

## Discuss issues with biological therapies

Biological therapies arise from the medical model of abnormal behaviour: mental disorder is an illness which results mainly from a chemical imbalance. Biological treatments are designed to redress this imbalance, through the administration of chemical drugs known as chemotherapy, electroconvulsive therapy, and, in rare cases, psychosurgery. As well as mental disorders, the biological approach also gives an explanation and treatment for stress and the role of stress management. This approach also shows the link between stress and the immune system. Anorexia and bulimia nervosa are also explained by the medical model. Chemotherapy involves the use of drugs to treat mental disorders. For example anti-anxiety drugs consist of a class of drugs called benzodiazepines and minor tranquilliser designed to reduce levels of anxiety. These include Librium and Valium which were introduced in 1950s, and soon became the most prescribed drug in the world. However, the side-effects include drowsiness, dependence, withdrawal and toxicity

However, benzodiazepines have been found to be effective in reducing symptoms of anxiety and panic. Gelernter and found them to be more effective than a placebo for social phobia and Lecrubier found that 60% of patients with panic disorder remained free of panic while on medication.

Antidepressant drugs are classified as stimulants, and were also introduced in the 1950s. As well treating depression, they have been used in the treatment of panic disorder, specific phobias, obsessive compulsive disorder and eating disorders. These drugs include monoamine oxidase inhibitor, tricyclics, tetracyclic such as Prozac and serotonin reuptake inhibitors. Again, there are side-effects to using the drugs. MAIO's require adherence to a special diet. Amine rich food must be avoided and continuing eating these foods causes cerebrum haemorrhage. Both MAIO's and tricyclics are associated with the heart block, dry mouth, blurred vision and urinary retention. Tetracyclic drugs like Prozac are also not free from serious side-effects, including impairment of sexual function and abnormal aggression.

However, antidepressant drugs have been effective in reducing symptoms. These have been tested in trials with placebos and found to be effective in reducing symptoms of severe depression in around 65% to 75% of cases compared to around 33% for placebos. Although antidepressants are effective when used in the short term with severe depression, they are not useful on a long-term basis. Indeed they do alleviate depression in all people, and control studies suggest their effectiveness is no greater than psychotherapy and cognitive therapy, however, the side-effect of the urinary retention has been argued to be quite serious. Another problem is that antidepressant drugs are less effective with children, but are very effective with older people, although with more side-effects.

Antipsychotic drugs are neuroleptic drugs used in the treatment of schizophrenia and other psychotic disorders. Neuroleptics are major tranquillisers which sedate the person and improve symptoms of psychosis, such delusions and hallucinations. One example is phinothiazines. There are also side-effects to these drugs such as blurred vision, restlessness and abnormal body movements. Some of the symptoms resembles Parkinson's disease.

Antipsychotic drugs have been effective in treating symptoms of schizophrenia, they produce a calming effect and a reduction in psychotic symptoms such as delusions, hallucinations and motor disorders. However, they seem to have little effect on the negative symptoms such as withdrawal and apathy.

However, it may not be appropriate to administer antipsychotic drugs because it is estimated that around 7% of people diagnosed with schizophrenia refused to take phenothiazines because they have considerable side-effects. One is the development of symptoms similar to those found in Parkinson's disease, such as stiffness, immobility and tremors. It is thought that phenothiazines destroy a part of the brain.

On the whole, the effectiveness of chemotherapy has been backed up by Heimberg who compared the MAOI drug with cognitive behavioural therapy in the treatment of social phobia. Some participants received 12 weeks treatment of either the antidepressant or a placebo. Others received 12 weeks of CBT and educational supportive group therapy (a placebo equivalent of CBT). At the end of the 12 weeks, the MAOI and CBT treatments were more effective, in terms of response rate and other measures than, their placebo counterparts. Whilst MAOI therapy was more affected than CBT on some measures, the fact that both were superior to the respective placebos indicate that they are useful in the treatment of social phobia.

However, the major problem with chemotherapy, is that it treats the symptoms and not the cause. It has now become clear that drugs do not necessarily offer long-term cure, because in many cases symptoms reoccur when the drugs are no longer taken

ECT was originally used to treat schizophrenia, but today it is primarily used to treat severe depression, bipolar disorder and certain obsessive-compulsive disorders. In Britain, around 20,000 people in a year undergo ECT. According to Comer, ECT is highly effective in 60 to 70% of people with severe depression, and particularly useful with those who harbour suicidal feelings because it affects our immediate unlike the antidepressant drugs.

ECT, however, is regarded as a controversial treatment, because the medical profession is still unaware of how it works.

Moreover ECT should only be administered if antidepressant drugs have no effect and if there is a risk that the person will commit suicide.

ECT has also been criticised on ethical grounds. ECT has a negative public image deriving from horrific descriptions in books and films. Certainly, the primitive methods once used were associated with bruises, both fractures and losing consciousness during the treatment. These relate to the side-effects that were seen in past history. However, they are more modern techniques that are much more humane today and the patient is given muscle relaxants and a short acting anaesthetic before ECT begins.

Psychosurgery refers to surgical procedures that are performed on the brain to treat mental disorders. The different types of lobotomies seemed to be successful in reducing aggressive behaviour in unmanageable patients. Moniz originally used this technique schizophrenics and people who are compulsive and anxiety ridden. After a year, a 70% cure rate was claimed by Moniz.

However, the consistency of psychosurgery can be questioned. Psychosurgery produces inconsistent outcomes. Behaviour change occurs in some individuals but not others, although who would be affected, and how, is difficult to predict. Psychosurgical procedures cannot be reversed.

Moreover, they are severe and permanent side-effects associated with a psychosurgery. These include memory loss, impaired judgement and epileptic type seizures.

Even though they are the side-effects, psychosurgery is performed today. However, it is very much a treatment of last resort, used only when other treatment

methods have failed. Psychosurgical techniques reduce the risk of suicide in severe depression from 15% to 1%.

The biological approach tends to show determinism. This means that any individual behaviour is shaped or controlled by internal or external forces rather than an individual's will to do something. Also, this approach takes the nature view where those aspects of behaviour are inherited. Nature does not simply refer to ability is present at birth, but to any ability determined by genes, including those that appear to maturation. This approach ignores any nurture affects in that aspect of behaviour could be acquired through experience i.e. learned from interactions with the physical and social environment. The biological port also tends to show reductionism. This is the act of breaking complex phenomena down into more simple components.

There are ethical issues to address in biological therapies. The biological model of mental disorders removes responsibility from the patient and places it on faulty functioning of the body. With respect to ethics, this means that no blame is attached to the individual, but on the negative side, it means that the patient is not empowered to help him or herself. All responsibility is taken away and placed in the hands of the health professionals. There is also all the ethical issues that the patient may feel that is it the condition that is being treated rather than them as the individual. They may feel that they are being dismissed with a packet of pills, with no real consideration given for the intense misery they are experiencing.

As well at the biological approach, there are many other more approaches, which can be used to treat mental disorders such as the cognitive approach, behavioural approach and psychodynamic approach.