

# Explanations for schizophrenia



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Schizophrenia is a very serious mental condition or illness, it is known as the 'split' of the 'mind'. When an individual is classed as a schizophrenic, it is usually believed that they have a significant loss of contact with reality and they experience emotional, social and mental disturbances (Butcher et al, 2004: 458). On average 1% of the population is schizophrenic, this essay will discuss the aetiology of schizophrenia, the biological and psychological explanations for schizophrenia and the treatment strategies in place to help prevent the condition.

Describing the aetiology of schizophrenia can be challenging, because the cause of it will differ throughout each individual who suffers from it.

However, many have described it to be the "result of a physiological condition brought out by a life stressor" (Psychiatric Disorders, 1999).

According to Bleuler (1911), schizophrenia occurs when "there is a split between the intellect and emotion and between the intellect and external reality" (Butcher et al, 2004: 460).

For a patient to be diagnosed as a schizophrenic two or more of the following symptoms must be present for at least over 1 month. These symptoms include; delusions, hallucinations, disorganised speech, disorganised behaviour and negative symptoms, continuous signs of disturbances over a 6 month period and finally social or occupational dysfunction or poor functioning. Schizophrenics generally develop confused thinking and suffer from delusions in which they attach great personal significance to external objects or events. For example, if a schizophrenic sees his neighbours talking he/she will be convinced that they are plotting to kill him. Furthermore they also suffer from hallucinations, these occur when an external stimulus is

absent. Hallucinations consist of hearing voices which relate to the patient. Different schizophrenic patients will behave in different ways; some will stay motionless for hours at a time other will make strange grimaces.

Schizophrenia is the result of a strong relationship between genetic and environmental factors which underlie the state of the individual suffering. There are 3 biological explanations for schizophrenia; genetic factors, biochemical factors and brain structure.

Genetic factors play a significant role in schizophrenia, family history studies show that schizophrenia tends to run in families. The rate of schizophrenia in the population is about 1%, studies using twins show that in identical monozygotic twins, if one has schizophrenia the other has 40-50% chance of developing the illness. Concordance rates for schizophrenia are 3 times higher in identical twins than in non identical dizygotic twins. If one parent has schizophrenia then a child has about 10% chance of developing it. Gottesman (1991) summarised about 40 studies, the concordance rate was 48% if you had a monozygotic twin with schizophrenia but only 17% if you have a dizygotic or fraternal twin with schizophrenia. Furthermore, Rosenthal (1963) studied quadruplets, in which all 4 girls were identical to each other. All 4 of them developed schizophrenia, although they were of different ages and had different symptoms. However it is important to note that they did have a dreadful childhood. These studies show strong evidence of genetic factors in schizophrenia, concordance rates however are not 100% and environmental factors aren't taken into consideration. Therefore genetic factors cannot be the only factor involved; other factors such as upbringing can be a reason. Also, high concordance rates in MZ twins may be explained

by the fact that they tend to be treated more similarly than DZ twins, greater environmental similarity is therefore a factor to be considered. Parents give more similar treatment to MZ twins than DZ twins, this suggests that MZ twins greater genetic similarity may be a cause, rather than an effect of similar parental treatment. However, concordance rates for MZ twins brought up apart are similar to those brought up together. It is important to note that psychologists suggest that genetic factors are involved but they don't state how it is inherited and what exactly is inherited.

Biochemical factors also play a role in schizophrenia, evidence suggests that dopamine can cause or reduce schizophrenia. For example, neuroleptic drugs that block dopamine seem to reduce the symptoms of schizophrenia. Other drugs increase dopamine levels and can produce many of the symptoms of schizophrenia. Wise and Stein (1973) found that schizophrenics who died in accident showed abnormally low levels of Dopamine Beta Hydroxylase (this breaks down dopamine), therefore they had more dopamine because it was not broken down. Timmons and Hamilton (1990) report that high doses of amphetamine (a drug stimulating dopamine) can result in behaviour resembling schizophrenia in healthy people. Furthermore they found that there are a very few number of schizophrenics that suffer from Parkinson's disease. Parkinson's is treated by increasing dopamine activity, as it occurs when parts of the brain than rely on dopamine die. Dopamine hypothesis cannot explain all cases; it is unlikely that any problems with dopamine production will prove to be the basic biochemical abnormality underlying all forms of schizophrenia. The evidence is

inconclusive; this mean there is no consistent difference in dopamine levels between drug free schizophrenics and normal people.

The final biological explanation is Brain structure, Pahl, Swayze and Andreason (1990) reviewed 50 studies, the majority found abnormally large lateral ventricles in the brains of schizophrenics. Other research found that one twin with schizophrenia had more enlarged ventricles and reduced anterior hypothalamus. Research on brain structure does not state how brain abnormalities are due to genetic factors, however supports that brain structure in schizophrenics is different to non schizophrenics.

The first psychological explanation of schizophrenia is the psychodynamic approach by Freud. Freud states that conflicts and traumas play a vital role in schizophrenia, and that schizophrenics have returned to an earlier stage of psychosexual development. They have regressed to a state of primary great self interest, which occurs early in the oral stage. In this state, the ego or rational part of the mind has not separated from the id or sexual instinct. Ego is involved in reality testing and responding appropriately to the external world. However, schizophrenics have a loss of contact with reality because their ego is no longer functioning properly. Freud argued that schizophrenia were driven by strong sexual impulses, that helps to explain why schizophrenia often develops in late adolescence. So if the parents of a child are uncaring a child will regress to a stage of development before the ego was properly formed and before the child had developed a realistic awareness of the external world. So Freud believes that schizophrenia is an infantile state, where an individual is regressed to a childhood stage.

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574422/?page=2>

[http://allpsych.com/disorders/disorders\\_alpha.html](http://allpsych.com/disorders/disorders_alpha.html)

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