

# Public Health Approach on Mental Health in Europe

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# MESSAGES

**There is no health without mental health!** Mental health must be regarded as an indivisible part of public health.

**Mental health problems cause a heavy and increasing burden** that contributes to high costs to our societies, long-lasting disability, increased mortality and enormous human suffering. Moreover, some mental health problems, such as depression, are becoming increasingly common.

**Action for mental health** entails action to promote positive mental health as well as action to tackle mental health problems.

**Effective evidence-based measures are available** to promote mental health as well as to prevent and treat mental health problems.

**Each Member State should develop its own mental health strategy** as an integral part of a comprehensive public health policy taking into account the social and cultural circumstances. Mental health should be considered in all policies and across all levels and sectors.

**Substantial added value is to be gained** in the field of promotion of mental health by tightening co-operation between Member States, Applicant Countries as well as with the rest of Europe and within a more global context.



## FOREWORD

Action on mental health in the European context is important because of the vital contribution made by mental health to the well-being of nations, and to their social, human and economic capital. Thanks to recent European developments, including the Amsterdam Treaty, the Council resolution on the promotion of mental health, and the new Public Health Framework, such action is now possible. This report, *Public Health Approach on Mental Health in Europe* is the response to a request by the European Commission to set out the main elements of public health action on mental health. Part I of the report, *Public Health Action Framework on Mental Health*, sets out the main broad elements of public health action on mental health and Part II, *Mental Health Matters: Relevant Background Information*, presents essential background information, outlines the key concepts and describes specific interventions.

The report was prepared as an outcome of the project on *Putting Mental Health on the European Agenda*, which was financially supported by the European Commission from the programme of Community action on health promotion, information, education and training, within the framework for action in the field of public health (1996–2000). The project was co-ordinated by the Finnish Ministry of Social Affairs and Health and the National Research and Development Centre for Welfare and Health (STAKES) 1998–2000. I should like to take this opportunity to sincerely thank all those from all organisations who were involved in the project.

The other principal outcome of the project was the high-level (EU Presidency) European Conference on Promotion of Mental Health and Social Inclusion (held in Tampere, Finland, in October 1999). It was this conference that resulted in the Council resolution on the promotion of mental health (18 November 1999) mentioned above. The agendas of subsequent EU Presidencies (Portugal, France, and Sweden) have also given prominence to mental health. I warmly thank all members of the boards and committees who participated in the planning and implementation of this event and thus contributed to its success.

The project has been steered and supported overall by the European Network on Mental Health Policy (ENMHPO), who also prepared this report. The participation of the network has provided considerable added value at European level and the inestimable work and support of this network is gratefully acknowledged.

The intended audience of the report, as commissioned by the EC, consists of officials of the European Commission and the Council of the European Union, members of the European Parliament, representatives of national governments of the EU Member States and Candidate Countries, and any other interested organisations and individuals.

Dr. Jarkko Eskola, Director General, Ministry of Social Affairs and Health



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*Part I*

**PUBLIC HEALTH  
ACTION FRAMEWORK  
ON MENTAL HEALTH**



## **EXECUTIVE SUMMARY**

### **INTRODUCTION**

This report strongly advocates the need to shift the focus of mental health:

First, as a major contributor to health and well-being, mental health needs to be brought out from professional, organisational and political isolation into the broader sphere of public health.

Second, instead of concentrating on mental health at the level of individuals, we need to strengthen the population-level mental health approach. This is necessary to sharpen our insight into how we should integrate mental health in public health policies, strategies and programmes, and act across policies with an impact on mental health.

Third, we must shift the emphasis of our understanding of mental health, which traditionally has been associated with mental disorders. Instead of looking only at the negative side of mental health, contemporary thinking and actions must draw attention to positive mental health.

### **WHY SHOULD ACTION BE TAKEN?**

Positive mental health is an important resource for individuals, families, communities and nations. It also enhances a person's capacity to contribute meaningfully to social networks, communities and societies. Mental health problems, in contrast, add significantly to general health expenditure and contribute to disability, mortality, loss of economic productivity, poverty and low quality of life. Thus, mental health has a conspicuous societal value in itself, and mental health problems impose a heavy burden not only on the individuals but on society as a whole.

There is mounting evidence of the availability of effective measures to promote mental health and to prevent mental ill-health, and yet, an efficient collaborative structure between the various organisations and networks currently active in the field is still lacking. It is, however, becoming increasingly obvious that transnational collaboration can help achieve mutual benefits between participants.

### **FRAMEWORK FOR ACTION**

It is proposed that the main strategies of action on mental health should cover issues such as the development of general policies favourable for people's mental health, mental health impact assessment in societal planning and decision-making, promotion of mental health in all relevant settings, reduction of the risk factors of

mental health problems, reduction of the stigma of mental ill-health, and protection of the human rights and dignity of all citizens. In addition to these, the required actions include the delivery of appropriate services for early detection, care, treatment and rehabilitation, and for the prevention of mortality. These actions can be targeted at all levels - individuals, groups, communities and societies.

## **ELEMENTS OF ACTION**

With regard to mental health, each Member State should draw up a strategic mental health policy that is well integrated with its overall health policies at national, regional and local levels. While each Member State has its own special needs, problems, resource constraints and challenges, all share some common areas that need to be addressed by national policy if effective use is to be made of the resources available to improve mental health.

Areas relevant to public health actions in mental health are:

- mental health in public policies (e.g. employment, education, housing, environment, equality);
- service components in health and social services (primary care, specialist services, social services, co-operation between services);
- supportive infrastructures (mental health monitoring, research and development, human resources, NGOs, service users and carers); and
- steering mechanisms (legislation, financing, exchange of information and dissemination of good practices).

## **CONCLUSION**

Mental health is an indivisible part of public health. It is therefore of the utmost importance that mental health and its promotion should be integrated closely with all public health strategies. The value of mental health needs to be recognised throughout the European Union, and across all levels and all sectors of society. Only in this way can we ensure that we live in a caring world that understands the promotion of mental health as an explicit and implicit assumption of public and private life, and that is able to give people suffering from mental health problems the help and treatment they require to enable them to live a life of dignity in accordance with their basic human rights.

## 1. INTRODUCTION

Action on mental health within the European context is desirable because of the contribution of mental health to nations and their social, human and economic capital. Such action is now possible because of recent European developments, including the Amsterdam Treaty, the Council resolution on the promotion of mental health, and the new public health framework. Therefore the EC commissioned the report to set out the main elements of public health action.

There are three lines of development which will be emphasized throughout the report and their application in the European community setting will be discussed. The first and most important is bringing mental health from professional, organizational and even political isolation into the broader sphere of public health as mental health is a major contributor to health and well-being. Consequently, as a second principle, a shift of emphasis is required. Instead of focusing mainly on the individual's mental health only, the population mental health approach needs to be strengthened. This is necessary to improve the understanding of how to integrate mental health in public health policies, strategies and programmes, and how to act across policies which base on impact on mental health. The third and maybe the most innovative emphasis is on how mental health is understood. Traditionally mental health is associated with mental disorders. It is suggested that instead of only looking at negative mental health, positive mental health would be included especially in the monitoring of mental health.

Part I of this report aims to set out the main elements of public health action on mental health in Europe, including establishment of practical activities to protect, promote and improve the mental health of European citizens. The report does not only relate to the requirement set out by the article 152 of the Amsterdam Treaty to achieve a high level of protection of health in all community policies, but it also relates to the role of the European Union as an increasingly important actor in relation to other countries especially those in the accession process.

The report will also discuss the relevant aspects of other public policies which have either direct or indirect influence on mental health, and which should be considered by the EU and the individual Member States. The main focus of the report is on health promotion and it does not include certain issues relevant to mental health (e.g. alcohol and drug abuse) which are dealt with in other programmes of Community action.

## 2. CONCEPTS OF MENTAL HEALTH

The term mental health is used in this report as a broad inclusive concept to denote both positive mental health and mental health problems<sup>1</sup>.

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<sup>1</sup> Other terms, such as *mental ill-health* and *mental disturbances* refer to essentially the same as *mental health problems* and often the terms can be used interchangeably.

### **Positive mental health includes**

- a positive sense of well-being
- individual resources including self-esteem, optimism, and sense of mastery and coherence
- the ability to initiate, develop and sustain mutually satisfying personal relationships
- the ability to cope with adversities (resilience).

These will enhance the person's capacity to contribute to family and other social networks, local community and society.

### **Mental health problems include**

- psychological distress usually connected with various life situations, events and problems;
- common mental disorders (e.g. depression, anxiety disorders);
- severe mental disorders with disturbances in perception, beliefs, and thought processes (psychoses);
- substance abuse disorders (excess consumption and dependency on alcohol, drugs, tobacco);
- abnormal personality traits which are handicapping to the individual and/or to others; and
- progressive organic diseases of the brain (dementia).

Mental disorders are defined in the classifications of diseases by the existence of clusters of symptoms. The criteria for disorders are met when the clusters of symptoms are relatively severe, long-lasting, and accompanied by reduction of functional capacity or disability. (A more detailed description of the above will be given in Part II, Chapter 2.1. of the report, and the specific disorders will be dealt with in Part II, Chapter 3).

## **3. RATIONALE FOR ACTION**

Urgent action within the European context is needed, because

1. Positive mental health contributes to the social, human, and economic capital of the societies
2. The burden of mental health problems is extensive
3. There are effective interventions available to enhance positive mental health and alleviate mental health problems
4. Transnational collaboration in the field holds great potential for providing Community added value.

### **3.1. Mental health has a remarkable societal value**

- Good mental health is an important resource for individuals, families, communities, and nations;



- Mental health - as an indivisible part of public health - contributes to the functions of society and has an effect on overall productivity;
- Mental health is essential for the well-being and functioning of individuals;
- Mental health concerns everyone as it is generated in our everyday lives in homes, schools, workplaces and in leisure activities;
- Mental and physical health are strongly inter-linked.

### **3.2. Mental health problems constitute a heavy burden** (see also Part II, chapter 1.1.)

- Mental health problems are common in Europe and everywhere in the world. They add significantly to the general health expenditure and contribute to disability, mortality, loss of economic productivity, poverty and low quality of life. One sixth of the European citizens are estimated to suffer from a mental disorder at any given point of time.
- Eight of the ten leading causes of the global burden of disease are related to mental health. Depression alone accounts for 5% of the total years of life lived with a disability in Europe.
- The number of suicides is roughly similar in magnitude to deaths from road traffic accidents. Suicide is the leading cause of death in young men.
- People with mental health problems have an increased morbidity and mortality from physical illness, particularly infectious diseases, respiratory disease, cardiovascular disease and trauma.
- Mental health problems of parents have a significant effect on the emotional and intellectual development of the next generation.

### **3.3. Effective measures are available**

There is increasing evidence of the efficacy and cost-effectiveness of interventions for mental health promotion, prevention, treatment, rehabilitation and prevention of premature mortality (see Part II, chapter 6). However, wider implementation of these measures requires

- a comprehensive overview of available evidence-based interventions
- a more efficient collaborative structure between the many organisations and international networks currently active in the field
- a well-functioning dissemination system.

### **3.4. The benefits of transnational collaboration can be accomplished**

- by taking into account mental health aspects in public health and other Community policies;
- by using all available means to facilitate co-operation between Member States in order to use the limited resources more effectively;
- by establishing an information system consisting of development of indicators, monitoring, and a feedback system, that provides Member States with comprehensive and comparable data on mental health;

- by disseminating good practices while respecting local conditions, cultural norms and differences; and
- by stimulating co-operation with countries in the accession process.

It is a basic community responsibility to foster mental health to the same extent as physical health, based on the claim that "*there is no health without mental health.*" This was emphasized in the Council resolution of 18 November of 1999 on the promotion of mental health.<sup>2</sup>

#### **4. MAIN STRATEGIES**

The main strategies of action on mental health should cover the following issues:

- development of general policies which are favourable for people's mental health;
- systematic mental health impact assessment as part of general health impact assessment in societal planning and decision-making;
- promotion of mental health in all relevant settings;
- reduction of the risk factors of mental disorders;
- improvement of the health and social functioning of people with mental disorders;
- delivery of appropriate services for early detection, care, treatment and rehabilitation;
- reduction of the premature mortality of people with mental disorders;
- reduction of stigma; and
- protection of the human rights and dignity of all citizens, and especially people with mental health problems.

#### **5. FRAMEWORK FOR ACTION**

The scope of mental health action covers promotive, preventive, and curative approaches as well as prevention of mortality that can be directed at various levels such as individuals, groups, local communities, and the society. The matrix presented in Figure 1 lists the most important actions.

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<sup>2</sup> OJ C 86, 24.3.2000, p. 1.

| <b>MENTAL HEALTH ACTION</b>     | <b>Societal level</b>  | <b>Local communities</b>   | <b>Individuals</b>  |
|---------------------------------|--|--|---|
| <b>Promotion</b>                | <ul style="list-style-type: none"> <li>• Enhancement of the value and visibility of mental health</li> <li>• Human rights legislation</li> <li>• Combating stigma</li> </ul>   | <ul style="list-style-type: none"> <li>• Proactive community activities</li> <li>• Appreciation of mental health in schools (in overall goals, curriculum and daily life)</li> <li>• Appreciation of mental health in workplaces</li> <li>• Leisure space for children and families</li> <li>• Safe and good quality living environment</li> </ul> | <ul style="list-style-type: none"> <li>• Access to education, training and employment</li> <li>• Participation in leisure activities, relaxation, exercise and hobbies</li> <li>• Increasing understanding of good mental health</li> <li>• Health education and information</li> </ul> |
| <b>Primary Prevention</b>       | <ul style="list-style-type: none"> <li>• Prevention of social exclusion in employment, education and housing policies</li> <li>• Regular mental health impact assessments of all new developments</li> </ul>                 | <ul style="list-style-type: none"> <li>• Teaching parenting skills</li> <li>• Social support to high risk groups e.g. elderly, single parents</li> </ul>   | <ul style="list-style-type: none"> <li>• Proactive and reactive support to people experiencing threatening life events or chronic adversity</li> </ul>  |
| <b>Secondary Prevention</b>     | <ul style="list-style-type: none"> <li>• Guidelines and expectations for early detection and treatment</li> </ul>  | <ul style="list-style-type: none"> <li>• Access to local services for early detection and treatment</li> </ul>   | <ul style="list-style-type: none"> <li>• Early detection and treatment of illness</li> <li>• Relapse prevention</li> </ul>  |
| <b>Curative/ Rehabilitative</b> | <ul style="list-style-type: none"> <li>• Development of integrated health and social services</li> </ul>   | <ul style="list-style-type: none"> <li>• Liaison of health services with social services, employment offices, schools, prisons etc. for people with mental health problems</li> </ul>  | <ul style="list-style-type: none"> <li>• Psychological, social and medical treatments</li> </ul>  |
| <b>Prevention of mortality</b>  | <ul style="list-style-type: none"> <li>• National suicide prevention strategies</li> <li>• National programmes to ensure that people with mental health problems get the physical health promotion/care they need</li> </ul> | <ul style="list-style-type: none"> <li>• Locally tailored implementation of suicide prevention programmes</li> <li>• Access for people with mental health problems to physical health promotion and care</li> </ul>  | <ul style="list-style-type: none"> <li>• Access to immediate crisis help</li> <li>• Active follow-up of suicide attempters</li> </ul>   |

Figure 1. A matrix of the framework of action on mental health with illustrative examples.

*Mental health promotion* (see also Part II, Chapter 2.2.) is an interdisciplinary and socio-cultural endeavour geared to the achievement of conditions which enhance the well-being of individuals, groups and communities. The process is lifelong from pregnancy through childbirth, infancy, childhood and adolescence to adulthood and old age. It implies the creation of individual, social, societal and environmental conditions which enable optimal psychological and psychophysiological development and reduction in mental health problems.

*Primary prevention* is directed at reducing the *incidence* (rate of occurrence of new cases) in the community by reducing risk factors and strengthening protective factors, or by improving coping abilities of people who are currently without a mental disorder but are believed to be at risk of developing a particular disorder. (For a more detailed description of prevention, see Part II, Chapter 2.3.).

*Secondary prevention* involves efforts to reduce the *prevalence* of a disorder by reducing its duration. Thus secondary prevention programmes are directed at people who show early signs of disorder, and the goal is to shorten the duration of the disorder by early detection and prompt treatment.

*Curative/rehabilitative* approach mainly belongs to the national healthcare systems (discussed more thoroughly in Part II, Chapters 2.5. and 6.4), one important task of which is to establish the primary care and specialized care systems.

## **6. ELEMENTS OF PUBLIC HEALTH ACTION ON MENTAL HEALTH**

The EU has an important obligation to public health.

Article 152 of the Amsterdam treaty obliges the EU to ensure a high level of human health protection in the definition and implementation of all Community policies and activities. Health strategies are set out in order to fulfil the obligations of the European Union in relation to public health according to the Treaty.

The European Council of health ministers passed a resolution (18 November 1999) on the promotion of mental health. This resolution recognizes the importance of mental health and proposes certain measures to be undertaken by the Member States and by the European Commission.

The proposal for a programme of Community action in the field of public health (2001-2006)<sup>3</sup> focuses on three priorities:

1. Improving health information and knowledge
2. Responding rapidly to health threats
3. Addressing health determinants.

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<sup>3</sup> COM(2000) 285 final of 16.5.2000.

With regard to mental health, each Member State should create a strategic mental health policy, well integrated with its overall health policies at national, regional and local levels.

While each Member State has special needs, problems, resource constraints, and challenges, there are nevertheless some consistent areas which national policy needs to address if it is to make most effective use of the available resources to improve mental health.

These areas may be grouped into

- mental health in public policies
- service components in health and social services
- supportive infrastructures
- steering mechanisms.

Public mental health policy needs to be accompanied by a strategic implementation programme with quantifiable process and outcome targets. Moreover, a timetable for action, substantial political will, and support are also needed.

### **6.1. Mental health in public policies**

Mental health in a population depends on much more than the policies on health and social services only. Therefore, all Member States should ensure that all relevant sectors and their agencies are aware of the importance of mental health for the population and that they are aware of the influence that their activities can have on mental health. It is also important to make sure that appropriate co-ordination between relevant sectors takes place.

In the following, the role of employment, education, housing, environment and equality policies in connection to mental health will be briefly described<sup>4</sup>.

- **Employment:** Work, unemployment, and specific conditions at work have been shown to have a considerable influence on mental health and on utilisation of mental health services. Rates of illness are higher in the unemployed than in people at work. Workplaces are a key environment for mental health promotion as well as physical health promotion and employers should be encouraged to include mental health in their workplace health policies.
- **Education:** Inadequate education contributes to mental health problems and social exclusion because of the increased subsequent difficulties in finding work, and in participating fully in other social roles. People with poor educational

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<sup>4</sup> In addition to the sectors described here, it is important to consider mental health issues in *all* sectors of the society, such as trade and industry, culture, home affairs and police, prisons and criminal justice agencies, defence, transport and communications.

attainment are over-represented in those with mental health problems. Therefore, schools are important settings for mental health promotion and education on mental health should be included as part of the health and social skills elements of school curricula. Moreover, schools need to be committed to improving and sustaining the mental and physical health of pupils, teachers and other staff alike.

- **Housing:** Poor housing and homelessness have been associated with poor mental health and improvements in these factors have been shown to improve mental health.
- **Environment:** Both our physical and social environment may have a strong impact on mental health. The current challenges are how to ensure physically and mentally good and healthy environments in both urban and rural areas.
- **Equality:** Equality and non-discrimination do have a positive impact on mental health. Already, some initiatives are currently taken at the EU level aiming at prohibiting any discrimination based on sex, race, colour, ethnic or social origin, genetic features, language, religion or belief, political or any other opinion membership of a national minority, property, birth, disability, age or sexual orientation. Experienced discrimination in any of the above-mentioned issues may lead to or contribute to mental health problems and social exclusion.

Adequate co-ordination between relevant sectors is essential in raising awareness of the influence of various activities on mental health. Co-operation between sectors should be strengthened. Mental health impact assessment should be implemented as a standard procedure in decision-making.

## **6.2. Service components in health and social services**

The organisation and delivery of health services and medical care are, in accordance with the principle of subsidiarity, exclusively the responsibility of the Member States. This principle applies to the whole range of health services from primary to specialist care and to the provision of interagency services.

- **Primary care:** No country can afford anything approaching sufficient specialist personnel to see and care for everyone with mental health problems. Most people with such problems will need to be seen and cared for within primary health care. In the development of mental health policy on primary care, it is important to examine the existing primary care system, its staffing, its system of basic and continuing training for each of the professional groups involved, and the existing system of information collection from primary care. Where appropriate, it is essential to strengthen the basic and continuing training of the primary health care

staff by increasing their knowledge of mental health promotion and prevention, assessment, diagnosis, management of mental health problems and criteria for referral of people with mental health problems to secondary care.

- **Planning and resourcing specialist services:** All Member States are undergoing a strong deinstitutionalisation process away from the old and distant large asylums. Therefore, attention needs to be paid to providing sufficient, high-quality, local community-based mental health services. From the point of view of good outcomes, people with severe mental health problems should be cared for in as least restrictive an environment as possible, as is compatible with health and safety of the individual and the safety of the public, with due regard to their human rights. The precise service structure and configuration needs to be determined in the context of local needs, culture and resources. It is particularly important to emphasize rehabilitation back into the normal pattern of daily activities. Where patients are cared for in places other than their own homes, it is essential to set a system of quality assurance to ensure that some basic standards are met.
- **Social services:** The role of social services in dealing with mental health problems is crucial in the community-based service system, for example in the provision of supported housing, transport services and supporting persons. Social problems are often related to mental ill-health. Poverty, drug problems, failures in parenting and violence endanger children's growth and health, including mental health. Adults who are long-term unemployed, homeless, or substance abusers, often have severe and untreated physical and mental health problems. Social workers meet a lot of these marginalised people, who often have also dropped out of the normal health care services.

The staff in social services should be trained to recognise and help people with mental health problems as a part of their profession. They should also be able to evaluate when specialised help and/or guidance to psychiatric treatment is needed. Supervision, consultation and team-support should be available to the staff to promote proper services, including the mental health aspects.

- **Co-operation and liaison between services:** Adequate and effective collaboration between the health sector and social services should be considered. Furthermore, interagency working with schools, employment services, police, prisons, and collaboration with practitioners of alternative medicine as well as with representatives of religious institutions are examples of liaisons highly relevant to mental health.

### **6.3. Supportive infrastructures**

- **Mental health monitoring:** A mental health monitoring system should be established among Member States. The system needs to be based on commonly shared definitions and collection methods and integrated into the general health monitoring system. The monitoring system should cover psychiatric morbidity, positive mental health, and data from the health systems. Some determinants, such as social factors should be accessible as well, and plans for regular analyses and dissemination of results should be set up.
- **Research and development:** A mental health policy should establish a sustainable research and development strategy to support the policy development and implementation programme. Programme evaluation, epidemiology and mental health economics are particularly important contributors to policy and planning.
- **Human resources:** Similarly, there is a need for a human resources strategy to carry out the implementation of policy including mental health promotion, primary and secondary prevention, care and prevention of mortality. There needs to be a sustainable plan for the recruitment, basic training production and continuing education of all relevant personnel both in the health sector (including primary and secondary care staff), the social sector and in schools, workplaces and other settings.
- **Involvement of NGOs, service users and carers:** Citizens, people with mental health problems, their families, carers and the community are the customers of the mental health services. Their involvement can greatly improve the planning and delivery of services as they can spot gaps and problems as well as comment on what is working well. National support for the mental health NGOs is a cost-effective way of encouraging progress.

### **6.4. Steering mechanisms**

The steering mechanisms refer to the general guidance methods of the Member State governments. There are some specific areas where national actions are of particular importance and do have a strong impact. These areas are:

- **Legislation:** In each Member State, there exists legislation on issues related to mental health. Issues to be considered with regard to mental health in national legislation are, for example, those of anti-discrimination and disability and welfare benefits. In addition, legal protection of the individual's rights and regulation of the circumstances in which involuntary detention and treatment can



take place, needs to be considered. The legal framework for compulsory detention should reflect the various international human rights treaties.

- **Financing:** Considering the weight and breadth of the problems linked to mental health in the society, as well as the current lack of resources everywhere, it is paramount to ensure sufficient financing with regard to both actions on promotion of mental health and mental health services.
- **Dissemination of information and good practices:** Information guidance is one of the steering mechanisms of national governments. A plan for comprehensive dissemination of information and of evidence-based good practices to representatives of all relevant sectors should be included in the public health action framework on mental health.

Moreover, the European Union provides certain complementary measures by which it supports the Member States' actions in improving the health of the population.

## **7. CONCLUSION**

Mental health is an indivisible part of public health. It is therefore of the utmost importance that mental health and its promotion should be integrated closely with all public health strategies. The value of mental health needs to be recognised throughout the European Union, and across all levels and all sectors of society. Only in this way can we ensure that we live in a caring world that understands the promotion of mental health as an explicit and implicit assumption of public and private life, and that is able to give people suffering from mental health problems the help and treatment they require to enable them to live a life of dignity in accordance with their basic human rights.

**THERE IS  
NO HEALTH  
WITHOUT MENTAL HEALTH!**



*Part II*

**MENTAL HEALTH MATTERS:  
RELEVANT BACKGROUND  
INFORMATION**



## **EXECUTIVE SUMMARY**

### **THE SPHERE OF MENTAL HEALTH**

This part of the report highlights the heavy burden imposed by mental health problems on individuals and societies, looks at the concepts of mental health and mental health promotion in greater detail, describes the major mental disorders with appropriate interventions, deals with brain injuries and brain infections as causes of mental health problems, and presents models of good practice for mental health promotion, mental health care and rehabilitation, and the prevention of mental ill-health and suicide.

It has been calculated that mental health problems account for 3–4% of GNP; moreover, no marked decline is foreseen in this percentage in the future. Besides economic losses, mental health problems give rise to intense subjective suffering and consequently, to increased mortality.

At European level, an integrated approach to tackling some of these problems has been taken by the European Mental Health Agenda, a process seeking to gain greater value and visibility for mental health and mental health promotion in the European context. It is clear that a change will not occur overnight, but some milestones of considerable importance have already been passed. These are briefly described in the report.

### **WHAT IS MENTAL HEALTH?**

We must be clear about the terms and definitions we use when discussing mental health. A chapter defining and describing the key concepts in the sphere of mental health and its promotion is thus a vital part of this report. In particular, a clear distinction is made between positive and negative mental health. The chapter begins with descriptions of mental health and mental health problems and emphasises the close connection between mental health and general health. Subsequently, the promotion of mental health is regarded as an "umbrella" concept covering a wide range of strategic approaches and paradigms. The need for relevant indicators is recognised as vital to the development of a comprehensive mental health monitoring system.

### **MENTAL HEALTH ACTIONS**

The prevention of mental disorders is dealt with by first describing the traditional public health model of prevention, then defining more recent concepts of primary prevention and finally by examining strategies, based on life-event and social support theory, to improve coping capacities, alter environmental settings and develop natural support systems.

Suicides are a growing public health concern world wide; within the European Union alone about 43 000 people commit suicide in any given year and a further 700

000 attempts are made. The modern model sees suicide as a process proceeding from risk and protective factors through acute precipitating factors to suicidal ideation, plans and attempts. It is proposed that suicide prevention strategies should give greater weight to the need to define the problem, identify the causes and develop and implement interventions.

From promotion and prevention the report moves on to components of the mental health care system, although in practice, these overlap to some extent. Among the tasks of mental health care are the need to improve mental health, and prevent deterioration and relapse, with the overall objective of enhancing the individual's quality of life. Due to the shortage of specialist services in the field, the importance of community-based mental health care has increased.

Rehabilitation is often regarded as one part of the mental health services. This report takes a more comprehensive approach, viewing rehabilitation - even in less severe cases - as an instrument to improve role performance, working capacity and quality of life. The final part of this chapter deals with the pivotal issue of mental health monitoring.

### **MAJOR MENTAL DISORDERS**

Next, important mental disorders such as emotional and conduct disorders in children, anxiety disorders, depression, schizophrenia and dementias are discussed. Each of these disorders is described in a separate chapter that looks at issues of epidemiology, public health impact, aetiology, clinical manifestations, prevention, detection and care.

Mental health problems can also be caused by brain injuries and infections. The most common causes of brain injury are strokes and trauma. Moderate or severe brain injury almost always results in disorders of cognition, personality and behaviour. A widespread mental health problem today is depression. Brain infections can result from bacterial or viral infection. Public awareness has been heightened by the attention paid in the media to diseases such as AIDS and BSE (a likely causative agent in the new variant of Creutzfeldt-Jakob disease in humans). This chapter highlights the importance of vigilance, early recognition and the development of effective therapies in planning future mental health programmes within the EU.

