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DEVELOPMENTS IN MENTAL HEALTH SCENARIO : NEED TO STOP EXCLUSION – DARE TO CARE

Mental, behavioural, and social health problems are an increasing part of the health problems the world over. Yet these have received scant attention outside the wealthier, industrialized nations. The World Health Organization (WHO) has declared 2001 as the year for mental health in recognition of the burden that mental and brain disorders pose on people and families affected by them. Although most people encounter persons with mental disorders in families and neighbourhoods, there is a tendency to feign ignorance or actively ignore this fact. The result is that the help that can be obtained at no great cost, is denied to the mentally ill. As we fail to acknowledge this reality, we perpetuate a vicious cycle of ignorance, suffering and even shortening life-span for the afflicted people. The WHO has appealed to all peoples and governments around the world to commit to "Stop exclusion – dare to care".

Though the burden of illness resulting from psychiatric and behavioural disorders is enormous, it is grossly under-represented by conventional public health statistics, which have tended to focus on mortality rather than the morbidity or dysfunction. Deaths have traditionally been ascribed to their proximate causes, rather than to the behaviours or underlying disease states that lead to the final crisis; thus, a death is attributed to liver failure when the underlying cause for the failure is alcoholism. National and international health statistics do not reflect the enormous toll of misery from mental disorders because these conditions are not the immediate cause of death. Few studies have mapped the specific economic costs of mental illness. The cost comparisons made in the USA showed[1] that the cost burden from depression is about the same as that from heart disease.

The Disability-Adjusted Life Year (DALY) measure combines burden from premature mortality with that from living with disability, and provides a more comprehensive assessment of burden of illness. The global burden of disease for neuropsychiatric disorders, as measured by the loss of DALYs, was estimated[2] to be 6.8% world-wide in 1990. Psychiatric disorders account for 5 of 10 leading causes of disability as measured by years lived with a disability. The overall DALYs burden for neuropsychiatric disorders is projected[3] to increase to 15% by the year 2020 and this increase is proportionately larger than for cardiovascular disease.

The number of persons with major mental illnesses will increase substantially in the decades to come, for two reasons. First, the number of people living in the age groups of risk for certain illnesses are increasing because of changes in demographics. Thus the number of persons with schizophrenia will increase substantially because of increase in the population between 15 and 45 years of age the world over. Similarly there will be a substantial increase in the

senile dementias, again by virtue of the increase in the number of people living to the age of 65 years and beyond. The second reason of overall increase in mental illnesses is that rates of depression have increased in recent decades, depression is now being seen at younger ages and with greater frequency world-wide.

A meta-analysis of psychiatric epidemiological studies in India[4] has estimated prevalence rates per thousand population for various psychiatric disorders as follows: all psychoses (15.4), epilepsy(4.4), mental retardation(6.9), alcohol/drug addiction (6.9), neurotic disorders(20.7).

Major Neuropsychiatric Disorders

Schizophrenia

Prevalence estimates of schizophrenia from studies in low income countries carried out at different time periods have been fairly consistent in spite of variation in methodology (Table). As the specific cause of schizophrenia is unknown, there is currently no known form of prevention. Familial aggregation is evident in multigenerational studies, but heritability accounts for a small proportion of variance. Despite evidence for a familial disposition, what is inherited is unknown. There is no single gene for schizophrenia. No current data provide a clear model of preventable social or biological factors that account for the onset of schizophrenia. Although research has provided little evidence for understanding the social origins of schizophrenia, it does provide strong support for the hypothesis that social and cultural factors affect the course and prognosis of schizophrenia. In a two year follow up study[14] in eight countries of people diagnosed as suffering from schizophrenia, it was found that the outcome varied enormously. Patients in low-income countries did far better than those in North America and Europe. For example, two years after the first treated episode of schizophrenia, 50% patients were reported to have recovered in India and 58% in Nigeria, whereas only 8% were reported as recovered in Denmark. Similar findings were reported at 5 years follow up in this eight country study .

