

PSYCHOLOGICAL THERAPIES FOR SCHIZOPHRENIA

Psychological treatments (therapies) arise from the different **psychological approaches** to explaining the causes of mental disorder. Since psychological approaches see mental disorders as being caused by **psychological factors**, the therapeutic approaches they favour are also psychological.

Two psychological approaches to treating schizophrenia are **behavioural** and **cognitive-behavioural**. The *descriptive* aspect of an examination question will be knowledge and understanding of what these therapies involve. The *evaluative* aspect will be an evaluation of the therapies in terms of their **effectiveness** (how *well* they work in treating schizophrenia) and **appropriateness** (whether they *should* be used to treat schizophrenia).

The 'Token Economy' as a behavioural approach to treating schizophrenia

Behavioural therapies use the principles of **classical** and **operant conditioning** to treat mental disorders. The term **behaviour therapies** is reserved for those approaches which are based on **classical conditioning**. Those that use **operant conditioning** are called **behaviour modification techniques**, and it is these that are used in the treatment of schizophrenia.

Therapies based on operant conditioning are aimed *directly* at observable behaviours. All of these therapies involve three main steps:

- Identifying the undesirable or maladaptive behaviour
- Identifying the reinforcers that maintain such behaviour
- Restructuring the environment so that the undesirable behaviour is no longer reinforced

One way to eliminate an undesirable behaviour is to remove the reinforcers that maintain it, the idea being that the removal of reinforcers will **extinguish** the behaviour they reinforce. Another way is to use aversive stimuli as a **punishment** for voluntary undesirable behaviours. As well as eliminating undesirable behaviours, operant conditioning can be used to increase desirable behaviours. This can be achieved by providing **positive reinforcement** when a behaviour is performed, and making the reinforcement *contingent* on the behaviour being manifested *voluntarily*. One behaviour modification technique that does this to treat schizophrenia is called the **Token Economy**.

This approach has its roots in a study reported by **Ayllon & Haughton (1962)**. They were asked to visit a hospital where the staff were finding it difficult to get withdrawn schizophrenics to eat regularly. They noticed that the staff were actually exacerbating the problem by coaxing the patients into the dining room and, in some cases, even feeding them. The researchers reasoned that the increased attention was reinforcing the patients' uncooperativeness and decided that the hospital rules should be changed.

For example, if patients did not arrive at the dining hall within 30 minutes of being called, they were locked out. Additionally, staff were no longer allowed to interact with patients at meal times. Because their uncooperative behaviours were no longer reinforced, the patients quickly changed their eating habits. Then, they were made to *pay* one penny in order to enter the dining hall. The pennies could be *earned* by showing socially appropriate *target behaviours*, and their frequency also began to increase.

Ayllon & Azrin (1968) then refined this into the **Token Economy**. In this, patients are given tokens in exchange for desirable behaviour. The therapist first identifies what a patient likes (e.g. smoking or watching TV). When a productive activity occurs (such as socialising with other patients), a token is given. These tokens can be exchanged for 'privileges', and therefore become **conditioned reinforcers** for desirable and appropriate behaviours.

Ayllon and Azrin found that tokens were **effective** in eliminating undesired behaviours and maintaining desired behaviours. The amount of time spent performing desired behaviours was highest when the reinforcement contingencies were imposed and lowest when they were not. Ayllon and Azrin also discovered that token economies had an effect on patient and staff morale, in that the patients were less apathetic and irresponsible, whilst the staff became more enthusiastic about their patients and the therapeutic techniques.

Several other studies have confirmed the effectiveness of the token economy, and it is generally accepted that it is effective in producing a variety of behaviour changes at least in the setting in which the tokens are given. However, **Kazdin & Bootzin (1972)** have claimed that the token economy does not lead to *permanent* behavioural change, and that once the reinforcement is removed, the undesirable behaviours return to their initial level (see below).

As with house-training a dog, the token economy system is only effective if the tokens are given *immediately* after the desired behaviour has occurred. The longer the interval between the behaviour and the token the less likely it is that learning will take place. Additionally, the method is most effective if tokens can be exchanged for a *wide variety* of reinforcers. If the reinforcement is always the same, *satiation* occurs, and the behaviour decreases in frequency.

Another factor that affects the effectiveness of the token economy is *intelligence*. It is generally accepted that it is only really effective with people of rather limited intellectual capacity, and in situations where the therapist can apply almost total control. This may explain why the token economy is more effective with *children* than adults.

Despite their effectiveness in producing behaviour change with schizophrenics, various issues have been raised about the **appropriateness** of the Token Economy. For example, the tokens will eventually have to be replaced by other social reinforcers, both *within* and *outside* the therapeutic setting. This is achieved by gradually 'weaning' the person off the tokens in the therapeutic setting or some other community live-in arrangement where more *social reinforcers* can be used. Unfortunately, this is not always successful, and there tends to be a high rehospitalisation rate for discharged individuals. Thus, *generalisation* of learning from one situation to another does not occur with the token economy.

Token economies can lead to what **Baddeley (1997)** calls '**token learning**'. What he means by this is that people might only indulge in a behaviour if they are directly reinforced for it. Whilst this might be effective within the confines of the therapeutic setting, Baddeley sees it as quite unproductive in other settings, where it is necessary to learn on a subtler and less immediate reward system.