### **PROBING GOOD PRACTICES**

Interest is growing in good practices in health promotion in general and in mental health promotion in particular. Practical examples of mental health promotion, mental health care and rehabilitation, and the prevention of mental disorders and suicides have therefore been selected. This chapter also sets out the quality criteria for identifying good practices and presents quality indicators, deals with the issue of evidence-based outcomes and outcome predictors, and presents the criteria for successful dissemination and implementation.

## 1. INTRODUCTION

### 1.1. BURDEN OF MENTAL DISORDERS

It has been estimated that at any one time, up to 20% of the adult population in the EU suffers from some form of mental health problems. In adolescents the occurrence rate is estimated to be at the same level. Furthermore, 1–2% of the entire population suffers from the most severe forms of mental disorders such as schizophrenia or other psychoses. In light of these figures, it can be argued that it is all too common to encounter mental health problems in one way or another.

Both the high prevalence and the often chronic course of mental disorders and the fact that their onset is often in adolescence or young adulthood, do impose a heavy *economic burden* on the society. The total costs of mental disorders have been calculated to be up to 3–4% of the GNP. The indirect costs from the loss of productivity may even exceed the direct costs from the use of services. Today, mental disorders are, for example, the major reason for granting of disability pensions. Depression seems to produce one of the heaviest burdens on society.

Apart from material losses, mental disorders generate enormous amounts of *subjective suffering*, impossible to measure in monetary terms. In fact, anxiety, depression, and the consequent guilt and shame can subjectively be as incapacitating as the most severe physical pain.

Mental disorders are associated with clearly increased mortality rates. The risk of death among patients with a mental disorder is several times higher than in the population as a whole. The main causes are suicides and other violence-related deaths. Over 40,000 suicides are committed in the EU every year and the estimated number of attempted suicides is more than ten times higher. These figures clearly exceed the number of deaths from accidents. Besides suicides, the increase in mortality is based on comorbidity: poor mental health may deteriorate physical health and vice versa.

Mental disorders stigmatise and lead to discrimination. People suffering from mental disorders are in many respects the most marginalised in the European societies. Associated problems such as poverty, homelessness, criminality, alcohol addiction and drug abuse often lead to a very low quality of life.

### 1.2. EUROPEAN MENTAL HEALTH AGENDA

The European Mental Health Agenda is a long-term *process* the aim of which is to gain more value and visibility for mental health issues within the European context. The most important milestones of the process are briefly presented in the following. In 1995, the European Network on Mental Health Policy (ENMHPO) was established

by the initiative of a number of active Member States. Currently, the network consists of members of all EU Member States as well Norway. The network has proven to be a powerful and effective forum for exchanging views and reinforcing co-operation in the field of mental health promotion. The primary goals of the network have been to:

- strengthen mental health policies in Europe;
- exchange experiences between Member States;
- take actions for the promotion of mental health and prevention of mental ill-health;
- plan special programmes for different target groups; and
- stimulate joint research and development activities.

The first major undertaking of the network was the Key Concepts project (*Development and Operationalisation of Key Concepts for European Mental Health Promotion*), financed by the European Commission and co-ordinated by the Finnish National Research and Development Centre for Welfare and Health (STAKES). The project was carried out in 1997, its goal being to “*develop and evaluate the best options for the key concepts of mental health promotion in Europe.*” As part of the same project, a preliminary assessment of the mental health policies of the Member States was conducted. This assessment showed that big differences exist in the national mental health policies within EU. The project report, *Framework for Promoting Mental Health in Europe*, was recently published.

Consequently, in June 1997, Finland proposed at the EU Health Council that the need for public health action in the field of mental health should be discussed in the European Union. The proposal underlined that a broad European agenda would enhance the visibility of and draw attention to the promotion of mental health. The European Commission, the European Parliament and the EU Member States supported the proposal. The discussion was facilitated by the activities of two networks, the *European Network on Mental Health Policy* and the *European Network on Mental Health Promotion*. Furthermore, co-operation with non-governmental and international organisations, including the World Health Organization, was essential to take the ideas forward.

The European Mental Health Agenda process continued with a consultative meeting, *Mental Health Promotion on the European Agenda*, held in Helsinki on 15–16 January 1998. The European Network on Mental Health Policy played a central role in this meeting that aimed to:

- promote dialogue between the Member States on topics connected with the European Mental Health Agenda;
- seek and elaborate new viewpoints and ideas; and
- arrive at proposals specifying areas of emphasis in European mental health promotion.



In this meeting, priority areas in the field of promotion of mental health – demanding urgent actions in the European Union – were set. These priority areas were

- enhancement of the value and visibility of mental health
- mental health promotion for children and adolescents
- mental health promotion, working life and unemployment
- mental health promotion and the ageing population
- social integration of severely marginalised groups
- development of mental health indicators
- telematics of mental health promotion.

On 22–24 April 1999, a joint World Health Organization/European Commission meeting on *Balancing Mental Health Promotion and Mental Health Care* was held in Brussels. This meeting reached a consensus on what balance between mental health care and mental health promotion activities in Europe would be appropriate, and what policy should be developed in the years to come in order to meet the needs of both the population and of the profession answering these needs.

Another important landmark in this process was the *European Conference on Promotion of Mental Health and Social Inclusion* that was held in Tampere on 10–13 October 1999 as part of the official programme of the Finnish EU Presidency. The conference brought together representatives of European Union Member States and the Candidate Countries, the EEA Countries, the European Commission, the European Parliament and the World Health Organization together with other European policy makers and experts as well as representatives of NGOs, to discuss and elaborate the themes of promotion of mental health and social inclusion. Covering a broad range of issues, the conference marked an important step in the process to put mental health on the European Agenda.

The conference had two goals:

- to enhance the value and visibility of mental health at European level; and
- to seek synergies and agree on strategies concerning future European action and co-operation.

These goals were approached by

- presenting and discussing the results of the preparatory work at European level;
- analysing and enhancing the European added value of the proposals and initiatives;
- stimulating new activities, refining priorities and strengthening co-operation; and
- emphasising the role of mental health in Community action for public health.

The themes of the conference workshops had strong links with the development of European mental health policies, public policies and societal activities. In view of the efforts needed to develop the recommendations within each priority area, the

workshops proved to be a very important part of the conference. They discussed proposals for European mental health policy concerning a specific topic and produced concrete recommendations in each of the areas, respectively.

In addition, on 18 November 1999, a Council Resolution on the promotion of mental health was adopted in the Health Council<sup>5</sup>. This resolution invites the European Union Member States and the European Commission to take specific actions with regard to this topic.

Moreover, several projects directly dealing with mental health have received financial support from the European Commission. These are *Mental health promotion of children up to 6 years* (finished in December 1999), *Establishment of the indicators for mental health monitoring in Europe*, *Unemployment and mental health*, and *Putting mental health on the European agenda*. These projects have co-operated closely with other projects funded by the Community action programmes as well as with European networks and organisations.

The most recent development of the process, the present report, the product of the project on *Putting mental health on the European agenda*, outlines the public health actions on mental health to be taken into consideration in the field of promotion of mental health.

In the future, the European Mental Health Agenda process is anticipated to continue partly along the lines drawn in the Tampere conference, and on the other hand, it may well also closely follow the initiatives arising from the collaboration with international organisations such as the WHO. It is to be foreseen that in the new programme of Community action in the field of public health (2001–2006), certain actions are highly relevant to mental health and promotion of mental health. There is however, at the same time, an obvious need for maintaining some flexibility in responding rapidly to sudden and unexpected challenges, some of which will be presented in chapter 1.3.

### **1.3. NEED FOR FUTURE ACTION**

In view of the burden caused by mental health problems to individuals, their relatives and societies with all its negative consequences (see Chapter 1.1.), proper actions are indeed of great importance. These actions are even more important when we consider that *effective means do exist for promoting mental health and preventing mental health problems* (see Chapter 6). At the same time, it is clear that mental health is not just for professionals, but rather everyone should remember that mental health can – and must – be protected and enhanced by *all of us in all places*.

The idea of the relevance of mental health promotion in all sectors of the society needs to be firmly rooted in contemporary thinking and made widely known at

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<sup>5</sup> OJ C 86, 24.3.2000, p. 1.

individual, community, national and international levels. This implementation should take place in all possible settings if we are to improve the quality of life of the European citizens and to relieve the pressure on health services. However, before these ambitious goals can be achieved, a common language for exchanging information must be found and developed.

At the level of individuals, communities and the society, it is highly important to raise awareness of the available measures to promote mental health and to invite and encourage people to participate in the existing activities and to discover and disseminate new innovative ways perhaps originating in local activities. In this context, the benefits of good mental health should be clearly announced, while also striving to destigmatise mental health problems.

At the European level, Article 152 of the Amsterdam Treaty strengthens the mandate of the European Community in public health. According to the article "*a high level of health protection shall be ensured in the definition and implementation of all Community policies and activities.*" As several previous activities in the sphere of mental health promotion have clearly shown, mental health cannot be separated from public health. Therefore, promotion of mental health should be visibly maintained on the European health agenda as it is already incorporated in the actions of the new programme of Community action in the field of public health (2001–2006)<sup>6</sup>.

In addition, since the initiatives discussed above, promotion of mental health has been preserved on the European agenda as several presidencies of the European Union i.e. Portugal (conferences on *Health Determinants in the EU* in March 2000 and on *Violence and Promotion of Child and Young People Mental Health* in June 2000), France (conferences on *Prevention of Youth Suicide* in September 2000, and on *Unemployment and Mental Health* in November 2000), and Sweden (a conference on *Young People and Alcohol* in February 2001) have included the theme in their official presidency programmes. Furthermore, it can be anticipated that the mental health themes will also be relevant in view of the future enlargement of the EU to the Candidate Countries of Central and Eastern Europe as well.

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<sup>6</sup> COM(2000) 285 final of 16.5.2000.

## 2. DEFINITIONS AND DESCRIPTIONS OF THE KEY CONCEPTS

### 2.1. MENTAL HEALTH AND MENTAL HEALTH PROBLEMS

Mental health is an essential frame for the well-being and functioning of individual citizens. It contributes to the functioning of the society and has an effect on overall productivity. On the other hand, mental disorders and mental health problems constitute a significant burden (see Chapter 1.1) to the societies, families and individuals.

**Mental health**, as an indivisible part of general health, reflects the equilibrium between the individual and the environment. The determinants of mental health include:

- 1) individual factors and experiences (such as childhood events etc.);
- 2) social interactions;
- 3) societal structures and resources; and
- 4) cultural values (see Figure 1).

In this context, mental health can also be seen as a *process* that comprises predisposing, actual precipitating and supporting factors, together with various consequences and outcomes (see Figure 2).

There are two main approaches toward mental health, the positive and the negative.

- **Positive mental health** considers mental health as a resource. It is essential to general wellbeing as well as to our ability to perceive, comprehend and interpret our surroundings, to adapt to them or to change them if necessary, and to communicate with each other. Healthy mental abilities and functions enable us to experience life as meaningful, helping us to be, among other things, creative and productive members of the society.
- **Negative mental health** is about mental disorders, symptoms and problems. Mental disorders are defined in the current diagnostic classifications by the existence of symptoms (with the exception of psycho-organic disorders and substance abuse disorders). A state is called disorder, when symptoms are long-lasting, beyond the control of the individual, out of proportion to the possible external causes, and reducing the functional capacity. Mental symptoms and problems also exist without the criteria for clinical disorders being met. These subclinical conditions are often a consequence of persistent or temporary distress. They can be a marked burden, but are not always recognised as mental health problems or presented for specialized care.

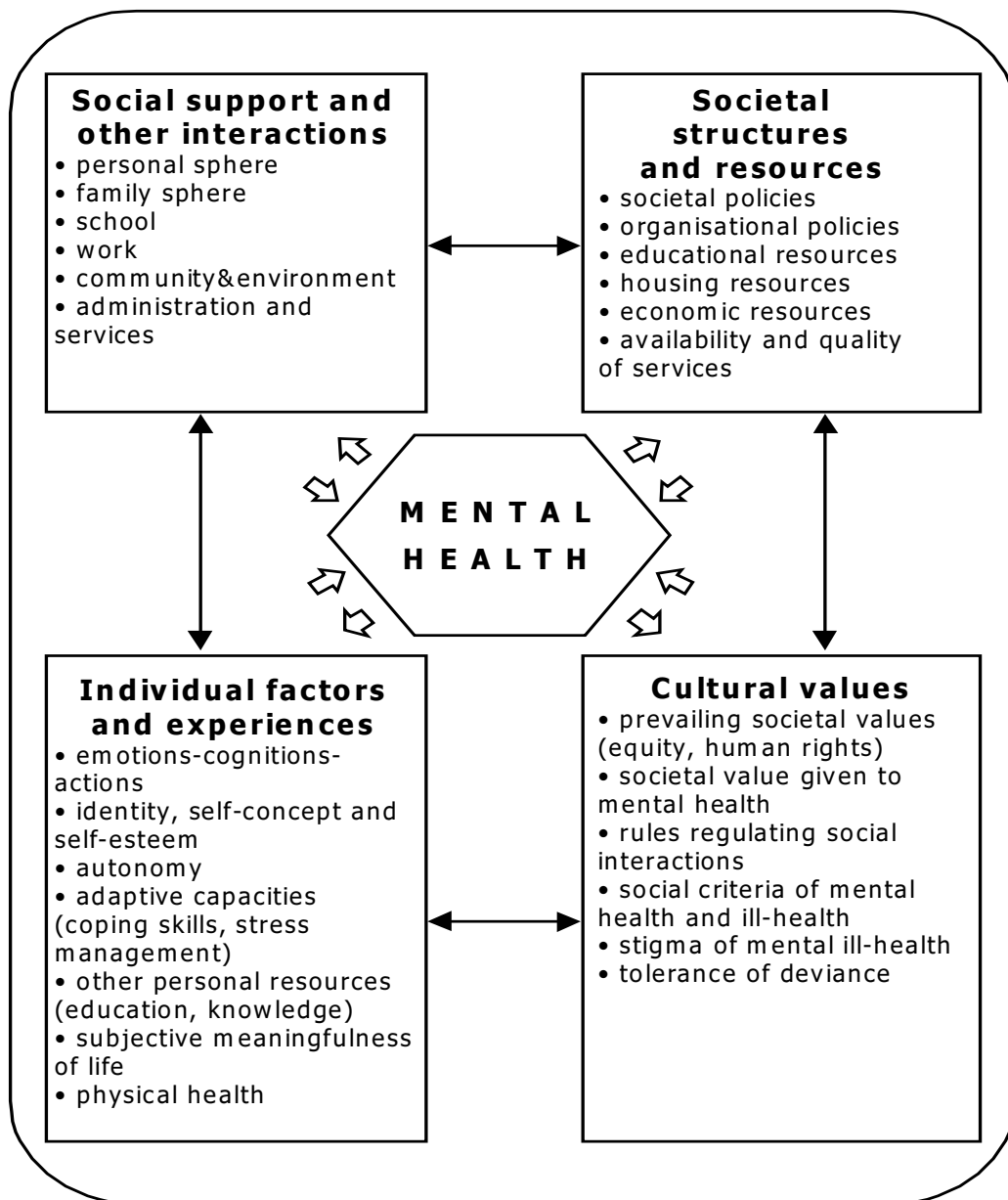


Figure 1.

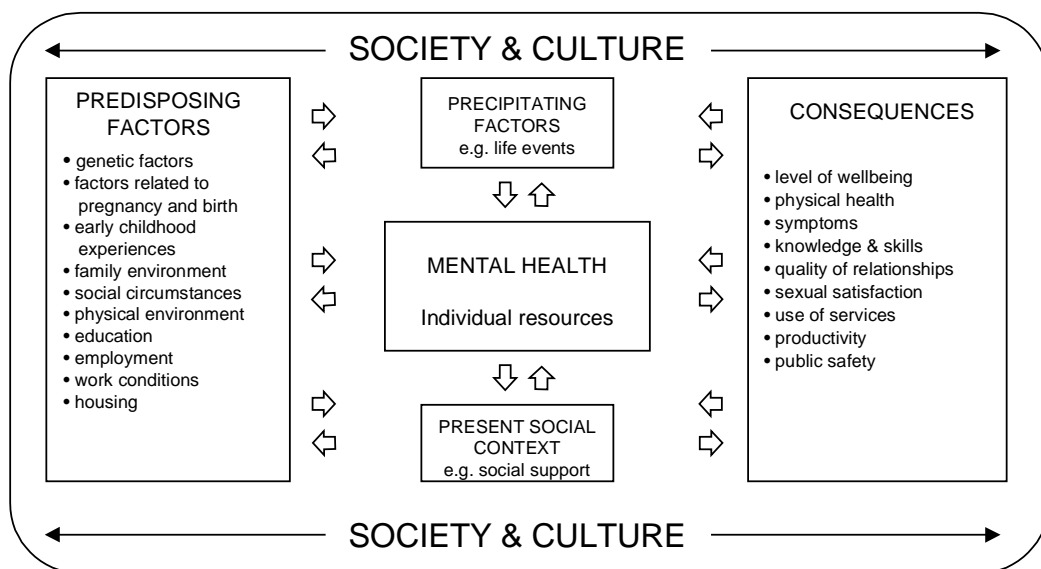


Figure 2.

## 2.2. MENTAL HEALTH PROMOTION

Mental health promotion has traditionally been regarded as a rather vague and ambiguous concept, especially among the psychiatric profession. This reserved attitude is to some extent justified because this concept has often been used in a rather loose way and without clearly defining its content. Therefore, when arguing for mental health promotion, it is essential to talk about it as clearly and unambiguously as possible.

In the Ottawa Charter of 1986 health promotion in general was defined as a process of enabling people to increase control over and to improve their health. In other words, health promotion is seen as a process aimed at returning power, knowledge, skills and other resources relating to health, to the community, to individuals, families and whole population. The Ottawa document mentions caring, holism and ecology as essential issues within the five main strategies of action, which are:

- building healthy public policy;
- creation of supportive environments;
- strengthening of community action;
- development of personal skills; and
- a reorientation of health services.

Mental health promotion acknowledges the importance of psychological processes and an awareness of the role they play in our interactions and experiences at all levels. According to the Quality Framework report, published by the British Health Education Authority (1997), mental health promotion could be any activity which actively fosters good mental health, through increasing mental health promoting factors and decreasing those factors which damage or reduce good mental health for both individuals and communities. Effective mental health promotion results in improved well-being, less human suffering, a lower incidence and prevalence of mental disorders, better use of services, higher quality of life, improved social functioning, enhanced social integration, and in other related outcomes.

Activities which promote mental health are also likely to prevent mental illness, and it seems that there is no reason to draw any sharp line between mental health promotion and prevention of mental ill-health, although, on theoretical level, their differences are apparent. In some instances these activities may also be linked to the provision of mental health services. Anyhow, services should have a major role also in mental health promotion and prevention.

Some authors use the term "promotion of mental health" instead of "mental health promotion". According to the view adopted by the so-called Key Concepts project, funded by the European Commission (Lahtinen et al. 1999), promotion of mental health is a broader concept which can be defined as a comprehensive strategy and a set of positive activities aiming

- to enhance the value and visibility of mental health at the level of societies, sections of societies and individuals, as well as
- to protect, maintain and improve mental health (mental health promotion proper).

Promotion of mental health puts special emphasis on participation and empowerment and on inter-sector co-operation. It can work with whole societies, communities, social groups, risk groups or individuals. Promotion of mental health underlines and highlights values that support sustainable development. Promotion of mental health uses a variety of approaches, methods and tools which must be adjusted to the social, cultural, gender, age-related and developmental contexts in question. Promotion of mental health, like health promotion in general, is nowadays an umbrella concept, covering a wide range of strategic approaches and the paradigms on which they rely.

### **2.2.1. Entry points for promoting mental health**

It is difficult to find social phenomena that are not connected with mental health and do not influence it directly or indirectly. Thus, there are many pathways to mental health and ill-health and, consequently, a variety of possible entry points for promoting mental health. These entry points can be defined in many ways.

Tackling (1) the **factors that predispose to, precipitate or maintain mental ill-health** is a common way of looking at the determinants of health. Genetic factors, early experiences and poor parenting are examples of predisposing factors. Stressful social or environmental events are typical precipitating factors. Chronic social adversity, e.g. poverty, or other stresses and stigma are examples of maintaining factors of mental ill-health, and social support an example of maintaining factors of mental health.

Entry points can also be defined by referring to (2) the **target groups** of activities. Mental health promotion can focus either on entire populations or smaller groups defined by, e.g., age, gender, profession, specific risk or different forms of deprivation (unemployed, homeless, refugees, immigrants, prostitutes).

Furthermore, it is possible to look at (3) the **settings** where the interventions are conducted, such as the family, day care, school, work place, health and social services, media, prisons or armed forces, or to define on which (4) **level**, e.g. international, national, regional, local or individual, mental health promotive action takes place.

Within (5) **public health**, action is hierarchically classified into four levels: (a) policy, (b) programme (e.g. focusing on a group of diseases), (c) specific action (e.g. developing service), and (d) specific product (e.g. model intervention).

Finally, entry points of mental health promotion may be categorised by (6) **methods** of action and interventions. In mental health promotion, the means of action are many and include dissemination of information and dialogue between administrators, professionals and citizens. They also include development of public services, integration of mental health issues in education and curricula, reorienting research on mental health and its promotion and various innovative measures, for example, use of information technology.

### 2.2.2. The evidence of effectiveness

Studies concerning the effectiveness of promoting mental health have recently been extensively reviewed in various reports, e.g. those of Health Promotion Wales (1995) and the Health Education Authority (1997). Although these reports mainly deal with work done in Anglo-Saxon cultures, they cover approaches to mental health promotion systematically. The conclusion from these reviews is that there exists clear evidence on the effectiveness of several mental health promotion programmes.

The majority of these studies have focused especially on prevention of mental ill-health, but it is also clear from much research in this field that interventions which prevent mental disorders also promote mental health, and interventions that promote mental health also prevent mental disorders. Similarly, the links between physical and mental health suggest that one commissioning strategy should emphasise the mental health impact of general health promotion activity.



The review of relevant literature shows that the best interventions focus upon more than one factor. For example, a meta-analysis by Bosma and Hosman (1990), identified the following elements as crucial to a successful multi-component approach to a mental health promotion programme that is directed towards influencing a combination of several risk or protective factors.

- It should involve relevant parts of the social network of the target group such as parents, teachers or family
- It should intervene at a range of different times rather than once only
- It should use a combination of intervention methods (e.g. social support and coping skills).

## **2.3. PREVENTION OF MENTAL DISORDERS**

### **2.3.1. The traditional public health model of prevention**

*Primary prevention* is directed at reducing the incidence (rate of occurrence of new cases in the community). Primary prevention efforts are those directed at people who are essentially currently without illness but are believed to be at risk of developing a particular disorder.

*Secondary prevention* involves efforts to reduce the prevalence of a disorder by reducing its duration. Thus secondary prevention programmes are directed at people who show early signs of disorder, and the goal is to shorten the duration of the disorder by early and prompt treatment.

*Tertiary prevention* is designed to reduce the severity and disability associated with a particular disorder.

The debate about secondary and tertiary prevention has focussed, less on their definitions and boundaries which have remained relatively unchallenged and uncontroversial, but rather on whether they qualify as ‘prevention’ proper at all, rather than as simply aspects of good clinical practice. Indeed this viewpoint illustrates how little doubt there is of the effectiveness of secondary and tertiary prevention. In practice they do qualify as prevention because they do prevent something (Jenkins 1994). Secondary prevention shortens the duration of illness, and hence prevents chronic morbidity and even mortality, as well as preventing some of the knock on consequences of mental illness to other people, e.g. children and spouses. Tertiary prevention reduces disability and handicap and thus prevents many of the associated sequelae of chronic illness.

An important development in the concept of prevention has been the notion of targeting. In order to clarify the issues surrounding targeting it is necessary here to introduce three further definitions (Gordon 1983):

- *Universal prevention measures* are those which are regarded as desirable for everyone, and the decision to implement them is taken if their benefits clearly

outweigh the costs and risks of implementing them (e.g. seat belts, encouragement of safe drinking, reduction of cigarette smoking, nutrition and exercise)

- *Selective prevention measures* are deemed to be appropriate when an individual is a member of a subgroup of the population (e.g. age, sex, occupation) whose risk of becoming ill is above normal. Examples are good antenatal and perinatal care and preventive activities in pregnant women; health interventions in young unsupported teenage mothers and socially isolated elderly.
- *Indicated prevention* measures are for groups at sufficiently high risk for an illness that some intervention would appear clinically important e.g. in children who have been exposed to severe clearly defined emotional stress such as disasters or violence.

A related issue is that the concept of primary prevention has been used interchangeably with health promotion. Toews and El-Guebaly (1989) assert that primary prevention is directed towards populations at risk while promotion involves the population at large. This would suggest that health promotion refers to universal strategies while primary prevention refers to selective and indicated measures. Goldston (1977) goes still further and asserts that mental health promotion programmes are “primarily educational rather than clinical in conception, the ultimate goal being to increase people’s capacities for dealing with crises and for taking steps to improve their own lives” This would imply that health promotion is a subset of universal strategies (i.e. the educational rather than the clinical component) which are themselves a subset of primary prevention.

However mental health promotion literature generally assumes that mental health is a positive state which is not synonymous with the absence of illness, and furthermore that mental health promotion activities may include those who are ill and those who are at risk. Thus, we have reached the alternative situation where, from a mental health promotion standpoint, primary prevention is a subset of mental health promotion.

The Institute of Medicine Committee on Prevention of Mental disorders chose not to use the public health classification system of primary, secondary and tertiary prevention but presented an alternative system where the term prevention is reserved for those interventions which occur before the initial onset of a disorder (Mrazek and Haggerty 1994).

The UK Health Education Authority defines mental health promotion as “*a kind of immunisation, working to strengthen the resilience of individuals, families, organisations and communities-as well as to reduce conditions which are known to damage mental well-being in every one, whether or not they currently have a mental health problem.*” The HEA sees mental health promotions as essentially about promoting the capacity for mental health at three levels

- strengthening individuals or increasing emotional resilience, for example building self-esteem, coping or life skills
- strengthening communities, for example anti-bullying strategies or after school child care clubs
- reducing structural barriers to mental health, for example fiscal policies to reduce inequalities, legislation to equalise the age of consent for heterosexual and homosexual sex.

### **2.3.2. Recent conceptual definitions in primary prevention**

#### *Predisposing and precipitating factors*

As our conceptual understanding of the difference between predisposing factors (e.g. loss of mother in childhood, genetic loading) and precipitating factors (e.g. stressful life events) has developed, more prickle opportunities have arisen for prevention in the domain of precipitating factors rather than predisposing factors. In practice, this has meant a shift of interest from high-risk populations to high-risk situations and events. There are two possible reasons for this: the greater difficulty in identifying and accessing high risk populations in clinical practice than of identifying those in high risk situations: and that the prevention pay-off or return is probably greater if one concentrates on the high risk situations, since these are more likely to be otherwise followed by illness in the short term, than if one concentrates on the high risk populations who may not develop illness in any case for many years to come (Price et al. 1989).

#### *Lack of specificity of causes*

It is now well recognised that in mental illness, rather than a specific cause being associated with a specific illness (e.g. vitamin deficiency, pellagra), a variety of stressful events may lead in a variety of people to a variety of illness outcomes. Again, this situation is not unique to mental illness. In physical illness as well, stressful events and environments may lead to a variety of diseases, for example, myocardial infarction, vitiligo and skin diseases.

#### *Micro and macro primary prevention*

There are different levels of intervention, especially in relation to proactive primary prevention, which can be classified on a continuum ranging from micro to macro (Bronfenbrenner 1997) which Catalano and Dooley (1980) have condensed into two broad categories of the macroenvironment (social and large organisational conditions) and the microenvironment (family and individual characteristics).

At the microlevel, proactive prevention might take the form of education about parenting to reduce the occurrence of damaging parenting, child abuse and divorce. At the macrolevel, proactive prevention might involve transport policies and

planning to prevent excessive automobile lead exhausts and airport noise from occurring near school playgrounds.

In general, people have been optimistic about microlevel prevention at the biological and family levels, but have until recently avoided thinking about macrolevel prevention. This partly because it is only relatively recently that it has become clear that there is a strong relationship between mental ill-health and unemployment, social discrimination, social exclusion, poverty etc and only more recently has there developed a political consensus to tackle such issues in their own right.

Catalano and Dooley argued that opportunities for macrolevel prevention are often ignored because mental health disciplines are used to taking the individual as the unit of analysis and have little experience with or methodological equipment for aggregate level analysis.

