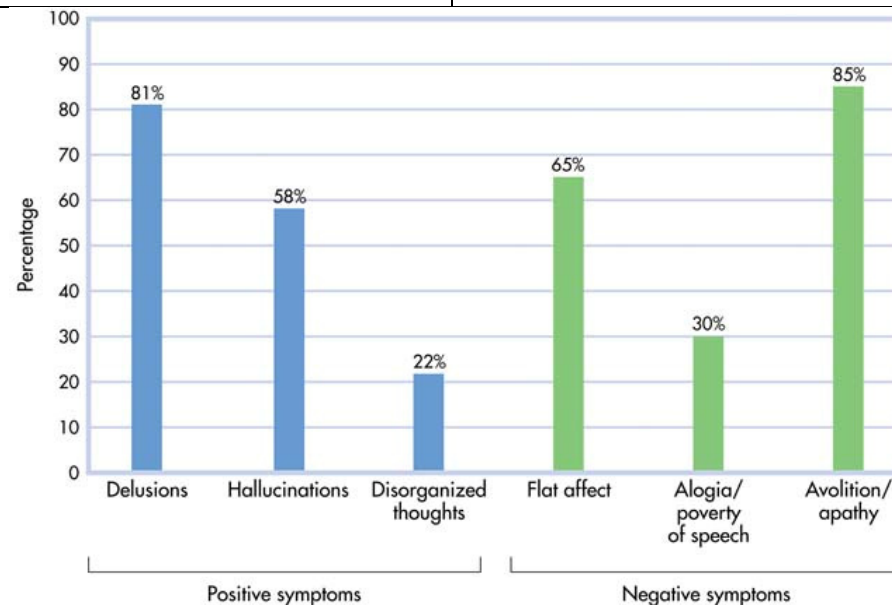
- Every year, 200,000 new cases of schizophrenia are diagnosed in the United States.
- 1 million Americans are treated for schizophrenia each year.
- Schizophrenia does not appear to be culture bound, nor gender differences.
- For men, the first episode typically occurs in late adolescence or early adulthood.
- For women, the first episode typically occurs in early to mid adulthood.

What are the outcomes of treatment for schizophrenia?

- About  $\frac{1}{4}$  of those recover completely.
- About  $\frac{1}{4}$  of those experiencing recurrent episodes, with minimal impairment.
- For about  $\frac{1}{2}$ , schizophrenia becomes a chronic mental illness with severe impairment.

## Schizophrenia

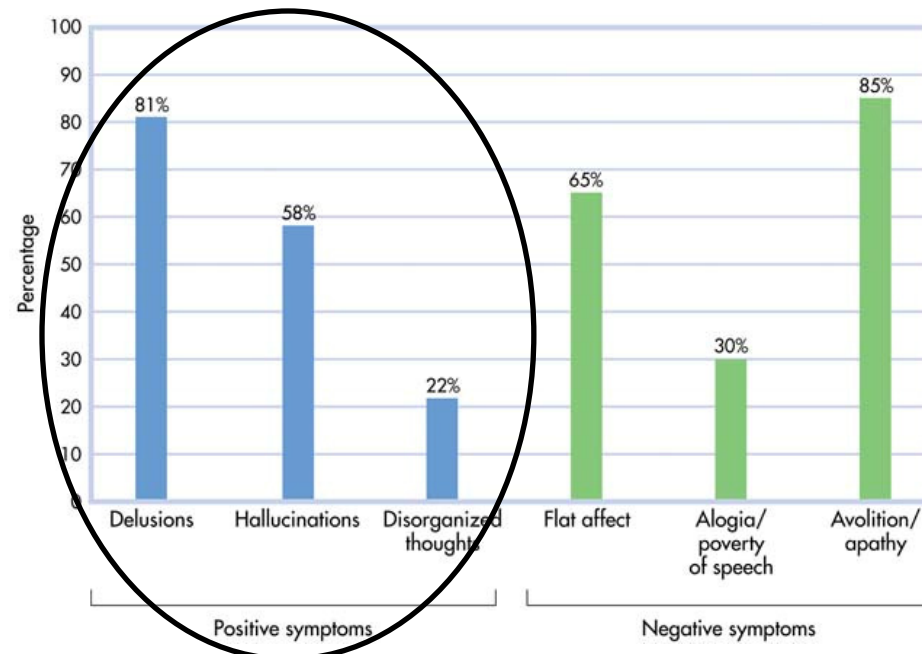
<u>Positive symptoms</u>	<u>Negative symptoms</u>
<ul style="list-style-type: none"><li>In schizophrenia, symptoms that reflect excesses or distortions of normal functioning.</li></ul>	<ul style="list-style-type: none"><li>In schizophrenia, symptoms that reflect defects or deficits in normal behavior.</li></ul>



