Schizophrenia

Fact Sheet

What is Schizophrenia?

Schizophrenia is a severe mental disorder in which individuals experience episodes of 'psychosis' which involve symptoms such as hallucinations (hearing voices), delusions (false ideas), disordered thoughts and problems with feelings, behaviour and motivation. In many people symptoms recur or persist long-term, but some people have just one episode[1]. It first affects people in the age range of 15-35 years[2]. Most commonly it begins in late adolescence and the early twenties, with later onset in women[1].

Schizophrenia is widely misunderstood with many people believing that those affected have a split or dual personality, which is not the case. The media have also exaggerated the likelihood of violent behaviour amongst schizophrenia patients; a patient is far more likely to be the victim of violent crime than the perpertrator[3].

Key facts

- Schizophrenia affects around 20 million people worldwide
- It usually starts in late adolescence or early adulthood and is a lifelong condition
- Symptoms include thought disorders, delusions, hallucinations, and nagative symptoms
- Treatment with antipsychotic medication and psychological therapy can reduce symptoms and improve functioning

The scale of the problem

The life-time risk of schizophrenia is approximately 0.7%, but since the disorder is chronic, the overall prevalence is higher, at around 1-1.5% of the adult population. Schizophrenia affects around 20 million people worldwide. However, the symptoms are treatable, with medicines and psychological and social care, with costs being equivalent to around US$2 per month per patient. The earlier treatment is initiated, the more effective it is, however the majority of people with schizophrenia do not receive early and timely treatment, which contributes to poor prognosis.

How severe is schizophrenia?

Generally, with early treatment, around 80% of people will recover after their first episode of psychosis, although less than 20% will never have another episode[5]. While many patients with schizophrenia have a lifelong vulnerability to recurrent episodes of illness, a smaller proportion will have less relapses and make a good functional recovery[5].

Known causes of Schizophrenia

The causes of schizophrenia are not fully understood. Research suggests that schizophrenia may be caused by a change in the level of the chemicals that are used for communication in the brain (neurotransmitters), dopamine, glutamate, and serotonin, perhaps by their imbalance a change in the body's sensitivity to them[3]. Genetic research indicates that schizophrenia may be heritable and while no one gene has been found for schizophrenia, several genes may cause a predisposition that can be triggered by certain life events such as:

- Premature birth and low birth weight
- Viral infections during development in the womb
- Restricted oxygen at birth[5,6]

And later in life:

- Social isolation (including migrant status)
- City dwelling
- Abnormal family interactions e.g. hostile or overly critical parents[5,6]

Short-lived illness can be associated with drug misuse, particularly with cocaine, amphetamines and cannabis. Cannabis use especially, has been observed to have an effect on established schizophrenia as well as increasing the risk of schizophrenia developing[5].

Diagnosis

There is currently no physical or laboratory test that can absolutely diagnose schizophrenia; a psychiatrist usually comes to the diagnosis based on clinical symptoms. Diagnosis is mainly based on the self-reported experiences of the person as well as abnormalities in behaviour reported by family members, friends or co-workers, followed by secondary signs observed by a psychiatrist, social worker, clinical psychologist or other clinician[7].

Symptoms

Changes in thinking and behaviour are the most obvious symptoms of schizophrenia, although people experience schizophrenia in different ways. The symptoms are usually classified as either positive or negative, other symptom domains include behavioural disturbances, affective, or cognitive symptoms.3

Positive symptoms

Positive symptoms of schizophrenia represent a change in behaviour or thoughts:

Auditory hallucinations, in which voices are heard, are the most common form of hallucinations. Voices may provide a running commentary on the person's actions, argue about the person, or echo the person's thoughts. Visual, smell, taste, or tactile hallucinations occur less commonly – visual hallucinations occur in about 10% of people with schizophrenia[8].

Delusions may also be experienced by individuals, they are culturally inappropriate and bizarre; include paranoid delusions, ideas of reference, delusions about external control of their thoughts, delusion that others can hear their thoughts, or that there is some form of external control of their emotions, sensations and actions[8].

Thought disorder is an impairment of the ability to form thoughts from logically connected ideas and is apparent in the person's speech. It makes their conversation hard to follow, and even incoherent[8].