### **2.3.3. Strategies based on life event and social support theory**

There have been two main approaches for identifying the target population for preventive activities. Firstly the identification of all those who are multiply stressed. This is helpful at an individual level but difficult at population level, although it is practicable at primary care level using opportunistic screening of attenders. Secondly the identification of those who have experienced a particular life event. Potentially targetable stressful life events include both predictable transition points or normal crises, which are potentially periods of lengthened stress, for example starting school, moving school at 11, job entry, retirement are all normal life events; and unpredictable high frequency events or crises such as unemployment or physical illness or injury.

#### *Improving coping capacities*

There are different kinds of social support – appraisal, informational, emotional, and instrumental. Research has elucidated three broad mechanisms by which social support may affect mental health. By a direct effect on wellbeing regardless of whether the individual is under stress. Indirectly by reducing exposure to social adversity (e.g. individuals with deficient social networks may be more likely to experience stressful events, and to use less effective coping strategies) and interactively by buffering the individual from the maladaptive effects of stress.

#### *Altering environmental settings*

People are often at risk not only because of their individual characteristics but also because of the situation they are in, which may continue the exposure to stresses and lack of adequate support. Environmental settings can be specifically selected, changed or created in prevention strategies. For example, helping people find opportunities for recreation, education, or self help groups would qualify as selecting

the environmental setting. Changing the environmental setting might be achieved by consulting or intervening with the family or organisation. Creating a setting occurs when a new structure is created, for example, a walk in mental health centre. While most individuals engage in setting selection naturally, its possibilities in prevention have been overlooked.

#### *Developing natural support systems*

Facilitating the development of natural support systems in the community relies on the evidence that social supports act as a buffer protecting individuals from the effects of external stressors. These strategies may be categorised:

- a) supporting existing systems
- b) creating a new but natural support system
- c) educating carers
- d) development of alliances
- e) mental health education.

## **2.4. PREVENTION OF SUICIDES**

Recent increases in global suicide rates have focused attention on suicide as an important area of public health concern. About one million people in the world commit suicide within any given year. In Europe, suicide rates vary considerably between countries. The annual average suicide rate for men was 30 and for women 8 per 100,000 persons in 1995<sup>7</sup>. In many European countries the number of suicides is significantly higher than the number of deaths due to road accidents.

In 1989, the World Health Organization (WHO) recommended that each country should

- recognize suicide as a priority problem in public health;
- develop national suicide prevention programmes; and
- establish national co-ordinating committees for suicide prevention.

Since then, comprehensive strategies have been mapped out and evaluated by several countries. In 1996, the United Nations stated that national governments should be encouraged to formulate policies for suicide prevention. These policies could be complemented by national institutional structures responsible for individual, family and community well-being. The UN suggested that the traditional public health model should include factors such as host, environment and agent in the framework for suicide prevention. According to this view,

- potential suicide victims (e.g. suicide attempters) should be identified as a high risk population;

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<sup>7</sup> The highest rates were in the eastern (39 for men and 9 for women) and northern (37 and 9) regions of Europe, and the lowest rates in western (29 and 10) and southern Europe (16 and 5).

- environmental risk factors (e.g. unemployment) contributing to the increased vulnerability of the high risk groups should be targeted; and
- interventions affecting "agents" (restricting the availability of the means of suicide, e.g. lethal drugs) could be introduced.

In the traditional model of suicide prevention, *primary prevention* aims at minimizing the risks of suicidal behaviour by seeing that adequate treatment is available for those at risk as early as possible. *Secondary prevention* aims at providing appropriate treatment for all those, e.g. suicide attempters, who have expressed their suicidality. *Tertiary prevention* focuses on helping all survivors affected by self-destructive behaviour.

However, a more modern and dynamic model sees suicide as a process which proceeds from several risk and protective factors through acute precipitating factors to suicidal ideation, plans and attempts by the various means available. The outcome may be death unless some successful intervention occurs. It could also have after-effects with both a positive and a negative impact on suicidal behaviour in the environment of the suicide victim.

#### **2.4.1. Definition of the problem**

The first step in the public health approach to suicide prevention requires incidents of suicidal behaviour (including information on the persons and events) to be delineated. Every country (and region) must collect information that will present an accurate picture of suicidal behaviour in specific communities. Basic information about the magnitude of the problem can be collected from vital statistics. Use of these statistics for the planning of suicide prevention is, however, severely restricted by underreporting of suicides (at least 10%), the time lag in data availability and the lack of psychological autopsies. Underreporting may be high in some causes of death (such as drug poisonings) and thus cause a major bias in prevention activities. The time lag in the availability of national and international suicide data (from two to even five years) may prevent a prompt response to trends calling for immediate action. Death certificates offer important - but crude - background information on suicide. More specific information for suicide prevention would be available if psychological autopsies (interviews with next-of-kin and treatment personnel), health care register data and hospital records could be used. More information is also needed on specific suicide means and methods (such as firearms, drugs, poisons and locations).

#### **2.4.2. Identification of the causes**

The second step in suicide prevention is to identify the risk and protective factors inherent in suicide. This could be done by using various research methods allowing

us to answer questions as to why suicides were committed in the first place, and how they could be prevented.

Identifying risk factors helps us to divide a population into high risk and low risk subgroups. Risk factors may be population specific, and their potency can vary in the different phases of the suicide process or in various subpopulations. If a risk factor is causal, affecting that factor (such as effective treatment of the depressive episode) may help to reduce the suicide rate. Efforts focusing on eliminating the deleterious effects of causal risk factors could be expected to produce significant results. This would be important both for the clinical aspects of suicide prevention and for suicide prevention policy.

### **2.4.3. Development and implementation of interventions**

The development of any intervention in suicide prevention should be based on the knowledge and experience gained from previous prevention activities. All interventions should, in turn, be properly tested. Unfortunately, the efficacy of only very few interventions has been evaluated to date. An approach worth testing and introducing locally, regionally and even nationally might be the adequate treatment of all depressed individuals in society. However, interventions demonstrated to be effective must be such that they can be implemented in a cost-effective way. A combination of effective interventions might form the basis of a comprehensive strategy covering all major service sectors and levels of society (including the third sector, the professions and the media), and reaching from the very top to the single individual at risk of committing suicide.

## **2.5. SYSTEM OF MENTAL HEALTH CARE**

In contrast to the concepts of “mental health promotion” and of “prevention of mental disorders”, which deal with healthy people, “mental health care” is concerned with organised activities directed at *persons already suffering from mental disorders*. Mental health care is delivered by *mental health services*, which include (a) primary care, (b) specialized care, (c) social services, and (d) co-operation/liaison with other agencies and groups, including consumer and carer associations.

### **2.5.1. Mental health care and related concepts**

*Mental health promotion and prevention of mental disorders:* Although, in theory, mental health promotion and prevention of mental disorders are different from mental health care, there are overlaps between these concepts in practice. This is especially true for early detection and early treatment of mental disorders (also called “secondary prevention”), as well as for rehabilitation, which includes relapse prevention and prevention of the development of disabilities (“tertiary prevention”).

*Psychiatric treatment/clinical interventions:* Although effective clinical interventions are the backbone of mental health care, mental health care cannot be simply equated with psychiatric treatment. Specialist staff might be well trained to deliver state-of-the-art treatment - if the system of services is not adequately organised, professional help might not reach those who need it. Conversely, although service provision might be optimal, activities are futile, if no state-of-the-art treatment is offered.

*Rehabilitation:* Rehabilitation can be regarded a sub-field of mental health care, where co-operation of psychiatric services with social services and the community at large is especially important, and which therefore deserves special attention (see chapter 2.6. below).

### **2.5.2. The tasks of mental health care**

Mental health care has to pursue the following tasks:

- early intervention for those who are in the early stages of developing a psychiatric disorder, in order to prevent the full-blown condition from developing;
- emergency help and crisis intervention for those who are acutely and severely ill, in order to relieve their suffering and stave off dangers to themselves and others;
- restoring complete mental health wherever possible;
- improving mental health, if full recovery cannot be achieved;
- preventing deterioration, if full or partial recovery are not possible; and
- preventing relapse in those who have fully or partially recovered from a psychiatric condition.

### **2.5.3. Outcomes of mental health care**

This list of tasks becomes only meaningful, if it is made clear, what mental health, what improvement/deterioration, and what recovery, i.e. what these possible outcomes of mental health care mean. At a time, when most psychiatric patients live in the community and when consumer and carer participation are on the increase, these concepts cannot any more be defined exclusively in terms of symptoms, but must also include psychological well-being, functioning in daily life, accessibility of social opportunities and support from the environment.

The concept of “quality of life” captures all these aspects. In fact, the overall purpose of mental health care could be defined as the improvement of people’s quality of life. It is evident that this task cannot be achieved by psychiatrists alone, and that co-operation between different health and social professionals on the one hand, and between professionals, consumers and carers on the other hand is essential.



#### **2.5.4. Mental health services and systems of mental health care**

Mental health services provide the organisational framework for professionals in order to perform the above mentioned tasks. When planning mental health services one should keep in mind that people tend to avoid specialist psychiatric services because of the stigma associated with using them, and prefer contacting primary care services. Thus, mental health services represent a continuum from primary care, over low and medium degree specialised services, to highly specialised services. Examples of such services include general practitioners, day clinics, specialised crisis and emergency services, assertive outreach teams, as well as mental hospitals and others.

Not unlike in the field of clinical interventions - where advocates of pharmacological and psychosocial interventions are often irreconcilable - also in the field of planning systems of mental health care different philosophies exist, some more inclined towards professional (mostly medical) dominance, specialisation and centralisation (symbolised by the traditional mental hospital), and others more prone to egalitarian models, decentralisation, the inclusion of non-medical professionals and the participation of consumers and carers both in the planning and the provision of services.

Today's systems of mental health care in European countries are mostly not the results of rational planning decisions. They rather reflect unplanned historical developments and - due to the unresolved problem of the appropriate interplay between the health and the social care system - are the consequence of complex and compartmentalised financing systems and confusing legislation. Because of this situation the consumers, sometimes directly, sometimes indirectly, have to contribute in an unfair way to financing their care in many European countries.

#### **2.5.5. The case for a community-based mental health care system**

In order to organise an efficient mental health care system, two principles have to be observed, which are difficult to reconcile:

- (1) The system should offer services as close as possible to where people live and work, i.e. in their local communities;
- (2) The individual services must be of the highest possible quality, i.e. in most instances they must be specialised, in order to be as efficient as possible.

General practitioners are closest of all health services to where people live and work. Because of this closeness, but also because of the lack of stigma associated with contacting a general practitioner (in contrast to specialist psychiatric services), primary health care doctors are the most probable point of entry into the mental health care system in most European countries.

While general practitioners undoubtedly best fulfil the “closeness” criterion, their psychiatric expertise is necessarily limited. This is not to say that, if adequate training is provided, general practitioners cannot identify and manage a wide range of mental health problems themselves, at least as long as patients are co-operative and their needs are not too heavy and too complex. However, in order to deliver the best possible mental health care, general practitioners should be offered specialised psychiatric back-up assistance or clear referral pathways to specialised psychiatric care. Especially in rural areas, such specialised care might not be located as close to a patient’s home as the general practitioner. In some countries specialised psychiatric out-patient services (such as psychiatrists in solo practices) may serve both as a primary point of entry and as a point of referral from primary care.

For patients who are difficult to engage, who constitute a potential danger to themselves and others, who are at risk for social exclusion or need a high level of multi-professional assistance, general practitioners are overtaxed. For these patients a whole range of specialised services is necessary, including crisis and emergency services, assertive outreach teams, acute hospital beds, and others.

Such specialised psychiatric services can often not be offered at the same close geographical level as non-specialised primary care services. Limitations in financing such services and limitations in providing sufficient skilled staff with specific expertise, are a natural barrier to setting up such services in each locality. Also, if incidence and prevalence of a specific psychiatric problem are too low in a small catchment area of say 50.000 or 100.000 inhabitants, staff cannot gather sufficient experience in handling that problem. This would clearly undermine the quality and efficiency of care. This applies especially to specific rare diagnostic and other groups of patients outlined below.

A small proportion of people may need to be detained involuntarily in hospital for assessment and/or treatment. The legal framework for compulsory detention and treatment should reflect the provision in various international human rights treaties including:

- Universal Declaration of Human Rights 1948
- International Covenant on Economics, Social and Cultural Rights 1976
- International Covenant of Civil and Political Rights 1976
- UN Convention against torture and other inhuman or degrading treatment or punishment 1984
- UN convention on the Rights of the Child 1989
- UN International Convention on Elimination of Racial Discrimination 1996.

### **2.5.6. Components of an effective system of mental health care**

Components of an effective system of mental health care are differently named in different countries. As an example, the components contained in the “Birmingham

adult mental health strategy” are listed here.<sup>8</sup> Interestingly and rather unconventionally the components are grouped into (a) locality based community services, (b) buildings and beds and (c) support to access components of ordinary living.<sup>9</sup> These groups include:

1. Locality based community services: user involvement, carer involvement, high quality primary care, primary care liaison, early intervention, rapid response and crisis resolution (“home treatment team”), continuing needs service (for co-operative patients who pose relatively little risk), assertive outreach service (for non-cooperative patients, who pose a severe risk to others and/or to themselves), and support to access more specialised therapeutic interventions.
2. Buildings and beds: team bases and community centres, crisis/respice houses, in-patient acute adult services, intensive care, rehabilitation services.
3. Support to access components of ordinary living: advocacy, befriending, centre-based services (day structure), leisure, education, vocational training, employment opportunities, welfare rights, accommodation (mainstream tenancies, unstaffed group homes, a dispersed housing scheme with mobile support, hostels, supported lodgings with on site staff of daily visits by landlord/lady, supported accommodation, registered homes with 24 hour staffing).

This strategy deals with mainly with “general” adult psychiatric patients and it is clear that. More specialised services are necessary for specific subgroups of patients, for which the above components have to be adopted and adapted. These subgroups include life cycle groups (children and young people, the elderly), specific diagnostic groups (alcohol and drug abuse, personality disorders, mental retardation), and others (minority ethnic groups, mentally disordered offenders, deaf people with mental health problems, homeless people, people with mental health problems and learning disabilities, younger people with dementia and other organic conditions, people with acquired brain damage, people with mental illness and substance misuse problems, furthermore women with pregnancy related disorders, people with eating disorders, neuropsychiatry, specialist psychotherapy service).

## **2.6. REHABILITATION OF PERSONS WITH MENTAL HEALTH PROBLEMS**

As a concept, rehabilitation of persons with mental health problems is often reserved for services of people suffering from severe and/or long-lasting mental illness. This activity is most commonly called psychiatric rehabilitation. However, the comprehensive approach of rehabilitation also applies in less severe cases, e.g., with

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<sup>8</sup> This strategy puts special emphasis on home treatment. See also chapter 6.4, which goes into more details about the various functionalised teams in North Birmingham

<sup>9</sup> The document can be accessed on the internet under:

[http://www.birminghamhealth.org.uk/PublicHealth/mh\\_strategy/STRATEGY.html](http://www.birminghamhealth.org.uk/PublicHealth/mh_strategy/STRATEGY.html)

persons still at work but whose functional capacity and mastery of life have decreased or are under a risk of decreasing because of long-lasting mental health problems. In both situations, rehabilitation aims towards a better role performance, working capacity, and quality of life.

Rehabilitation is a co-ordinated process of helping people with long-term or recurrent health problems to pursue their life projects, e.g., living successfully in their working, learning or social environments and improving their role performance at work and in other social life.

**1. Individual and environmental approaches combined.** How a person feels and functions is always a result of the interaction between individual skills and resources, and the physical and social environment in which one lives and operates. Accordingly, rehabilitation is always concerned with the whole person in the context of his/her environment. The rehabilitation process is seldom only targeted at intrapsychic changes. The concept of rehabilitation both includes those strategies which aim at reducing the impact of disabling and handicapping conditions, and those which aim at developing the person's resources. This wide orientation is used, e.g., in the definition of rehabilitation stated by the World Health Organization (1981).

Rehabilitation of persons with mental health problems thus includes two kinds of activity:

- the enhancement of the person's physical and psychosocial skills and resources, for example through counselling, guidance, psychotherapy, education and training, and consultation, and
- creating supportive environments and activating community resources; for instance, better social and physical work environments, more supportive networks, more attention to human and civil rights, innovative legislation, housing arrangements, etc.

**2. Emphasis on strengths, not pathologies.** While the medical model of psychiatry often stresses aetiologies and past influences, the rehabilitation ideology stresses the present with an orientation toward the future. An important aspect of rehabilitation is the emphasis on positive capacities. The focus is on individual strengths, not on pathologies. This orientation is an antidote to paternalistic attitudes that often develop when psychiatric services try to care for long-term patients. In rehabilitation, it is central to view one's life as a process of growth. All persons are capable of growth and empowerment, and this development is based on one's own interests and aspirations. An important task of the rehabilitation personnel is to support their clients' self-esteem, help them view themselves as capable of progress and to support their process of growth. Rehabilitation focuses on utilising the person's strengths and abilities for better independent functioning and fulfilment of social roles. When the

goals are personally meaningful, every rehabilitee is able to work toward them, get empowered and strengthen through reaching them.

**3. Development of supportive environments.** An important goal of the rehabilitation professional is to re-educate or restructure the environment so that it is able to accept and integrate people with mental health problems. This strategy is important both for the well-being of persons who are at work in spite of their problems and with persons who are at sick leave or pension. Sometimes the modification or development of role performance or well-being can be impacted without any skill improvements, e.g., by simply making the living or working conditions more supportive or accommodating. As a matter of fact, often the key part of the process is the modification or development of social and physical environments in such a way that the person can function at the best level possible.

The person's immediate environment should be structured so that it provides all possible support. Chances for successful outcome are higher, if the rehabilitee's social network (family, employers, coworkers etc.) is able and willing to contribute to this provision. Often people with severe mental health problems have fewer personal ties and less frequent contacts outside their family. Many employers and landlords, for example, stigmatize people with emotional disabilities and have discriminative attitudes against them in employment and housing matters. One way to enhance support for clients is to work actively against such discrimination.

**4. The rehabilitee as an active participant.** Every rehabilitee should have the right and the ability to make future plans and decisions regarding one's own life, as even people with major mental illness are capable of participating in the rehabilitation process. Following this participatory approach contributes to the effectiveness of rehabilitation. When aiming for good outcomes of rehabilitation, the key issue is not to do things in the best interests of the clients but to allow them to make plans and decisions themselves. The clients are the experts of their own situation, and the role of the rehabilitation professional is that of a collaborator or a consultant. The professionals' important task is to support the clients' competencies in the future planning and decision making process. In the rehabilitation process, the clients are allowed to grow through their experience of independence.

**5. An innovative approach, not a measure.** Rehabilitation has often been understood only as a specific measure or a set of measures. Nowadays it is commonly accepted that rehabilitation is not just a set of specific measures or techniques, but rather an innovative approach, a comprehensive strategy for restoring the person's role performance, emotional well-being, and full citizenship. Rehabilitation simultaneously aims at increasing the skills and resources of the rehabilitees and at decreasing the disabling effects or responses of the communities and environments.

The rehabilitation approach seems to be most effective if it deals with both of these aspects.

**6. Aiming towards meaningful life.** Work and meaningful activity is an important force in the life of every person. Meaningful activity is also a central force in every rehabilitation process. Participation in meaningful activity allows people to develop their skills and interests and maintain social contacts with other people. Positive experiences produce self-esteem, empowerment and independence. Proceeding with small steps towards more important life projects is the basic strategy in many rehabilitation processes.

## 2.7. MENTAL HEALTH MONITORING

The Health Monitoring Programme (HMP) of the European Commission was established in 1997. This was preceded by enhancement of the public health responsibilities of the European Union. The HMP has the aim *'to contribute to the establishment of a Community Health Monitoring System'*. The monitoring system will be constructed for the purposes of:

- 1) Measurement of the health status, its determinants and trends across the European Community;
- 2) Facilitation of the planning, monitoring and evaluation of Community programmes and actions; and
- 3) Provision of the appropriate health information to the Member States for international comparisons and to support their national policies

The activities of the HMP are conducted under three headings, or pillars:

Pillar A: Establishment of Community Health Indicators

Pillar B: Development of a Community-wide network for sharing health data

Pillar C: Analyses and reporting

Since there is **no health without mental health**, monitoring of mental health is an essential part of a health monitoring system. Mental health is mentioned in the HMP under the heading 'Functioning and Quality of Life' as one of the areas needing indicators. A two-year action programme to establish mental health indicators for Europe has had the objective to create a set of **a few good, crucial** indicators that are valid and reliable.

### 2.7.1. Structure of the health monitoring system

In the future health monitoring system the indicators will be divided into four domains:

- 1) Demographic and socioeconomic variables;

- 2) Health status
- 3) Determinants of health
- 4) Health systems

The following is a short presentation of these domains and factors relevant for mental health in each domain.

#### 2.7.1.1. Demographic and socioeconomic factors

Several demographic variables have been shown to correlate with mental ill-health. Among the most crucial are gender, age, marital status, education, ethnicity or race, place of domicile, and urbanicity. Lower SES has been shown to accrue worse health outcomes than higher status. The causal direction may vary between ill-health and social factors among different disorders. Living alone and being unemployed have in several studies correlated with estimates of mental ill-health. The existing information indicates strongly that demographic and social stress factors are of use in estimating mental health risks and possible needs for intervention at population level.

#### 2.7.1.2. Mental health status

The concept of mental health can be divided into diverse measurable dimensions, which complement each other. These dimensions include the most crucial domains in need of indicators. As to the mental health status, there are two main aspects, the negative and positive (see chapter 2.1.).

Negative mental health can be measured on the levels of specific psychiatric disorders which are subsets of symptoms and constitute specific diagnostic categories such as major depressive disorders or anxiety disorders classified in the part number V of the International Classification of Diseases. There are many instruments to measure the presence of specific psychiatric diagnoses: The CIDI (Composite International Diagnostic Interview) allows a lay interviewer to produce enough information to compute a diagnostic assessment (the CIDI is also available in a short form the CIDI SF, which could be administered within a very short time). In contrast, the SCAN (Schedules for Clinical Assessment in Neuropsychiatry) is a sophisticated instrument available for experienced clinicians only.

Psychological distress, usually measured by various symptom checklist scales, comprises of a cluster of diverse constructs like anxiety and depression. Scales measuring psychological distress indicate, on a general level, that something is wrong, comparable to elevated body temperature, but not what is wrong. The scales are easy to use and many have been translated into various European languages. Some of them are very short, such as the 5-item scale (MHI-5) integrated into the SF36. The MHI-5 is a very practical scale to measure distress, which is a good predictor of demands and use of care.

The principal components of positive mental health (PMH) can be grouped in several ways. PMH has both cognitive and affective components. It may refer to life satisfaction, morale and happiness. PMH can, further, be viewed by differentiating between “mental health wellness” (state) and resilience (trait). Wellness is purely descriptive concept referring to the level of healthy functioning without regard to constitutional vulnerability to mental illness or exposure to risk factors. Resilience refers to the achievement of healthy levels of functioning despite the presence of risk factors.

Individuals with PMH usually demonstrate positive personality traits, which are considered as resources. They have high levels of self-esteem, sense of mastery, sense of coherence (life experienced as meaningful and manageable) and self-efficacy. These traits are determinants that can be conceptualised as a person’s ability to cope with adversity, and avoid breakdown or diverse health problems when confronted with adverse experiences.

There are many reliable and valid scales to measure the various aspects of PMH. Many of the scales are not lengthy and can be either self-administered or administered by an interviewer.

#### 2.7.1.3. Determinants

Many variables affect the mental health status. These are summarised under the heading of “determinants”. This category comprises of all factors determining health outside health systems. This includes personal and biological factors as mentioned above, health behaviours, and living and working conditions.

Individuals with PMH usually demonstrate positive personality traits, which are considered as resources. They have high levels of self-esteem, sense of mastery, sense of coherence (life experienced as meaningful and manageable) and self-efficacy. These traits are determinants that can be conceptualised as a person’s ability to cope with adversity, and avoid breakdown or diverse health problems when confronted with adverse experiences.

Some complex variables, such as the composition of the social network and perceived social support, are important for prevention and promotion purposes, as these may be influenced through specific programmes. The measurement of, say, social support is easy to implement for monitoring purposes, as short scales exist.

Severe life events, including those that occurred in childhood, and long-lasting difficulties correlate strongly to most aspects of mental health. It may, however, be difficult to distinguish the causes from the consequences, as negative mental health may decrease the ability to cope and cause disruption. On the other hand, major life events are known to provoke mental breakdowns in the form of depression. Consequently, it would be important to measure the occurrence of risks factors as well as inception of a mental disorder by the time they occurred.



Other variables such as the composition of the social network and perceived social support have been described as exerting a protective influence and therefore important for prevention and promotion purposes, as these may be influenced through specific programmes. The measurement of, for example, social support is easy to implement for monitoring purposes, as short scales do exist.

#### 2.7.1.4. Health systems

This domain includes indicators on the health service system as well as on prevention and promotion.

The relevant sub-domains of mental health indicators should reflect prevention and promotion projects, resources of, use of and expenditure on the mental health service system. Here one can use indicators such as use of psychiatric hospital care; number of outpatient visits or sale of psychotropic drugs. However, use of care is difficult to compare due to the differences in the health care systems between Member States.

#### **2.7.2. Methods of measurement in health monitoring**

Health on population level may usually be measured by the following three methods:

1) Population surveys which collect information among the general population. These surveys can be cross-sectional or longitudinal (using a follow-up design).

2) Systematic data collection of patients treated: a) in hospitals, b) in outpatient clinics or c) in primary care. Most of the Member States in the EU have data at the hospital level, some at the outpatient and probably none at the primary level in a systematic way. However, having a panel of general practitioners who would provide regular information about their mental health patients could provide an approach in the primary level. Additionally, most general population surveys record GP visits as well as visits to mental health specialists.

3) Use of mortality data: suicide mortality and mortality due to substance abuse can be used as mental health indicators. Mental disorders are often chronic in their nature, and therefore they create social and personal disability and handicaps, which are better reflected by the data on morbidity than data on mortality.

Anxiety and depression contribute to a great extent to the incidence of and mortality due to cardiovascular disease. Tobacco use has also been linked to depressive disorders. It has been established that nicotine has an antidepressant effect and depressed people have a higher tendency to smoke. Lung cancer due to smoking is a significant cause of death among depressive individuals. It would be important to be able to follow the links between psychiatric morbidity and mortality. However, so far this is not foreseeable by using routine mortality statistics. The use of surveys to

collect data on physical health as well as mental health would be particularly important.

Furthermore, the health care system is not the only relevant system for monitoring mental health: the legal system and the social service system may also collect relevant data. One of the additional difficulties of the monitoring of health at the EU level could be the existence of significant regional variation within countries. It may be best to collect data at both regional and national levels.

### **2.7.3. From data to analysis**

In addition to collecting data, monitoring health implies the follow-up of the measures with the purpose to interpret the evolution of mental health situation according to the established policies and strategies, and to take relevant actions if necessary. Thus, proper guidelines should be provided to interpret the trends established. A mental health indicator is related to mental health and it may be influenced by many other factors and the indicators themselves may be dependent on each other. A health indicator could be conceptualised as a bridge between health policy and science, e.g. epidemiology. Furthermore, one needs a conceptual model of health and mental health to facilitate an interpretation of a trend established by an individual or a group of indicators.

The HMP has as its third objective (Pillar C) to establish a capacity to the preparation and dissemination of reports on health status, trends and determinants and the impact of policies. The analyses of mental health indicators and established trends will provide the content for future European mental health reports.

### **2.7.4. Conclusions**

A comprehensive health monitoring system must cover the multi-faceted aspects of mental health:

- I. The mental health indicators with unanimous harmonised definitions must describe the important aspects of mental health (e.g. affective experiences and emotional resilience) as well as its interactional and societal prerequisites or consequences (e.g. social environment, level of well-being, quality of life).
- II. The system must be sensitive to change within time and cultural differences.
- III. Different mental health activities (promotion; primary, secondary and tertiary prevention; and prevention of excess mortality) must be covered by the system.
- IV. The set of mental health indicators will be an integrated part of a comprehensive community health monitoring system. The indicators must provide comparable and reliable data of mental health in the Member States. Ideally the indicators would be based as much as possible on data already collected routinely in the Member States.

- V. The system should include indicators to describe relevant and feasible aspects of the mental health service system.
- VI. The system must have relevance for planning and political decision making.
- VII. Citizen's participation and user's views are increasingly important elements in mental health today. These have to be taken into account if the needs of the population at large are to be served in the best possible way. Confidentiality and person's rights protection should be ensured (data should be anonymous and data availability should be controlled)

Monitoring mental health is a feasible but not a simple task. An action project under the HMP will shortly propose a minimum data set of mental health indicators. Some of the proposed indicators are available in most of the Member States and some based on survey data need further development. Sharing the desire for harmonising as well as taking concrete actions to collect data across Europe is the only way to accomplish the reliable monitoring of mental health across the EU.

