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The World Psychiatric Association (WPA)

The WPA is an association of psychiatric societies aimed to increase knowledge and skills necessary for work in the field of mental health and the care for the mentally ill. Its member societies are presently 118, spanning 102 different countries and representing more than 140,000 psychiatrists. The WPA organizes the World Congress of Psychiatry every three years. It also organizes international and regional congresses and meetings, and thematic conferences. It has 51 scientific sections, aimed to disseminate information and promote collaborative work in specific domains of psychiatry. It has produced recently several educational programmes and series of books. It has developed ethical guidelines for psychiatric practice, including the Madrid Declaration (1996). Further information on the WPA can be found in the website www.wpanet.org.

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World Psychiatry

World Psychiatry is the official journal of the World Psychiatric Association. It is published in three issues per year and is sent free of charge to psychiatrists whose names and addresses are provided by WPA member societies and sections. State-of-the-art, research and mental health policy papers are welcome for publication in the journal. The relevant proposals should be sent to the office of the Editor.

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“World Psychiatry”: an opportunity for psychiatrists of the world

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The World Psychiatric Association (WPA) is committed to the training and professional development of psychiatrists from all the world. In the past, the WPA carried out most of its activities through the Member Societies, but during the last decade it became obvious that a great part of the membership would welcome initiatives from the WPA itself. Therefore the number of education activities and other organised by the WPA grew in number and impact. The last General Assembly (Hamburg, August 1999) approved an amendment to the Statutes which radically changes the scope and role of the WPA, namely it introduces an item according to which every member of every Member Society is, de facto, an individual member of the WPA. This has increased the responsibility of the Association towards individual psychiatrists in the world.

The idea of a journal of the WPA is almost as old as the organisation itself. Several bulletins and newsletters have been published in the past. Recently, the newsletter “WPA News” produced by the Secretariat fulfilled the goal of spreading information in a large and fast growing organisation. In parallel, the agreement with *Current Opinion in Psychiatry* provided the tool for scientific communication, but in a too narrow way for the needs. It must be stressed that one of the goals of the WPA is the advancement of science. Bearing all this in mind, Prof. Mario Maj, the Secretary for Publications, after careful analysis and thorough negotiations, has been able to launch this new journal, with the ambitious title of *World Psychiatry*.

To launch a journal in a period of inflation of publications, when many of them are threatened to disappear and many more would have disappeared, if it was not by the support of the marketing of the pharmaceutical companies, may seem an inappropriate move of the WPA. No, it is not so. The Executive Committee has perceived a need for a journal of a world-wide distribution, published by the largest association in the field of mental health and clinical neuroscience, with a wide perspective and focused on the interests of clinicians. But in order to reach its goals *World Psychiatry* needs the support of the Association. First, it needs the input from Member Societies and other members to identify the topics and perspectives useful and attractive to readers. Second, it is essential that the Sections, Committees and Task Forces produce materials for relevant articles and identify hot topics in science which could or should have an impact in practice. Evidence based medicine is not limited to clinical practice; it should also be applied to mental health policy, organisation of psychiatric care, to teaching and in general to every aspect of the profession of psychiatry.

World Psychiatry will initially be published in English three times per year, and 20,000 copies will be distributed all over the world to individual psychiatrists identified by their Member Societies. The number will probably grow in the future, but here, again, the cooperation of Member Societies is essential mainly in order to produce translations in different languages. The Spanish translation is already almost completed, but others should follow. It belongs to the tradition and ethos of the WPA, the use of several languages. Actually we have a working language, English, but six more official languages (French, German, Spanish, Russian, Japanese and Arabic), although in many scientific meetings other languages are used as well. The goal is to provide psychiatrists from all over the world with updated relevant scientific information in the field of mental health and neuroscience.

Every newborn brings hopes, opportunities and also commitments to help him grow and become a focal point and enlightened member of a large community. *World Psychiatry* reflects the best of our psychiatrists and of the WPA: hopes, opportunities, commitment to science and ethics, to patients and society, and also to the courage to grow. *World Psychiatry* is not a little step in the history of the World Psychiatric Association.

Biological phenotypes and genetic research on schizophrenia

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Archival family, twin and adoption studies have demonstrated that the lion's share of susceptibility to manifest schizophrenia is determined by genetic factors. These same archival studies have also showed that the inheritance of risk for schizophrenia does not follow simple Mendelian patterns and, like other common medical conditions such as heart disease and adult onset diabetes, it is likely caused by multiple genes and environmental factors. Schizophrenia, and probably all psychiatric illnesses, are polygenic disorders, which have a complex genetic architecture involving locus and allelic heterogeneity (i.e. multiple genes and more than one variation in the DNA sequence within a given gene), epistasis (i.e. nonadditive interactions between genes), pleiotropy (protean phenotypic manifestations of the same allele), incomplete penetrance, and environmental modification. This complexity means that there is a weak predictive relationship between the clinical diagnosis and an underlying genotype. Stated another way, the effect size of a specific allele or genotype on prediction of clinical diagnosis is likely to be small.