The diagnosis is made when at least two of the symptoms are present for one month or longer with signs of the disorder persisting for at least 6 months. At least one of the symptoms must be delusions, hallucinations, or disorganized speech.

## Schizophrenia

**Positive symptoms:** symptoms that reflect excesses or distortions of normal functioning



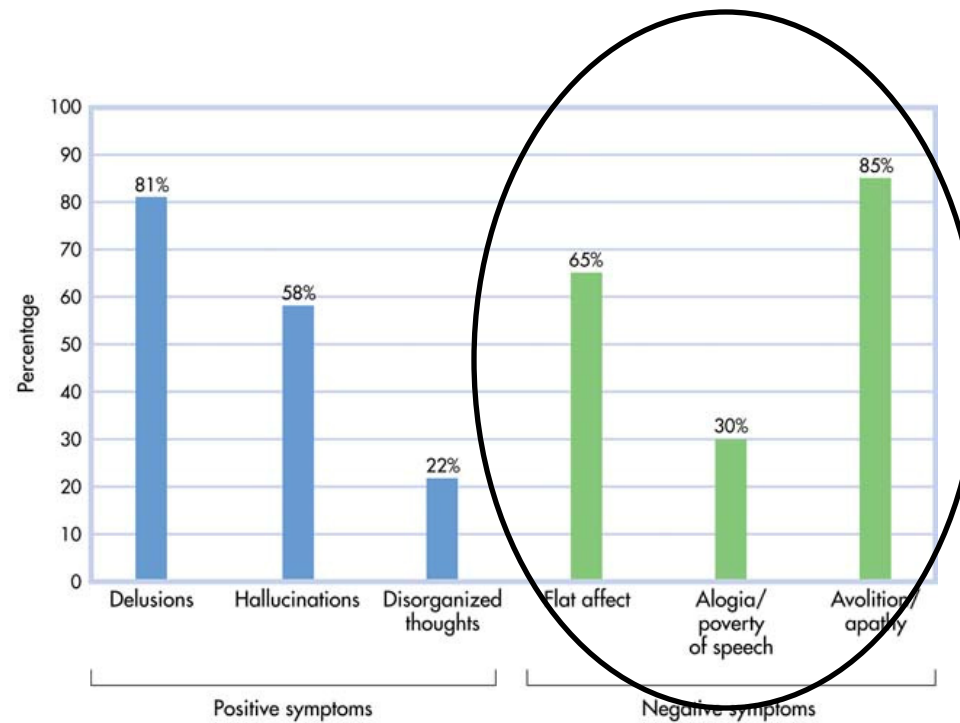
- Delusions (of reference, grandeur, persecution or being controlled) are false beliefs that persists despite compelling contradictory evidence. These beliefs are often bizarre and grandiose, that are maintained in spite of its irrationality.

- Hallucinations (auditory, visual, tactile, smell/taste) are false perceptual experiences that have a compelling sense of being real despite the absence of external stimulation. Generally speaking, the voices tell you things that aren't nice.
- Disturbances in sensation, thinking and speech. Their thoughts and speech are disorganized and lack major logical cohesion.
- Grossly disorganized or inappropriate behavior such as childlike silliness, inappropriate sexual behavior (masturbating in public), disheveled appearance or a peculiar dress.
  - There may be unpredictable agitation including shouting and swearing, strange gestures or postures.
  - There may be inappropriate emotional expressions—crying during a comedy piece or laughing at a murder scene.

Generally, these symptoms are not under the control by the individual. Normal people can mimic these, but generally have some control over them.