One of the major issues about the appropriateness of token economies is that they only focus on the *observable* aspects of schizophrenia. Supporters of the behavioural approach consider a disorder to be '*cured*' when the maladaptive behaviours are *changed*. Critics argue that the token economy fails to address the *underlying causes* of schizophrenia (which are likely to be *biochemical*). Like the anti-psychotic drugs, the token economy only *masks* the disorder rather than truly eliminating it.

Another factor affecting the appropriateness of the token economy is the *ethical issues* it raises. It has been claimed that it exercises authoritarian control and dehumanises and 'brainwashes' people. It has also been suggested that the therapy manipulates people and deprives them of their freedom. As we have seen, it is the therapist rather than the individual who controls the reinforcer, and therapists do not encourage people to seek *insight* concerning their schizophrenia.

Finally, since the token economy does not address the cause of schizophrenia, it may not be appropriate on *economic grounds*. The token economy involves a high initial cost for staffing and the supply of appropriate reinforcers. There is also the problem of staff *resisting* the token economy system because it means that they have to interact constantly with the in-patients, leaving little time for anything else to be done.

Cognitive-behavioural approaches to treating schizophrenia

Cognitive-behavioural therapy (CBT) is based on the view that people with mental disorders have irrational and unrealistic ways of thinking. The goal of CBT is to change faulty belief systems. Several approaches are used in the treatment of schizophrenia. These include **stress management**, '**personal therapy**' and **belief modification**.

Therapies involve identifying the particular problem the individual has (e.g. auditory hallucinations, delusional beliefs), what triggers the problem, and the strategies the person uses to deal with the problem. Once this has been done, the therapist and client work together and develop specific strategies to help the client cope more effectively. The goal of CBT is therefore to strengthen the individual's logical reasoning skills and provide an alternative to their psychotic thoughts.

Challenging belief systems in schizophrenia

Chadwick (1996) reports the case of a schizophrenic who believed he could make things happen just by thinking about them. He was shown paused video recordings and asked what would happen next. In over 50 trials he did not get a single prediction right, and was able to understand that he did not have this power after all.

Specific strategies to help clients include **distracting** the individual from intrusive thoughts or **challenging** their meaning. One way of distracting the person is for them to increase or decrease their social activity. Another approach is to use breathing or other relaxation techniques. In many cases, CBT is used in conjunction with anti-psychotic drugs. Whilst the drugs are exerting their effect, the client is taught to recognise signs of relapse, such as social withdrawal, and then given **coping strategies** which enable them to use the skills that they have acquired in an effective way.

In general, research suggests that CBT can be **effective** in treating schizophrenia. For example, **Zimmerman et al (2005)** found that CBT was better at treating the Type 1 symptoms of schizophrenia, compared with a control group who received no treatment at all. It has also been found that CBT can have a significant effect on the Type 2 symptoms as well.

CBT seems to be especially effective when combined with the anti-psychotic drugs. Studies suggest 'moderate' improvement in at least 50% of schizophrenics. In one study, **McGorry et al (2002)** looked at people who had not yet had a schizophrenic episode, but were considered to be at 'high risk'. Some of these people were given supportive psychotherapy, whilst others were given a low dose of an anti-psychotic drug combined with CBT. By the end of the six month treatment period, 36% of those given supportive psychotherapy had experienced a schizophrenic episode compared with only 10% of those given a drug combined with CBT.

In another study, **Tarrier, et al (2000)** evaluated different kinds of intervention *following* an acute schizophrenic episode. Participants were given drug therapy alone, drug therapy with CBT, or drug therapy with supportive counselling. At the end of the trial, 15% receiving drug therapy and CBT showed no Type 1 symptoms compared with 7% of those receiving drugs and supportive counselling, and 0% receiving drugs only. One year after the study, Tarrier et al found that these differences remained, although two years later the CBT and counselling groups did not differ, although both were still better off than the drugs only group.

Yet other studies (e.g. **Bradshaw, 1998**) have shown that CBT can be effective in preventing *relapse* after a schizophrenic episode. Often, stressors can cause a relapse, and CBT can be effective in these cases because it helps a person (a) recognise the stressors and (b) recognise that their reaction to them is inappropriate.

It used to be believed that CBT was **appropriate** only for those who are capable of gaining insight into their problem, and that it was therefore futile trying to change the cognitive distortions of schizophrenics. The growth in support for a *biological basis* to schizophrenia (i.e. dopamine) has also led clinicians to question the appropriateness of CBT.

Although CBT can have beneficial effects, it does not seem to be an appropriate way of treating people with chronic schizophrenia, for whom anti-psychotic drugs would appear to be more appropriate. As with the behavioural approach, CBT focuses only on the observable aspects of schizophrenia. Critics argue that CBT is not a 'cure' for schizophrenia, but rather a way of 'normalizing' a person's symptoms. It therefore fails to address the *underlying causes* of schizophrenia (which, as noted, are likely to be *biochemical*).

Another factor affecting the appropriateness of CBT is the *ethical issues* it raises. However, since CBT is a 'collaborative' therapy (it involves the active cooperation of the client), it avoids the criticism made of drug therapy that the client is merely a passive recipient of treatment. Additionally, since CBT does encourage people to seek *insight* concerning their schizophrenia, it would seem to be more appropriate than the token economy.

Finally, since CBT does not address the cause of schizophrenia, it too may not be appropriate on *economic grounds*. CBT does involve high costs for staffing and may therefore be less appropriate when more cost-effective drugs are available.