The differences in prognosis are attributed to a myriad of environmental and other psychosocial factors interacting with the individual and illness.

Research has advanced the understanding of the disorder and made major contributions to the treatment of schizophrenia. Treatments are both of a biological nature (*eg* medication) as well as psychosocial (*eg* psycho education of the family and rehabilitation). The helplessness of the past has been replaced by considerable hope since conditions that once were treated in closed institutions are being treated through interventions at home, in community services, and general hospitals. Early treatment is essential for better recovery.

Table. Prevalence of schizophrenia

Author/Year	Country	Area	Sample size	Rate /1000
Dube & Kumar[5]	India	Mixed	29,468	1.49
Nandi *et al*[6]	India	Rural	1,060	2.8
ICMR[7]	India	Rural	146,380	2.2
Verghese *et al*[8]	India	Urban	1,887	2.6
Padmavathi *et al*[9]	India	Urban	101,229	2.5
Wijesinghe *et al*[10]	Sri Lanka	Semi-urban	7,653	3.8 2.9(M) 4.7(F)
Shen *et al*[11]	Mainland China	Mixed	190,000	1.9
Lin *et al*[12]	Taiwan	Taiwanese Chinese		1.4 2.5
Baasher[13]	Sudan	Rural	3,984	2.0

Superscript nos refer to sl. no. in the reference list.

Affective Disorders

Whereas schizophrenia is a low prevalence but high severity disorder, depression is of high prevalence and moderate to high severity. It has been reported[15] that for as many as one-fifth to one-third of patients attending primary health care clinics in low-income countries, depression is the principal or a secondary reason for seeking care; findings similar to those of repeated research in North America and Europe . Therefore, depression produces far more morbidity in the community. In addition, because suicide is a far greater risk in depression, the depressive disorder has a greater impact on premature mortality.

Depressed patients suffer as much disability and distress as patients with chronic medical disorders such as high blood pressure, diabetes, coronary artery disease, and arthritis. Recovery from individual episodes of depression is readily stimulated by appropriate treatment, but relapse is common and care over the long-term is essential. Depression runs in families, reflecting an inherited vulnerability. There is equally strong evidence, however, that childhood experiences, such as loss of a parent also produce vulnerability to depression, and the losses experienced in adulthood can also precipitate depressive episodes. Depression is thus both biological and social in its origin. In spite of the considerable evidence about the general social correlates of, and the psychosocial risk factors for depression, we do not know the specific causal pathways that transform social experiences into psychopathology.

Effective treatments for depressive disorders are available. There are now clear guidelines for the treatment of mood disorders which include both anti-depressant medications and psychological interventions, such as cognitive psychotherapy and social support. Despite the existence of solutions, the majority of people with depression do not receive adequate treatment. There are millions of people in the world currently affected by depression whose suffering and disability is prolonged because their condition goes undetected, or, is often not adequately treated. There is a need to strengthen mental health care programmes.

Anxiety Disorders and Post Traumatic Stress Disorder

Anxiety disorders characterized by symptoms of anxiety and avoidance occur as panic disorder, phobias, obsessive-compulsive disorder, generalized anxiety disorder, and post traumatic stress disorder (PTSD). Anxiety in its various manifestations produces suffering and disability for large number of people world-wide. According to data available from the United States[16], lifetime prevalence rates for generalized anxiety disorder vary from 5 to 10%. Anxiety disorders can have serious effects on social function, work, personal well-being, and use of health services.