These predictions have been confirmed by family based linkage studies of schizophrenia. The so-called genome scan linkage approach, which has been effective in mapping genetic loci related to rare inherited disorders caused by major effect genes, has been much less powerful in mapping common polygenes of minor pathogenic effect involved in complex genetic disorders. In the case of schizophrenia, family studies using non-coding DNA markers spanning the genome (i.e. the 'genome scan') have identified a few significant chromosomal susceptibility loci, that have been difficult to replicate across families even within the positive linkage studies and that do not segregate consistently with illness even within families that show linkage to one of these markers (1,2). Pedigree based linkage studies are exquisitely model dependent and, as the mode of inheritance of schizophrenia is unknown, the validity of findings from such studies is controversial. The use of non-parametric approaches, such as affected sib pair methods, while an important advance, has unfortunately not solved the problems of genetic complexity and even thousands of affected sib pairs may be underpowered to find susceptibility loci (3).

The polygenic model of schizophrenia articulated by Gottesman and Shields (4) hypothesizes that qualitatively different genetic factors underlie different clinical subtypes or dimensions of schizophrenia, and that the genetics of subtypes may be simpler than the genetics of the complex phenotype. It has been argued that evidence for familial heterogeneity in the schizophrenic syndrome is of potential significance in the search for susceptibility loci, as it may allow a division of the sample before linkage analysis into etiologically distinct subgroups and, thus, increase power (5). These traditional arguments were based on clinical symptoms, not on underlying biology, and the clinical symptoms may not be sufficiently distinct to predict genotype. Genes do not encode hallucinations, delusions, or thought disorganization per se. Genes determine the structure of simple molecules in cells, usually proteins, and these proteins affect how cells process and respond to stimuli. A variation in the sequence of a gene that affects either the expression or activity of a protein might be expected to slightly vary the functional characteristics of a cell, which could lead to changes in the interactions that the cell has with other cells, in the connections and cell assemblies that develop, and in how such assemblies and networks operate as functional systems. Such biological effects at the level of cell and neural system function are far removed in biological space and time from the clinical psychopathology of schizophrenia and from phenotype at the level of clinical diagnosis. The diagnostic symptoms of schizophrenia are likely emergent phenomena related to underlying abnormalities in brain information processing, and the biological effects of genes are likely to be more predictable in terms of the underlying abnormalities in brain function. Because susceptibility genes bias towards the expression of a susceptible biology, biological abnormalities related to genetic risk for illness may represent aspects of biological susceptibility and, therefore, more direct gene effects. Indeed, the parsing of a complex phenotype into component biological traits is an increasingly recognized approach to complex genetic medical disorders (e.g. heart disease, obesity).

INTERMEDIATE PHENOTYPES MAY HAVE A SIMPLER GENETIC ARCHITECTURE

The goal of reducing the genetic complexity of schizophrenia is the rationale for studying biological traits as intermediate phenotypes. In this strategy, subgrouping is based on biological abnormalities that segregate with illness and with genetic risk for illness. The conceptual basis of identifying intermediate phenotypes in the search for genes related to schizophrenia is outlined in Figure 1. It is assumed that schizophrenia is a disorder consisting of overlapping constellations of symptoms ('syndromes'), which represent the emergent properties of biological abnormalities in how the brain processes specific information (e.g. involving critical cognitive, emotional, and perceptual circuits). While these symptoms are related ultimately to various susceptibility alleles, the path from gene to symptom is indirect and is further compounded by the actions of modifying alleles (e.g. gender or temperament related, protective) not related to susceptibility for schizophrenia. The susceptibility alleles bias towards the expression of intermediate traits, which represent more direct gene effects, but which are not individually sufficient to account for the diagnosis. These intermediate phenotypes represent an intermediate biological step in the direct etiological pathway from susceptibility genes to cellular pathophysiology to emergent behavioral phenomena comprising the clinical syndrome. Analogies include insulin receptor resistance as an intermediate phenotype related to risk for diabetes, colon polyps as an intermediate phenotype related to genetic risk for colon cancer, and heart attack and stroke being the results of various discrete vascular and metabolic factors. An argument can be made that schizophrenia is not a genetic illness per se, but a varying combination of component heritable traits (and genes) that comprise susceptibility and that interact with each other, with modifying alleles, and with the environment to produce the complex clinical phenotype.