### **3. IMPORTANT MENTAL DISORDERS**

#### **3.1. EMOTIONAL AND CONDUCT DISORDERS IN CHILDREN**

##### **3.1.1. Introduction**

Mental health disorders with onset in childhood and adolescence are common. These disorders fall into a number of broad categories and most of them apply not just in childhood but across the entire life cycle. Child mental health disorders need to be considered within the context of the family, the school, the peer group and the community. In seeking to understand them it is therefore important that we take into account the entire socio-cultural environment of the child. An important characteristic of these disorders is the degree to which they affect different aspects of the life of the child and the family. The family of a disturbed child will need the services of several professionals drawn from the health, education and social services.

There are several diagnostic categories of child mental disorders. Some of those frequently encountered are: disorders of mood (depressive disorders), disorders of anxiety, conduct disorders, attention deficit disorder (hyperkinetic disorder), autism and other pervasive developmental disorders such as eating disorders (anorexia nervosa or bulimia), and learning and communication disorders. The categories are not mutually exclusive; in fact, many young children may have two or more mental disorders. The above categories may include other conditions and problems that need to be addressed through specifically developed interventions. Such problems involve disadvantaged children and children living in poverty, disabled children, abused and neglected children, the children of mentally ill parents, teenage substance abusers, and children and adolescents suffering loss (death, separation).

The disorders and the problems mentioned above have a major social and psychological impact on the child and family. Moreover, the financial costs arising from their occurrence are considerable and their burden falls not only on health services but also on social, education and voluntary services and on the families themselves. The psychological pain and the personal suffering caused to children by emotional problems cannot be underestimated.

Epidemiological studies in various European countries indicate that, in any one year, around 10% of children and adolescents suffer from a psychiatric developmental or learning disorder. It is also known that the long-term consequences of many childhood and adolescence disorders persist into adult life.

### 3.1.2. Child mental health: risks and protective factors

We have good evidence to show that both biological factors and adverse psychosocial experiences during childhood influence the mental disorders of children. These risks factors are: 1) genetic factors 2) biological “insults” (exposure to toxic chemicals or drugs), 3) poor prenatal care, 4) chronic physical illness (leukaemia, AIDS etc.), 5) cognitive impairments (mental retardation), 6) persistent psychological adversity (poverty, disorganized and inadequate schooling), 7) abuse and neglect, 8) disturbed family relationships, and 9) parental mental illness (U.S. Department of Health and Human Services 1990).

On the other hand, certain factors have been identified that protect children and adolescents from mental health disorders, particularly those noted for disruptive conduct and depression. These are: good intelligence, good relationships with adults in which the child feels valued, good social skills, mastery and competence including the capacity to plan, able, resilient and healthy mothers, being a first born (especially for a young child), participation in organized activities and presence of non-deviant peers (especially for an older child), small family size, good family resources and reasonable socio-economic status, and good school (Tsiantis et al. 2000).

Below some key issues in certain emotional disorders that are quite common and that impose a heavy burden on children, families and society, will be described.

#### 3.1.2.1. Depressive disorders

*Short description:* Depressive disorders are conditions characterized by a change in and a lowering of mood that is persistent and relatively severe as well as a loss of interest or pleasure in life. In children and adolescents the most frequently diagnosed mood disorders are major depressive, dysthymic and bipolar disorders.

*Epidemiology:* It is estimated that 2% to 4% of children suffer from depression. Rates may increase 2- or 3-fold during adolescence, becoming approximately as high as for adults.

*Public health impact:* Depression in children and adolescents is a severely disabling illness. Because of its chronicity and accompanying problems, it may result in life-long struggles. Depression is also known to increase the risk of suicide. Suicidal ideation and behaviour constitute a public health concern of major importance. The incidence of attempted suicide peaks during the mid-teens, and death due to suicide is the third leading cause of death in adolescents. It is therefore crucial that we formulate preventive strategies and devise effective maintenance and/or prophylactic treatments. In milder episodes we must find ways for early diagnosis through the education of parents and other people concerned (i.e. teachers and doctors).

*Aetiology:* The aetiology of depressive disorders is determined by a multiplicity of factors, including genetic and environmental ones. Among environmental factors we include social adversity and emotional problems in parents. As a result of these,

parents may not be able to give their children sensitive and loving care. Stresses and acute life events outside the family such as friendship difficulties and bullying are also likely to be relevant.

*Clinical manifestations:* Children with depression often cannot verbalize their distress and may express it only through somatic symptoms, irritability and withdrawal. As a result the child with depressive symptoms may not be recognized. Many children with depression will not necessarily be troublesome to parents and teachers. On the other hand, depressed adolescents often complain of feeling sad and apathetic and lacking energy. They may have difficulty in going to sleep and their appetite is impaired and they tend either to eat too little or to overeat. Suicidal thoughts are relatively common. A sense of futility and hopelessness may also be experienced.

*Detection and care:* The diagnosis of the depressed child or adolescent is based on an interview with the clinician. It is not enough to rely on the accounts of parents since they may not notice depression in their children and may not even be aware of suicidal thoughts or even attempts. Parents may, however, report on the behaviour of the depressed child. Similarly the teacher may report on the child who is apathetic and silent and doing badly in school.

The initial management of the depressed child depends very much on the nature of the problem identified during the assessment. Thus it may be sufficient to modify some factors related to the depressive reaction of the child. Simply alleviating stress and arranging regular meetings of a supportive nature for the child and parents may succeed in alleviating the depressed mood of the child. Other cases, especially those with severe depression or suicidal thoughts, require more systematic and focused treatment. A number of individual or group psychosocial treatments, including cognitive therapy, interpersonal psychotherapy, family therapy and psychodynamic psychotherapy, have been used with depressed children. Pharmacological treatments have also been used. It would seem that, of the psychological treatments, the ones that have been researched the most are cognitive behaviour, family therapy, interpersonal therapy and less psychodynamic therapy. There is good evidence that cognitive behaviour therapy is effective although it has also been suggested that this approach is promising only in the short term. Evidence of the success of psychopharmacological treatment is contradictory.

*Prevention:* Two types of intervention can usually be used in preventive programmes. Universal intervention involves all individuals in a population regardless of their level of risk, and aims to reduce the level of depression in the general population or to develop strengths that might provide protection against depression. Focused or targeted interventions aim to prevent depression in a population known to be at risk. Such interventions focus on the depressive symptoms and the family with a history of depression, as these are seen to be the most important risk factors (Harrington 1999). Another prevention strategy is to train professionals in the early recognition and treatment of mood disorders.

### 3.1.2.2. Anxiety

*Short description:* Anxiety may be broadly defined as the emotional uneasiness associated with the anticipation of danger. It is usually distinguished from fear, which is the emotional response to objective danger. The term anxiety disorders includes a variety of conditions such as generalized anxiety or separation anxiety and specific phobias such as anxietal, social, animal or situational phobias. Also included are obsessive-compulsive disorders and panic disorder. Anxiety disorders may therefore have a variety of symptoms and moreover children do not always recognize when they are anxious or when their fears may overwhelm them. Instead, they may be tearful or cling to their parents.

*Epidemiology:* It is estimated that about 8-10% of the child population suffers from some form of anxiety.

*Public health impact:* Anxiety is a debilitating disorder, especially for young children, who need all their resources and facilities to acquire social skills, to achieve academically and to function within their families and the community. Although these disorders cause significant disturbance and disability, the overall prognosis is good, except for the more severe cases of separation disorder, up to half of whom may have more persistent problems (Livingston 1991).

*Aetiology:* Environmental factors and the way the child responds to various events, stresses and traumas are implicated. Broadly, the development of anxiety disorders involves a combination of life experiences and psychosocial factors. Genetic predisposition seems to play a role.

The following sets out the clinical manifestations of the various anxiety disorders:

- Generalized anxiety disorder

Children with this type of the disorder worry excessively and are tense throughout the day. They worry unduly about everything: sports, academic achievement, impending disasters etc. They feel unsure of themselves and need constant reassurance. Adolescents suffer from a general sense of mental unease that may be accompanied by feelings of uncertainty about personal identity and bodily integrity.

- Separation anxiety disorder

Separation anxiety is normal among infants and toddlers, but is not appropriate for older children and adolescents. The symptoms of the disorder range from anticipatory uneasiness to full-blown panic about separation from parents or other loved ones. Children with separation anxiety cling to their parents and have difficulty getting to sleep at night alone. Sometimes their inability to be separated from their parents is so great that they may develop the school refusal syndrome. Fear of separation can lead to dizziness, nausea or palpitations. Symptoms of sadness or depression may be also present. Affected children tend to come from families with close ties.

- Phobias

Fears are common in childhood. Simple phobias are specific fears about a specific object or situation that the affected child or adolescent then avoids or tries to endure, but only with a great deal of anxiety. When the cause of the anxiety is a social stimulation as a result of which the child or adolescent has a persistent fear of being humiliated or embarrassed we are talking about social phobia. The child or the adolescent recognizes that the fear is excessive or irrational. In children referred to clinics the diagnosis of social phobia is more common for boys and the diagnosis of simple phobias for girls.

- Social phobia

A child exposed to various social situations experiences feelings of anxiety. The feelings are accompanied by somatic symptoms such as palpitations, tremors, sweating and diarrhoea, and occasionally by full-blown panic attacks. As mentioned above, young children may not articulate their fears but may be tearful, appear extremely shy in social situations and cling to adults. They often think for days or weeks ahead about the possibility of being present in the social situation they fear. The phobia is apparently more common in girls.

*Detection and care of anxiety disorders:* Information should be obtained from the parents and child about the duration of anxiety and fear reactions and the degree to which they are disabling. In milder cases of separation anxiety disorder, with young children and when the symptoms have not been present for very long, supportive work with parents and the child may suffice. Within this framework efforts are made to reduce existing stress and remove the child from stressful situations if possible. Attempts are also made to improve the child's coping mechanisms. A short course of brief individual psychotherapy may also be indicated. In cases of severe school refusal, the treatment and management procedures need careful planning. Close cooperation with the school is required and consultation should be given regarding teachers' attitudes. At the same time a variety of psychiatric and educational measures are appropriate.

### 3.1.2.3. Attention deficit hyperactivity disorder (hyperkinetic disorder)

*Short description:* Attention deficit hyperactivity disorder (ADHD) is a common form of childhood mental disorder. Children suffering from ADHD are distinguished by the trouble they get into at home and within the family, and at school with their teachers and peers. They also have great difficulty completing tasks. Although intelligent they do not do well academically at school.

*Epidemiology:* The prevalence rates among school-age children are in the region of 3-5%. Boys are four times more likely than girls to have the condition. The disorder is found in all cultures.



*Public health impact:* Children with ADHD make up a sizeable proportion of all referrals for child mental health services and account for a large share of the economic cost and human suffering caused by childhood mental disorders. It is essential that effective treatments for the condition be developed.

*Aetiology:* The exact aetiology of ADHD is not known. Genetic factors and neurochemical processes have been implicated. It has also been suggested that the parents of children with ADHD tend to be over-intrusive and over-controlling. Other factors possibly leading to development of the disorder are early childhood deprivation such as occurs during the raising of a child in an institution or early childhood trauma due to stressful events. In general it seems that the affected child suffers from a multiplicity of interacting adverse influences.

*Clinical manifestations:* Children often present to health services between the ages of 3 and 7 years, although the most frequent age of referral is between 6 and 11 years. In other words, inattention and hyperactivity become apparent when the child starts school, a challenging new environment. Complaints about the child's behaviour may come from parents or from teachers or playgroup leaders. The disorder is marked by: 1) excessive or inappropriate activity that tends to have an intrusive or annoying quality, 2) poor sustained attention, 3) difficulty getting along with others, 4) poor conduct or oppositional defiance, 5) academic underachievement with learning difficulties that do not appear to improve with treatment, and 6) low self-esteem. Inattention tends to persist through childhood and adolescence into adulthood whereas the symptoms of motor hyperactivity and impulsivity tend to diminish with age. Nonetheless, many of the children affected appear ultimately to adjust. Some, especially those with an associated conduct or oppositional disorder, are more likely to drop out of school and to fare more poorly in their adult careers.

*Detection and care:* It is recommended that as accurate as possible an account of the level of activity be obtained from parents, teachers, playgroup leaders and other individuals concerned. Also relevant are family background, the quality of family relationships and the way the parents respond to the problem. An array of treatment approaches are being used. These include specific therapies, that is, medication and psychosocial treatment, mainly behaviour therapy. Pharmacological treatment with psychostimulants is the most widely used form of treatment. However, although this may have a dramatic short-term effect, it has not been possible to demonstrate significant long-term effects or changes. Besides, psychostimulants have several side effects.

#### 3.1.2.4. Conduct disorders

*Short description:* This condition is characterized by disturbed behaviour that breaks existing social norms and rules or that violates the basic rights of others or the main age-appropriate societal norms and rules. Academic achievement is poor as is the relationship with adults or peers.

*Epidemiology:* The prevalence rates estimated for conduct disorder range widely from 1% to 4%, depending on how the disorder is defined. There are two distinctive types: childhood and adolescence type. Most of the children with early onset of the disorder, that is, before 10 years of age, are boys. Boys are indeed charged with offences seven to eight times more commonly than girls. The disorder appears to be more common among children living in cities than in rural areas. The prognosis is worse for those with early onset. Conduct disorder may co-exist with other disorders such as attention deficit disorder, depression, anxiety disorders and oppositional defiance disorder.

*Public health impact:* The consequences of conduct disorder for the individual, the family, other people and the community are significant. Note, however, that although the pattern of conduct disorder will continue into adulthood among less than half of those with the disorder, the majority of them present significant psychiatric and social impairment into adulthood. It is also claimed that the consequences of the dysfunction make conduct disorder one of the most costly mental health problems (Robins 1981). It has, for example, been estimated that conduct disorders cost approximately 150,000 EUR per affected person during childhood, adolescence and early adult life (ESCAP 1999). In view of its huge cost, chronicity and generally poor outcome, childhood onset or severe conduct disorder should be considered one of if not the most important mental health problems of our time, and resources for its study and management should reflect this.

*Aetiology:* The aetiology of conduct disorder is not fully understood. It seems that both biological and psychosocial components are implicated. There are several risk factors, both psychosocial and physical, for conduct disorder. The psychosocial ones are: parental rejection, especially by the mother, family neglect and abuse, separation from parents, mental illness of parents and marital disharmony (broken homes). Dysfunctioning relations as reflected in parents' lack of acceptance of their children, inability to show affection and emotional warmth, and failure to become attached to their children are also implicated (Rutter and Giller 1983). The physical risk factors are: childhood epilepsy, other disorders of cerebral function and neurological damage caused by birth, and perinatal complications in general. There is also a strong link between conduct disorder and academic failure, specifically reading retardation and poor reading ability.

*Clinical manifestations:* The clinical manifestations of children and adolescents with conduct disorder are marked by aggression towards objects, property and people, unpredictable behaviour and a low threshold of frustration. Behaviour is characterized by physical attacks on other children, peers and, to a lesser extent, on parents. Another clinical feature is cruelty to animals. Stealing, whether inside or outside the home, must be considered problematic when it occurs repeatedly after the age of 5 or 6. Running away from home or truancy is also seen. Antisocial activity in adolescents may also take the form of drug taking or committing sexual offences. Other features of the condition are academic deficiencies and poor interpersonal

skills. To summarize, the central feature of conduct disorder is a persistent pattern of behaviour that violates the rights of others and age-appropriate social norms.

*Prevention:* Several risk factors have been implicated for the development of conduct disorders. These factors emerge in the first years of life, and intervention should therefore begin early. A number of strategies have been developed in the area of prevention and prevention research, for example, the use of screening instruments to enable early identification of risk factors and signs of conduct disorder in young children; training the parents of high-risk children in positive discipline strategies and effective parenting skills, and teaching them how to deal with their children's demands and how to reinforce socially acceptable and appropriate behaviours. Parents may also be taught ways in which they can strengthen their children's social skills and prosocial behaviour. Working with high-risk children and the provision of academic may help reduce rates of school failure. (Johnson and Breckenridge 1982).

*Detection and care:* Information should be sought by interviewing the child and the parents and obtaining reports from other sources, such as the school, the social services and the legal system. The developmental history, including perinatal complications, separation from parents, quality of mother child relationship, and current family functioning, must be known. Contact with the school should be sought and a full psychological assessment, including IQ and achievement tests, should be made.

A variety of psychosocial interventions involving the home, school and community have been applied in the treatment of children and adolescents with conduct disorders. Some of them meet the criteria of well established treatments (Brestand and Eyberg 1998). Evidence suggests that medication plays only a small role in the management of children with conduct disorders. Psychosocial treatments are only likely to be helpful when the child and family are motivated to receive help. In a substantial number of children this is not the case. Other interventions may then be tried, some by virtue of the powers held by juvenile courts, others without resort to such authorities, for example, work with teachers to advise them when and how to deal with these children; compulsory participation in community-based programmes; and residential placement in special schools, group homes or hostels.

### **3.1.3. Conclusions and recommendations**

1) Emotional problems and conduct disorders in children and adolescents appear in families of all social classes and backgrounds. In modern society children and adolescents face severe stresses that were almost unknown even a generation ago. Moreover, some children are at greater risk than others due to a broad array of factors, for example, family violence leading to abuse and neglect, a family history of mental and addictive disorders, multigenerational poverty, frequent family disruptions and the ensuing economic crises, early sexual activity, and the single parent family.

2) The social cost of untreated mental health problems among school children and adolescents is high. Mental disorders lead to an enormous amount of suffering for those afflicted and their families and also impose a high cost on society. Because of the large number of children and adolescents involved, the direct costs, which include mental health treatment services, special education, juvenile justice and child-welfare, are enormous. Children and adolescents with untreated or only partially or ineffectively treated emotional or conduct problems end up with poor school performance, high rates of delinquency, little or no success at finding employment after leaving school and an increased likelihood of involvement with the police, criminal justice, and adult mental health and public welfare services.

3) All European countries should try to upgrade their child and adolescent mental health services by allocating resources in response to existing needs. Such services should serve all families in the community, and especially those in greatest need, by developing suitable child mental health prevention and promotion programmes. The European network on mental health promotion has put forward several recommendations to raise awareness of the importance of children's mental health and to develop policies promoting the mental health and well being of children and families. Among these recommendations are: supporting parenthood, paying particular attention to vulnerable children, promoting children's mental health in day care and nursery schools, and increasing recognition of children's needs within health and community services (Mental Health Europe 2000).

#### **3.1.4. Research**

The volume of financial support invested in European research into child and adolescent mental health disorders remains extremely small. Research in this area therefore needs a major injection of funds. The European Society for Child and Adolescent Psychiatry recommends, among other things, that support should be given to research into the treatment of childhood and adolescent depression, developmental disorders and conduct disorders and that a review should be commissioned from the EC of existing research into child adolescent psychiatric disorders currently being conducted in EU Member States (ESCAP 1999).

Prevention research needs to be expanded, with high priority being given to those groups of at-risk children that can be identified at an early stage. The emphasis should also be on efforts to prevent clinical dysfunction among children who have been subjected to physical or sexual abuse and neglect, the children of parents suffering from mental ill health and psychopathological disorders including substance abuse, antisocial behaviour and depression, and children at severe social disadvantage.

Evaluating the treatment of emotional problems and conduct disorders in children and adolescents and service outcomes should be a major task of health care

professionals with the aim of improving the quality of service users: A very good example is the work being done in the UK (Focus, Royal College of Psychiatrists 1998).

## **3.2. ANXIETY DISORDERS**

### **3.2.1. Introduction**

Anxiety is an emotion which may be either normal or pathological. In its normal form, it plays an essential role in the mechanisms whereby individuals adapt to situations of danger and crises. Through its psychological component - feelings of apprehension and threat projected into the future – anxiety is a warning signal, alerting the individual to the need to initiate adaptive strategies. Through its somatic component – alterations in circulation and other bodily functions triggered by activation of the autonomous nervous system and the hypothalamus-hypophysis-suprarenal axis – it prepares the body for the actions which may be needed in facing up to the dangers which exist.

However, under certain circumstances, anxiety ceases to play this adaptive role and becomes pathological. This happens when it manifests an intensity and/or duration inappropriate to the stimulus which triggers it and when it becomes a cause of suffering and dysfunction for the individual.

Isolated symptoms of anxiety are very common in the population in general, and it is sometimes difficult to determine the threshold at which the seriousness of the symptoms and/or the dysfunction justify making a psychiatric diagnosis. Moreover, anxiety symptoms frequently accompany various psychiatric illnesses (such as depressions, psychoses or organic mental disorders) and various physical illnesses (such as hyperthyroidism or prolapse of the mitral valve).

In addition to these non-specific anxiety states, there are also a number of clinical situations with specific sets of symptoms, based on manifestations of anxiety, and which are not caused by organic disorders of the brain or by other psychiatric illness. This group of illnesses is today known as anxiety disorders. These correspond to a large extent to the disorders which for a long time were known as neuroses. However, although the term neurosis continues to be used in clinical practice – to designate psychiatric disorders in which anxiety, phobic and obsessive symptoms predominate, and in which there are no hallucinations, delusions or other symptoms typical of psychoses – this term has, in modern classifications of psychiatric illnesses, been replaced by the term anxiety disorders, regarded as more appropriate to the specific nature of the psychopathological phenomena involved and current scientific concepts.

Anxiety disorders include general anxiety disorders, panic disorders, phobic anxiety disorder (specific phobias, agoraphobias, social phobias), obsessive compulsive disorders and post-stress traumatic disorders.

It should however be noted that a single individual is often found to suffer from more than one of these disorders at the same time, and also that patients are often found to present symptoms of anxiety and symptoms of depression, without either being serious enough to be diagnosed as an anxiety disorder or depression. In these cases we speak of mixed anxiety/depression disorders.

### **3.2.2. Epidemiology**

Anxiety disorders are found with very high frequency in the general population. Taken together, they have a prevalence of more than 15% (Kessler et al. 1994; Jenkins et al. 1997). Almost half the cases correspond to mixed states of anxiety/depression.

General anxiety disorder is found in 3-5% of the population. Panic disorders exist in 1-3%. In relation to phobic disorders, specific phobias are very frequent (more than 10% of adults), whilst agoraphobia and social phobia have prevalences of 2-4% and 4-7%, respectively. According to the latest research findings, obsessive-compulsive disorders are found in 1-3% of the population.

Anxiety disorders, with the exception of social phobia, are more frequent in women than in men. They are also more frequent in widowed, separated and divorced person, in the lower social classes and amongst the unemployed. They become more frequent in the older age groups.

Anxiety disorders are very common amongst patients treated by family doctors and by consultant physicians (such as cardiologists) because patients often interpret the somatic manifestations of anxiety as complaints belonging to a physical illness.

### **3.2.3. Impact on public health**

Anxiety disorders are responsible for an enormous amount of individual suffering and are associated with interpersonal difficulties and the more significant dysfunctions in families and groups.

In addition to this, the findings of various studies have shown that anxiety disorders are associated with a raised level of physical morbidity and of disability, and are responsible for a significant proportion of sick leave from employment (Ustun and Sartorius 1995). Anxiety disorders are also responsible for very considerable costs, at the primary and at the secondary care settings. In general practice, the costs of these disorders are higher than the costs of hypertension and are due above all to lost production (Wilkinson 1989).

The latest estimates of the burden created by these disorders clearly shows the enormous impact they have on public health. Compulsive-obsessive disorders are

responsible for 0.8% of the global burden of diseases, panic disorders for 0.4% and post-traumatic stress disorders for 0.2%.

### **3.2.4. Aetiology**

Anxiety symptoms are generally found in persons with an enhanced vulnerability to manifestations of anxiety and who find themselves in situations of stress.

At the root of this vulnerability lie genetic factors, environmental factors and personality factors.

Various studies have shown that the prevalence of anxiety disorders is higher in the family members of persons suffering from these disorders than in the population in general (Crowe et al. 1983). At least part of this association is due to genetic factors, given that the concordance discovered between monozygotic twins is higher than that found in dizygotic twins (Togerson 1983; Carey and Gottesman 1981).

Genetic factors exercise their influence through biological mechanisms in the neurobiology of anxiety. We know today that these mechanisms involve the GABA system and the noradrenergic and serotonergic neurotransmission systems, although the particular role of each of these is not yet completely clear.

Early childhood experiences also appear to have a significant influence, especially separation from mother and childhood parental death. It is also known that anxious and insecure mothers often lead to anxious children.

Although they can be found in any personality type, there are significant associations between certain disorders and certain personality types: for instance, between general anxiety disorder and a premorbid anxious (avoidant) personality and between obsessive-compulsive disorder and an anankastic personality.

In relation to the role of stress, it is frequent for anxiety disorders to arise after the occurrence of stressful events and some become chronic when these events persist, especially when they involve threats.

### **3.2.5. Clinical manifestations**

1. Generalized anxiety disorder is the specific anxiety disorder with the highest prevalence in the general population (3 to 5%). In clinical terms it is characterized by a variable, but persistent combination of psychological and somatic symptoms.

The psychological symptoms include feelings of anticipatory worry, fluctuating anxiety, sensitivity to noise, irritability, poor concentration, and there is no apparent relation with an object or situation which might be acting as a trigger.

The somatic symptoms, on the other hand, are normally seen in the form of motor tension (restlessness, trembling, inability to relax) and neurovegetative hyperactivity (palpitations, dyspnoea, feeling of constriction in the chest, sudoresis, dry mouth, pallor, frequency and urgency of micturition).

Given the possibility of co-morbidity, it is fundamental to differentiate the primary states of generalised anxiety from depressive disorders (in which anxiety may appear as either a symptom or as an associated nosological entity) and from some physical illnesses which may present with anxiety symptoms (thyrotoxicosis, phaeochromocytoma, hypoglycaemia).

2. Panic disorder is characterised by the paroxysmal occurrence of anxiety crises with a predominant neurovegetative component, accompanied by a feeling of an imminent risk of death, with an average duration of 10-30 minutes. In the course of the crises, the anxiety may be sufficiently intense in order to trigger experiences of depersonalisation and derealization. At the end of some crises the individual may avoid certain places and acquire agoraphobic behaviour which justifies, albeit not completely, a frequent association between these two clinical situations. As in generalized anxiety disorder, a physical and laboratorial assessment is essential, in order to exclude any possible organic situations. In panic disorders which are not detected and treated in good time, there is often excessive consumption of anxiolytics, hypochondria and depression, making the prognosis substantially worse.
3. Phobic anxiety disorders  
In phobic disorders (agoraphobia, social phobia and simple phobia), anxiety is triggered by the individual's exposure to a given object or situation – the individual recognises that the magnitude of the response is out of all proportion to the nature of the trigger (in other words, the person retains capacity for insight), but is unable to avoid or control either the feelings of fear, or the avoidance behaviour which results from these feelings.
  - a) Agoraphobia – in this situation, the individual experiences anxiety (persistent or in the form of panic crises) when he finds himself in spaces from which he feels he cannot get out or where he feels he cannot get help, should he need it (e.g. public transport, cinemas, supermarkets). In untreated cases, avoidance behaviour can lead the person never to leave his own home (*housebound syndrome*), seriously interfering with his socio-professional and relational functioning, which eventually causes a very marked reduction in his quality of life. This disorder is more frequent in women, and is often accompanied by associated depressive symptoms.
  - b) Social phobia – characterised by a fear of scrutiny by other people, arising in situations where social relations and exposure are inevitable (meetings, family gatherings, conferences, telephone conversations). This disorder is equally prevalent in both sexes, and alcohol is often used in an attempt to diminish the anxiogenic stimulus. Depressive states occur extremely frequently in the natural



history of social phobia, given the relational difficulty which it implies, and are a sign of a bad prognosis, principally in untreated cases.

- c) Specific phobia – consists of the appearance of anxiety in response to given stimuli, such as animals (dogs, reptiles, spiders), situations (dentist, heights) or actions (taking an elevator). This disorder is more common in women, but in most cases interference with daily life is minimal.
4. Obsessive-compulsive disorder is characterised by the occurrence of obsessions and/or compulsions, which interfere in a significant way with the functioning and quality of life of the individual. Obsessions may take the form of visual images, thoughts, doubts and brooding, which impose themselves on the mind of the individual in a persistent and ego-dystonic fashion, with themes related to control, order, contamination, religion and sexuality. Compulsions consist of acts, performed in a ritualised and repetitive fashion, which generally but not always diminish the anxiety associated with the experience of obsessive phenomena (e.g. checking, cleaning, ordering), often characterized by having a magico-superstitious nature.