Post-traumatic stress disorder is a persistent response, which often occurs after a delay, to a catastrophic experience, one that causes stress to all victims but persists long after the event and interferes with function in only some of those exposed to the event or series of events. Review of morbidity studies[17] in disaster situations has shown a positive relationship between disaster occurrence and psychopathology which increased by approximately 17% on an average, although effect sizes were significantly heterogeneous. While considering the pattern and prevalence of disaster morbidity, spatial and temporal dimensions deserve special attention. Compared with the routine peacetime psychiatric epidemiologic setting, disaster situation has a strong temporal component, that is, the changing nature of pattern and prevalence as the time passes following disaster. On the spatial dimensions, gradient effect is observed particularly in case of disasters like earthquake. It means that the impact of disaster in terms of threat and destruction is not distributed uniformly in a geographic community but areas proximal to the disaster site are affected almost totally while other more distantly located ones are affected only slightly. It further translates into differential rather than uniform prevalence rates since dose response relationship exists between severity of exposure and subsequent psychopathology.

Substance Abuse

Substance abuse is a pervasive problem, with alcohol related diseases affecting between 5 and 10% of the world's population. It constituted 2% of the global burden of disease in 1990[2]. Alcohol use has major contributions to deaths in road accidents, drowning, accidents at the work place, and violent behaviour. The drugs of abuse are diverse and, multi-drug problems are on the increase. There is an association between drug abuse and psychotic illness, with increasing numbers of patients being co-morbid for both disorders. Suicide rates are increased in substance dependence. Suicide risk among those who abuse alcohol is 50 to a 100 times greater than for the general population. Narcotics and other illicit drugs are rapidly increasing source of various types of morbidity that includes violence, AIDS, and medical and psychiatric co-morbidity.

Tobacco use is a socially induced behavioural pattern, which is maintained by dependence on nicotine. A large body of evidence conclusively links tobacco use with lung diseases, cancer, and myocardial infarction. Approximately 20% of all deaths in industrialized countries are attributable to smoking[18]. Tobacco is currently responsible for over 3 million premature deaths each year in the world, a figure that will reach 10 million by the year 2025 if the present trends continue.

Behaviours are seldom simply a matter of individual choice; they are strongly constrained by local, socio-structural realities, and financial policies. To address these problems, health policies and programmes must therefore target social processes as well as personal behaviour.

Epilepsy

Epilepsy, a brain disorder manifested by recurrent seizures, refers to a complicated constellation of more than 40 distinct disorders. The severity can range from mild episodic attention loss and drowsiness to severe convulsions, associated with a loss of consciousness. Epilepsy affects more than 1% of the population world-wide. A neuroepidemiological survey[19] conducted in urban and rural areas of Bangalore, has found the prevalence of epilepsy to be 0.88%. According to the 1993 World Development Report[2], epilepsy alone constitutes 9.3% of disabilities from mental health problems throughout the world. Risks associated with higher rates of epilepsy include cerebral palsy and mental retardation, abnormal pregnancy and parturition, family history of epilepsy, post-natal CNS infections and brain injuries. Epilepsy can occur at any age. Epilepsy in women, particularly during pregnancy is an area with unique issues and special treatment needs.

The treatment for epilepsy exist so that upto 70% of newly diagnosed cases can be successfully treated with anti-epileptic medication that is taken without interruption. Yet the health care systems in developing countries like India have failed to provide the right treatment to those in need of it. The important thing to note about epilepsy is that there are medications which are both effective and cost efficient. Given their low price, they are an affordable remedy in all countries.

Dementia and Alzheimer's Disease

The number of individuals aged 60 years and above is estimated to be about 70 million in India. The proportion of the elderly in developing countries will increase to 12% by the year 2025 from the present 7%. The proportion of dementia patients among the population aged 65 plus has been reported to be 4.39% in Kerala, India[20]. Alzheimer's disease (AD) is the fourth leading cause of death in industrialized countries. Dementia and AD are age related. The frequency of dementia, of which AD is the common form, double every five years after the age of 60.

During the past decade, scientists have used the powerful tools of recombinant DNA technology to identify some of the genetic defects that cause Alzheimer's disease. These genetic factors have provided a solid basis for improving our understanding of the subsequent biochemical events that are initiated by the genes. Because the disease is similar whether caused by genetic or environmental factors, understanding the biochemistry of the genetic factors might also uncover the environmental agents that activate the same biochemical pathway.