## Schizophrenia

**Negative symptoms:** Symptoms that reflect defects or deficits in normal functioning:



- Deficits in behavior, emotion and motivation. The person responds in an emotionally flat way, reduction in emotional response, lack of normal facial gestures, their speech is slow and monotonous.
  - Flat affect
  - Alogia/poverty of speech
  - Avolition/apathy
  - Social withdrawal
  - Lack of goal-directed activity
  - Slowed movements
  - Poor hygiene and grooming
  - Poor problem solving
  - A distorted sense of time

Not all schizophrenics have negative symptoms. Those who have the most impaired tend to have negative symptoms.

## Types of Schizophrenia (your book doesn't include types)



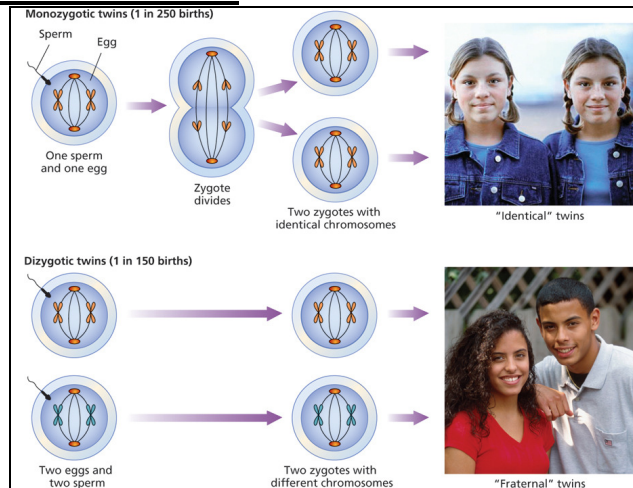
TABLE 14.3

Types of Schizophrenia

Types	Characteristics
Paranoid type	Symptoms dominated by absurd, illogical, and changeable delusions, frequently accompanied by vivid hallucinations, with a resulting impairment of critical judgment and erratic, unpredictable, and occasionally dangerous behaviors. In chronic cases, there is usually less disorganization of behavior than in other types of schizophrenia and less extreme withdrawal from social interaction.
Catatonic type	Often characterized by alternating periods of extreme withdrawal and extreme excitement, although in some cases one or the other reaction predominates. In the withdrawal reaction, there is a sudden loss of all animation and a tendency to remain motionless for hours or even days in a single position. The person may undergo an abrupt change, with excitement coming on suddenly; the person may talk or shout incoherently, pace rapidly, and engage in uninhibited, impulsive, and frenzied behavior. In this state, an individual may be dangerous.
Disorganized type	Usually occurs at an earlier age than most other types of schizophrenia and represents a more severe disintegration of the personality. Emotional distortion and blunting typically are manifested in inappropriate laughter and silliness, peculiar mannerisms, and bizarre, often obscene behavior.
Undifferentiated type	A pattern of symptoms in which there is a rapidly changing mixture of all or most of the primary indicators of schizophrenia. Commonly observed are indications of perplexity, confusion, emotional turmoil, delusions, excitement, dreamlike withdrawal, depression, and fear. Most often this picture is seen in patients who are in the process of breaking down and developing schizophrenia. It is also seen, however, when major adjustment demands impinge on a person with an already-established schizophrenic psychosis. In such cases, it frequently foreshadows an impending change to another primary schizophrenic subtype.
Residual type	Mild indication of schizophrenia shown by individuals in remission following a schizophrenic episode.