How are intermediate phenotypes identified? The goal is to identify biological abnormalities found in patients with schizophrenia that are heritable and that exist with increased relative risk in their healthy relatives. It is expected that individuals who share susceptibility genes will also share some of the related intermediate phenotypes, even though they do not share manifest illness. The first step involves characterizing biological abnormalities in patients with schizophrenia that are quantifiable and enduring and that have a clear pathophysiological basis. The next step is to demonstrate that such biological 'traits' are segregating with increased frequency in genetically at risk but not schizophrenic family members. A traditional genetic approach, using multiplex families and several generations of subjects, would in principle be the most powerful. However, the difficulty in identifying possibly developmental abnormalities in brain function expressed across the lifespan, confounded with the vicissitudes of aging, disease, substance abuse, and other environmental central nervous system (CNS) insults, makes this approach unrealistic. An alternative strategy is to study siblings of affected subjects. As siblings share on average fifty percent of their alleles, they will share approximately

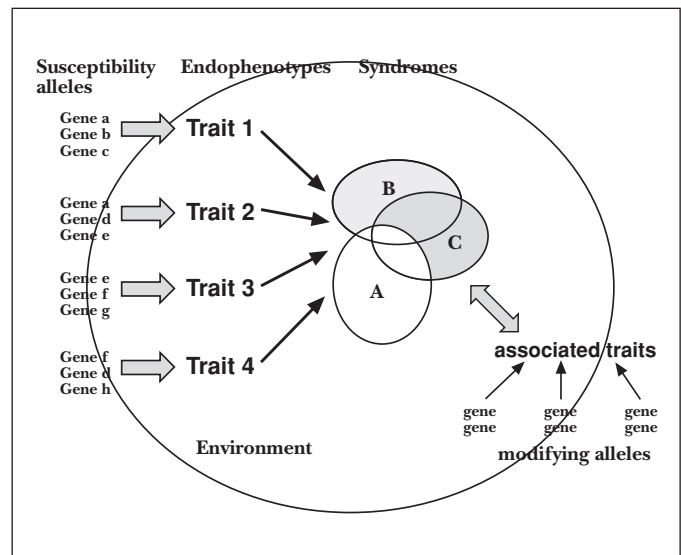


Figure 1 A complex genetic disorder simplified

50% of the susceptibility alleles associated with schizophrenia in their family, and thus, will share some of the intermediate phenotypes related to these alleles. Siblings are more closely matched in age and in terms of potential environmental modifiers than other family members.

In spite of the conceptual appeal of this approach, there are a number of unsubstantiated assumptions about intermediate phenotypes that should be viewed with caution, including:

- biological abnormalities of patients with schizophrenia that are found in their healthy siblings reflect genetic factors;
- biological abnormalities have a simpler genetic architecture than schizophrenia;
- biological 'phenotypes' will identify genetically more homogeneous subgroups;
- genes found for intermediate phenotypes will be genes related to risk for schizophrenia.

Moreover, it should be noted that while this approach has the potential to identify traits in patients that run in their families and may be inherited, the causative alleles for these traits may ultimately be different alleles than those for schizophrenia, per se. For example, smoking is a trait associated with lung cancer, and it may also be found with increased prevalence (i.e. increased relative risk) in healthy siblings of patients with lung cancer, suggesting that smoking is a heritable trait related to genetic risk for lung cancer. Indeed, while smoking probably is partly heritable and also a risk factor for lung cancer, it is not an intermediate biological phenotype in the sense of this discussion, as the susceptibility alleles for smoking addiction and for cancerous transformation of pulmonary epithelium are probably unrelated. In the case of schizophrenia, at least some of the biological traits studied thus far as potential intermediate phenotypes appear to be more clearly linked to the biological effects of etiologic genes. For example, some putative traits (e.g. neurocognitive deficits) explain the lion's share of disability in ill

individuals, much more so than the diagnostic symptoms, and the neurobiological basis of most of these traits (e.g. working memory and attentional circuitry, hippocampal abnormalities) involve neuronal populations and circuits that are implicated from many other research directions in the basic neuropathology of the disease.