Although they predominate in OCDs, obsessive symptoms may be found in other psychiatric situation, such as major depression and schizophrenia, which means that careful diagnostic differentiation is required.

Indeed, the classical inclusion of OCDs as one of the family of anxiety disorders has been questioned more and more in scientific circles, and it is increasingly argued that there is an obsessive spectrum, with a specific neuro-anatomo-functional substratum in the central nervous system, in which might be included OCDs, Tourette's syndrome, trichotillomania, compulsive gambling and other conditions.

In terms of evolution, prognosis of the illness has improved considerably with the use of serotonergic antidepressants and cognitive-behavioural therapy, but complete remission is rare.

5. Post-traumatic stress disorder and acute stress disorder is the result of exposure to an exceptionally traumatic experience (e.g. war, earthquake, rape) and is characterised by the occurrence of re-living the experience, dissociative episodes, reduced control over impulses, aggressiveness, depression, panic attacks and sleep disorders, in a hyperalert context. Although the highest prevalence is found in ex-soldiers, the number of cases resulting from sexual violence and domestic violence is growing significantly, especially in industrialised western countries.

The impact of this situation on relational life may be devastating, and it is extremely common for individuals affected to suffer a trio of symptoms: divorce, depression and alcohol abuse. From a therapeutic point of view, social support networks (e.g. support groups) are of very great importance in the early treatment

of PTSD, given that the prognosis is related with the duration and degree of the clinical condition.

### **3.2.6. Prevention**

It is neither possible nor desirable to achieve total primary prevention of anxiety. The fact is that without anxiety it would be impossible for human beings to survive, as within certain limits anxiety is essential as a trigger for adaptive mechanisms to situations of danger.

However, it is important to prevent the development of pathological anxiety. One way of doing this is to act on the factors which help to make people especially vulnerable to anxiety. This can take the form of education on the relations between parents and children during the first few months of life, and other measures designed to encourage the development of harmonious relations between parents and their offspring. It is in fact known that the relationships established between parents and children in the early stages of life are a major influence on the development of personality and vulnerability to anxiety.

Primary prevention of anxiety disorders can also be promoted through the protection of people who are most vulnerable or through the enhancing of the coping skills of persons in risk situations. It is possible to intervene in situations related to normal crises (starting school, changes at work, retirement) or after accidental crises (serious physical illness, disasters, etc.). These interventions can be designed to develop the social skills and coping abilities of individuals, through counselling and specific health programmes. Other possible strategies include provision of social support and community networks for people at high risk (Jenkins 1994; Tyrer 1994).

The best form of secondary promotion of anxiety disorders is early detection and treatment of these disorders. To this end the general public needs to be better informed as to the manifestations of anxiety and programmes are needed to help general practitioners develop their capacity to detect and treat these disorders.

As for tertiary prevention of anxiety disorders, it is important that patients be taught treatment strategies to use in the event of a relapse. Families also need to be involved in treatment, and encouragement should be given for the formation of self-help groups.

### **3.2.7. Therapeutic approach**

Anxiety disorders are clinical entities with a high rate of prevalence in the general population, justifying special attention by the primary and specialist health services, in terms of both detection and the implementation of therapeutic programmes appropriate to the needs of individual patients.

In relation to detection, a number of authors (Goldberg and Huxley 1980) have stressed the need to raise the awareness of general practitioners to the

epidemiological magnitude of the problem: recognition of the direct and indirect impact of anxiety disorders and the acquisition of early detection and diagnosis skills are aspects regarded as consensual in the therapeutic approach to these clinical situations.

Therapeutic programmes themselves need to be selected in accordance with the general characteristics of the pathology in question, together with the specific individual characteristics of each case.

In general, both the psychopharmacological approach (e.g. antidepressants, anxiolytics) and the psychotherapeutic approach (e.g. cognitive-behavioural therapy) have been shown to be effective in the treatment of anxiety disorders, both in isolation and combined (Kaplan and Sadock 1998).

As for psychotherapy, clinical evidence clearly shows the effectiveness of cognitive behavioural therapy in various anxiety disorders, such as POC (Oppen and Emmelkamp 1997), panic disorder (Chosak et al. 1999), phobic disorders (Oosterbaan and Dyck 1999) and PTSD (Kaplan and Sadock 1998).

Supportive psychotherapy, on an individual or group basis, has been used with a significant rate of effectiveness on generalised anxiety disorders and PTSD (Kaplan 1998).

Finally, analysis of different clinical trials shows that a combination of psychopharmacological and psychotherapeutic methods may be more effective than either of the methods used in isolation (Kaplan 1998).

### **3.2.8. Prognosis**

Anxiety disorders have a variable prognosis, in which the most significant factors appear to be the chronicity of the clinical condition at the time of detection, followed by the insufficiency of social support networks.

Although differences are found in clinical evolution between specific and non-specific nosological situations (the latter are much more frequent in daily practice), the literature shows that half of the cases detected in the community are free of symptoms after 3 months; however, half of the patients treated by general practitioners have persistent symptoms one year later and this percentage rises significantly in the case of patients treated by specialist psychiatric departments (Goldberg and Huxley 1980).

Under these circumstances, early detection of anxiety disorders is of central importance for primary and secondary prevention of anxiety disorders, allowing therapy - primary and specialist care – to begin earlier.

### **3.2.9. Conclusions**

Anxiety disorders are amongst the most frequent psychiatric disorders in the general population and are responsible for a very significant burden. They are associated with

very high rates of health service use (especially at the level of primary health care), comorbidity, incapacity and sick leave.

Significant progress has been made in recent years in the understanding and treatment of these disorders. We now know how to intervene effectively in order to prevent anxiety disorders and we have at our disposal psychopharmacological and psychotherapeutic intervention methods which have been shown to be widely successful.

However, organised prevention programmes are still very rare and many people with anxiety disorders continue not to have access to the treatments which exist. It is particularly important to ensure early detection and treatment of these disorders at the primary health care level. It is also essential to educate the public about anxiety problems and to increase community involvement in the prevention of these problems.

### **3.3. DEPRESSION**

#### **3.3.1. Short description**

Depression is one of the oldest known mental disorders. Descriptions of melancholia, which according to its name was thought to be caused by 'black gall', was known already by the ancient Greek medicine. Despite of this, depression is still an ambiguous concept which can mean different things, from normal everyday emotional reaction to the most severe and life threatening mental illness.

The main features of depression are lowered state of mood, and inability to experience joy and pleasure. Depressive mood is the basic reaction of a human being to psychological pain and emotional ill-being. In itself depression is a normal emotion which has an important adaptive meaning and is familiar to everybody. Grief and sadness can be described as a 'wound of the soul'. In depression this wound becomes 'infected' and needs special treatment.

Due to its common occurrence and often severe consequences depression is one of the most important mental disorders from the public health point of view. Depression causes immeasurable human suffering, expose people to physical illnesses, and increase mortality. There are many measures to prevent and treat depression effectively.

#### **3.3.2. Occurrence**

Depression is one of the most common mental disorders. According to several studies, conducted in different European as well as other countries, the point prevalence (occurrence at a certain point of time) of depressive disorders varies between 5 and 10% depending both of the definition of depression and of the population in question. The lifetime prevalence of depression in adult population has

been assessed to raise up to 18%, and its lifetime risk (20-30%) even higher (Lehtinen and Joukamaa 1994; Weissman et al. 1996).

Depression may occur in any phase of the life cycle. Depression has been diagnosed in small infants, and its prevalence among 8 years old children has been reported to be 3-6% (Puura et al. 1998). In the teen ages the risk of depression increases rapidly and achieves the rate found in adults. In earlier studies the peak prevalence has been among the late middle-age subjects (50-64 years), but in some recent epidemiological studies the highest occurrence has been in the age groups of young adults. On the other hand some studies report very high prevalence among elderly people (Kivelä et al. 1988).

Women seem to be more prone to depression than men: the male-female ratio varies from 1:1.5 to 1:2. Other socio-demographic risk factors are living alone, being inactive, recent occurrence of stressful life events, especially losses, lack of social support, long-lasting difficulties, and urban domicile. Depression is often associated with physical illness.

Several studies, which have recorded the cumulative incidence of depression in different birth cohorts, have shown that the younger the birth cohort the higher the incidence and the sharper rise in its cumulative incidence by age (Fombonne 1994). This indicates that depression is becoming more common by time and that its mean age of onset is becoming younger. Some long-term follow-up studies of general population have also shown the increased risk of depression over time (Hagnell et al. 1982).

### **3.3.3. Public health impact**

As described above, depression is a common disorder, and its public health impact may be regarded as remarkably high due to its severe consequences. For example, depression is a leading cause of disability, it increases mortality, it causes enormous costs to our societies, and it is a source of great human suffering.

In many European countries depression is among the most prevalent causes of disability, and the amount of people being on disability pension due to depression has increased during the last two decades. In 1996 the World Bank and the World Health Organization published the results of a survey on years lost by disability (DALYs = disability adjusted life years) in the 96 most frequent diseases in the world. Depression ranked fourth in this list, and it was estimated that it will climb up to second by the year 2020 (Murray and Lopez 1996).

Studies have shown that depression increases the mortality at least by four times in comparison to general population. Especially in younger age groups with depression the standardised mortality ratio (SMR) is even much higher. The main part of this increase is due to suicide, as depression seems to be the main risk factor of self-destructive behaviour. According to careful studies at least two third of persons committing suicide suffer from a clinical depression needing medical

treatment (Hendriksson et al. 1993). However, suicide is not the only reason for increased mortality among depressed persons. Deaths due to physical illnesses, e.g. cardiovascular diseases and some cancers (e.g. breast and lung cancers) seem also to be commoner among depressed than non-depressed persons. Explanations for this may be the poorer health behaviour or altered immunological mechanisms connected with depression.

The economical losses to the society due to depression are high. In a consensus statement conference on depression, held in Finland in 1994, it was estimated that the total costs caused by depression were 5 billion FIM, corresponding over 1% of the GNP. One third of these costs were direct costs due to treatment and care. The majority of the costs, however, were indirect, connected with the loss of productivity.

Last but not least, one has to mention the great human suffering associated with the occurrence of depression. Severe depression is one of the most unbearable emotions a human being may contract. Depression of a family member is usually a great emotional burden to the whole family. Very often the spouse of a patient with depression suffers also more or less from a depressed mood.

#### **3.3.4. Causes and risk factors**

The aetiology of depression is partly still unknown but clearly multifactorial in nature, covering biological, psychological and social factors. It seems that contracting depression clearly follows the vulnerability-stress model. Several factors may increase the susceptibility to depression whereas some other factors are working more as actual precipitating factors.

Depression has clearly a familial occurrence which indicates that genetic susceptibility has a role as its background factor. Twin studies have clearly shown the role of heredity: the concordance for depression in monozygotic twins was 54% whereas in dizygotic twins it was only 19%. The hereditary pattern, however, is not simple or clear-cut, and of course, other explanations than genetic may also account for this familial occurrence. Adoption studies have confirmed that both heredity and environment have a role as risk factors.

Neurochemical research in depression has grown rapidly since 1950s when the first antidepressive drugs were launched. It has been discovered that several neurotransmitters of the brain have a role in the pathogenesis of depression, the most important being noradrenaline, serotonin and dopamine systems. Most of the antidepressive drugs increase the amount of these neurotransmitters in the brain, especially that of noradrenaline and/or serotonin. Other biological disturbances in depression are occurring in the endocrine (hormonal) system, the most important being the adrenal and the thyreoid systems. Depression can also be caused by use of certain medications.

There are several psychological theories of depression. Some personality factors are connected with depression. In psychodynamic theories depression is seen as

reaction to bereavement where the person has not the ability to normal mourning. As a consequence to this aggression felt toward the lost object is turned toward oneself. The so-called cognitive theory stresses the negative change of the thought processes and its central role in the interpretation of the surrounding world. The central feature is inclination to automatic negative thinking. This tendency makes the person especially vulnerable to negative life events and problems in intimate interpersonal relationships.

There are several social factors which are associated with the occurrence of depression. Among them belong the higher morbidity rate in women compared to men which mainly seems to have social explanations. These focus on female roles and their status in society. Further support for this theory is produced by the finding that marriage seems to be more supportive for men than for women. Studies have also shown a relationship between low socio-economic status and occurrence of depression. Unemployment, especially long-term unemployment, is also a clear risk factor. On the other hand, undetected depression with lowered working capacity may lead to exclusion from the labour market. Current substance abuse may be one of the risk factors. Loneliness and lack of social support are risk factors as well, whereas adequate social support may be a protective factor.

Several studies have demonstrated that persons suffering from depression experience a significant excess of life events in the six months prior to the onset of the disorder. Loss and separations, e.g. death of the spouse or divorce, are particularly common. In the case of children, the separation can be caused by parents' divorce or by hospitalisation due to the child's severe illness. The strongest relationship is demonstrated between threatening or undesirable events and the onset of depression, the relative risk in these cases may be sixfold. On the other hand, 30% of those experiencing depression fail to report any life events prior to onset.

### **3.3.5. The many faces of depression**

Both in everyday and professional language depression is a multi-faceted concept. Thus, depending on the context, it may mean at least the following things:

1. Depression as an emotion, including the normal variation:
  - grief
  - dissatisfaction
  - sadness
2. Depression as a symptom in many mental disorders
  - lowered mood
  - emptiness
3. Depression as a syndrome manifesting itself as the depressive triad:

- emotional disturbance: sadness, inability to feel pleasure, crying, anxiety, irritability
- cognitive disturbance: hopelessness, pessimism, guilt, lowered self-esteem, suicidality
- physical disturbance: sleep disturbances, retardation, somatic symptoms, diurnal variation

#### 4. Depression as specific mental disorder

- the specific criteria in classifications of diseases.

Many people feel sad when they encounter some important life change or undesirable life event. Although the unhappiness of everyday life may return from time to time, it is generally short-lived, not too disabling, and goes away with human contact, reassurance, and little time. Depression as a clinical disorder is distinguished from such normal sadness by more severe, pervasive and disabling symptoms that is out of the person's control and continue after the stress that provoked them has disappeared. The depressive is more likely to have a past history and family history of depression and to suffer biological and personality dysfunction in addition to his/her misery.

As a mental disorder, depression can have several clinical manifestations and courses. The following list presents some examples of this variety:

- Some depressions occur rather suddenly and have clear connection to adverse life events
- Some depressions appear more slowly and without any evident reason
- Some persons suffer from repeated episodes of depressive symptomatology, others may have only one severe episode during their whole lifetime
- Some persons may suffer from a lifelong ailment which does not interfere very much with their functional capacity
- Other depressions may be so severe that the person is totally incapacitated
- Some persons suffer from a bipolar disorder: depressive episodes vary with episodes of elated mood.

A special form of depression is the so-called masked depression. It is important because it often remains unrecognised. This is because here the depressive mood may be lacking and physical or other atypical symptoms prevail in the clinical picture. Both the patient and the doctor often think that the symptoms are caused by some physical disease. The picture may be even more complicated if the patient has also a real comorbid physical disorder in addition to this masked depression.

#### **3.3.6. Prevention**

Universal interventions to prevent the onset of depression would include general government actions to reduce poverty, poor education, unemployment and social



adversity. Furthermore, political decision-makers need to consider access to education, training, and health care especially for women and for groups facing special risk for marginalisation and social exclusion. Special emphasis should be directed to policies influencing family cohesiveness including mechanisms such as taxation and welfare benefits to support families, reduce family breakdown and reduce the burden of women as they struggle to raise their children.

Selective interventions would include setting up supportive network systems for at risk groups (e.g. isolated mothers of preschool children), specific event-centred interventions, interventions with vulnerable families and individuals as well as adequate screening and treatment facilities in primary care for physical disability (Scott and Paykel 1994). The NEWPIN project (viz. 6.2.2.) in the UK is an example of a befriending project aimed at socially isolated mothers of preschool children who are vulnerable to depression. Another example is the implementation training programme, conducted in several European countries, where the main focus is to teach the health visitors of well baby clinics to better recognise difficulties in the early child-parent relationship and to intervene when necessary with a special programme.

Indicated preventive interventions should be targeted e.g. at children of parents with depressive disorders because the risk to them is well documented. Interventions that enhance parenting skills, apply cognitive behavioural techniques or promote understanding in adolescence are encouraging. Still another approach helps parents to focus on the future of the child, helps the child to better understand the experience of the parent and enhances the resilience in the child. In prevention of disability and in relapse prevention good results have been achieved with adults in risk for depression by training of problem solving skills or by 'Cope with Depression' courses.

Especially in disorders with severe recurrent depressive (and/or manic) episodes effective medical prevention measures have been used. The most known drug in this use is lithium, but also other drugs have been used successfully for the same purpose.

### **3.3.7. Detection and care**

Studies show that there are problems in the detection of depression by health care professionals. Half or more of the patients with depression needing treatment and attending primary care services is not recognised by the general practitioner. The reasons for this are partly due to lack of knowledge of the physician, unrecognition also by the patient, the comorbid somatic illness which needs attention and the busy working culture of the primary care physicians.

When depression is not diagnosed, it is not either treated properly. According to several population surveys less than one third of persons suffering from depression has a proper treatment for his/her ailment (Lehtinen and Joukamaa 1994). According to the extensive Finnish Suicide 1986 study even half of persons with severe depression and who committed suicide had no treatment at the moment of the suicide. There is,

therefore, a great need for improving the detection and treatment of depressive disorders.

Experience shows that there are possibilities to train primary care physicians to detect and treat depression more properly and effectively. In the well-known Gotland study all the general practitioners on the Swedish island Gotland underwent a training package on diagnosing and treating depressive disorders. The investigators could show a positive outcome of this intervention: the treatment of depression became more adequate and the suicide rate decreased significantly in Gotland in comparison to other regions in Sweden (Rutz et al. 1992). In several European and other countries public depression campaigns have been organised to raise public awareness on depression and also to improve its treatment especially by primary care professionals.

Effective therapies are available for depression (American Psychiatric Association 2000). These can be divided into psychotherapeutic measures, drug treatment and other biological therapies. Regardless of what mode of treatment is chosen, a basic supportive psychotherapeutic attitude by the therapist is one of the cornerstones in the treatment of depression. This includes active listening, understanding, acceptance and empathy. Cognitive behavioural techniques, both as individual therapy and group intervention, have been used successfully in the treatment of depression. Family interventions, especially inclusion of the spouse in the treatment, have also proved their effectiveness.

In severe and moderate depressions drug treatment with antidepressive agents is an important part of the treatment. Medication must usually be continued for at least six months, and in some cases drugs are successfully used for long-term relapse prevention. Electro-shock treatment especially in the most severe forms of depression, and bright light therapy in the case of so-called seasonal affective disorder, are examples of specific biological therapies.

Only the most severe forms of depression with marked suicidal risk need hospital treatment, sometimes even against the patient's own will. Most of the depressions are treated in the out-patient setting, usually within the primary care services. This requires that primary care personnel is aware of depression and has enough skills for its detection and treatment.

### **3.3.8. Conclusions**

As the estimates by the World Bank and WHO show, depression is one of the leading causes of disability among the global burden of diseases, and its role in this sense will become even more important in the future. On the other hand, awareness of depression among the public, the health politicians and the professionals is not sufficient, leading to underdetection and undertreatment. Therefore, there is all reason why EU and the Member States should put great emphasis on its prevention and management in their public health and mental health policies.

## **3.4. SCHIZOPHRENIA**

### **3.4.1. Short description**

Being one of the most serious mental disorders, schizophrenia more than any other psychiatric illness has stimulated psychiatric research during the last century. Although the final causes of the disease are unknown, research has accumulated enough knowledge to take action. A wide range of modern treatments and effective strategies of care have proven that myths and prejudices labelling schizophrenia as a chronic disease that leads irrevocably to deterioration are bound to be overcome. Nevertheless, schizophrenia still causes enormous adverse social and economical consequences on both the individual and societal levels, since the first onset of the disease often occurs during the formative years, and thus many patients, and society as well, are affected for a long time.

Despite the strides made during the past decades, the disorder's adverse effects on patients have been increased nonetheless by structural deficits in the provision of adequate mental health care in many regions and countries.

### **3.4.2. Epidemiology**

According to epidemiological studies done world wide, schizophrenia has been found to have a prevalence (overall occurrence) of between 0.6 and 8.1 cases per 1,000 population. This wide range is probably due to the differing assessment methods, concepts of, or definitions of the disorder applied in these studies rather than to real differences. Considering only studies of comparable methodology, prevalences between 2.5 to 5.3 per 1,000 population are more realistic.

The incidence (number of new cases per year) reported by international studies also varies for the same reasons between 0.15 to 0.40 annual new cases per 1,000 population. The overall morbidity is probably equally distributed across countries or cultures. There are clear hints of a stable morbidity risk over time, nevertheless some studies claim an increase of the morbidity during the past decades, while other studies report the opposite. This is probably also due to non-standardised case definitions or methods of case-finding. There is no overall gender difference in the prevalence, but the peak age of onset of the illness in males is between 20 and 24 years of age, while in female patients this peak lies between 25 and 29 years (Hambrecht et al. 1992). Despite this, schizophrenia can appear for the first time in adolescents as well as in old age patients. There are more women than men among those patients with a late onset. As an explanation, oestrogen is discussed as raising the vulnerability threshold in females until menopause. This is supported by the fact that schizophrenic symptoms in females can worsen before menstruation or after childbirth (Riecher-Rössler et al. 1992). Additionally, the course of illness in women

with a late onset of schizophrenia is worse, whereas in general, schizophrenia in women takes a slightly more favourable course than in men.

### **3.4.3. Clinical manifestations and course**

Schizophrenia belongs to a larger group of similar psychoses, among which it is the most common and most serious. Schizophrenia has no homogeneous or uniform syndrome and is divided into several subgroups that have some characteristic psychopathological signs in common. These signs include cognitive deficits, positive or psychotic symptoms (delusions, hallucinations), negative symptoms (slowness, underactivity, avolition, alogia, anhedonia), and affective symptoms (depression).

Schizophrenia usually takes an episodic course. During acute episodes, the positive symptoms very often prevail (Eaton et al 1992). After a period of unspecific prodromata (mild mental disturbances, odd behaviour, or a drop in performance in school or at the workplace), schizophrenia often begins primarily with negative symptoms that probably represent the core symptomatology of the disease and are not primarily the residua of an acute episode. Often with a substantial time lag, negative symptoms are followed by the more clearly visible positive psychotic symptoms, which usually require prompt hospitalisation for observation and treatment. It still can take up to five years from the first prodrome or symptoms of the disorder until a schizophrenic patient might receive initial inpatient treatment in a psychiatric hospital because of positive symptoms (Häfner 1992). These long untreated periods are one reason for strengthening the research on effective measures of early detection and intervention.

Affective and negative symptoms, as well as characteristic disturbances of thinking and concentration can occur as enduring residua after acute episodes, but often are also present during acute episodes.

The course of schizophrenia shows different patterns, ranging from complete recovery to severe chronic states. In industrialised societies, a proportion of about 20% of all affected patients experience only one episode and remain free of any symptoms afterwards. 50 to 70% of all schizophrenic patients will have several relapses during their lifetime, but might live without any or with only mild handicaps in between the acute episodes. Up to 30% of all patients must face persisting symptoms that affect them significantly and permanently (Häfner 1992).

Some studies report an overall milder course of schizophrenia in developing countries compared to industrialised countries. The causes are unknown, but are presumed to be due not to biological but to environmental or social factors.

A prognosis on the course of the illness on the individual level is hard to give. Predictors of an unfavourable course are an early onset of the disease, social isolation, a poor premorbid social adjustment, a non-specific and incidiuos onset or course, or the need for frequent or long hospital stays already during the early phases of the illness. Relapses might be triggered by distress or negative life events, but

there is no evidence up to now that negative life events contribute to the onset of the illness.

Somatic comorbidity is frequent in schizophrenic patients. In mental hospital samples, up to 20% of all schizophrenic patients show somatic diseases as well. Alcoholism and substance abuse are common in schizophrenia, and there is a high comorbidity already at onset. The mortality risk of schizophrenic patients is two to three times higher than in the general population, mostly due to suicides. The lifetime prevalence for suicide in schizophrenic patients is estimated at 10%. An enlarged risk of suicide occurs during acute episodes and after discharge from hospital treatment. Suicidal or self-destructive behaviour is one of the main causes for involuntary treatment of schizophrenics or their compulsory admission to psychiatric hospital care, which is a unique type of intervention among all diseases. Compulsory admissions of schizophrenic patients are frequent in all countries, their share of all hospital admissions of schizophrenics differs and depends on national rules or legislation. Contrary to wide and popular belief, only a small minority of schizophrenic patients is more aggressive or dangerous to other persons than the general population. This cliché of the dangerous and unpredictable schizophrenic is a major obstacle to integrating schizophrenic patients sufficiently into the community.

#### **3.4.4. Public health impact**

Schizophrenia is regarded as one of the most expensive mental illness because of its specific symptoms and characteristics (e.g., early onset, frequently chronic course, high rates of readmission to hospital treatment, high rate of disabilities, and costly rehabilitative interventions). In spite of this, studies on the financial aspects of schizophrenia or the provision of care to schizophrenic patients have become a research issue only since the beginning of the reforms of mental health care during the past two decades (Salize and Rössler 1996).

The care of schizophrenic patients consumes approx. 2% of the total health care budgets of industrialised western societies. The overall cost to society is much higher, due to the early onset and the combination of schizophrenia's overall low mortality and maximum morbidity or disability, resulting in a substantial loss of productivity and working time.

Most of the burden to the patients and their families cannot be expressed in financial terms but is nevertheless significant. Schizophrenia affects seriously the quality of life and has strong effects on the patients (e.g. fear or despair, side effects associated with the medication) as well as on family members or caregivers (e.g., isolation, uncertainty, distress, stress-related disorders). Increased expenditure or lost earnings are also very common among care-giving family members of schizophrenic patients (Knapp 1997).

### **3.4.5. Aetiology**

Two or three decades ago, the search for the causes of schizophrenia focussed primarily on disturbed communication or behaviour in families with a schizophrenic member. These hypotheses have been dismissed completely in the meantime. Another theory since abandoned assumed that the illness might be caused by socially unfavourable factors, thus explaining the increased occurrence of people with schizophrenia in low-rent inner-city neighbourhoods during the 1950's and 1960's in the U.S. and other countries. Whereas schizophrenic patients today are still socially disadvantaged and often live in poorer quarters or neighbourhoods, there is no evidence of a social cause of schizophrenia other than the theory that the onset of the illness might cause a social decline, and thus a drift by affected persons to socially unfavourable environments.

Currently it is agreed upon a multifactorial aetiology of the illness. Thus, schizophrenia is a "biopsychosocial" disorder, in which a genetic or an acquired vulnerability of the patients interacts with environmental stimuli or distress, which might trigger psychotic episodes. This mechanism is widely known as the "vulnerability/stress-model". Vulnerability in this case means a reduced ability of an affected person to deal with social, psychological, or other strains. The genetical component of schizophrenia has not yet been explained in detail, but has been definitely confirmed in studies of affected twins. Depending upon the treatment applied, the amount or type of distress, and the degree of individual vulnerability, the course of the illness after the first psychotic episode will devolve either to recovery, relapse, or chronicity.

Furthermore, today there is clear evidence of differences in the structure and function of the brain in schizophrenic patients, supporting the hypothesis that schizophrenia might be a disorder of the brain. Advanced technologies in neuro-imaging have shown that the ventricles in the brain of schizophrenic patients are larger than those in healthy people, while other areas of the brain of schizophrenics present a reduced volume.

That schizophrenia is related to biochemical abnormalities in the brain-function (i.e., an error in the metabolism of dopamine, which is a major neurotransmitter) is backed up by the fact that neuroleptic drugs, which regulate the dopamine activity in the brain, are effective in suppressing psychotic symptoms.

### **3.4.6. Prevention**

For a very long time, effective measures for primary prevention in schizophrenia did not exist. Recently, research has taken strong efforts to develop effective mechanisms or programmes to detect people at risk of schizophrenia in the very early stages or even before the onset of the illness. Early detection might increase substantially the chance for early interventions, diminishing the risk for a chronic course or serious

residua. The effectiveness of programmes for early detection or early intervention must be evaluated in long-term follow-ups (McGorry 1998).

Secondary prevention in schizophrenia aims at the prevention of relapses. Relapse prevention has shown its efficacy since the development of neuroleptic drugs fifty years ago, which provided an effective agent for suppressing psychotic symptoms. The effectiveness of secondary prevention has improved with the availability of so-called atypical neuroleptic drugs.

Tertiary prevention in schizophrenia focuses on preventing or reducing disabilities or handicaps among chronically ill schizophrenic patients. For this purpose, a wide range of specialized treatments, interventions, and rehabilitative services have been developed alongside the implementation of community mental health care. This specialised care proved to be indispensable for integrating schizophrenic patients into the community, which is probably the most effective element of tertiary prevention.