The focus of studies in the 1970s, '80s and '90s was largely on cognitively disabled AD patients who needed long-term care and the potential services required for them. The focus is now shifting to the recognition of those with the earliest manifestations of AD, where potential treatments may delay, arrest, or reverse the process.

Other Organic Brain Syndromes

In developing countries, certain infections and infestations such as trypanosomiasis, cysticercosis, and cerebrospinal meningitis contribute to incapacitating mental and neurological disorders. On the other hand, consumption of excess fat and salt in the diet, insufficient exercise and smoking contribute to increasing deaths from cerebrovascular disease. Rapid industrialization and disorderly urban expansion lead to lack of workplace safety measures, and therefore to many serious health hazards. Hazards due to falls, pesticide exposure, tractor and harvest injuries, exposure to lead, organic solvents, corrosive silica, asbestos dust and other heavy metals lead to the development of many cases of organic brain damage.

Mental Health Research Programmes of ICMR

Studies under the aegis of the ICMR in the area of mental health can be classified into the following main categories: (i) Cross-sectional psychiatric surveys for studying the magnitude of the problem and associated socio-demographic variables; (ii) Development of modules for integration of basic mental health care with general health care; (iii) Longitudinal hospital and population based

studies related to the natural history, course and outcome of psychiatric disorders; (iv) Studies on alcohol and drug use – magnitude of the problem, associated psycho-social factors, and treatment modalities; (v) Development of intervention programmes on behaviour related to health and disease; (vi) Quality of life; (vii) Child mental health; and (viii) Disaster management.

The first large scale psychiatric survey in the country carried out in Agra in a study population of 30,000 in the 1960s provided data on the prevalence of mental disorders and their socio-demographic distribution[21]. A number of psychiatric surveys on comparatively smaller study samples were carried out in different parts of the country in the 1960s and 70s. Several morbidity surveys carried out in various parts of the country, while giving widely varying rates for total morbidity had shown remarkable agreement when only the severe psychiatric illnesses were considered. From the practical point of view, it was considered desirable that efforts be directed to early recognition and management of such conditions which were relatively easily recognizable and for which simple therapeutic regimes were known. The ICMR launched a large scale study in 1976 on severe mental morbidity at centres located at Bangalore, Baroda, Calcutta and Patiala[7]. The main objectives of the study were to (i) determine the prevalence of severe mental illness in the community with focus on psychoses and epilepsy; and (ii) study the feasibility and effectiveness of involving the multi-purpose workers and PHC doctors for detection and management of all psychotics and epileptics.

An intervention programme was carried out involving the primary health care personnel who were trained in the identification and management of severe mental illness and epilepsy. The evaluation of the intervention carried out by field surveys showed that the PHC personnel were able to detect and manage less than 20% of the actual severe mental morbidity from their catchment areas during the intervention phase. The issues emerging from this study provided clues for developing better intervention strategies for incorporating mental health care with general health care. It was noted that the integration was attempted only from the lower end of the health care hierarchy, while the field experience indicated that integration could occur only when it is attempted at all levels of the hierarchy. Secondly, the operationalization could have been better if the total population of the PHC was covered by the intervention programme. Thirdly, the PHC personnel needed record forms which were simple and easy to complete and maintain. There was clearly a need for more efforts towards active community participation.

The research programme on psychiatric epidemiology, intervention efforts for integrating basic mental health care with general health care, and efforts of mental health scientists from all over the country led to the formulation of the National Mental Health Programme (NMHP)[22] in 1982. The objectives of this Programme are to (i) ensure availability and accessibility of minimum mental health care for all in the foreseeable future, particularly the most vulnerable and under privileged sections of the population; (ii) encourage application of mental health knowledge in general health care and in social development; and (iii) promote community participation in the mental health service development and to stimulate efforts towards self help in the community.