BRAIN INFORMATION PROCESSING DEFICITS IMPLICATE SPECIFIC SUSCEPTIBILITY GENES

Several neurobiological abnormalities have been implicated in family and high risk studies as possible intermediate phenotypes. Studies of monozygotic (MZ) twins discordant for schizophrenia have found deficits in unaffected twins in executive cognitive functions/working memory, speed of processing, and in episodic memory, and concordance for such deficits in twin pairs is greater than concordance for schizophrenia (6,7). Cannon et al (8) recently reported excessive sharing of working memory type deficits in MZ twins discordant for schizophrenia in comparison to dizygotic (DZ) discordant twins, suggesting that such deficits are heritable traits related to genetic susceptibility for schizophrenia. Family studies have consistently observed attenuation in sustained attention, perceptual-motor speed, and concept formation in first-degree relatives of patients with schizophrenia (e.g. 9). In a large sample of healthy siblings of patients with schizophrenia (N=183), Egan et al (10) found that working memory/executive function deficits were present up to four times more frequently in the sibs as in the general population. Similar results also have been reported by other groups in smaller sibling samples (11-13). Physiological studies have revealed deficits of family members in smooth pursuit eye movements (e.g. 14) and in various electroencephalographic (EEG) and evoked potentials measures (15,16). Aspects of sensorimotor lateralization also have been found to be anomalous in patients and their families (17). Breakthroughs in neuroimaging offer unique tools to look for familial patterns of cortical structure, function and chemistry that may be genetically determined, related to schizophrenia risk, and not manifest at the gross behavioral level. Unaffected family members of patients with schizophrenia have been reported to show increased frequency of enlarged ventricles (18), smaller hippocampi (19), reduced hippocampal N-acetyl aspartate concentrations measured with magnetic resonance spectroscopy (20), and abnormalities of cortical functional organization observed with functional neuroimaging techniques (21). These various studies implicate abnormalities in prefrontal and temporal cortical information processing as biological expressions of susceptibility genes involved in schizophrenia.

A proof of concept of targeting such biological manifestations as intermediate phenotypes has come from three recent studies, two of which identified a genetic locus related to a potential intermediate phenotype, and the third identified a causative mutation and a genetic mechanism of prefrontal dysfunction and risk for schizophrenia. Arolt et al (22) reported a marker locus on chromosome 6p segregating with abnormal eye tracking in families with schizo-

phrenia. Abnormalities of various eye tracking parameters have been shown to be associated with genetic risk for schizophrenia. The specific gene and variant allele accounting for this linkage finding has yet to be identified. A compelling series of studies led by Robert Freedman at the University of Colorado over the past decade have shown that an abnormality of the P50 evoked potential is found in a substantial percentage of patients with schizophrenia and in many of their unaffected first-degree relatives. The abnormality appears to be inherited in some families as an autosomal dominant trait, suggesting that its genetic basis might be identified using traditional linkage strategies. Evidence in support of this possibility has emerged from a genome scan analysis that identified a locus on 15q linked to this phenotype, though not to schizophrenia itself (15). The marker locus overlapped with the gene for the alpha-7 nicotinic receptor, and nicotine affects the P50 waveform in humans and in animal models. This has raised speculation that a variant in the alpha-7 nicotinic receptor gene contributes risk for the development of schizophrenia by virtue of its effect on the kind of information processing assayed with the P50 electrophysiological response. The P50 phenomenon is thought to arise from hippocampal circuitry, which is implicated in schizophrenia from many other lines of research (see 23 for review). Once the gene has been fully sequenced and its polymorphisms characterized, it will be possible to directly test this question in patients with and without the P50 intermediate phenotype. This will lead to identification of the specific mutations responsible for the abnormal phenotype. It is interesting to note that additional family linkage studies have found weak evidence for schizophrenia linkage on 15q (24), but, as predicted by the figure above, the linkage to the P50 trait is more powerful.

The intermediate phenotype approach to schizophrenia genetics has had its clearest success to date in the case of the relationship of catechol-O-methyltransferase (COMT) genotype with prefrontal function. Abnormalities of prefrontal information processing are well-documented characteristics of patients with schizophrenia that have been consistently observed at the level of cognition and with functional neuroimaging (see 25 for review). A number of studies have shown that unaffected siblings of patients, including discordant monozygotic twins (as noted above), share many of these deficits, suggesting that they are plausible intermediate phenotypes reflecting the biological impact of susceptibility genes. Egan et al (26) identified a variant in the DNA sequence of the COMT gene that is associated with a marked change in activity of the enzyme and that had a predicted effect on prefrontal dopamine function. They showed that the allele ('val') related to less prefrontal dopamine function was associated with poorer prefrontal-related cognition and less efficient prefrontal physiology assayed with functional neuroimaging. This finding is consistent with a rich basic neuroscience database demonstrating that dopamine signaling in prefrontal cortex is critical for efficient and effective executive cognition and prefrontal cortical physiology. In fact, variations in the COMT genotype at this locus in the gene accounted for 4% of the variation in executive cognition in normal human beings, the first demonstration of

a specific genetic effect on a basic component of human cognitive function. Next, they showed in 104 families that the allele associated with poorer prefrontal function (the 'val' allele) was excessively transmitted to schizophrenic offspring from heterozygote parents, indicating that the val allele is linked and associated with schizophrenia. The association of COMT val with poorer prefrontal cortical function has subsequently been observed by other investigators in two independent samples of subjects (27,28), as has excessive transmission of this allele in families to schizophrenic offspring (29-31). Because the biological effect of the gene and the relevance of this biology to the biology of schizophrenia is apparent, the mechanism by which inheritance of the val allele increases risk for schizophrenia can be understood. It should be noted that inheritance of the COMT val by itself accounts for a very small increase in risk in the general population, approximately a 1.5-2 fold increase. However, it is doubtful that any single gene by itself will account for a greater share of potential liability for schizophrenia across the general human population. Nevertheless, the COMT story describes the first plausible mechanism of genetic susceptibility for a mental illness.