#### **3.4.7. Detection and treatment**

Because of the absence of clear biological markers, schizophrenia can only be detected and categorised on the basis of psychopathological symptoms. Uniform criteria and standardised scales or instruments for diagnosing the disorder are available and have been continuously enhanced during the last decade, but they are not yet applied commonly in all regions or settings.

Schizophrenia requires an integrated and comprehensive care to meet the heterogeneous needs of a person suffering from schizophrenia. One mainstay or cornerstone of the treatment are neuroleptic drugs, which were developed during the early 1950's. The availability of neuroleptic drugs marks the basis of any rehabilitative treatment approach in schizophrenia. It also made possible the shift from long-term hospitalisation as the standard type of care for schizophrenic before and after World War II to modern forms of outpatient or community-based mental health care.

Neuroleptic drugs effectively suppress acute symptoms because of their abilities to inhibit dopamine metabolism. An increasingly better understanding of this mechanism has led to the development of so-called atypical neuroleptic drugs during the last two decades. Atypical neuroleptics cause side effects less severe than those of the first generation of neuroleptic drugs. Side effects are a major cause of poor drug compliance by schizophrenic patients, resulting in a principally avoidable relapse rate of up to 50% per year or more. Despite their potential to reduce this relapse rate, atypical neuroleptic drugs are not administered to a full extent in many regions, mostly because they are noticeably more expensive than traditional neuroleptics (Knapp 1997). Additionally, there are some groups among the variety of patient organisations and user-perspectives which were gaining increasing recognition during the last years, who express a controversial opinion towards the use of neuroleptic drugs.

The treatment of acute episodes of schizophrenia with neuroleptic drugs is accompanied and followed by a variety of psychological and social interventions, adapted to the needs of the individual patients as well as to those of their families, which are combined into a long-term multidimensional treatment approach. These interventions include psychotherapy such as behavioural, family, individual, and group therapy or socio-therapeutic treatments that teach patients techniques (e.g., vocational therapy) or provide them with an environment (e.g., through community nursing or sheltered accommodation) that is appropriate to their psychological state so that they may gradually recover their abilities and re-adapt to their social or working life.

### **3.4.8. Care and rehabilitation**

The policy in caring for schizophrenic patients has changed in almost all countries over the last 20 years. This change is characterised by the reduction in the numbers of beds in mental hospitals and a shift from inpatient care to various forms of outpatient and community-based mental health care. Community care, as it is understood in Europe and elsewhere, combines psychiatric hospitals or psychiatric departments in general hospitals to outpatient facilities and services offering a wide variety of outpatient treatment, day-care, family support, and rehabilitation, as well as sheltered occupation or accommodation for chronic schizophrenic patients. The development and implementation of this variety of services has made it possible to gradually close down beds in traditional mental hospitals, a process generally known as de-institutionalisation.

This process is far from being completed, which means that in almost all countries the quantity and quality of community mental health care differs remarkably across regions (Salize et al. 1999). One major challenge to health administrators is to manage the process of de-institutionalisation appropriate to the availability of outpatient and rehabilitative services for schizophrenic patients, to avoid undesirable trends such as those in some European countries, where the lack of a sufficient number of outpatient facilities at the beginning of the psychiatric reform forced numerous schizophrenic patients who had been discharged from the mental asylums to face a life as homeless street people. In comprehensive community care networks, co-ordination of care or case-management is necessary to ensure treatment tailored to the individual needs of a patient.

The potential to rehabilitate schizophrenic patients is larger than what is really used. There are still many schizophrenics who were put on disability pensions too early without any attempt to recover their vocational or occupational abilities and re-adapt them to their working life. This adds to the fact that unemployment in general is very common in schizophrenic patients. Unlike for other diseases, for schizophrenia the loss of productivity or working days is thus an insufficient indicator to describe the burden of the illness.



### **3.4.9. Stigma**

Negative public attitudes towards schizophrenic patients are age-old and still very common today. Fear, disgust, or other feelings have combined to stigmatise the schizophrenic patient as someone of whom it is better to steer clear. In the past, this stigma contributed significantly to patients' being consigned to large and distant mental asylums, where they were left for safekeeping and then widely neglected.

Twenty or thirty years of reforming mental health care have not been enough to surmount these traditional public beliefs, which still contribute to the discrimination of persons suffering from schizophrenia. Negative attitudes frequently constitute a major obstacle even to the further development of community-based care for schizophrenic patients, when strong public resistance against the establishment of facilities or services for schizophrenic patients in housing areas or neighbourhoods arises.

Alongside the stigma deriving from traditional prejudices about the dangerous and deteriorating character of the disease, in many countries schizophrenic patients even suffer additionally from discrimination through inadequate social or health legislation.

The WHO and other agencies have recently increased their efforts to fight stigma through anti-stigma campaigns. But many continuous activities on different levels will be needed to fight stigma effectively and relieve the patients of the additional burden it puts on them.

### **3.4.10. Conclusions**

Schizophrenia is still one of the biggest challenges in mental health care – not only for the affected patients or their families, but also for health care professionals, researchers, decision-makers, politicians, and the public. There is an ongoing need for research on the causes of schizophrenia and on effective methods of treatment, prevention, or care. Already established care must be evaluated and improved continuously. One major task in mental health care for schizophrenic patients is to assert that those treatments and interventions whose effectiveness is evident be made available to *all* patients who are in need of them.

## **3.5. DEMENTIAS**

### **3.5.1. Short description**

Dementia is one of the most common mental disorders in old age. At present, Alzheimer's disease, the most frequent form of dementia, affects 15 million people world wide. The main characteristics of dementia include multiple cognitive deficits

and a deteriorating course accompanied by changes in personality and behaviour. The majority of dementias, including the most frequent subgroup, Alzheimer's disease, are considered irreversible. The cause of Alzheimer's disease is not a unitary factor but a combination of genetic and environmental factors that interact differently in different people. Currently there is no cure, only pharmacological and psychosocial interventions that can temporarily ameliorate cognitive deficits and behavioural and psychological symptoms of the disorder. Dementia constitutes a heavy psychological, physical, social and economic burden to patients and family members, who provide most of the care for affected individuals. The importance of dementia in public health has been greatly increased by the unprecedented expansion in the number of the world's elderly.

### **3.5.2. Epidemiology**

Several community studies indicate that between 4% and 8% of the population 65 years of age and older suffer from moderate to severe dementia and about the same percentage from mild dementia. Differences between reported rates are due to methodological differences in the study design, the population sample (age range; whether or not the sample includes nursing home residents), and the diagnostic criteria employed.

Alzheimer's disease is the most prevalent form of dementia, accounting for over 60% of cases. The second most prevalent form is vascular dementia (10%-25%). A group of disorders called frontal lobe or frontal temporal dementia accounts for about 9%, dementia of the Lewy body type for 5% of cases. Other dementing disorders (dementia associated with Parkinson's disease, Huntington's chorea/disease, and Creutzfeldt-Jakob's disease) account for much smaller proportions.

Dementia relatively seldom occurs in persons younger than the age of 65 years. Epidemiological findings indicate that a maximum of 2% of all people between the ages of 40-65 years suffer from dementia. Beyond the age of 65 years prevalence increases dramatically. A uniform finding in all studies throughout the world is the association between dementia and age: The prevalence rates for dementia double approximately every five years from rates of 2%-3% in the group aged 65-74 years to rates of over 30% among individuals 85 years of age or older.

Reported incidence (number of new cases occurring in a year) for dementia are also very much age-dependent, with rates approximately doubling every five years from less than 1% in the 65-70 year-old age group to 6%-8% or more among the group 85 years of age and older.

The exponential increase in the prevalence of dementia disorders thus is not caused only by the accumulation of chronic cases but also by the exponential increase in the number of new cases. The life expectancy of dementia patients is much shorter on the average than that of the non-demented. Results of different studies indicate

that the average survival time for the demented lies between five and over 10 years (Schäufele et al. 1999).

Cognitive impairment is a strong predictor of institutionalisation. Surveys of nursing home residents uniformly show very high rates of dementia, ranging from 46% to 78% (Hendrie 1998).

### **3.5.3. Public health impact**

The economic burden of dementia on society and families is substantial. It includes the direct costs of medical care and social services, as well as the indirect costs of disease-related morbidity and mortality, and lost productivity on the part of both patients and family caregivers. Given the potential duration of the disease, these expenses may lead to financial impoverishment of the family. The costs of dementia care to society increase dramatically with the severity of the disease. Institutionalisation represents the largest cost component. Care-giving in the context of dementia is a demanding and distressing task for which many caregivers are untrained. The burden of care has been described as a "36-hour day". In addition to tremendous financial costs, families become socially isolated or their social contacts diminish because of the demands of caring for a demented patient. Caregivers are subject to a high level of stress that frequently leads to physical and emotional ill-health.

Within the health care system, support services such as adult day care, respite care, and supportive counselling are offered, which are beneficial to families of demented patients. Admission to a nursing home is usually considered as a last resort and occurs when the family can no longer cope with the patient at home.

### **3.5.4. Aetiology**

The aetiology of Alzheimer's disease is still not completely understood. Yet it is thought to entail a complex combination of genetic and environmental factors. Risk factor research in Alzheimer's disease has been plagued with inconsistent and partially non-replicable results. Only age and family history are highly consistent risk factors for Alzheimer's disease. Abnormal genes on chromosomes 21, 14, and 1 appear to account for the vast majority of cases of the early-onset familial form of the illness, and one form of the apolipoprotein gene (APOE-4) on chromosome 19 has been shown to carry an increased, but not definite, risk of Alzheimer's disease.

Other biological risk factors for the development of Alzheimer's disease include ageing and cognitive capacity. Certain neurobiologic changes related to normal ageing of the brain may play a role in the increased risk for Alzheimer's disease with increasing age. These findings have led to the speculation that most individuals would eventually develop Alzheimer's disease if the human life span were extended.

Compared to those for Alzheimer's disease, risk factors for vascular dementia have been neglected, although the prevalence of this disorder is relatively high. It is assumed that the risk factors for vascular dementia are similar, though not necessarily identical, to those for stroke: advanced age, hypertension, cardiac diseases, diabetes mellitus, and hyperlipidemia.

### **3.5.5. Clinical manifestations and course**

Dementia is a clinical state characterised by the loss of function in multiple cognitive domains. The most commonly used criteria for diagnoses of dementia is the DSM-IV (Diagnostic and Statistical Manual for Mental Disorders). Diagnostic features include: memory impairment and at least one of the following: aphasia, apraxia, agnosia, disturbances in executive functioning. In addition, the cognitive impairments must be severe enough to cause impairment in social and occupational functioning.

There are many different types of dementia; most prevalent are Alzheimer's disease and vascular dementia.

In addition to cognitive impairment, people with dementia have behavioural and psychological symptoms that until recently have been largely neglected. Symptoms assessed mainly on the basis of interviews with patients and relatives include anxiety, depression, hallucinations, and delusions.

Symptoms usually identified on the basis of observation of behaviour include aggression, screaming, restlessness, agitation, wandering, culturally inappropriate behaviours, sexual disinhibition, hoarding, cursing, and shadowing (Finkel et al. 1998).

The typical presentation of Alzheimer's disease is a slowly progressive loss of memory of recent events, complicated some months later by impairment of speech and of orientation to time and place. At this stage, patients are alert, tend to minimise their symptoms, and are usually in good general health with unremarkable findings on neurological and physical examination. The Mini-Mental State Examination (MMSE) is commonly used in clinical practice to assess cognition. In typical cases Alzheimer's dementia progresses through relatively predictable stages: Memory of recent events, ability to name people and objects, and orientation to time and space deteriorate. There is a loss of autonomy in instrumental and self-care activities of daily living. Mood changes may also be present in early, as well as more advanced stages. Most patients have some degree of neuropsychiatric change, including hallucinations and paranoid ideation, aggression or apathy, wandering, and sexual disinhibition.

Complete dependence of the patients, who frequently develop neurological disturbances, is typical of the late stage of illness. The terminal states of the disease are manifested by mutism, inability to ambulate, loss of sphincter control, and cachexia. Death is usually from pneumonia. From the onset of early signs and

symptoms, the course of Alzheimer's disease can range from three to more than 10 years. The terminal phase of illness can be prolonged for years with good nursing care and tube feeding. Determination of a proper approach to such terminally demented raises important ethical questions.

### **3.5.6. Prevention**

There is still no effective cure for Alzheimer's disease, nor can its causes be treated. Prevention of vascular dementia focuses on the basic illness, that is, primarily upon arteriosclerosis. This means that the risk factors that figure in the development of arteriosclerosis also have a putative effect upon the risk of developing vascular dementia: over-weight, hyperlipidemia, diabetes mellitus, and high blood pressure. The decrease in the number of strokes that has been observed in some countries (e.g., U.S.A., Japan) is thought to be due to changes in lifestyle and nutrition. This could, after the correspondent temporal delay, also contribute to a decrease in the prevalence of vascular dementia.

### **3.5.7. Detection and treatment**

Dementia often goes unrecognised or is misdiagnosed in the early stages. Many health care professionals as well as patients and family members mistakenly view the early symptoms of dementia as inevitable consequences of ageing. Co-morbid conditions in demented patients, such as depression and sensory impairment, plus the normal tendency of family members to compensate for dysfunction make recognition difficult.

Detection of early-stage dementia is important because of the benefits that accrue to patients and families. Advances in therapies that slow the progression of cognitive impairment or improve existing symptoms will be most efficacious if applied early in the clinical course. Early detection will make it easier for clinicians to identify sources of excess disability such as depression. It will allow differential diagnosis and in some cases, identification of possibly reversible causes of dementia. Patients and their families can also address issues affecting patient safety such as driving, as well as legal, financial, and medical care planning.

The treatment of dementia is multimodal. It is guided by the stage of illness and focuses on the specific symptoms manifested by the patient. Treatment for symptoms of cognitive dysfunction has been limited. The best-developed and most successful approaches to treating cognitive symptoms in patients with Alzheimer's disease have used cholinesterase inhibitors. Treatment with cholinesterase inhibitors retards the rate of symptomatic cognitive decline. These agents have the effect of keeping individuals at more functional levels for longer periods of time and may also increase the duration of the mild to moderate stages of the disease (Cummings and Jeste 1999).

Less well developed approaches in treating cognitive symptoms include the use of antioxidants, such as vitamin E, oestrogen replacement, and anti-inflammatory drugs. Behavioural and psychological symptoms such as depression, agitation, and psychotic symptoms frequently complicate the course of dementia. With regard to these symptoms, opportunities for intervention and the alleviation of patients' suffering and caregiver burdens are much better. Many of these symptoms are amenable to treatment: Depression is common in patients with dementia, 5% to 8% suffer from major depression and up to 25% have depressed mood. In addition to improvements in the living situation or stimulation-oriented treatments, patients with severe or persistent depressed mood can benefit from antidepressant medications. Psychosis and agitation are common in demented patients. Antipsychotic medications are the only documented pharmacological treatment for psychosis in dementia and are the best-documented for agitation (Mayeux and Sano 1999). The medical treatment of a demented patient requires close co-operation with the family and other caregivers. They are an important source of information, as the patient is frequently unable to give a reliable history; they are generally responsible for implementing and monitoring a treatment plan.

Appropriate treatment can improve the quality of life of both the patients and caregivers and postpone institutionalisation.

### **3.5.8. Rehabilitation and psychosocial interventions**

Rehabilitation of demented patients aims to avoid important secondary consequences of the disease, to maintain or promote the patients' competence and capacity for self-care, and finally to maintain the respective level of quality of life that can still be achieved. Several intervention strategies have been developed to improve behavioural and psychological symptoms among patients with dementia. These interventions stem from multiple disciplines, including occupational therapy, psychology, nursing, and medicine (Beck 1998).

*Cognitive interventions* such as memory retraining, have improved abstract and conceptual thinking, and concentration. In early dementia, patients may initiate their own reality orientation by using lists and calendars. In later stages, reality orientation is rarely recommended because it frequently increases the patients' frustration.

*Functional performance interventions* including stimulus control, verbal and physical prompting, and physical guidance can enhance cognitive and physical abilities and compensate for deficits during hygiene, dressing, grooming, and eating. Physical exercise programmes have helped decrease agitation and improve sleep rhythms in patients with mild to moderate dementia.

*Psychotherapeutic techniques* using cognitive remedial, reminiscence, exercise, and music seem to be effective to reduce anger, anxiety, fear, suspiciousness, frustration, and depression among patients in the early and middle stages of dementia. As dementia progresses, caregivers may employ validation therapy to

promote the integration of self. In this technique, the caregiver affirms the patient's attempts to communicate, such as talking about a visit by a long-deceased parent, and does not contradict or correct misstatements.

*Recreational therapy* offers a variety of activities that should be tailored to the stage of the disease. In mild to moderate dementia, patients may benefit from a programme that combines exercise, group activities, and pleasurable events, such as baking cookies, whereas those with more advanced dementia might benefit more from taking a walk with a therapist or family member or playing with sensory stimulation objects.

*Environmental interventions* have demonstrated efficacy in managing behaviour problems among patients suffering from dementia. Such patients are vulnerable to stress and environments (e.g., noise, lighting intensity, colour) that over- or understimulate them. Environmental interventions that address this problem focus on identifying triggers for symptoms and then progressively eliminating them.

*Family interventions* may be particularly helpful since family members experience considerable stress when a relative becomes demented. Mittelman et al. (1996) reported positive benefits of combining support group participation, individual and family counselling, and ad hoc consultation for the primary caregiver and family members. The treatment over the entire course of disease in Alzheimer's patients delayed nursing home placements, and the caregivers reported greater feelings of family support and less depression.

### **3.5.9. Conclusions**

Dementia is an age-related disorder and the dimensions of the public health problem will increase over the next decades given the current demographic trends. When it is considered that over half of the older individuals in the world live in developing countries where health resources are less available to them than to their counterparts in industrial countries, the challenge of managing dementia in the future becomes truly staggering.

Also due to demographic trends the care situation of demented individuals will change dramatically in many countries: A higher proportion of women, the traditional source of informal care, are entering the workforce, marital arrangements are becoming less stable, and the birth rate is falling, implying that fewer children will be available to provide both economic support and direct care.

Recognition of dementia by primary care physicians is frequently delayed or missed. There is a need for increased and intensive medical education, especially of family physicians, in order to improve detection and treatment of dementing disorders. As traditional gatekeepers for services, primary care physicians can encourage more families to use support services in dealing adequately with a family member suffering from dementia.

As far as Alzheimer's disease is concerned, research efforts should be directed towards discovering the causes, particularly in terms of neuropathology and molecular biology, but also including environmental exposure. Furthermore, more efficient neuropharmacological approaches aimed at slowing down or reversing cognitive decline should be developed. At the same time, due attention should be paid to the aetiology and prevention of vascular dementia (Henderson 1994).

Since effective pharmacological treatment for dementia is still limited, it is important to implement psychosocial and behavioural interventions to improve the quality of life of both patients and family caregivers to the fullest extent possible.



## 4. BRAIN INJURIES AND INFECTIONS AS CAUSES OF MENTAL HEALTH PROBLEMS

### 4.1. BRAIN INJURIES

#### 4.1.1. Short description

The brain may be injured at any time of life. Learning disability, otherwise known as mental handicap, sometimes is a result of a brain injury at birth or in early life. Acquired brain injury in late childhood or adult life results in a loss of learnt skills and knowledge. The worst times to suffer a brain injury are either early or late in life. Early injuries, during childhood, are likely to disrupt normal social learning. The older brain is very much more vulnerable to injury and has less in reserve (i.e. less redundancy).

By and large the psychological consequences of brain injury are much more disabling than the physical (i.e. on the motor and sensory systems) consequences. This is particularly true for non-focal brain injury, for example due to a head injury<sup>10</sup> in a car accident.

#### 4.1.2. Epidemiology

##### *Causes of brain injury*

The commonest causes of brain injury are strokes and trauma. The *incidence* of *severe* disability, measured as the number of new cases per year per million population, resulting from strokes is about 200 – 300 and for traumatic brain injury about 40. However people who have suffered a traumatic brain injury usually live much longer than those who have had a stroke; they are generally younger and in good health at the time of the injury. Therefore strokes and traumatic brain injury both result in about the same *prevalence* of severe disability, about 1000 to 1500 per million population for each condition. About another 1000 people will have been severely disabled by other causes of brain injury, for example alcoholic brain injury, anoxia, brain tumour, encephalitis.

Minor head injury is very much more common; about 1500 will suffer a minor head injury per million population every year. About 10% of these will go on to suffer significant mental symptoms for more than a year.

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<sup>10</sup> It is usual to use *brain injury* to refer to damage to the brain parenchyma, whereas *head injury* refers to any injury to the head. Traumatic brain injury refers to brain damage due to a head injury. Traumatic brain injury is an example of a non-progressive brain injury, whereas the dementias (see Chapter 3.5.) are progressive.

The likely cause of brain injury is very dependent on the age at which it occurs. In childhood birth trauma, infections, and head trauma are common. Young men are particularly likely to suffer head trauma as a result of violence or accidents. Alcoholic brain injury is observed throughout adult life. In the elderly cerebrovascular disease is of particular importance.

There are also geographical differences. Comparing inner cities to rural areas more head trauma is due to violence as opposed to road traffic accidents. The large variations in road traffic accident rates across Europe will effect rates of traumatic brain injury. Carbon monoxide poisoning is very prevalent in some rural areas and a proportion will be brain injured. The numbers suffering alcohol dependent brain injuries will depend on the local prevalence of alcohol dependence.

Mental illness may result in brain injury and perhaps 10% of patients suffering major trauma resulting in brain injury, will do so as a result of deliberate self harm. It is very difficult to quantify the severity of a brain injury. Clinicians looking after patients with brain injury in the early stages need to be aware how difficult it is to predict:

1. how much the brain is injured from the severity of the insult, and
2. from the severity of the brain injury the likely clinical outcome.

By and large brain imaging, particularly with MRI brain scanning, gives a good indication of the amount of brain damage, but a normal brain scan does not mean that there has been no brain injury.

#### *Consequences of brain injury*

Most of the disability which follows brain injury is due to the neuropsychiatric, rather than physical, consequences of brain injury. Moderate or severe brain injury will almost always result in disorders of cognition (memory and thinking), personality and behaviour.

Even though a severe brain injury increases the risk of both suicide and schizophrenia illness by 2 to 3 fold, only a small proportion of people who suffer a brain injury will commit suicide or develop schizophrenia, and only a very small proportion of total cases of suicide and schizophrenia are due to brain injury. The most common mental illness which follows a brain injury is depression. This is observed in between a quarter and half of adults who suffer a brain injury, particularly in the first year following the injury.

#### **4.1.3. Public health impact**

Mental health services are usually quite separate from services for patients with physical disability. This is based on artificial distinctions between disorders of the brain, the remit of neurologists and physical rehabilitation physicians, and disorders of the mind, the responsibility of psychiatrists. But as a result patients with brain

injury with significant mental symptoms tend to fall between the gap. They may be regarded as too ill, mentally, for the physical disability team, but local psychiatric services won't take responsibility because they have a brain injury.

One consequence is that the importance of brain injury as a cause of mental ill health in the community is not well recognised. This problem is aggravated, at least in the UK, by the separate funding streams for physical disability services and mental health services. Studies of outcome from brain injury may neglect the consequences for mental health.

The solution is to ensure that in each health district of between 500,000 and 1 million people there is a psychiatrist with a special interest in brain injury. One of their tasks will be to raise awareness of the mental health needs of these patients and to advise the local department of public health. Every health district needs a local policy to ensure co-ordination of brain injury services.

#### **4.1.4. Aetiology**

The main causes of acquired brain injury in adult life are described above (4.1.2).

Mental ill health following brain injury is related to:

- a) Pre-injury factors. Many people who suffer a brain injury are vulnerable to mental ill-health, for example due to drug or alcohol dependence.
- b) The injury itself. Injuries to frontal and temporal lobes are particularly likely to be followed by mental sequelae and disorders of social behaviour.
- c) Factors which occur after the injury. A stress free environment promotes healthy recovery following brain injury. But many find that the injury results in financial and relationship difficulties which cause secondary disability. Psychological symptoms often deteriorate over time. Mental health is worse in those with post-traumatic epilepsy. Interventions which can ameliorate the effect of post injury factors.

#### **4.1.5. Clinical manifestations**

With brain injury of mild to moderate severity the clinical manifestations may not be immediately obvious. The person is *different* from how they used to be before the brain injury. But the way in which the person now behaves and thinks may be indistinguishable from someone else who has never suffered a brain injury.

It is therefore easy to miss the consequences of brain injury. This is especially so because the effects on thinking and behaviour tend to be more apparent in every day life than on clinical and psychological testing. The chaotic and disorganised working practices of a brain injured person may result in them losing their job, but they do perfectly well on tests of IQ because these tests are undertaken in a structured setting with definite explicit instructions.

Identifying the consequences of brain injury is further complicated by the fact that the brain injured person is often the least reliable witness, by nature of the very fact that their brain has been injured. Lack of insight into their disability is a major problem.

#### *Cognitive sequelae*

In the early stages of recovery from a severe injury the patient may be disorientated and confused. This usually resolves after a few weeks leaving difficulties with thinking and memory. These impairments tend to show little improvement after the first 2 – 3 years.

The commonest complaints after non-focal brain injury are poor memory, difficulties with word finding, slowing of mentation, difficulties with concentration and attending to two tasks at once, and difficulties planning and organising a strategy to problem solving.

With severe injury there may be severe global impairment of cognitive function making the individual completely dependent on care and support. This will almost invariably be associated with personality change.

#### *Personality change and behavioural disorders*

It is rare for a brain injury to make somebody easier to live with. Generally people become more self-centred and less aware of the needs of others. They are often described as childish; they may be disinhibited, unable to behave responsibly, lack foresight and have tantrums. Irritability is very common and in some cases there are major problems with aggression and violence. Other antisocial behaviours can be very troublesome, particularly if they involve sexually disinhibited behaviour. Many of these antisocial behaviours are aggravated by alcohol.

On the other hand apathy and poor motivation and lack of spontaneity are profoundly disabling in some patients. Previous interests and friends are lost and life holds little enjoyment.

#### *Disturbances of Emotion*

Depression and lability of mood are common. Rapid changes in mood over the course of seconds or minutes occur, for example sudden distress and crying during the course of a conversation. They are often described as moody. Apathy due to damage to brain mechanisms responsible for drive and initiation of activity may be difficult to distinguish from depression. Anxiety and depression often coexist and have deleterious effects on cognition.

Post concussion syndrome is used to describe the prolonged and severe disability that sometimes follows a minor head injury. It is usually attributed to a poor psychological adjustment to mild brain injury. Multiple symptoms are often present including headache, fatigue, noise sensitivity, tinnitus, blurred vision as well as poor

memory and concentration and finally anxiety and depression. These may be associated with symptoms of post-traumatic stress.

#### *Lack of insight and other abnormal beliefs*

Lack of insight is a major disability after severe brain injury; they may be completely unaware of their problems. As a result they may have no intention of changing their behaviour. This is particularly trying for family and carers. Some patients who lack insight have confabulations, brief lived false memories. A few develop more fixed false beliefs and these delusions are often persecutory.

Patients after a severe brain injury are likely to be incapable of managing their affairs, both medical and financial. They need a system of Court of Protection for their financial affairs and a medico-legal system to oversee their rights in terms of mental health and other medical care.

#### **4.1.6. Prevention**

On the one hand it is necessary to prevent brain injuries occurring. On the other hand, once they have occurred it is necessary to prevent, or minimise, the mental sequelae:

##### **a) Preventing brain injury**

Health promotion strategies for reducing risks of *stroke* should be well developed. Most people know about the consequences of stroke and therefore the benefits of preventing strokes will be evident to the individual who is being targeted. They are likely to be older and therefore more aware of the importance of good health.

However health promotion strategies to reduce *head injuries* face greater challenges. They need to be focussed on young men who are often unaware of the devastating consequences of brain injury. Those at most risk of sustaining a head injury are perhaps least likely to listen. Children are at risk and may have little control over ways of reducing the risk. Nevertheless there are interesting educational programmes being tried, for example the HeadSmart programme which is being tried in some schools in the USA. HeadSmart aims to increase awareness of the consequences of head injury and to try to reduce the risk by tackling violence and improving safety measures.

Strategies to reduce head injuries need to include: controls over use of crash helmets; road safety measures including traffic calming and speed restrictions; health and safety measures to prevent falls. Measures to reduce alcohol and drug use and violence in society have the potential to prevent many head injuries.

##### **b) Preventing the mental sequelae of brain injury**

Good opportunities for rehabilitation and good systems to ensure aftercare will improve the mental health of those with a brain injury (see below 4.1.8).