## Explaining schizophrenia: Genetic Factors

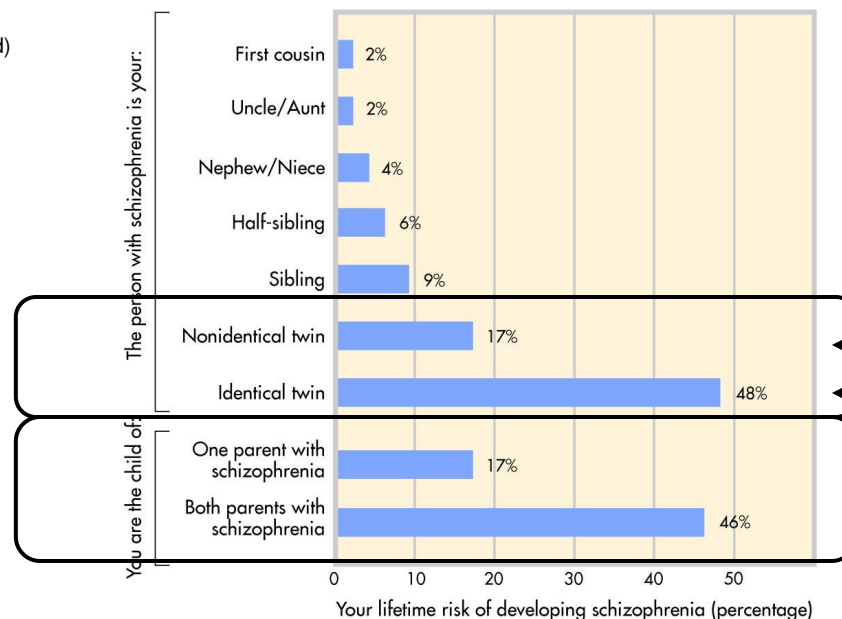
### Genetic factors: Twins



- Identical twins: If one twin has schizophrenia, the other twin is 48% likely to have schizophrenia.
- Fraternal twins: If one twin has schizophrenia, the other twin is 17% likely to have schizophrenia.

Genetic Factors: Parents If you are the child of both parents with schizophrenia, you are 46% likely to have schizophrenia compared to 17% if one parent has schizophrenia.

(see p521 in wood and Wood 5<sup>th</sup> ed)





## Explaining schizophrenia: The Immune System/Viral Infection Theory

### Prenatal and Perinatal Factors

It is proposed that schizophrenia might be caused by exposure to an influenza virus, or a viral infection during prenatal development, or shortly after birth.

- Those born in winter and spring have a 20% greater risk of schizophrenia than those born in summer and fall

Higher rates of  
schizophrenia



>

Lower rates of  
schizophrenia

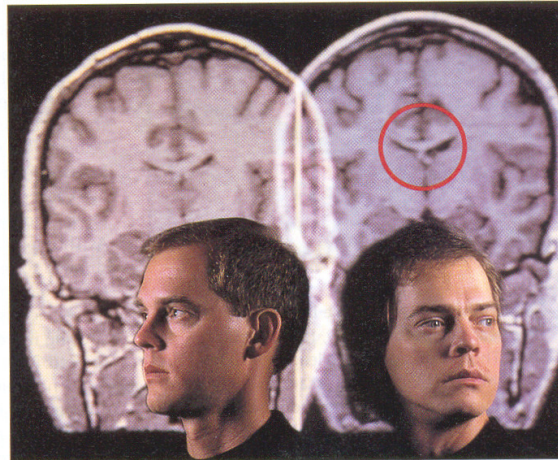


- In addition, mothers in the first trimester who are exposed to the flu have infants with a higher rate of schizophrenia.