Characterizing intermediate phenotypes related to genetic risk for schizophrenia is a relatively new approach to genetic studies in psychiatry. It is likely that this will become an increasingly important aspect of genetic research in the coming years, not just in studies of schizophrenia, but also in studies of other psychiatric disorders. Many of the biological abnormalities described thus far in family members, e.g. neurocognitive abnormalities, EEG abnormalities, neuroimaging abnormalities, likely reflect somewhat overlapping and redundant phenomena. It will be important to reduce the complexity of these abnormalities, to identify the fundamental biologic processes involved. This approach will allow us to accomplish two primary goals of genetic studies in psychiatry: first, to identify susceptibility genes, and second, to clarify the biological mechanisms by which such genes increase the likelihood of emergence of a clinical mental illness. The COMT data represent the first clear success in achieving both of these goals, and have moved the genetics of psychiatry illness from the realm of statistics and probabilities to the concrete reality of biology mechanisms of susceptibility.

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Evolutionary biology: a basic science for psychiatry

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One of the most basic advances in biology during the past twenty years is the new clear recognition that two kinds of explanation are needed for all biological traits:

- a) a proximate explanation of how the trait works,
- b) an evolutionary explanation of what the trait is for (1).

These are not alternatives; both are necessary to a full understanding. For instance, to explain why polar bears have white fur, we need to know both the proximate reason why the fur is white (absence of genes for fur pigment), and the selective advantage of white fur (polar bears with dark fur catch fewer seals).

Most medical research has focused on how the body works and on the proximate factors that explain why some people get a disease and others do not. Darwinian medicine asks a different, evolutionary, question. It asks why we all have bodies that are vulnerable to disease (2,3). Why do we have an appendix and wisdom teeth? Why are our coronary arteries so narrow? Why do we have eyes designed inside out so that the nerves and arteries run between the light and the retina? Why is breast cancer so common now? Why do so many people have anxiety and depression?

At first it seems that the answer is simple. Natural selection is a random process, so it can't bring any trait to ultimate perfection. This is correct and does explain some disease. However, recent more careful consideration has highlighted several other evolutionary reasons why our bodies remain vulnerable to disease: novel environmental factors that our bodies are not designed for, design trade-offs that make us more vulnerable to disease but nonetheless give a net benefit, pathogens that evolve faster than we do, and defenses like pain and cough that seem like diseases but are actually protective mechanisms shaped by natural selection. There is space here for only a few examples of how an evolutionary approach provides a foundation for understanding mental disorders.

Some psychiatric disorders persist because natural selection is not strong enough to eliminate the genes that cause them. Huntington's chorea is the classic example. Because this autosomal dominant gene does not usually cause symptoms until after the age of child-

bearing, it is not strongly selected against and it spreads in certain family lines. Schizophrenia also results from genetic factors and thus seems superficially similar, but an evolutionary approach calls attention to the relatively uniform prevalence of about 1% worldwide, and the substantially decreased reproduction of individuals with schizophrenia in developed countries. How can we explain the uniform distribution of schizophrenia, and the persistence of genes that decrease fitness? It may be that vulnerability to schizophrenia results from many genes with small effects that make them resistant to elimination by selection. It may also be, however, that these genes also offer benefits, perhaps not to people with schizophrenia, but to relatives who are not ill. These might be mental benefits or they might be something as remote as ability to mount a strong immune response to cholera or plague. A more speculative evolutionary explanation for the persistence of schizophrenia is the possibility that very rapid selection for language and cognitive ability over the past 100,000 years has pushed some aspect of brain development close to a threshold which, if exceeded, causes psychosis in a few unfortunate people.