Educational programmes consisting of one or two sessions with a clinician aimed at understanding and managing symptoms after a head injury have been shown to be effective if targeted at those with a moderately severe injury. They improve mental health. For mild head injuries not requiring admission to hospital it is sufficient to give them good written information about the consequences of head injury and what to do if they develop symptoms.

Ensuring the welfare of carers and family is an important part of improving the mental health after brain injury. Not infrequently, particularly if there is lack of insight, the spouse suffers more than the person with the brain injury. If the carer is ill the patient will also suffer.

#### **4.1.7. Detection and treatment**

Whereas acute brain injuries are difficult to miss those that develop insidiously, for example due to a brain tumour, may easily be overlooked. They often present with non-specific and common symptoms. Psychiatrists and GPs need to be constantly vigilant and well versed in the early warning signs.

Because the mental sequelae of brain injuries are easily missed, follow-up should include questions aimed at detecting mental symptoms, in particular depression. If symptoms are found it is first necessary to consider whether there are continuing neurological problems.

Some mental symptoms that occur following a brain injury, for example depression, are little different from those which occur in people who are not brain injured. The treatment is the same regardless of cause. Other symptoms however are specific to brain injury, for example severe memory problems or personality change. These require specific rehabilitation techniques (see below).

#### **4.1.8. Rehabilitation**

After a severe injury once the patient no longer requires medical treatment they should be transferred to a rehabilitation unit for intensive rehabilitation. The use of major tranquilisers to sedate agitated behaviour should be minimised. Good nursing and a multidisciplinary therapy team including a social worker, are essential. Medical leadership can come from a rehabilitation physician or neurologist or neuropsychiatrist interested in rehabilitation. Rehabilitation aims to maximise independence, but, as important, to minimise the deleterious effects of remaining in the unsuitable environment of an acute surgical or medical ward, or being precipitously discharged home with no follow up.

Cognitive and behavioural treatments are the mainstay of managing the mental sequelae of brain injury. Much of the work can and should be done with the patient living at home, as a day-patient or outpatient.

It is very easy for patients to feel abandoned after their brain injury. The acute problems are dealt with and perhaps some rehabilitation provided, but they are then left to get on with their disability for the rest of their life. The family practitioner is a key source of support but they need to be well informed about available resources, or have access to somewhere to get this advice. Numerous agencies may be able to help including self-help groups, for example Headway, and disability employment advisors. But to co-ordinate this support an informed case manager may be needed.

#### **4.1.9. Conclusions**

There are scattered centres of excellence across the European community, but also large areas where the management of the psychological sequelae of brain injury remains poorly co-ordinated. There is a marked lack of psychiatrists in Europe who have special interest in the area. The situation compares unfavourably with the interest in neuropsychiatry in the first half of the 20<sup>th</sup> century when central Europe led the field. As advances in the clinical neurosciences bridge the gap between mind and brain hopefully more mental health clinicians will turn to help those who suffer poor mental health as a result of a brain injury.

## **4.2. BRAIN INFECTIONS AND MENTAL DISORDERS**

### **4.2.1. Introduction to brain infections**

Infections of the brain are usually classified by both the site of infection and the causative infective agent. The latter includes a multitude of micro-organisms. A number of brain infections, such as measles, mumps and chickenpox, are more common in childhood. With regard to the site of infection this can affect either the meningeal covering of the brain resulting in **meningitis**, or the brain substance itself, which can result in a somewhat diffuse and variable sized infection of the brain, called **encephalitis**, or it can be a localised **abscess**. The infectious causes of brain infections can be legion. Generally, they can be the result of bacterial or viral infection. For bacterial infections there are a range of antibiotics available for treatment, although drug resistance remains a concern. However, for viral infection the therapeutic armamentarium is very limited.

### **4.2.2. Manifestation and causative agents**

With respect to **meningitis** the bacterial causes are principally due to *Neisseria meningitidis* (meningococcal meningitis, for which there is now a vaccination available) *Pneumococcus*, *Staphylococcus*, *Haemophilus influenzae* and *Escherichia coli*. Viral causes result in an aseptic meningitis and include echoviruses, coxsackie virus group, mumps virus, Epstein Barr virus, which causes glandular fever, and

human immunodeficiency virus, which is the causative agent of AIDS. In addition TB can result in meningitis. The clinical features of meningitis include fever, headache, neck stiffness and photophobia. The rapidity of the onset of these features and outlook are dependent upon the causative organism and how quickly treatment is initiated.

In relation to the brain substance itself bacterial infections can produce brain abscesses, similarly TB can cause a tuberculoma. There are a wide range of viral infections, which result in encephalitis. The clinical features of encephalitis can be varied depending upon the causative organism and the site of the brain affected. For example if that part of the brain concerned with movement or motor activities is involved then those functions may be impaired. Similarly if the visual part of the brain is disturbed. Encephalitis can also result in fits, changes in behaviour and personality and dementing features.

#### **4.2.3. Public health impact**

In recent years the public awareness of brain infections has been globally highlighted in the media by several attention-grabbing epidemics. Most notable of these have been acquired immune deficiency syndrome (AIDS) and Bovine Spongiform Encephalopathy (BSE), which is thought to be linked with the new variant Creutzfeldt-Jakob disease (nvCJD). Both AIDS and nvCJD can result in a severe and fatal dementia. More generally the characteristics of the diverse infections that affect the brain vary. For instance they can be longstanding public health problems, such as tuberculosis (TB), which can cause meningitis. Or they can have episodic and unexpected outbreaks, such as in the summer of 1999 when there was an outbreak of St Louis encephalitis in New York City; this is a tick borne brain infection, which had never been observed in this part of the world before.

Furthermore, and most worryingly, new infections can emerge, for example the 1980s witnessed the emergence of the human immunodeficiency virus which causes AIDS, while in the last few years there was an outbreak of a febrile encephalitic illness in Malaysia and Singapore, with a 60% mortality which was caused by a previously unrecognised virus called Nipah. Nipah virus disease appeared to be transmitted to humans from pigs.

These few infections highlighted above provide a snapshot of the global importance of brain infections. They result in significant levels of morbidity and mortality, as well as, to the state health budget, economic burden arising from the costs of treatment, where available, and rehabilitation or care for those left with residual cognitive, psychiatric or neurological deficits. Many of these brain infections have a significant economic impact for the European Union, especially HIV, nvCJD and the rising problem of TB.

Finally, **syphilis** is an example of a brain infection that was previously a major public health issue. In the pre-antibiotic era many long-term sufferers with syphilis



required institutional care, as untreated it can result in a severe brain infection. Today it is a treatable infection with intramuscular penicillin. It can present as an acute meningitis, within the first few years of infection, while at a much later stage, typically 10 to 15 years, it can present as a major psychiatric disorder with several names including general paresis, general paralysis of the insane, or dementia paralytica. The onset can be abrupt and there is deterioration of cognitive abilities. In addition to this dementing picture syphilis can be accompanied by grandiose behaviour with a euphoric mood and expansive ideas about their talents and abilities, or there can be a depressive picture. Fortunately the advent of affordable effective treatment and monitoring investigation, to reveal individuals with asymptomatic infection, have dramatically altered the importance of syphilis as a public health problem. While this is an example of what can be achieved in reducing a particular brain infection, the recent re-emergence of TB is demonstrating that public health programmes cannot assume that a particular infection has been effectively controlled permanently.

#### **4.2.4. Specific brain infections with significant mental health consequences**

##### *HIV and AIDS*

The HIV epidemic is one of the most urgent global health issues due to its economic cost, the personal suffering, and the concern that this disease results in individuals being vulnerable to other infectious illness, especially TB as this disorder is also globally on the rise. At the end of 1999 there were an estimated 33.6 million adults and children living with HIV infection throughout the world (<http://www.unaids.org/>). Of these 13 million are estimated to have clinical AIDS, which is roughly equivalent to the number of people who have to date died of an AIDS-related disorder.

Approximately 520,000 individuals with AIDS reside in the European Union, and the figure for those infected with HIV will be much larger. The advent of highly active anti-retroviral therapy (HAART) has substantially improved the prognosis with a significant reduction in mortality. The consequence of this is that the population with AIDS and taking HAART in the European Union will continue to rise, because such individuals will live longer. The cost of HAART per individual per year is €15,000 which at current estimates will be costing the EU member countries approximately €6,000,000,000. Continued public health campaigns for minimising risk exposure and the development of more effective and less costly treatments are the main ways of reducing the cost of this health burden.

There are two major categories of mental health problems associated with HIV: firstly, those living with HIV are at an increased risk of developing depressive illness, often as an adjustment disorder to living with a fatal infection. Also there may be coincidental personality disorders or substance misuse. Personality disorder is a recognised risk factor for contracting HIV. HIV infected individuals with these

mental health problems require assessment and care from mental health professionals, as they may be vulnerable to self-harm and placing themselves or others at risk of further exposure to HIV. Re-exposure to HIV is now important as treatment-resistant viral strains are fairly common and an individual can, if exposed to one of these strains, significantly increase his treatment failure and subsequent morbidity and mortality.

Further to increased risk of unsafe behaviour, it is now being recognised that HIV infected individuals with mental health problems have a worse prognosis. This in part is probably due to the complicated nature of HAART regimes: individuals have to be very organised in their daily routines to adhere to a tablet regime (of up to 20 tablets) that may dominate their daily activities and be without end. Understandably, individuals with mental-health problems may have difficulty adhering to such a strict and demanding treatment regime and consequently their physical health will suffer.

Secondly, the brain is a major target for HIV and the infection can result in significant pathology including substantial nerve cell loss. Clinically, approximately 20% of those with AIDS will develop mental health problems as a direct consequence of the brain impairment. This can manifest as a hypomanic illness with grandiose ideas and inappropriate behaviour. Such a picture can often be a prelude to the onset of a frank dementia with progressive cognitive abnormalities, motor dysfunction, including incontinence and loss of ability to work, as well as personality and behavioural change.

Although the advent of highly active antiretroviral therapy has reduced the incidence of these organic mental-health disorders there is the caveat that the treatment may fail due to the emergence of viral resistance, which would leave the individual vulnerable to developing AIDS related disorders including brain impairment. Furthermore, immunocompromised individuals are at risk of opportunistic brain infections, which depending on the site of damage may cause a range of neurological, psychiatric and behavioural problems. The commonest of these infections in the European Union include Toxoplasmosis encephalitis, TB meningitis, cryptococcal meningitis, cytomegalovirus encephalitis, and the JC virus infection (which approximately 80% of us carry without harm) that can result in progressive multifocal leukoencephalopathy.

Finally, a potential third mental-health problem is beginning to emerge secondary to HAART. The clinical picture can include agitation, depression and a chronic fatigue type syndrome. The relationship with the treatment is established as no other cause can be found and the symptoms abate when HAART is stopped. The requirement to discontinue treatment has serious implications as viral rebound may occur and the individual progress to AIDS.

#### *New Variant Creutzfeldt-Jakob Disease (nvCJD)*

This epidemic is mainly confined to the United Kingdom although its occurrence in other member states cannot be ruled out. The potential size of this epidemic cannot

be determined due to the low endemic frequency of sporadic CJD of 1-2 cases per million, and the lengthy incubation period of up to 20 years. In the UK in 1986 an epidemic of bovine spongiform encephalopathy in cows was recognised. This led to the concern that this may be the vehicle for transmission to humans. This follows the experimental transmission to pigs and occasional reports of spongiform encephalopathy in domestic cats and dogs. By 1995 10 individuals between the ages of 16 and 39 had developed a new variant of CJD. In contrast to sporadic CJD the nvCJD was often characterised by psychiatric features in the presentation. Often there is anxiety, depression and behavioural changes, which often precipitated referral to a psychiatrist. Later neurological and dementing features become prominent and death occurs on average in about 12 months.

#### **4.2.5. Outlook for brain infections and mental health**

Three areas will improve the outlook for individuals with brain infections and should be included in planning future mental health programmes within the European union: Firstly, **vigilance**, especially for newly arising disorders, such as was recently experienced with Nipah in the Far East.

Secondly **early recognition**, this is pertinent for those infections with a presentation of mental disorder as this may potentially delay recognition and treatment of infections. The appearance of nvCJD was a case in point in that this disorder was characterised by a mainly psychiatric presentation. Public health campaigns and provision of education for mental-health professionals in order to improve recognition of these infections are essential.

Thirdly, **development of effective therapies** are essential to improving the outcome for individuals with brain infections; this would include joint working between academic centres and industry. Effective therapy is a complicated issue and its requirements include the ability of the drug to adequately cross the blood-brain barrier and penetrate the brain in sufficient concentration, for there to be minimal or no drug resistance, and most importantly the drug can be administered in as simple a manner as possible so that the treatment regime that can be adhered to. Other problems that are encountered with current drug treatments include

- While there are numerous antibiotics currently available not all bacterial infections may be successfully treated, the high mortality of meningococcal meningitis is an example of this.
- Furthermore, treatment of TB is problematic as the therapy regime is complicated and has to be taken for many months, thus adherence is a problem.
- For viral infections treatment is much more limited, being available for only a few viruses. There are drugs for a few viruses, however, these treatments are expensive and provide limited treatment options against the full range of viral infections. Treatment is available for HIV, although this is not completely effective and requires multiple drugs to be administered together. This need for

combination therapy has created further problems with tablet adherence, as the drug regimes are complicated, and the non-compliance with treatment has in part resulted in the development of HIV strains which are resistant to treatment.

In summary there are a diverse range of infections that affect the brain and can present with mental health problems. With epidemics such as HIV and, potentially nvCJD, infectious causes of mental health disorder will continue to contribute to the overall mental health burden in the European Union. In contrast to functional psychiatric disorders the treatment options are expensive and complicated and the outcome, in terms of survival, less favourable.

## **5. IDENTIFICATION OF MODELS OF GOOD PRACTICE**

### **5.1. QUALITY CRITERIA FOR MODEL PROGRAMMES**

The 1990's witnessed a growing interest in sharing 'models of good practice' in health care and health promotion across countries and even across regions in the world. There are several reasons for this current growth in initiatives for international collaboration in exchanging programmes, especially in the field of health promotion and mental health promotion.

#### **5.1.1. Need for models of good practices**

There is a growing political pressure in many societies to find innovative and evidence-based answers to health and social problems with a high epidemic character and large social costs. The growing awareness that health promotion is beginning to offer effective and cost-effective answers to such problems has triggered the interest in the development and implementation of such programmes, as an alternative to more traditional care. However, the need to develop effective programmes and preventive interventions for a large diversity of problems, disorders, target populations and settings, asks for a large and long-term investment in programme development over many years. Today, accountability becomes more and more a public issue in health promotion since programmes are required to show evidence of their effectiveness before decisions can be made to disseminate and implement them on a large scale.

An additional problem is that if programmes are evaluated very early in their development, they may not show the good outcome that they would show a few years later when staff have been well trained and are more skilled in delivering the intervention. However, this requires commitment to the development of programmes before the evidence base is available. At present, there is often a "Catch 22" - that funders will not fund a programme until the evidence is available, and evidence never will be available until the programme is funded for a substantial period of time.

These needs are, however, in sharp contrast to the scarcity of resources of national and local communities for developing new effective programmes in health promotion. Against this background, initiatives have developed to stimulate the sharing of each others' models of good practice across countries and regions. Sharing inventive and effective practices and programme-related knowledge across borders will accelerate further development of high-quality health promotion.

### **5.1.2. Quality indicators**

Although the concepts of ‘good practice’ and ‘best practice’ are widely used, they are poorly conceptualised. Opinions about why existing programmes are considered to be examples of ‘good practice’ or even ‘best practice’ vary significantly depending on the perspective. For example, practitioners will be mostly interested in the feasibility of new programmes and their innovative value against current practices. Researchers, and nowadays also policy makers and financing agencies, require that programmes are evidence-based and meet other quality requirements before becoming disseminated and provided to the community at large. However, even views on what is considered to be acceptable evidence on outcomes or what could be considered ‘successful’ or of ‘high quality’ is not standardized. Quality is just a statement about the degree to which explicitly stated standards are met, irrespective of the type of standard.

To disseminate good practices or model programmes and to stimulate their large-scale implementation, the following quality criteria need to be met:

1. Evidence-based outcomes
2. Presence of outcome predictors
3. Transferability
4. Feasibility
5. Relevance
6. Sustainability.

#### **5.1.2.1. Evidence-based outcomes**

The ultimate criterion for quality of interventions in mental health promotion is the degree to which interventions are effective, i.e. capable of producing the targeted outcomes. Such outcomes can be diverse in nature, and mostly interventions are aiming to produce a chain of functionally related effects. For example, mental health promotion in schools, such as the life skills training, is primarily aiming to result in improved life skills. As a result of such a change one might expect a contribution to the reduction of depression and aggression in children, better school achievements and less drop-outs, more success in work life during young adulthood. Such improvements in mental health and reductions of problem behaviour can also result in certain economic benefits (such as less costs because of a reduction in youth delinquency or less need for welfare assistance). A long-term trajectory of related outcomes might even not start within the students themselves, but rather with changes in teachers and the school policy as a result of a teacher training. Different parties involved in such a programme (teachers, parents, students, mental health care, governmental organisations) might have different views about success because they are interested in different types of outcomes or different stages of the ‘outcome hierarchy’.

Outcomes of mental health promotion and preventive interventions can be assessed along several dimensions. First of all, types of outcomes can be differentiated according to *their position in a chain of mediating effects and ultimate effects (outcome hierarchy)*, as illustrated in the example above. According to this dimension, outcomes could refer to changes in:

1. social, psychological or biological determinants of mental health or mental disorders (e.g. stressful conditions, supportive environments, risk behaviour, neurological defects)
2. positive indicators of mental health (e.g. self-esteem, problem solving skills)
3. experienced mental health problems
4. onset, duration or severity of mental disorders (e.g. depression, psychosis)
5. physical health resulting from improved mental health (e.g. hypertension, immunity)
6. social outcomes (e.g. academic achievement, decrease of youth delinquency, social equity)
7. economic outcomes (e.g. less need for welfare assistance, increased productivity).

It is important to realise that a single intervention can have multiple outcomes, each responding to the needs and interests of different stakeholders. The social and economic outcomes underscore the social and societal value of good mental health.

A frequently overlooked aspect of outcome is the **reach** a programme has in the targeted population. A programme can be highly efficacious in the people who participate, but when the programme has only a very limited reach in the target population, its ultimate impact on the mental health problem in the community will be minimal. This is, for example, the case when group methods or courses are offered to people at risk for a disorder with a high prevalence in the community (e.g. depression). Therefore, outcome measures should take into account both efficacy and reach.

The quality of programmes can also be measured by comparing outcomes with costs. The **cost-effectiveness** of a programme expresses the ratio of costs per unit of impact, for example the costs per prevented onset of a depressive period in adolescents. One could assess which of two programmes is most economical in terms of costs to reach a similar outcome, or which of two equally expensive programmes is more effective in terms of outcome. A **cost-benefit analysis** compares the monetary value of the benefits of a programme with its costs.

Finally, also **negative outcomes** of interventions need to be taken into account, such as negative side-effects or even outcomes opposite to the expected effects. The evidence of negative outcomes can be the result of both quantitative and qualitative analyses. To date, more and more programmes, especially when they are the focus of

outcome studies, undergo an ethical evaluation before they are tested on their efficacy.

A frequently debated issue in relation to outcomes, is the *level of evidence* that exists for the assumed effectiveness of interventions. Several international organisations, such as the Society for Prevention Research (SPR) and the International Union for Health Promotion and Education (IUHPE), are currently developing standards for the level of evidence. Although there exists a commonly expressed need for clear standards of evidence, views differ on the type of required standards. The two main questions are: (1) What kind of research methodology needs to be applied in order to conclude that outcomes are ‘evidence-based’ and (2) How many replications of such studies across different sites are needed to accept the robustness of the evidence.

The first criterion is the *quality of the research design* and its potential to reduce the risk at invalid conclusions on the outcomes of an intervention. In clinical research, the Randomised Controlled Trial (RCT) is considered the gold standard for producing evidence-based knowledge on outcomes. Randomisation is a proven strategy to counter a diversity of threats to the validity of conclusions from evaluation studies. Although many outcome studies in health promotion and prevention have used a RCT-design, even to randomize communities, schools and school classes, the feasibility of this standard within health promotion is intensely debated (Nutbeam 1999; Tones 1998).

While the RCT is considered to be the most powerful design in clinical studies, many European researchers in health promotion support the view that evidence on effectiveness in their field requires a combination of both quantitative and qualitative research methodologies. Triangulation of data from different sources, in combination with a critical debate on possible threats to the validity of conclusions on outcomes can offer a way-out from the methodological debate.

Another criterion of the quality of evidence for mental health promotion effectiveness is the *robustness of outcomes*<sup>11</sup>. Replication of positive findings across sites, communities and even countries are an essential requirement to decide that a programme is ready to be implemented on a larger scale.

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<sup>11</sup> To describe differences in evidence-based robustness of outcomes, evaluation researchers differentiate ‘efficacy’ from ‘effectiveness’. *Efficacy* refers to evidence-based outcomes of a programme when implemented under relatively ideal and controlled conditions. *Effectiveness* refers to the degree in which such programmes still show positive outcomes when implemented at a large scale within the routine of daily practice and under much less controlled conditions. It is common experience that under such conditions it is more difficult to repeat the effects found in efficacy studies. In mental health promotion and the prevention of mental and behavioral disorders, only a minority of the programmes show ‘effectiveness’. The amount of mental health promotion programmes, for which convincing evidence of their efficacy is available, is growing quickly (Mrazek and Haggerty 1994; Albee and Gullotta 1997; Greenberg et al. 1999). However, the far majority of current mental health promotion practices is not tested yet on their outcomes, which underscores the need for more well-designed outcome studies in this field.



### 5.1.2.2. Outcome predictors

When no evidence of the outcomes of a programme is available, the likelihood of positive outcomes can be estimated by assessing the presence of outcome predictors. Two categories of outcome predictors are of special interest: (1) characteristics of the programme itself, and (2) the way programmes have been developed.

Examples of programme-related outcome predictors are:

- clearly defined and testable short term and long term objectives
- clearly defined target populations
- segmentation of heterogeneous target populations
- use of tailoring strategies to respond to variations in needs
- use of motivation enhancement techniques and feedback mechanisms
- interactive programmes
- effective timing (e.g. during developmentally sensitive periods)
- sufficient duration and intensity
- multi-component programmes (e.g. multi-factor, multi-method, multi-system, multi-level)
- use of follow-up interventions (e.g. booster sessions).

Examples of outcome predictors related to the process of programme development are:

- development along stepwise planning process
- theory-driven, and based on epidemiological and other relevant knowledge
- history of successive try-outs, process evaluations and improved versions.

The identification of evidence-based outcome predictors ('principles') is still a rather new area of research, which gets currently increasing attention. This type of research studies the question why programmes work or do not work. Outcomes of this research are essential for developing guidelines for effective practices and policies in health promotion and prevention.

### 5.1.3. Criteria for successful dissemination

Evidence-based outcomes are not a sufficient requirement to select practices as model programmes and to justify efforts for their large scale implementation. Successful dissemination and implementation can only be expected when programmes have additional features that reflect their feasibility, transferability, relevance and sustainability.

The *feasibility* of a programme refers to its potential to become successfully implemented. Feasibility indicators are a history of successful implementations at different sites, evidence on its potential to recruit community support and

participation and to generate consumer satisfaction. In addition, moderate financial and personal costs and the low or moderate complexity of a programme will facilitate its feasibility. Specification of needed resources and other contextual conditions for successful implementation must be part of the information package to enable potential programme providers at other sites to assess the fit with their own resources and expertise.

Another essential feature to select a programme as model programme is its *transferability*, which can be assessed by indicators, such as the availability of a written programme description and programme manual, transferable materials (e.g., brochures, workbook, video, training manual), opportunities to observe a programme in practice (observability), and facilities for training and consultation by programme designers or experienced programme providers.

To become attractive for adoption by other sites and countries programmes need also to have *relevance*. Programmes are relevant for adoption when they respond to identified public health needs and when they offer added value to current practices. Therefore, additional quality indicators for model programmes could be the fit to public health priorities and their innovative value.

A frequently debated item in relation to model programmes is the importance of programme *fidelity* versus programme *reinvention*. Supporters of the fidelity position state that making changes in a model programme, when implemented in other communities, will significantly reduce its efficacy. To prevent the loss of essential elements and to safeguard the replication of effects found earlier, evidence-based programmes need to be implemented in a standardised way. On the other hand, those supporting the programme adaptation or reinvention perspective, argue that adaptations are essential in creating the best fit between programme features and the culture, needs and opportunities of a local target population. They consider adhering to the integrity of a model programme to be in conflict with the principles of successful health promotion (e.g., ownership, tailoring). This controversy can be solved when the description of a model programme includes a specification of applied principles, mechanisms of change and other elements, considered essential for its efficacy and effectiveness. It allows a theory-driven reinvention of the programme 'within limits'. The presence of such a specification can be considered as an additional quality indicator. This underscores the relevance of identifying the earlier discussed outcome predictors and their translation into guidelines.

Finally, to create a significant impact on the mental health status of target populations as a whole, it is essential that programmes show *sustainability*. This means that dissemination of programmes that are the product of fluctuating, short-term trends, should be avoided. Indicators of sustainability are the length of the implementation history of a programme, successful examples of institutionalisation of such programmes in national or local policies, or in school-based or workplace-based health promotion policies, and evidence on their viability to acquire long term financial resources.

A range of evidence-based mental health promotion programmes have been adopted and implemented by other countries than the ones where they have been originally developed and tested. An international exchange of such programmes is currently stimulated, among others by Mental Health Europe (MHE) that has carried out a European Project “Mental health promotion for children up to 6 years”, supported by the European Commission. The project identified and described 195 mental health promotion programmes for children up to 6 years in 17 European countries. On each programme, information was given to facilitate contacts between programme developers and programme providers all over Europe. Other international organisations and European networks are currently also actively identifying and disseminating good practices and model programmes. For example, the International Union for Health Promotion and Education (IUHPE) and the European Commission recently published a report on “The evidence of health promotion effectiveness” that offers overviews on evidence-based programmes, among others in mental health promotion, health promotion in schools and workplaces and out of school youth (IUHPE 1999).

Recently, the international Society for Prevention Research (SPR) has started the development of world-wide classification and registry system for evidence-based prevention and health promotion trials. When the system will be ready it will offer a widely accessible database and monitoring system, offering information on the designs of effective programmes, their outcomes, quality, international implementation history and information on the type and quality of the evaluation research implemented on these programmes.

## **6. EXAMPLES OF EFFECTIVE PRACTICES**

### **6.1. MENTAL HEALTH PROMOTION**

#### **6.1.1. Introduction**

For over 30 years, mental health promotion programmes have been systematically developed and evaluated. Several hundreds of controlled studies, conducted over this period, have showed a broad range of positive outcomes that well-designed interventions could perform (Bosma and Hosman 1990; Price et al., 1988; Mrazek and Haggerty 1994; Albee and Gullotta 1997; Durlak and Wells 1997; Weare 2000). For example, there is ample empirical evidence that mental health promotion programmes are capable of increasing resilience and mental health factors such as

- self-esteem,
- problem solving skills,
- stress and conflict management skills,
- feelings of mastery and self-efficacy,
- prosocial behaviour,
- a mental health promoting school climate, and
- social support in a stressful period.

The same conclusion can be drawn for the reduction of a range of risk factors (threatening to mentally healthy development) such as

- low birth weight,
- pre-term deliveries,
- poor parenting behaviour,
- lack of early bonding and parental affection,
- child abuse and neglect,
- teenage pregnancies,
- aggression, and
- being a victim of regular bullying.

Mental health promotion has also shown a range of evidence-based social outcomes such as

- better academic achievement,
- increase in productivity and reduction in productivity loss,
- lowering divorce rate,
- reduction in family violence,
- reduction in youth delinquency, and
- reduction in use of social services.

There is also some indication that mental health promotion could increase positive outcomes of other health promotion activities such as health education on smoking and drinking.

### **6.1.2. Perinatal parent education**

The Prenatal/Early infancy project is an example of an effective community-based parent education programme that has shown repeatedly to be effective (Olds 1997). The two-year programme is directed at mothers at risk; especially low income mothers, teenage mothers and unmarried mothers. By home visits, the programme stimulates the mothers to healthy behaviour during pregnancy to improve the outcomes of pregnancy, and to enhance the quality of parental care and the maternal life course development. In average, community nurses in this project have visited the homes of the mothers 31 times over a period of around 30 months. A randomized controlled study over the two years after delivery showed a drop in child abuse from 19% in the control group to 4% in the prevention group of high risk mothers. Among the mothers who smoked, the programme resulted in 75% fewer pre-term deliveries and a significant decrease in low birth weight (400 grams). These are well-known risk factors in psychiatry. In the second year after birth, 40% less visits to a physician for injuries and ingestion were found in the intervention group. In addition, low income and unmarried mothers in the intervention group showed increased control over life, a higher rate of ending school and a drop of 42% in subsequent pregnancies during the 4 years after the delivery of the first child. By the time the children were 4 years old, these low income families cost the government \$3.313 less than did their counterparts in the comparison group (Olds 1997).