The Council initiated a Centre for Advanced Research on Community Mental Health at the National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore to undertake further research on the integration of mental health care with general health care. The Centre has directly contributed to the implementation of the NMHP by developing suitable models for integrating basic mental health with primary health care, conducting training programmes for non-mental health professionals, providing expertise and materials, and sensitizing the states to the NMHP and the mental health needs of the community. Studies on the health care of the rural aged carried out in an entire PHC area in Madurai involving primary health care personnel have demonstrated that it is feasible to offer comprehensive care to the rural aged through PHC services by augmenting available resources[23].

The Council carried out a number of collaborative multi-centred projects for studying the natural history, course and outcome of psychiatric disorders. The collaborative study on phenomenology and natural history of acute psychosis showed that there is a group of patients with acute onset of illness, which differs from the two established categories of schizophrenia and manic depressive psychosis on the basis of their clinical picture, normal premorbid personality, and an excellent recovery rate, suggesting that this may be a benign type of acute psychosis which tends to recover rapidly within weeks or months without any residual symptoms[24]. If PHC doctors are trained in the identification and management of patients of acute psychosis, this will help in providing mental health care and management of such cases in the community. The study on factors associated with course and outcome of schizophrenia has shown that there are a number of factors influencing the course and outcome of schizophrenia which are amenable to intervention such

as treatment at early stage, good drug compliance, positive and supportive attitude of key relatives and provision of some kind of regular occupational schedule[25]. It is hoped that if these aspects are incorporated in the training of medical and para-medical personnel, this will go a long way in improving the prognosis of the disorder.

A longitudinal study[26] on functional psychoses carried out in an urban area in Madras (Chennai) has shown that the utilization of mental health services was inadequate and varied. As those afflicted did not often seek treatment, specific intervention efforts were made to bring them to the general hospital set up to provide pharmacotherapy and other forms of psychiatric care. Those whose needs were of a psycho-social, rehabilitative nature were sent to a voluntary organization working for schizophrenics. Despite these efforts utilization remains inadequate. Hence community based intervention was also undertaken. This study has also provided information on the natural history of functional psychosis in the community *per se*.

A number of studies have been undertaken on alcohol, tobacco and drug abuse, associated social and demographic factors, drug overdose as seen in casuality/emergency services, and drug related psychiatric morbidity. A multi-centric project with three main components, namely, establishing a clinic based data system for continuous monitoring of drug abuse; area survey to assess the magnitude of the problem of drug use in the community and; evaluation of existing treatment modalities for opiates and alcohol through follow up studies was undertaken[27]. This research programme developed a Drug Abuse Monitoring System that can be used at the regional and national levels.

A number of projects have also been conducted to develop an intervention programme for modification of behaviour related to health and disease. An educational intervention programme has been developed to reduce the use of alcohol and tobacco in the community [28]. The results of this intervention study with experimental and control areas have shown that this intervention programme was successful in reducing and stopping the use of alcohol and tobacco in persons residing in the experimental area as compared to the control area. Also the initiation of the use of these substances was significantly lower in the experimental area compared to the control area.

Educational intervention has also been developed to enhance health modernity of tribal people in Ranchi[29]. The main focus of the intervention programme was on personnel habits; environmental sanitation and; attitude towards health and diseases. If the intervention packages developed in these projects are incorporated in the training of health workers, it is expected to contribute significantly towards improving the health status of people by promoting positive health habits and discouraging negative health habits.

A multicentric study on mental health indicators[30] was undertaken to develop tools to measure subjective well being and to identify psycho-social risk factors in malfunctioning families. A psycho-social intervention programme was developed that was implemented through home visits by *Anganwadi* workers. The intervention resulted in improvement of the well being of women, cognitive development, and nutritional status of children. Thereafter measures of the quality of life at the community level were also developed[31].

An instrument was developed[32] to assess the extent of perceived stress arising from excessive environmental forces (such as adversity, hardship, threat, affliction, failure, conflict, constraints, excessive demands, *etc*.) in various domains of social life. In order to widen the applicability of the instrument of stress, the items were so framed as to be suitable to assess the extent of stress among people irrespective of their age, sex, religion, educational or socio-economic level. In addition to the psycho-social stress questionnaire, a short measure of stress arising from infrequent but crucial life events occurring in the life of respondents in the recent past was also prepared in order to cover a broader area of operation of psychosocial stress, and to make the tool more comprehensive.