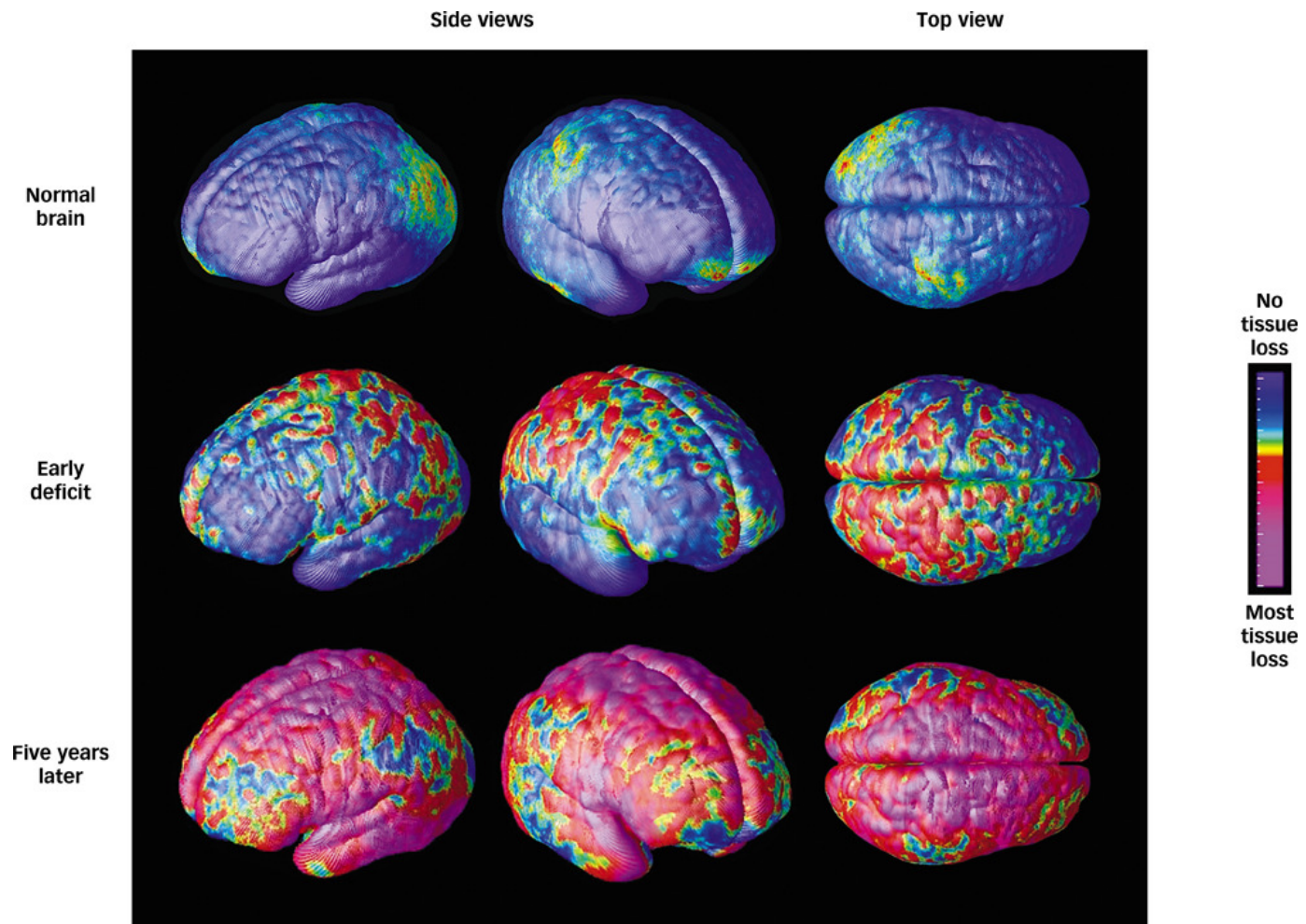
## Explaining schizophrenia: Abnormal Brain Structures

### Neuroanatomy:

- Some schizophrenics have enlarged ventricles in their brain.



- There appears to be a reduced volume of brain mass in the hippocampus, amygdala, thalamus and frontal lobes.
- In addition, the communication between their two hemispheres is slower than normal.
- As schizophrenia progresses, there appears to be extensive loss of brain tissue from the cortex.



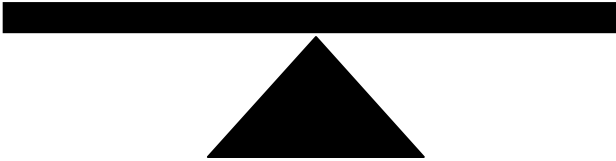
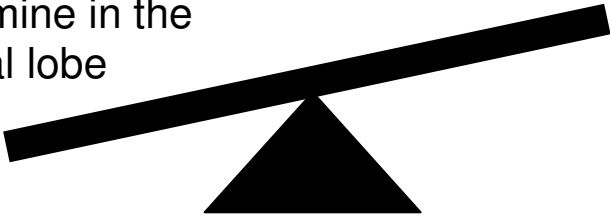
## Explaining schizophrenia: Abnormal Brain Chemistry

### Biochemical Factors

The dopamine hypothesis—excessive amounts of the neurotransmitter dopamine is involved with schizophrenia.