### **6.1.3. Reducing aggression in children**

During the 1990's a range of preventive and mental health promoting programmes have been developed which have shown to be very effective in reducing aggressive behaviour in elementary school children and during transition to secondary school (Greenberg et al. 1999). Most of these programmes use skills training to change the behaviour of children, parents and teachers. Some address also the school system as whole.

The following programmes offer an illustration of this school-based approach of aggression reduction and enhancement of prosocial behaviour:

A school-based programme of 12 sessions for 9–12 years old boys in training them anger coping (e.g. affect recognition, self control), goal setting and problem solving skills, showed lower rates of disruptive and aggressive behaviour compared to controls (Lochman and Wells 1996).

In another programme linked to 53 Montreal schools, a combination of parent education with social skills training at school for aggressive 7–9 year old children

resulted in less fighting, less serious difficulties, more adaptive behaviour and less self-reported delinquent activities when children at age 12 (Tremblay et al. 1996).

A significant reduction of aggressive behaviour, better problem solving and more prosocial coping was also found in elementary school children at risk who participated in the Peer Coping-skills Training (Prinz et al. 1994) and in normal elementary school children participating in the PATH curriculum over a period of 5 school years (Greenberg and Kusche 1998).

Fast Track programme of the Conduct Problem Prevention Research Group (1999) has combined a universal programme for all elementary school children during five school years with a special enrichment programme for children at risk for conduct problems, school drop-out and delinquency in adolescents. The enrichment programme consisted of parent education, child social skills training groups, home visits, child tutoring in reading and friendship enhancement strategies. The results of a study among 1283 children showed over the years a significant larger decline in aggressive behaviour and less conduct problems as a result of the programme in comparison to control children. There was also a 26% reduction in the rate of special education assignment in the intervention children (Greenberg et al. 1999).

There is also evidence that successful reduction of aggressive behaviour could be reached even earlier in childhood, e.g. through a school-based programme and home visiting for Kindergarten children with early signs of antisocial behaviour patterns. Impressive long term results of such early interventions have been found as a result of the Perry Preschool Program (Schweinhart and Weikart 1988; Weikart and Schweinhart 1997). This programme offered 3 – 4 years old children a two-year training in active learning, problem solving, combined with parent education through home visiting and teacher training. A longitudinal randomized controlled study showed among others the following outcomes: less developmental delay, better school achievement, less school dropout. At age 19, lower detention and arrest rates (31% versus 51%), lower unemployment rates (32% versus 59%) and less use of welfare benefits were comparing adolescents who participated in this programme in early childhood in comparison to controls. Even at age 27, evidence of significant positive outcomes could be found, such as lower arrest rates for drugs dealing (7% versus 25%), more owners of a own house (36% versus 13%) and a 29% versus 75 with a monthly income of \$2000 or more. At age 19 the economic benefits for the society (e.g. less social welfare, special education, costs of crime), were already 6 times the costs of the programme.

#### **6.1.4. Unemployment**

Unemployment, especially long-term unemployment and unemployment resulting in economic hardship, is considered to be a risk factor for mental health. At the same time, mental health promotion among the unemployed could facilitate their return to the employed status, in combination with improved mental health and less risk at

mental disorders such as depression. An excellent example of a programme is the so-called JOBS programme, developed by the Michigan Prevention Research Center. The programme exists for a one week training of 5 half days for unemployed people. Participants are learning a range of skills, such as job seeking skills, communication skills, skills to cope emotional problems and setbacks, and feelings of self-efficacy. The programme has repeatedly shown to be effective in improving such social and mental health factors, reducing unemployment, as well as reducing new depressive episodes. In the group of unemployed people with high risk on depression, this course reduced the development of serious depressive episodes over a period of 2,5 years after the intervention from 39% to 25% in the prevention group, a reduction of almost 40%. This programme is currently going on scale in several states of the US, in some European countries, and even in China and Korea. The results of a cost-benefit study resulted in a positive net benefit of \$12.619 over a 5-year period for the participants.

## **6.2. PREVENTION OF MENTAL DISORDERS**

There is now an extensive literature on evaluation of preventive models (e.g. Mrazek and Haggerty 1994). This section describes two examples of successful models of prevention.

### **6.2.1. Supporting isolated young mothers**

#### *The model*

In the UK, an organisation called Newpin offers friendship and support to isolated and depressed mothers with young children with the aim of enhancing their self esteem, helping them to break destructive patterns in family relationships, and preventing child abuse and neglect. A new referral will be paired with another Newpin mother who has participated in the project for some time, with the hope that this friendship will encourage and enable the individual to come to the Newpin centre on a regular basis. The centre offers a social meeting place to meet other Newpin mothers and children with an adjacent creche where their children can play under supervision. It also offers a structured educational programme covering issues concerning the self and child development, as well as a weekly programme of group psychotherapy.

The high level of mutual care and warmth, and the nurturing family-like environment in the drop-in sitting room is also intended to enhance the woman's self esteem and indirectly to enable her to show more care and affection for her children. It is very much a developmental or growing up model to help women develop self-respect and support the needs of their own children.

### ***Preventive activities***

Newpin aims to

- a) enable women to deal with future crises without getting depressed
- b) create or improve close confiding relationships that endure
- c) improve coping strategies
- d) improve the mothers parenting skills
- e) prevent child abuse.

### ***Evaluation***

Newpin has been evaluated (Pound and Mills 1985; Cox et al. 1990) to see if it is successfully reaching its target group, if it has enhanced the quality and availability of support, if this has brought benefits for the mental health of the women, and if these are reflected in improved parent child relationships. Evaluation demonstrated improved self esteem, self-confidence, interpersonal relationships and parenting behaviour.

## **6.2.2. Prevention of depression**

In the San Francisco Depression Prevention Research project (Muñoz et al. 1995), a randomized, controlled, prevention trial was conducted to 150 primary care patients who were selected to an experimental cognitive-behavioural intervention. After prescreening, the individuals participated in a course on cognitive behavioural methods to gain greater control of one's mood.

The course was an eight-session course given in weekly 2-hour meetings. The group consisted of no more than ten participants and it was led by a doctoral level psychologist. The course material was designed to be taught to persons who were not clinically depressed.

The topics covered in the course included an introduction to depression, social learning theory, self-control approaches on how thoughts, activities and interpersonal interactions affect mood; how to identify and change those thoughts, activities and contacts with people that most affect each participant's mood level; how to determine if one's mood actually changes with an increase or decrease of specific thoughts, behaviours or contacts; relaxation training and planning one's life goals. It was found that the group of individuals participating in the intervention reported a significantly greater reduction in depressive levels compared to the control groups.

The same intervention has been tested in the European multi-centre ODIN (Outcome of Depression International Network) project, in which the method was applied to depressed persons screened out from a general population sample. The follow-up showed a positive effect on depressive symptoms at least on a short run in comparison to a group with no specific intervention (Dowrick et al. 2000).



## 6.3. PREVENTION OF SUICIDES

Examples from the National Suicide Prevention Programme in Finland shows that effective and innovative measures can be developed.

### 6.3.1. The strategy and implementation of the Finnish national programme

The main strategic principles of the Finnish programme were:

- nationwide implementation
- key sectors approach
- real context approach
- goal of developing practical models
- activities via collaborative processes: the method developed in the project called a co-operative process model.

In addition to spontaneous activities started in different fields, some thirty practical programmes were accomplished in collaboration between the project and organisations in response to applying strategic principles described in the strategy (Suicide can be prevented 1993).

#### *Three sub-projects targeting at children and youth as an example*

When planning and implementing the programmes three strategic principles were adopted: 1) reaching age cohorts, 2) comprehensive targets and 3) a co-operative working strategy. In Finland, the main institutions reaching children and youth are school, army and the (protestant) church. School reaches the whole age cohort during many years, the army 85 % and the church 90 % of the age cohort, though both only for a short time. In each sector the main focus of activities was coping with crisis situations, the aim was preparing models for action in real life situations. The strategy applied in shaping targets and methods was interactive planning with the sectors and professionals involved. Each project proceeded from a preparatory pilot-phase to nationwide delivery.

#### School

The school project was planned and implemented in co-operation with the national board of education. Ten schools were invited to participate in the pilot: primary schools, colleges and professional schools. In each school a multiprofessional team was formed to lead the project. The team consisted of teachers, school-psychologist, school counsellor, nurse etc. The process was supported and supervised by the project. The targets were to 1) increase teachers' ability to confront crisis situations, 2) enhance teachers ability to recognise risk factors and 3) promote pupils' coping and well-being.

During the process the schools prepared contingency plans consisting of

- 1) models of action for different kind of crisis situations: suicide, death, accident etc.;
- 2) models to enhance the recognition and support of pupils in difficult life situations;
- 3) models for promotive work to enhance coping and well-being.

In addition, a training programme for the schools of the most densely populated province was included.

A follow-up for one and a half years after the project proved that the models were found useful in crisis situations and they also had increased the capacity of confronting crisis situations.

Also the taboo nature of suicide had diminished in schools. A survey covering the schools involved in the provincial training programme showed that 60% of the schools had already spontaneously made or were about to make their contingency plans. Later the Ministry of Education and the union of teachers have given their approval and appraisal for the project and the idea of crisis plans for schools.

### *The army*

The project was lead by a joint task force. Members denominated by the Defence Forces represented all main professions working in army: military, medical, social and clerical staff. The team took the aim of preparing a training programme for army trainers. The main target was to enhance army staff's ability to recognise conscripts' difficulties and to create models of support. One aim was to prevent traumatic interruptions of military service and through that provide an experience of success. The training programme prepared by the task force was tested in several garrisons. It was also presented in various internal seminars organised by the army. The final revision was published in a form of a folder. Finally, the training programme was introduced in all garrisons across the country by the order of the main headquarters.

The programme contained a one-day training programme with background information on life problems that conscripts meet during their service time; on the recognition of depression and crisis reactions and information on guiding and supporting young men in difficult situations. The main focus of the programme was in discussions and in developing models of action and co-operation in the units. The co-operative method was a new innovation in the army training. The programme was realised in garrisons by their own social, medical, clerical and military personnel.

The first result of the project was the acceptance of the "human" topic and the training by the main headquarters and later the order of running the programme in all garrisons at least every second year. The follow-up showed that the programme was realised in almost all garrisons and that the response was excellent: 89 % of the military staff attending the training felt that it was useful for their work and that it should be repeated in the future. According to the chief psychiatrist of army, the training programme has really had impact in garrisons. The recognition of conscripts' difficult situations has improved and even the quality of doctors' referrals to the psychiatric consultation has improved.

### The church

Also the collaboration with the church was realised via a joint task force with the Church Council. After careful considerations in the team, the focus was decided to be on a training programme for the education of young group leaders in confirmation classes (camps). That group was chosen for being a key group for reaching young people directly. 90 % of 15 -year-olds attend one week confirmation classes organised by the protestant church (the main church in Finland).

More than a third of young people attend to the training of group leaders after their confirmation. These 16-17 year old group leaders play an important role in the confirmation camps. Our aim was to enhance group leaders' ability to confront life crises and to give support to teenagers attending to camps. The focus of the programme was on how to cope in difficult situations and how to give peer support.

The programme was published at the time the project was at its end. So no time for follow-up remained. However, the programme could be pre-tested in a few pilot camps. The feedback collected from the trainers and young people was positive. The themes of dealing with difficult life situations and helping a friend proved to be relevant.

The projects highlighted the view of community responsibility. According to the feedback we shared with the field that the idea of suicide and the challenge of support is the responsibility of all professionals, not only of mental health workers. The message was that laymen in gatekeeper position are a remarkable resource. They can do a lot by providing support early enough in everyday situations. In addition, the idea being able to intervene in crisis situations was quite new in schools and in the army. Both have a routine to refer problems to special workers.

The method of collaborative work proved to be efficient and worthwhile to be developed further. Due to that method, interventions developed by the project represent the so-called ecological and constituent validity. This can be seen in the way the programmes and models of actions have been accepted within the social institutions involved. In addition to the method, also some other innovations were generated by the project: for example contingency plans in schools and the training programme in army.

The lessons learned were that

- it is possible to prepare and implement programmes on a nation-wide scale
- a comprehensive suicide prevention approach is feasible
- it is possible to introduce the issue of suicide prevention in social institutions
- even in authoritarian, masculine organisations it is possible to enhance coping and support
- crisis approach is a good starting point.

Furthermore, important prerequisites proved to be for example

- commitment of the national administrative and supervising level
- co-operation with all key professionals, not only mental health professionals
- adapting to real life situations
- co-operative work, not ready-made models
- speaking the same language
- respecting the culture and practices of the field in question
- aiming at practical models of action.

### **6.3.2. Evaluation**

The Finnish suicide prevention programme was evaluated from three points of view: an internal description and evaluation by the team itself; an internal evaluation based on the field survey; and an external evaluation by an international peer group. Two of these are available in English.

The internal process-evaluation (Upanne et al. 1999) and the field survey (Hakanen and Upanne 1999) showed that running the programme from the very beginning as a common enterprise was decisive for the good progress made in suicide prevention in Finland. According to the evaluation survey, some 2000 working units, 43% of all “human service units”, had set up development activities and around 100 000 professionals had participated in interventions.

Psychological prerequisites such as good atmosphere seemed to be decisive for practical progress. Positive feedback was received from the field for the collaborative approach. Resistance was almost non-existent.

According to external evaluation good points of the project were

- covering broad public sectors all over the country
- putting the suicide problem on the social agenda
- developing interactive models for health promotion
- publishing many guidebooks
- influencing organisations and professionals in the service sector.

The suicide rate in Finland exhibited a declining trend from 1990 (30.3/100 000) to 1996 (24.3). In 1997 the rate was 25.7. There is no reliable analysis available to explain the decrease. Contributory factors may include the recession and related factors in the 1990s, a decrease in alcohol consumption due to the recession, and an increase in the consumption of antidepressants. Interventions organised as part of the national project probably also played a role.

## **6.4. MENTAL HEALTH CARE**

Consumer and carer orientation is increasingly important in mental health care as outlined in chapter 2.5. Two examples of good practice, which put emphasis on these principles, are presented here.

### **6.4.1. The “functionalised teams” of the North Birmingham Mental Health Services<sup>12</sup>**

#### 6.4.1.1. Introduction

Birmingham is a large industrial city with a population of over a million people, and Northern Birmingham Mental Health Trust (NBMHT) provides specialist mental health services for over half of the population of the city through the National Health Service. The catchment population is culturally and socially diverse, covering areas of very high social deprivation with up to 25% of residents designated as belonging to minority ethnic groups. Over the last five years, the Trust has implemented a comprehensive strategy based on an integrated model of community mental health care with an emphasis on greater accessibility and continuity of mental health care, taking into account the overall needs of users of the service. Prior to this development over 80% of psychiatric resources were tied up within psychiatric hospitals with relatively little service development in the community, little involvement of the local communities in the specialist mental health services and the relative neglect of the needs of those with severe mental illness.

#### 6.4.1.2. The practice<sup>13</sup>

In Northern Birmingham three locality-based (“sectorised”) interlocking and complementary services based on teams were developed in six geographically discrete areas (with 100.000 population each on average). They consist of (1) a primary care mental health service, (2) a service that is targeted to deal with long term mental health needs and, (3) a service dedicated to “acute care” consisting of a combination of 24-hour home-based interventions backed up by appropriate residential facilities.

- (a) The multidisciplinary **primary care mental health teams** work closely with the general practitioners and other primary care agencies (for example voluntary groups, social services) within each locality and provide an assessment and treatment service, based on a combination of community mental health team-

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<sup>12</sup> This section is based on (1) information contained in the document “Birmingham Adult Mental Health Strategy”, which can be accessed on the internet under

[http://www.birminghamhealth.org.uk/PublicHealth/mh\\_strategy/STRATEGY.html](http://www.birminghamhealth.org.uk/PublicHealth/mh_strategy/STRATEGY.html)

(2) a text provided by Professor S.P.Sashidharan, Birmingham and (3) information provided by Professor Michaela Amering, Birmingham.

based work as well as domiciliary visits. These teams act as the “gatekeepers” to specialist mental health services. In addition to the general practitioners a variety of other local community agencies involved in the pathway into specialist mental health care liaise closely with these teams and a consultation liaison service is provided to all these agencies.

- (b) Services for **people with severe and long-term mental health needs** are also entirely based within community settings and consist of two multidisciplinary functionalised teams (of which, roughly spoken, one deals with co-operative, the other with non-co-operative patients). The first service – the **Continuing Needs Team** - focuses on psychiatric and social rehabilitation while emphasising the concept of recovery, working with people with severe mental illness with long-term needs. Individuals with a complex set of social needs are identified separately and they form the target group for **Assertive Outreach Teams** using the model of Programme of Assertive Community Treatment (PACT). The criteria for inclusion involve a diagnosis of severe and longstanding mental illness as well as complex social needs, along with a history of repeated hospitalisation or disengagement with psychiatric care in the past, as well as involvement with the criminal justice system. The staff-patient ratio is less than 1:10.
- (c) The **Home Treatment Team** service is available for those **experiencing acute psychiatric problems** and requiring intensive 24-hour support. These teams are based in the community setting but backed up with a variety of residential resources. They are available for crisis referrals from all the other teams as well as receiving crisis referrals from within the community setting, for example general practitioners. Assessment and management is invariably undertaken in the community setting, at people’s usual place of residence. Each locality has a small number of psychiatric hospital beds but these are backed up by other residential alternatives such as crisis houses or through a family sponsored residential schemes. Those who still have to be admitted to psychiatric hospitals are those who are deemed to require compulsory treatment.

At every level of the service, there is an emphasis on **collaboration with community agencies** (general practitioners, self-help groups, mental health voluntary groups). There is also considerable emphasis placed on consultation with service users at every level, as well as the encouragement of service users to work as volunteers as well as in a paid capacity within the mental health teams.

#### 6.4.1.3. Effectiveness

At any given point in time of the total catchment area of 600.000 inhabitants approximately 9000 clients are in care (70% Primary Care Teams; 20% Continuing Needs and Assertive Outreach Teams; 10% Home Treatment Teams). The service

has been evaluated both internally and externally. External evaluation has shown that the number of people being admitted to psychiatric hospitals has declined dramatically since the introduction of the new strategy. Those requiring acute psychiatric care are largely treated within the community setting. Research shows that only one in 20 of those deemed as requiring acute care gets admitted to psychiatric hospitals, the remainder being treated successfully and the crises resolved satisfactorily within the community settings. The home treatment service has also managed to ensure that the vast majority of people requiring long-term mental health care are subsequently integrated into the community teams. One of the most significant outcomes of home treatment methods is e.g. the identification of individuals who had hitherto avoided psychiatric contact but are prepared to accept mental health interventions in the non-coercive community settings. The domiciliary care models also appear to be more consistent with the aspirations and needs of people from minority ethnic groups.

#### **6.4.2. The “Pension Bettina” in Vienna – a family school for learning how to live with schizophrenia**

##### 6.4.2.1. Introduction

The “Pension Bettina” was founded jointly by professionals and family members of young people suffering from schizophrenia. It was established in the rooms of a former small hotel on the second floor of an apartment house near the centre of Vienna. The intention was to create a facility where patients and family members could practice “in vivo” and for a limited time (17 months), how to interact with each other in as little a stressing and as much a productive manner as possible. The target group is families with a young member suffering from schizophrenia who are all willing to learn how to live with the disease. Usually patients belong to the typical revolving door population with short hospital stays but frequent re-admissions. Emphasis is laid on the creative potential of all participants, who are encouraged to practice new ways of communication with each other.

##### 6.4.2.2. The practice

The programme was established in 1986 and ran through several stages of development. The basic structure, however, was present from the beginning: For a limited time period – presently 17 months – 10 patients live in Pension Bettina from Sunday evening to Friday afternoon. All patients are admitted and discharged at the same time. On weekends and holidays the place is closed and patients have to stay at home, i.e. mostly with their families.

On the other hand, family members have to visit the place during the week: Once a week for a couple of hours during daytime, once a month for night duty (spending the night in Pension Bettina together with ten schizophrenic patients and no staff present). While they are present, family members have no special tasks, except for

participating in whatever activities are actually going on. Thereby, inadvertently, family members and patients mix and interact with each other across family boundaries. Thus, a patient can practice interacting with a father, who is not his or her own father, and a mother can practice interaction with a son or a daughter, who is not her own son or daughter. Such “vicarious learning” is decisively easier than just practising new forms of communication with one’s own family member (with all the emotional history, which often precludes a learning experience). Thus, patients and family members learn how to practice “intimacy at a distance” – i.e. providing assistance if necessary and allowing independence whenever possible.

Also, once a week family members have to attend a relatives’ group, where experiences are exchanged and discussed, both those in Pension Bettina and those at home during the weekends. For patients, mornings and late afternoons are structured by household chores and by various group sessions, including a “house meeting” (where practical problems of living together are discussed), a “day planning group”, cognitive group therapy and others. Practising leaving home on Sunday evenings for over 70 times during the programme’s 17 weeks, also constitutes an essential learning experience.

Once the programme is finished, the place is closed down for a month (for refurbishing) and everyone has to leave. Having the end in mind, obviously contributes to the wish of many families to stay together. Before discharge, over the last fifteen years families have founded group homes for two to five patients each, who continue to live together, with the support of their family members, who have learned that young adults, even if suffering from such a debilitating disease as schizophrenia, have to be left alone and cared for at the same time – an “impossible” task, which graduate families seem to master nevertheless.

Technically, during daytime, one full-time social worker and two part-time other staff are present. A consultant psychiatrist is available for a limited time period for psycho-education. The programme is largely paid for by the local social services, but families have to contribute an amount of approximately ATS 4.000.- (US\$ 300.-) per months. On average 20 – 25 % of families drop out during the first few weeks of the programme for various reasons (mostly underestimation of the necessary amount of involvement) and are replaced by families on the waiting list.

#### 6.4.2.3. Effectiveness

Evaluation includes assessments by patients and family members, both at the end of the programme and at one and two year follow-ups. While the degree of satisfaction expressed both by patients and family members is high – as it is for most health services – also objective outcome criteria are favourable: While at the beginning of the programme, 12% of all patients lived independently, 81% did so at the end and 78% continued to do so at the two year follow-up. 35% of all possible days were spent in hospital preceding admission to Pension Bettina, but only 7% were spent in hospital during the two years after discharge. The revolving door pattern followed by



these patients seems to be broken after graduating from the programme – probably mainly because families have learned to avoid crises or to de-escalate beginning crises.

## **6.5. REHABILITATION**

### **6.5.1. Rehabilitation aiming at maintaining working capacity**

In Finland as in several other countries, so-called early rehabilitation strategies have been developed during the past decade. Rehabilitation has been directed towards persons who are still able to work but need support in maintaining and developing their working capacity. Of those employees who seek for rehabilitation services, the majority complain of musculoskeletal problems. However, a substantial share also has mental health problems, e.g., depression, anxiety, burnout or other symptoms. Often these symptoms are related to problems at work.

In Finland, one form of rehabilitation, financed by the Social Insurance Institution (SII), is *rehabilitation aiming at maintaining working capacity*. This rehabilitation activity is meant for persons whose working capacity is substantially lowered because of physical or mental problems and who need rehabilitation in order to maintain or improve their working capacity.

The rehabilitation process is implemented in co-operation with the work place, rehabilitation centre and the SII. Its overall length ranges from one to two years; sometimes it is even longer. The rehabilitation activities can be roughly divided into two sectors, i.e., those realised in the rehabilitation centre, and those realised at work places. During the whole process, a maximum of 35 days is spent in the rehabilitation centre. During the usually many months long intervals, the employee is at work.

Often the first days of the rehabilitation process are used in gathering one's strengths, physical exercise, recreation, and relaxation or meditation exercises. Much time is used for analysing one's life projects and sorting out and clarifying one's future plans and aspirations. It often seems that employees have had very little time for themselves, and for the planning of their future. Often they also have very little faith in their possibilities to influence their work or work conditions. Problems at work, work process, work organisation, leadership issues, work climate, etc, are analysed and solutions to master them sought. Often discussions are arranged between the employee, his/her foremen or supervisor and the rehabilitation counsellor concerning career development issues or needed changes in the work process.

Measures to alleviate mental and physical stress and to improve one's job control or occupational skills as well as individual strategies for coping in difficult situations are sought for. The clients also explore their ways of life; it is important to also find time to those activities during work and leisure, which contain intrinsic rewards and give enjoyment. Group discussions are especially important.

The activity taking place at work places aims to change the social and physical work environment into a more adaptive one. Sometimes emphasis is on attempts to organise the employee's work tasks, working conditions, or problems in team work, sometimes on leadership issues, clarifying one's duties or solving problems concerning decision latitude. In some cases updating one's occupational skills or re-training may be needed to enhance working capacity and work motivation.

The aim of the rehabilitation activity is to decrease symptoms of distress and burn-out and subjective work difficulties, to increase feelings of mastery and job satisfaction, and to improve the overall working capacity of the employee.

### **6.5.2. Clubhouse model of psychosocial rehabilitation**

The Fountain House clubhouse model represents an originally North-American application of the rehabilitation in which vocational, communal, and social services are offered under one roof. The target population for the clubhouse consists of people suffering usually from long-term and serious psychiatric problems. The approach is a form of psychosocial rehabilitation and intends above all to improve the quality of life of the clients who are members of the clubhouse. The programme components of the clubhouse are prevocational day programme, transitional employment programme, and reach-out activity. Medical care is strictly confined beyond the clubhouse activity.

The clubhouse offers each member an opportunity for diversified participation. Daily attendance is expected, and makes a difference to other members. The clubhouse model focuses on the strengths and talents of people recovering from mental illness. The needs of the clients are taken as a starting point in the daily activity. Members participate in both planning, decision making and carrying out activities. Staff often act as initiators of the activity but, like the members, participate in every task. They are equal with the members, and are treated in the same way. In the community, each member receives support he/she needs both from the other members and from the club personnel. The members also participate in reaching-out activity of the club: if a member stays at home, the other members keep in touch and make sure that if help is needed it is given.

The members are required to participate in the daily activity of the club. The work of the members is a prerequisite for the operation of the club. Members thus feel wanted as contributors. They are both "in need" and "needed". The members participate in all the tasks of the clubhouse: cooking, cleaning, maintenance, administrative duties, research, guidance of new members, etc. Organised sheltered work and subcontract work for external parties are contrary to the clubhouse ideology. It is regarded important that the significance of performed work becomes immediately apparent to the member as the result of the work.

An important part of the clubhouse model is the Transitional Employment Program (TEP), which aims to narrow the gap between the daily programme of the

club and paid work in the open labour market. Transitional employment is based on agreements made between the clubhouse and the employers. The staff of the clubhouse coaches the member for the work and supports him/her during employment. The clubhouse guarantees the employer daily staffing for the employment position, i.e., in case of illness or other problems, another club member or staff employee acts as a substitute. Failure at work is regarded as a natural part of the process and does not hinder a new attempt. Employment is usually part-time and last no longer than six months.

In seeking longer-term employment, special attention should be paid to the personal preferences, satisfaction, needs for change, competencies, etc. of the person with mental health problems. The situational aspects of coping with work should be paid attention. For example, the possibilities of a person with mental health problems to do well at work depend on how he/she prepares for work, what kind of guidance and social support is available, and how the work community functions as an entity.

Working capacity is always dependent on the situation, circumstances, and the organisation of the work tasks. As to the vocational rehabilitation of a disabled person, one should, *instead of individualising problems and focusing on assessment; rather, consider how the preferences, competencies, resources etc. of the service user can sufficiently be taken into account in the work arrangements.* The attitude of the work community, for example to mental problems, is often tinged with a fear of diversity and unpredictability, as well as with some sort of curiosity. During the planning stage, one should use resources, not only to organise the work tasks, but also to prepare the worker to meet the tangible circumstances at work.

One way of describing the different aspects of working capacity is the definition designed at the Rehabilitation Foundation. According to this definition, working capacity is not a stable personal characteristic, but the *result of a dynamic interaction - changing over time - between the individual worker, his/her work and the general characteristics of the work place*, for example the work climate, work organisation, leadership models, personnel policy etc. (Järvikoski 1994). This means that changes in one part of this system affect the other parts as well. For example, lack of opportunities to maintain or improve one's vocational skills and other qualifications required in the work may lead - in the long run - to changes in working capacity.

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