An epidemiological study of child and adolescent psychiatric disorders was carried out at Bangalore and Lucknow to find out the prevalence of child and aolescent psychiatric disorders in rural and urban areas and to study their psycho-social correlates. This is the first major community based study on psychiatric disorders among children in our country. The prevalence rate of psychiatric disorders was found to be 14.3% among males and 12.6% among females in the Bangalore centre. The corresponding figures for the Lucknow centre were 13.6 and 10.6% for male and female children respectively. The most common psychiatric disorders among children were : non organic enuresis, pica of infancy, stuttering, specific developmental disorders, phobic anxiety disorders, and oppositional defiant disorder. The rates of psychiatric disorders were significantly higher in children of urban area (non-slum) as compared to rural area and urban slum areas at the Bangalore centre while there were no significant differences in rates in the different areas at Lucknow.

The study also generated data on the psycho-social correlates of childhood psychiatric disorders and on the felt treatment need of the community.

A Centre for Advanced Research on Health Consequences of Earthquake Disaster with special reference to Mental Health[33] was initiated at Pune in 1995 to (i) determine the nature and prevalence of psychiatric morbidity, physical health complaints and vital statistics in the disaster affected population through a longitudinal epidemiological study and; (ii) assess various dimensions of disaster exposure (human and material losses, injuries, experiences of threat to life, *etc.*) and subsequent stresses as well as mediating factors in the form of life events and social support and their association with mental health outcome. The study employed a modified cohort design in which the samples of exposed and non-exposed (control) individuals were included after the exposure occurred. The control group came from an area located 300 km away from the disaster affected region. Family was the basic unit of study, and the cohort consisted of 8557 individuals from 1661 families. The base-line study carried out in the first phase found excess (about 2 years after the earthquake) psychiatric morbidity in the disaster affected area as compared to the control area. Overall psychiatric morbidity of 139 per thousand in the affected sample was significantly higher than 68 per thousand in the control sample. The excess psychiatric morbidity in the disaster affected area was constituted by depressive episodes, post traumatic stress disorder and other reactions to severe stress. The remission of psychiatric morbidity in stress related disorders was observed at follow up (about 5 years after the earthquake), but it was still higher as compared to the control area. Case-control study was carried out on a nested sample for determination of risk factors for psychiatric morbidity in both phases. Age and gender matched controls were selected through one to one matching. Step-wise logistic regression identified disaster injury, occurrence of disaster deaths in the family/ trapping experience, dissatisfaction with social support as the risk factors at first phase. At the follow up, satisfaction with social support, occurrence of desirable events and absence, and minimal severity of disaster injury emerged as significant protective factors.

Recent Developments and Priorities

Human Brain Imaging Techniques

There have been many interesting developments over the last decade that have significant implications for clinical psychiatry. The first is the use of human brain imaging techniques. It is clear that these have the potential to revolutionize diagnosis, prevention and treatment of psychiatric disorders. It has been found[34] that the basal brain activity pattern is dramatically different in patients who are depressed compared with normal individuals. Various subtypes of depression appear different, as well. The pattern of brain activity in people diagnosed with unipolar depression is different from that of those with bipolar depression. It is potentially important because looking at these images – looking directly at brain activity – may help predict the best treatment for these different subtypes of patients.

Changes in brain activity following treatment for a major psychiatric disorder are not limited to pharmacological treatment only. It has been shown[34] that behavioural or psychological treatment can impact abnormal brain activity in highly specific ways. The imaging studies have shown that behavioural and psychological treatment as well as medication can profoundly impact specific brain regions. Although much research remains to be done, imaging techniques may help physicians eventually tailor treatment to the specific pattern of brain activity in an individual patient. They may also help physicians monitor the progress of the treatment.