- **Negative symptoms**

The negative symptoms of schizophrenia can often appear several years before somebody experiences their first acute psychotic episode, during the 'prodromal period'. Negative symptoms experienced by people living with schizophrenia include:

Losing interest and motivation in life and activities, including relationships and sex

Lack of concentration, not wanting to leave the house and changes in sleeping patterns

Blunted affect with restricted emotional range

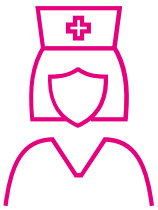
Being less likely to initiate conversations and feeling uncomfortable with people, or feeling that there is nothing to say[3].

Treatment and therapies

The mainstay of psychiatric treatment for schizophrenia is antipsychotic medication, but psychotherapy is also widely recommended and used.

Antipsychotics work by blocking the effects of dopamine excess on the brain. Atypical antipsychotics are now generally used as the first-line treatment for psychosis, such as amisulpiride, risperidone, quetiapine, olanzapine, aripiprazole, clozapine. These are preferred to older, typical antipsychotics because they cause fewer extrapyramidal reactions (Parkinsonian symptoms). However, they can still cause significant side-effects and patients need to be screened for endocrine disorders (e.g. diabetes) as well as neurological and cardiovascular problems[5].

Once a patient has recovered from an acute episode of schizophrenia, he/she will usually remain on a prophylactic dose of an antipsychotic for one to two years, being supervised by a psychiatrist or a primary health care professionals. After that time, if the patient remains symptom free, the therapy can be withdrawn gradually with careful monitoring for signs of relapse.5



Psychological therapies can help reduce symptoms, improve functioning and prevent relapse, although their availability is often limited by a lack of trained therapists. In particular, Cognitive Behavioural Therapy (CBT) has been shown to reduce persistent symptoms and improve insight. Family therapy and other forms of educational therapy can help to improve communication, raise awareness and reduce distress in both patients and their family members. Psychosocial interventions can help reduce relapse rates, admission rates and improve compliance with treatment[5].

Unmet needs

There is still a number of major questions about schizophrenia and its causes, prevention and treatment that remain to be answered.7 In particular a better understanding of the structural and functional brain impairments, disrupted neural networks and circuitry is needed, as well as a greater knowledge of other environmental factors that vulnerability to schizophrenia. More efficacious and better tolerated treatments would be most welcome, enabling to tailor treatment to individual patients in order to improve outcomes, reduce side effects, and ascertain adherence.5 A significant number of people with schizophrenia are not receiving timely, adequate treatment. The WHO estimates that more than 50% of persons with schizophrenia do not access to appropriate care[2].

Impact on the lives of those affected and their carers

Both the positive and negative symptoms of schizophrenia can impact the patient's relationships, social life, ability to work and general health.3 Even for those patients who respond well to treatment, a diagnosis of schizophrenia continues to pose a risk:

- Mortality is 2-3 times higher than the general population
- Suicide risk is 9 times higher
- Death from violent incidents is twice as high
- 36% of patients have a substance misuse problem and there are high rates of cigarette smoking[6]
- 1 in 10 people with schizophrenia commit suicide
- 4 in 10 people with schizophrenia attempts to end their lives[6]

Futher information

European Psychiatric Association
www.europsy.net

Global Alliance of Mental Illness Advocacy Networks-Europe (GAMIAN-Europe)
www.gamian.eu

REFERENCES

1. http://www.nrronline.org/article.asp?issn=1673 5374;year=2018;volume=13;issue=8;spage=1342;epage=1345;aulast=Lee
2. https://www.thelancet.com/journals/laneur/article/PIIS1474-4422(17)30299-5/fulltext
3. https://www.thelancet.com/journals/laneur/article/PIIS1474-4422(17)30299-5/fulltext
4. Thanvi BR, Munshi SK, Vijaykumar N, et al (2003) Neuropsychiatric non-motor aspects of Parkinson's diseasePostgraduate Medical Journal 2003;79:561-565
5. https://www.ncbi.nlm.nih.gov/books/NBK482140/
6. https://www.healthline.com/health/parkinsons-disease/dopamine-agonist#how-they-work

EBC
European Brain Council

ACKNOWLEDGEMENTS

We would like to express our very great appreciation to Professor Pavel Mohr for his valuable and constructive suggestions during the development of this fact sheet.