Some medical disorders result from living in a modern environment that is poorly suited for bodies designed for life foraging on the African savannah. For instance, the current epidemic of atherosclerotic heart disease seems to result from such a mismatch between design and environment. In psychiatry, eating disorders are a good example. Obesity has proximate explanations in brain mechanisms that regulate eating, but to explain why half the people in some developed countries are now overweight, an evolutionary approach is needed. The general answer seems to be that selection to ensure adequate food consumption has always been strong, but selection for mechanisms to prevent excessive intake has been much weaker. When young people decide to lose weight by dieting, the body knows only that too few calories are being taken in to sustain life. The normal and adaptive response to a life-threatening famine is to eat whatever food is available, quickly, in private. This is just what bulimics do. The experience of lack of control causes additional fear of obesity, which motivates more stren-

uous dieting, in a positive feedback cycle that culminates in severe eating disorders. There are, of course, many individual differences in genetics, brain chemistry, past life experiences, and personality that make some people much more vulnerable to such disorders than others. These are all proximate explanations. An evolutionary approach cannot explain these individual differences, but it can help us to understand why the syndrome exists at all, and why it is common now.

Perhaps the most useful contribution of an evolutionary approach to mental disorders is emphasis on the distinction between defects and defensive responses. Most problems that bring patients to doctors are defenses. Cough, pain, fever, vomiting and diarrhea are defenses shaped by natural selection to protect us in certain situations. They are hidden until they are needed. A respiratory infection stimulates regulation mechanisms that arouse cough and fever. As most doctors know, blocking cough can make an ordinary infection fatal because secretions are not cleared from the lungs. Fever is also useful because bacteria cannot grow as well at higher temperatures. Vomiting and diarrhea clear toxins and pathogens from the gastrointestinal tract. Note that all of these experiences are aversive. People intensely dislike them and this is what brings them in for treatment. Treatment often consists of using drugs to block the defense. We use codeine to block cough, aspirin to block fever and analgesics to block pain.

This brings up a big question. If natural selection has shaped the mechanisms that regulate these defenses, then why are they so often expressed excessively? Much of the general practice of medicine consists of blocking these unpleasant defenses, and most of the time this does not harm people. How can this be? Here again, an evolutionary approach reveals the hidden sophistication of the body. The regulation of defenses is governed by what has been called 'the smoke detector principle' (4). We accept smoke detectors that go off when the toast burns because we want to be absolutely sure of a warning if there is a real fire. Similarly, the cost of vomiting is small compared to the cost of a severe intestinal infection, so natural selection has shaped a regulation mechanism that sets off the defense whenever there is any real chance that an intestinal infection is present. This has a profound implication: most human suffering is unnecessary in the specific instances, even though it arises as part of nearly optimal regulation of a normal defense.

Our capacities for emotional suffering are also products of natural selection. It is not always obvious how they are useful, but anxiety is a good place to start. A person who lacked all anxiety would quickly become a meal for a tiger. The capacity for anxiety is useful (5), but many of our patients experience excessive anxiety. Much of this excess can be attributed to the design of the regulation mechanism according to the smoke detector principle. Specific brain mechanisms cause anxiety in all of us, and differences in these mechanisms make some people inordinately anxious in situations that don't bother most people at all. These are proximate explanations; we also need evolutionary explanations for why anxiety exists at all and why it is regulated in the way that it is.

Practical implications come quickly from this perspective. Many people with panic disorder, for instance, believe that their symptoms mean that they have heart disease. Telling them that the symptoms are caused by panic is helpful, but I have found it much more effective to explain that these symptoms would be perfectly normal and useful if a tiger was coming. The syndrome of panic is just a fight-flight reaction that is going off at the wrong time. It is a false alarm. Furthermore, in dangerous environments, the body adjusts the anxiety threshold downwards, just as it should to increase the level of protection. Unfortunately, this system seems to be unable to distinguish between a real life-threatening danger, and a useless panic attack. This is the evolutionary reason why having one panic attack often leads to escalating cycles of panic. In a dangerous environment it is also adaptive to stay close to camp. This is, of course, what agoraphobics do and offers an evolutionary explanation for the comorbidity of panic and agoraphobia. Our lives are so safe now, that the whole system seems unnecessary. But, for our ancestors, the ability to flee at the least hint of danger was essential, and a system to regulate the threshold for flight as a function of the safety of the environment would be crucial. This can help to explain how medications can offer lasting relief from panic. By stopping the cycle of panic attacks, the person gradually begins to experience the environment as safer, and the anxiety threshold again increases. This explanation often helps patients to understand how a medication is doing something more than 'covering up the symptoms'.

Depression offers a more challenging problem. At first glance, it seems impossible that there could be any benefit from lacking energy, being fearful, and withdrawing from social life, to say nothing of the problems caused by not eating or sleeping. Any discussion of depression must start by acknowledging that it often is a pathological condition with no adaptive value. However, what about more mild variation in states of motivation? Are there some situations in which energy, enthusiasm and risk taking would be valuable? Are there some situations in which lack of initiative, pessimism and fearfulness would be useful? While much research is needed to explore these hypotheses in detail, it seems likely that in propitious situations, where a small investment of effort will likely bring large payoffs, a burst of effort and energy will bring big rewards (6). In unpropitious situations, where efforts will be wasted, the best thing to do may be nothing at all. This seems hard to imagine for modern people who always have adequate food and shelter. But imagine a deer waiting in deep snow for spring to come. If it is starving, what should it do? An optimistic deer that wanders off in search of nonexistent food will die much sooner than the one who just waits and waits. High and low states of motivation are each useful, but only in certain situations.