Genetic Analysis

In the past decade, the applications of molecular genetics has led to the unraveling of the etiologies of most of the single-gene disorders but has barely begun to allow the understanding of the more complex genetics of the most neurodegenrative diseases which do not show simple patterns of inheritance. It is expected[35] that in the near future the application of molecular genetic techniques will promote the understanding of the etiologies of non-Mendelian neurodegenerative diseases in general. However, the problems of identifying risk factor loci for diseases with complex modes of inheritance and in particular oligogenic (10 genes) and polygenic (>10 genes) diseases are formidable. Given the huge socio-economic impact of some of the disorders such as Alzheimer's disease, it is of paramount importance to design a viable strategy for the delineation of genetic pre-disposition in complex traits.

Stress Research

A person chronically stressed is subject to a variety of infectious diseases, and it has become the basis of

developments in psycho-neuro-immunology. A major group of stress hormones secreted by the adrenal gland is a class of steroids called glucocorticoids. Research carried out over the last 20 years has shown that glucocorticoids can damage the nervous system. A recent study[36] reports that glucocorticoids are capable of killing neurons in the hippocampus, which is a part of the brain critical to learning and the consolidation of long-term memory. Further, endangering these neurons makes them less likely to survive a stroke, a seizure, or infection like HIV. The ability of stress homones to accelerate brain aging and endanger the brain is a new branch of stress-related pathology. Researchers have learned tremendously in the last few years about how these hormones are neurotoxic and even endangering. Major areas of research in the coming years will be oriented towards finding means to intervene with the effects of stress on the nervous system.

Mental Health Care Modules

Schizophrenia and functional psychoses have been viewed as processes and the result of internal and external factors, and the opinion that schizophrenia is a biological genetic disorder with an inevitable descending course has been challenged[37]. It has been opined that the concept of early intervention has vast implications for the therapeutic approaches and especially for the psycho-therapeutic dimensions, as well as for the way the psychiatric health services are organized.

There have been developments towards standardization of mental health care modules. A module of care has been considered a type of mental health care, characterized by its objectives and by the interventions necessary to achieve these objectives. As such a module of care is made available by a group of people with different professional backgrounds, working within or at least associated with the module of care, to patients with comparable histories of psychopathological and/or social problems. An important step is the development of an International Classification of Mental Health Care (ICMHC)[38] to meet the growing need for a standardized comprehensive tool for the description of services providing mental health care, that would include all services providing mental health care. In Australia, a national early psychosis project[39] has resulted in co-ordinated service and policy development providing better access to resources and better practice guidelines (low dose medication, cognitive behaviour therapy and psycho-education). Some of these programmes are considered gold standards against which other health services benchmark.

That the field of psycho-social rehabilitation has important contributions to make in the care of individuals with schizophrenia is being acknowledged. It is now widely understood that rehabilitation, when offered in conjunction with psychiatric services, can provide special benefits to this patient population.

Other Priority Areas

In the next 20 years, nearly half of the population in India will be living in urban areas. There is a need to develop mental health care modules for urban areas which have special problems related to large scale migration, homelessness, people living on street and footpaths. Another emerging area is suicide behaviour as it is already the second most common cause of mortality in young adults in the 15-35 years age group[2] .

Depressive disorders are widely prevalent world-wide and have great impact on an individual's productivity, occupational, social and family life. There is a need for community based studies on depression. Other areas that are important to be investigated for better mental health care include study of the public attitude of stigma against mental disorders, studies on mental health of special groups such as women and the elderly, and research on health related life style practices in chronic diseases.

The ICMR Core Committee on Neurological Disorders has recommended priority areas for research on the following groups of disorders : epilepsy, dementia and Alzheimer's disease, stroke, neurocysticercosis and Gullian Barre Syndrome.

It is expected that developments in mental health scenario will take place more rapidly in the present decade. The challenge lies in translating the advances into better prevention and treatment of the dysfunctions that underlie neuropsychiatric illness.

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