

## Sudan

### General Information

Sudan is a country with an approximate area of 2506 thousand sq. km. (UNO, 2001). Its population is 34.333 million, and the sex ratio (men per hundred women) is 101 (UNO, 2004). The proportion of population under the age of 15 years is 39% (UNO, 2004), and the proportion of population above the age of 60 years is 6% (WHO, 2004). The literacy rate is 70.8% for men and 49.1% for women (UNESCO/MoH, 2004).

The country is a low income group country (based on World Bank 2004 criteria). The proportion of health budget to GDP is 3.5%. The per capita total expenditure on health is 39 international \$, and the per capita government expenditure on health is 7 international \$ (WHO, 2004).

The main language(s) used in the country is (are) Arabic and English. The largest ethnic group(s) is (are) Arab and African. The largest religious group(s) is (are) Muslim, and the other religious group(s) are (is) indigenous groups and Christian.

The life expectancy at birth is 54.9 years for males and 59.3 years for females (WHO, 2004). The healthy life expectancy at birth is 47 years for males and 50 years for females (WHO, 2004).

### Epidemiology

Rahim and Cederblad (1989) evaluated a sample of 204 subjects aged 22-35 years using the Self-Rating Questionnaire, the Eysenck Personality Inventory and a Sudanese rating scale of anxiety and depression, a psychiatric interview and a medical examination. Results showed that 16.6% of the subjects had at least one disorder as per DSM-III. The most common were depression (8.4%) and generalized anxiety (3.4%). Alcohol abuse was rare (0.4%). There was no sex difference in the prevalence of mental disorders. Cederblad and Rahim (1989) re-interviewed 104 randomly chosen subjects in 1983 (from the original pool of 197 children examined in 1964-1965). The overall psychiatric impairment was 14% (males 18%; females 8%). In an earlier study they evaluated the psychological effect of urbanization on children aged 3-15 years living in a sub-urban community that transformed from a rural to urban economy between 1965 and 1980. Interviews done in 1965 and 1980 showed an increase in behaviour problems in boys aged 7-15, while there was an improvement in physical health and nutrition. Behaviour problems were associated with factors related to parents (blue-collar workers, maternal anxiety/depression, harsh corporal punishment) and children (dropping out of school, poor somatic health) (Rahim & Cederblad, 1986). Cederblad (1988) assessed behaviour disorders in children of different ages in Sweden, Sudan and Nigeria. The similarities of frequencies of behaviourally disturbed children were more striking than the differences. Rural children generally had less behaviour problems than urban ones. However, in another multi-country study, carried out in a primary care setting (n=925), that employed a two-stage screening process, Giel et al (1981) found the prevalence of mental disorders among children to range from 12% to 29%. Rahim and Cederblad (1986) and Cederblad et al (1986) evaluated the prevalence of enuresis in 8462 children aged 3-15 living in the suburban area. 88% wetted their beds at least several times per week. The prevalence of enuresis was higher in boys than in girls. Only 5% of the children above 7 years of age had secondary enuresis. An intensive study of 245 children selected through stratified sampling did not reveal any association between enuresis and somatic, developmental, behavioural, socio-economic or child rearing (including bladder-training) factors.

## **Mental Health Resources**

### **Mental Health Policy**

A mental health policy is present. The policy was initially formulated in 1998.

The components of the policy are advocacy, promotion, prevention, treatment and rehabilitation.

### **Substance Abuse Policy**

A substance abuse policy is present. The policy was initially formulated in 1995.

### **National Mental Health Programme**

A national mental health programme is present. The programme was formulated in 1998.

The national mental health programme aims to integrate with general health facilities along with promotion of comprehensive mental health care, train mental health personnel and establish a national organizational body for systematic coordination of related activities and the promotion of mental health.

### **National Therapeutic Drug Policy/Essential List of Drugs**

A national therapeutic drug policy/essential list of drugs is present. It was formulated in 1970.

### **Mental Health Legislation**

The most recent legislation is the state law 'Gezira Mental Health Law' of 1998. The mental health legislation forms a chapter of the Public Health Act of 1973, which was revised in 1985. The Mental Health Act has been drafted and has gone to the parliament for approval.

The latest legislation was enacted in 1998.

### **Mental Health Financing**

There are budget allocations for mental health.

Details about expenditure on mental health are not available.

The primary source of mental health financing is tax based.

The country has disability benefits for persons with mental disorders.

### **Mental Health Facilities**

Mental health is not a part of primary health care system. Actual treatment of severe mental disorders is not available at the primary level. Mental health has not been integrated with the primary care, and there is also a lack of personnel.

Regular training of primary care professionals is carried out in the field of mental health. In the last two years, about 40 personnel were provided training. Training facilities are present for primary care physicians, police and prison officers. The Gezira Mental Health Programme

was aimed at modifying community concepts, attitudes and practices concerning mental health, ensuring community involvement and participation and extending mental health services by training primary health care staff. The evaluation of the programme showed that it helped in raising public awareness and community participation. Members of the health team and teachers who received training reported a better understanding of mental health problems and an improvement in their handling of the mental problems. Sudan has the experience of using traditional healers for provision of mental health services.

There are no community care facilities for patients with mental disorders. Community care is absent due to the lack of proper transportation, lack of social workers and poor health education.

### **Psychiatric Beds and Professionals**

Total psychiatric beds per 10 000 population	0.2
Psychiatric beds in mental hospitals per 10 000 population	0.18
Psychiatric beds in general hospitals per 10 000 population	0.02
Psychiatric beds in other settings per 10 000 population	0
Number of psychiatrists per 100 000 population	0.09
Number of neurosurgeons per 100 000 population	0.007
Number of psychiatric nurses per 100 000 population	0.2
Number of neurologists per 100 000 population	0.014
Number of psychologists per 100 000 population	0.17
Number of social workers per 100 000 population	0.1

Many mental health professionals including most psychiatrists have left for other countries.

### **Non-Governmental Organizations**

NGOs are not involved with mental health in the country. Special attention has been given to migrants, elderly, refugees, displaced and homeless and children.

### **Information Gathering System**

There is no mental health reporting system in the country. Some mental health information particularly numbers related to admissions for major disorders are collected from a few hospitals in the general health data collection system, but the system has many limitations.

The country has no data collection system or epidemiological study on mental health. There are no funds or personnel to carry out epidemiological studies.

### **Programmes for Special Population**

These groups are supported by NGOs and UNICEF.

A school mental health programme is present.

### **Therapeutic Drugs**

The following therapeutic drugs are generally available at the primary health care level of the country: phenobarbital, phenytoin sodium.

Since mental health is not integrated in primary care level, most of the drugs are not available at primary care level. A list of essential neuropsychiatric drugs for all levels has been formulated.

### **Additional Sources of Information**

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