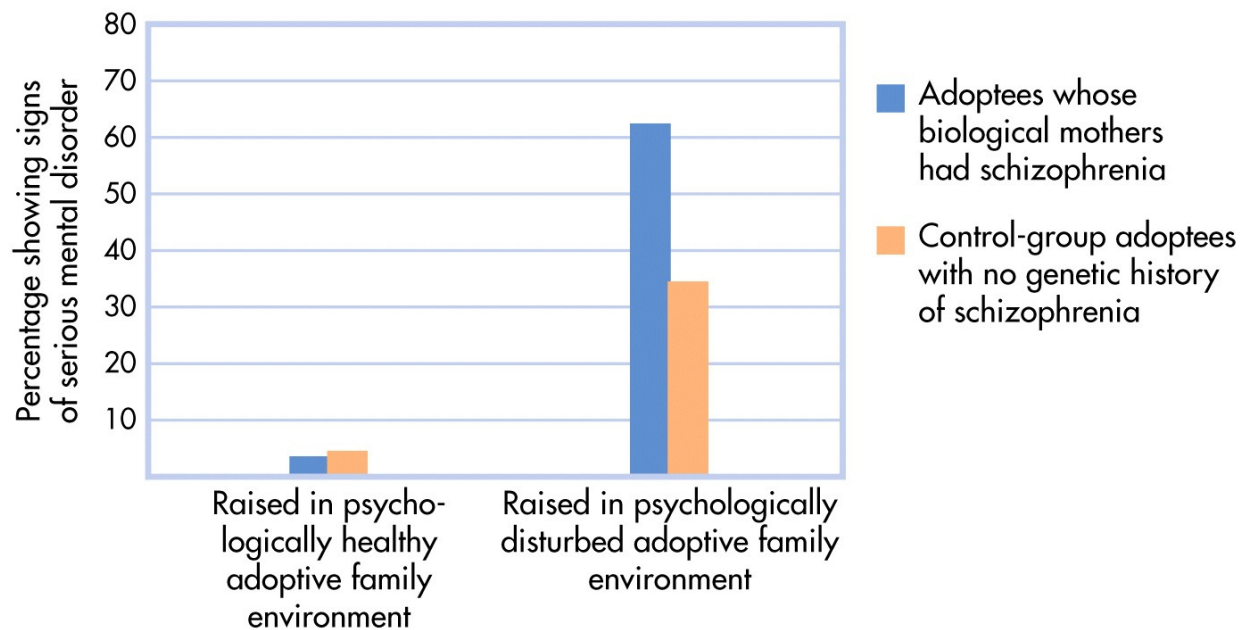
- Drugs that reduce or block dopamine activity reduce schizophrenic symptoms
- Drugs that increase dopamine activity (amphetamines and cocaine) produce schizophrenic-like symptoms.

However, not all patients with schizophrenia respond to drugs that work on the dopamine system and dopamine levels increase relatively quickly, but patients do not see relief until weeks later.

Healthy Individual	Some Schizophrenics
<p data-bbox="191 1076 499 1162">Dopamine in the Frontal lobe</p>  <p>The diagram shows a horizontal black bar representing a seesaw, balanced perfectly on a triangular fulcrum in the center. This indicates that dopamine levels in the frontal lobe are at a normal, balanced state.</p>	<p data-bbox="1064 1118 1373 1205">Dopamine in the Frontal lobe</p>  <p>The diagram shows a black bar representing a seesaw, tilted upwards on the right side and downwards on the left side, resting on a triangular fulcrum. This indicates that dopamine levels in the frontal lobe are abnormally high, causing an imbalance.</p>

## Explaining Schizophrenia: Psychological Factors (unhealthy families)

Psychological factors (Unhealthy families): Dysfunctional parenting, disturbed family communication styles, and critical or guilt-inducing parenting are possible contributors of schizophrenia.



Disturbed families were defined as those with extreme conflict, lack of communication, or chaotic relationships.

## Explaining Schizophrenia



Certain negative communication patterns in families were associated with higher relapse for schizophrenia such as emotional intrusiveness and excessive criticism directed toward the former patient by his or her family.

- “I cry when I think about how you used to be before this started”.

Statements like this do not provide a supportive environment for the former patient and increase the stress levels of the patient and make relapse more likely.

## Diathesis-Stress Model