For people now, of course, the availability of food is not a major influence on mood. The resources that make the most difference to us are social. When we experience our efforts as efficacious and bringing us friends and recognition, mood goes up. When all efforts seem to be wasted or to bring danger, mood goes down.

One group of researchers has argued that depression is a state of 'involuntary yielding' that protects against attack after a loss of social position (7). Others see some depressions as states of withdrawal in which the individual regroups to emerge with alternative strategies (8). A major area of psychological research on goal pursuit is very relevant, but relatively unknown in psychiatry. The core idea is that most human action is organized by pursuit of large goals and that there must be a mechanism to disengage effort from unreachable goals (9,10). If people persist in the pursuit of an unreachable goal, ordinary normal low mood is likely to escalate into full-blown depression (11). Much clinical evidence supports this, including the frequent remission of depression when someone finds a new strategy or truly gives up a goal. Preliminary results from our epidemiological study confirm this finding in a community sample. The next step is to find more efficient ways to measure and record information about goal pursuit in humans, and to look for the psychological and brain mechanisms that normally regulate motivation and mood. With this information in hand, it should be easier to find the genes that influence vulnerability to depression.

There is a strong human tendency to seek unitary explanations for diseases, and to think of multiple explanations as competing. This mistake has left most investigations of mental disorders seeking only one half of a full biological explanation. The remedy is to carefully pursue both evolutionary and proximate explanations for each disease. Our bodies are amazingly well designed in many respects, but they also have flaws that leave us vulnerable, flaws that make sense in an evolutionary perspective. There is every reason to think that the synergy between evolutionary and proximate approaches will soon bring major advances in our understanding of mental disorders (12).

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The sequential approach to relapse prevention in unipolar depression

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The chronic and recurrent nature of major depressive disorders is getting increasing attention (1,2). Long-term pharmacological strategies have been suggested as an effective means of preventing relapse and recurrence in depression (3). However, duration of drug treatment does not seem to affect long-term prognosis once the drug is discontinued. Whether you treat a depressed patient for 3 months or 3 years, it does not matter when you stop the drug (4). Further, in a sizeable percentage of patients a loss of therapeutic effects occurs, despite compliance with antidepressant drug treatment (5). Alternative strategies are thus of crucial value.

The combination of psychotherapy and pharmacotherapy in the treatment of affective disorders has attracted considerable attention in the past two decades (6). However, it has obtained limited support from controlled trials (7,8). Further, the simultaneous administration of pharmacotherapy and psychotherapy is based on a cross-sectional, flat view of the disorders which ignores their longitudinal development (9). An alternative way of integrating pharmacotherapy and psychotherapy involves their sequential administration according to the stages of the disorder.

Administration of treatments in sequential order is a common practice in clinical medicine. In clinical psychiatry, administration of treatments in sequential order has been mainly limited to instances of treatment resistance and involved different types of drugs, such as in drug-refractory depression (10). However, cognitive behavioral strategies have been successful in the management of drug-resistant major depressive disorders (11), to the same extent that imipramine was found to be effective after unsuccessful cognitive therapy of depression (12). Similar results have been obtained in other disorders, such as panic (13).

Within psychotherapeutic approaches, Emmelkamp et al (14) deserve credit for suggesting the feasibility of applying different therapies consecutively instead of in combination and the need to compare the two approaches in controlled studies. A first attempt to demonstrate the effectiveness of the sequential approach (involving exposure in vivo followed by cognitive therapy) compared to a strategy where the two approaches were integrated from the start, did not yield

significant differences in social phobia (15). Similar disappointing results were obtained with application of cognitive therapy to panic disorder patients who failed to respond to exposure in vivo (16). This type of sequential approaches, however, was not targeted to the stages of illness (9), and particularly to residual symptoms (1).

The presence of residual symptoms after completion of drug or psychotherapeutic treatment has been correlated with poor long-term outcome (17). Further, some residual symptoms of major depression may progress to become prodromal symptoms of relapse (18). This has led to the development of a sequential strategy based on the use of pharmacotherapy in the acute phase of depression and cognitive therapy in its residual phase (19). The preliminary results of this strategy, both in primary major depressive disorder (20,21) and in recurrent depression (22), appear to be promising in terms of differential relapse rate. Its preventive effect appears to be directly related to the abatement of residual symptoms. In a study on recurrent depression (22), when patients after cognitive behavioral treatment or clinical management were classified as still presenting with residual symptoms or being fully asymptomatic, striking differences emerged, during a 2 year follow-up, in terms of relapse rate (23).

