

## Classification of Schizophrenia

**Positive symptoms** – additional experiences beyond those associated with normal psychological functioning – **hallucinations** (sensory experiences/distortions not based on reality) and **delusions** (beliefs which are not based on reality)  
**Negative symptoms** – a lack of abilities/experiences associated with normal psychological functioning – avolition (extreme lack of motivation) and speech poverty

## Reliability and validity of diagnosis

**Reliability** - How consistent a diagnosis of schizophrenia is among psychiatrists, over time, between cultures and between diagnostic tools (ICD and DSM)

☺ **Söderberg et al (2005)** found a concordance rate of 81% among psychiatrists using the DSM  
 ☺ **Jakobsen et al (2005)** found a concordance rate of 98% among psychiatrists using the ICD-10

⊕ **Cheniaux et al (2009)** found a lack of agreement in diagnoses of schizophrenia between the DSM and the ICD  
**Validity** - How accurate a diagnosis of schizophrenia is, is the diagnosis a true reflection of the illness they are suffering from  
 ☺ **Mason (1997)** found the ICD-10 had high predictive validity

⊕ Issues with comorbidity – 50% also have depression so the symptoms could be a result of one disorder (not two)

⊕ Issues with symptom overlap

### General issues

⊕ Diagnosis is gender biased – more men are diagnosed as women may be seen to function better

⊕ Diagnosis is culture biased – overdiagnosis of black individuals in Western society

⊕ Issues with methodology – small sample sizes

### Family dysfunction

Schizophrenogenic mothers (cold, rejecting, controlling)  
 Double bind communication (receiving mixed messages from parents, feeling trapped)  
 High expressed emotion (high levels of emotion from family – being fussy and critical – can lead to relapse)

☺ **Read (2005)** found that 69% female and 59% male inpatients with schizophrenia had a history of physical or sexual abuse in childhood within the family

⊕ Lack of scientific evidence for schizophrenogenic mother

⊕ Environmental determinism – could blame families and increase hostility/conflict within families leading to greater relapse

## Biological explanations of Schizophrenia

### Genetics

A vulnerability could be inherited through genes passed on DNA, likely to be polygenic. Example genes include PCMI which causes abnormalities in the OFC

☺ **Gottesman (1991)** found that MZ twins have a 48% risk of both developing schizophrenia compared to 17% for DZ twins

☺ **Tienari (2004)** children with a biological parent with SZ were still more at risk of developing the disorder vs. controls

⊕ Concordance rates are never 100% - environmental influence  
**Neural correlates**

Looking at the **correlation** between brain structure/function and symptoms of schizophrenia e.g. low activity in ventral striatum associated with avolition, lower density in supratemporal gyrus associated with hallucinations

☺ **Juckel (2006)** found a negative correlation between activity in the ventral striatum and negative symptoms such as avolition

⊕ Difficult to establish cause and effect

### Dopamine hypothesis

**High** of dopamine in the **subcortical areas** of the brain are linked to hallucinations and poverty of speech

**Low levels** of dopamine in the outer areas/cortex and in particular, the **pre-frontal cortex**, are linked to schizophrenia due to the effect on thinking and decision making

☺ **Amphetamines which increase dopamine activity** can induce schizophrenic like symptoms

☺ **Thornley (2003)** anti-psychotic drug chlorpromazine was associated with reduced schizophrenic symptoms

⊕ Other neurochemicals may also be involved

## Psychological Explanations of Schizophrenia

### Cognitive explanations

Dysfunctional thought processing – lack of metarepresentation (inability to differentiate between own actions and that of others/ inability to have realistic goals/intentions – could cause hallucinations), lack of central control (inability to suppress automatic thoughts – could result in disorganised thinking)  
 Poor memory function results in disorganised thinking

☺ **Leeson (2010)** schizophrenics performed worse on processing tasks, tests of working and episodic memory

☺ **Stirling (2006)** schizophrenics performed worse than controls on cognitive tasks including the stroop test

⊕ Do not address underlying causes of dysfunctional thoughts

⊕ Better at explaining the positive symptoms than negative

## Drug therapy

### Typical antipsychotics (e.g. chlorpromazine)

Block dopamine receptors at the synapse to reduce dopamine levels. Target the positive symptoms of SZ

☺ **Thornley (2003)** found chlorpromazine was associated with better functioning and reduced symptoms than a placebo

⊕ Side effects (e.g. lethargy and involuntary muscle movements) could mean a high dropout rate

⊕ Less effective at targeting the negative symptoms

### Atypical antipsychotics (e.g. clozapine)

Block dopamine receptors but also affect levels of other chemicals including Acetylcholine and serotonin – aim to target the negative symptoms as well as the positive

☺ **Bagnall (2003)** atypicals more effective in treating schizophrenia and less side effects than typical drugs

### General evaluation

☺ Allows individuals to live more independently

⊕ May not target the root cause – not a long term treatment

⊕ Ethical concerns over consent in severe cases

## Cognitive behavioural therapy

Aim is to identify and manage irrational, intrusive or delusional thoughts and challenging them to reduce anxiety and distress  
 Techniques include: Disputing thoughts, reality testing, positive self-talk, social activities, relaxation techniques

☺ **Jauhar (2014)** found small but significant effects on reducing both positive and negative symptoms

⊕ May not be suitable for those with positive symptoms

⊕ Less practical than drug therapy

## Family therapy

Aim is to reduce the anger, frustration, tension and expressed emotion, improve communication and increase tolerance

☺ **Pharaoh (2010)** found that family therapy led to a reduction in relapse rates and hospital readmissions

⊕ Relies on family members being willing and motivated

## Token economies

Aim is to reward a patient with a token for desirable behaviour (operant conditioning) which can be exchanged for physical rewards – makes behaviour easier to manage

☺ **McMonagle and Sultana (2000)** found token economies had some effectiveness in reducing the negative symptoms

⊕ Do not address underlying causes of SZ

⊕ Ethical concerns about training patients like lab rats