MENTAL AND NEUROLOGICAL DISORDERS

Twenty-five per cent of individuals develop one or more mental or behavioural disorders at some stage in life, in both developed and developing countries. The following disorders can now be diagnosed reliably and accurately as the most common physical disorders; some can be prevented, all can be successfully managed and treated.

DEPRESSION

Depression is a common mental disorder characterized by sadness, loss of interest in activities and by decreased energy. Depression is differentiated from normal mood changes by the extent of its severity, the symptoms and the duration of the disorder. Suicide remains one of the common and often unavoidable outcomes of depression. If depressive episodes alternate with exaggerated elation or irritability they are known as bipolar disorder. Depressive disorders and schizophrenia are responsible for 60% of all suicides. The causes of depression can vary. Psychosocial factors, such as adverse living conditions, can influence the onset and persistence of depressive episodes. Genetic and biological factors can also play a part.

Prevalence: An estimated 121 million people currently suffer from depression. An estimated 5.8% of men and 9.5% of women will experience a depressive episode in any given year. These figures can, however, vary across different populations.

Treatment: The first-line treatment for most people with depression consists of antidepressant medication, psychotherapy or a combination of both. Anti-depressants are effective across the full range of severity of major depressive episodes. Other effective interventions include setting up supportive network systems for vulnerable individuals, families and groups. The evidence regarding prevention of depression is less conclusive, only a few isolated studies show that interventions proposed for the prevention of depression are effective.

SCHIZOPHRENIA

Schizophrenia is a severe disorder that typically begins in late adolescence or early adulthood. It is characterized by profound disruptions in thinking, affecting language, perception, and a sense of self. It often includes psychotic experiences such as hearing voices or delusions. It can impair functioning through the loss of an acquired capability to earn one’s own livelihood or the disruption of studies.

Prevalence: Around 24 million people worldwide suffer from schizophrenia. The disorder is found equally in men and women. Women tend to develop it later in life, and also tend to have a better course and outcome after treatment.
Treatment: Primary prevention of schizophrenia is not possible. However, recent research has focused on developing ways of detecting those suffering from schizophrenia in the very early stages. This increases the chance of early treatment, diminishing the risk of recurrence or serious residual damage.

Treatment of schizophrenia has three main components:

* Medication to relieve symptoms and prevent relapse;
* Education and psychosocial interventions to help patients and families cope with the illness;
* Rehabilitation to help patients reintegrate into the community.

With modern drug advances and care, almost half of sufferers can expect a full recovery. However, in the remaining cases, it can follow a chronic or recurrent course with residual symptoms and serious limitations in daily activities.

ALZHEIMER’S DISEASE

Alzheimer’s disease is a degenerative brain syndrome characterized by a progressive decline in memory, thinking, comprehension, calculation, language, learning capacity and judgement. It is important, however, to differentiate the symptoms of Alzheimer’s disease from normal age-related decline in cognitive functions which is more gradual and leads to much milder disability.

* An estimated 37 million people worldwide live with dementia – with Alzheimer’s disease causing the majority of cases.
* About 5% of men and 6% of women over 60 years of age are affected with Alzheimer’s. With the ageing of populations, this figure is projected to increase rapidly over the next 20 years.

There is currently no cure for Alzheimer’s disease. The goals of care are to:

* Maintain the functioning of the individual;
* Reduce disability due to lost mental functions; reorganize routines so as to maximize use of the retained functions;
* Minimize symptoms such as depression, agitation, suspiciousness;
* Provide support to families.

Psychosocial interventions, including education, support, counselling and respite care, are extremely important in Alzheimer’s disease, both for patients and family caregivers. Some medicines have demonstrated usefulness in ameliorating cognitive dysfunction and improving attention, as well as reducing delusions.

EPILEPSY

Epilepsy is the most common of brain disorders. It is characterized by repeated seizures, or "fits", which range from the shortest lapse in attention to severe, frequent convulsions. They can occur several times a day to once every few months. The seizures are caused by bursts of excessive electrical activity in the brain.

Causes:

* Genetic predisposition;
* Brain damage caused by infections, parasites, alcohol or other toxic substance, and tumors;
* Tapeworm, schistosomiasis, malaria and encephalitis are some of the common infectious causes of epilepsy. However, in one half of cases, the causes remain unknown.

**Prevalence:** An estimated 50 million people of all ages around the world are affected by epilepsy. Figures indicate that more than 80% of individuals with epilepsy live in the developing world. Effective actions for the prevention of epilepsy are:

* Adequate prenatal and postnatal care;
* Safe delivery;
* Control of fever in children;
* Control of parasitic diseases;
* Prevention of brain injury such as controlling blood pressure or using safety belts and helmets.

Epilepsy therapy aims to prevent seizures and to reintegrate sufferers into community life. Up to 70% of people newly diagnosed with epilepsy can be seizure-free if treated with antiepileptic drugs. Although in most countries the cost of treatment can be as low as $5 per patient per year, the vast majority of sufferers remain untreated. In Africa, 80% of sufferers receive no treatment.

**MENTAL RETARDATION**

Mental retardation is a condition of arrested or incomplete development of the mind characterized by impairment of skills and overall intelligence in areas such as cognition, language, and motor and social abilities. Also referred to as intellectual disability or handicap, mental retardation can occur with or without any other physical or mental disorders. In addition to genetic factors, injuries at birth and brain infections, a common cause of mental retardation is iodine deficiency, which is the single largest cause of preventable brain damage and severe mental retardation.

**Prevalence:** It is estimated that the overall prevalence of mental retardation is between 1% and 3%. It is more common in developing countries because of higher incidence of injuries and deprivation of oxygen at birth and early childhood brain infections, all of which cause retardation.

Mental retardation can be prevented. Actions to prevent retardation include:

* Iodization of salt to prevent iodine-deficiency mental retardation (cretinism);
* Abstinence from alcohol by pregnant women to avoid fetal alcohol syndrome;
* Dietary control to prevent mental retardation in people with phenylketonuria;
* Environmental control to prevent mental retardation due to poisoning from heavy metals such as lead;
* Prenatal genetic testing to detect certain forms of mental retardation such as Down’s Syndrome.

**Treatment goals:**

* Early recognition and optimal utilization of the intellectual capacities of the individual by training, family education and support;
* Vocational training and opportunities for work in protected environments;
* Training of parents to act as teachers and trainers of daily life skills;
* Support groups for parents.
There are a number of disorders resulting from the use of psychoactive substances including alcohol, opioids such as opium or heroin, cannabinoids such as marijuana, sedatives and hypnotics, cocaine, other stimulants, hallucinogens, tobacco and volatile solvents. The conditions include acute intoxication, harmful use, dependence and psychotic disorders. Tobacco and alcohol are the substances which are used most widely across the globe and which pose the most serious public health consequences.

**Prevalence:** Today, one in three adults or 1.2 billion people use tobacco. By 2025, the number is expected to rise to more than 1.6 billion. Tobacco was estimated to account for 4 million annual deaths by 1998. This is expected to rise to 8.4 million deaths by 2020. There are an estimated 70 million people who have alcohol use disorders, including harmful use and dependence – 78% of whom remain untreated. The rate of alcohol use disorder for men is 2.8% and for women 0.5%. An estimated 5 million people worldwide inject illicit drugs – there is a high prevalence of HIV infection among injecting drug users, making it a major public health concern.

**Goals of therapy:** To reduce illness, disability and death due to the use of psychoactive substances and to help patients lead a drug-free life. Strategies include:

* Early diagnosis;
* Identification and management of risk of infectious diseases as well as other medical and social problems;
* Counselling and access to services and opportunity to achieve social integration;
* Medical detoxification is only the first stage of dependence treatment – it must be accompanied by long-term care to decrease rates of relapse.

**DISORDERS OF CHILDHOOD AND ADOLESCENCE**

Mental and behavioural disorders are common during childhood and adolescence. An estimated 10-20% of children have one or more mental or behavioural problems. Many disorders commonly found amongst adults (eg. depression) can begin during childhood. There are two broad categories specific to childhood and adolescence:

* Disorders of psychological development e.g. dyslexia or autism;
* Behavioural and emotional disorders e.g. attention deficit/hyperactivity disorders (ADHD) or conduct disorders.

**Treatment:** Child and adolescent disorders require a continuum of care over time linking settings such as families, schools, hospitals and out-patient facilities.

* Treatments include both individual and group psychological support such as psychotherapy or counselling. Use of medication to treat ADHD or hyperkinetic disorders is now common as are behavioural techniques for anxiety disorders.
* There are emerging tests involving neuroimaging that hold promise for precise definition of pathological brain function for a variety of disorders that could help improve treatment options.
* Outpatient care is preferred to hospitalization as it represents appropriate least restrictive care.
* Diagnosis requires an understanding of normal and abnormal psychological development and is best done by trained observers with a variety of clinical instruments in addition to parent reporting.