In this paper, we briefly describe the studies which developed the sequential approach in unipolar depression and how this approach can be implemented in clinical practice.

CONTROLLED TRIALS OF COGNITIVE BEHAVIORAL PSYCHOTHERAPY

In a controlled therapeutic trial (19), 40 patients with major depressive disorder who had been successfully treated with antidepressants were randomly assigned to either cognitive behavioral treatment or clinical management of residual symptoms. In both cases treatment consisted of ten 40-min sessions once every other week. In both groups, antidepressant drugs were tapered and discontinued. Cognitive therapy was conducted as described by Beck et al (24,25). The psychiatrist, an experienced therapist, used strategies and

techniques designed to help depressed patients correct their distorted views and maladaptive beliefs. Whenever appropriate, as in the case of residual symptoms related to anxiety, exposure strategies based on Marks' guidelines (26) were planned with the patient. Clinical management consisted of monitoring medication tapering, reviewing the patient's clinical status, and providing the patient with support and advice if necessary. In clinical management, specific interventions such as exposure strategies, diary work, and cognitive restructuring were proscribed. The group that received cognitive behavioral treatment had a significantly lower level of residual symptoms after drug discontinuation in comparison with the clinical management group (19). Cognitive behavioral treatment also resulted in a lower rate of relapse (19), with achievement of statistical significance at a 4 year follow-up (20). At a 6 year follow-up (21), when multiple relapses were taken into account, cognitive behavioral treatment also resulted in a significantly lower number of depressive episodes. The rationale of this approach was to use cognitive behavioral treatment resources when they are most likely to make a unique and separate contribution to patient well-being and to achieve a more pervasive recovery (27). The target of psychotherapeutic work is thus no longer pre-determined (e.g., cognitive triad), but varies according to the nature, characteristics and intensity of residual symptomatology.

A combination of cognitive behavioral therapy of residual symptoms and of a novel treatment strategy (well-being therapy) (28) was performed in a study on recurrent depression. Forty patients with recurrent depression according to the criteria used by Frank et al (29) were randomly assigned to either a combination of cognitive behavioral treatment of residual symptoms and well-being therapy or to clinical management. In both groups antidepressant drug administration was tapered and discontinued. At a 2 year follow-up, psychotherapeutic treatment resulted in a significantly lower relapse rate (25%) than did clinical management (80%). The results of this preliminary investigation challenge the assumption that long-term drug treatment is the only tool available to prevent relapse in patients with recurrent depression (29).

Paykel et al (30) provided an essential replication of the effectiveness of the sequential approach. One hundred fifty-eight patients with recent major depression, partially remitted with antidepressant drugs, were randomized to receive clinical management alone or clinical management supplemented by cognitive therapy of residual symptoms. They received continuation and maintenance antidepressant at the same dosage. While the clinical management group had a relapse rate of 47% at 68 weeks, the group treated with cognitive therapy had a relapse rate of 29%.

STANDARD FORMAT OF SEQUENTIAL TREATMENT SESSIONS

Suitability and motivation for treatment

Before undergoing sequential treatment, patients should have displayed a satisfactory response to antidepressant drug treatment. They should thus have been treated for at least 3 months with antidepressant drugs and no longer present with depressed mood. During pharmacological treatment and clinical management it is, however, essential to introduce the subsequent part of treatment. A helpful example which was made (22) is the following: "When we first saw you, you were very depressed. You went off the road. We gave you antidepressant drugs and these put you back on the road. Things are much better now. However, if you keep on driving the way you did, you will go off the road again, sooner or later".

The example outlines the need for lifestyle modification and introduces a sense of control in the patient as to his or her depressive illness. This psychological preparation paves the way for subsequent psychotherapeutic approaches.

Standard format

Psychotherapeutic intervention extends over 10 sessions, of 30-45 min each, every other week. The first session is mainly concerned with assessment and introduction of the psychotherapeutic treatment by the therapist, rehearsing the example provided before formal initiation of treatment. Sessions 2 to 6 are concerned with cognitive behavioral treatment of residual symptoms and lifestyle modification. The last four sessions involve well-being therapy.

Assessment

It is of the most importance to reassess the remitted patient as if he or she was a new patient. This means to go through symptoms in the most recent weeks in a careful way. Exploration should not concern only symptoms which characterize the diagnosis of major depressive disorder, but also those which characterize anxiety disturbances (including phobic and obsessive-compulsive symptoms) and irritability. In the original studies (19,22), a modified version of Paykel's Clinical Interview for Depression (31) was employed, but other semi-structured interviews may be used as long as these are sufficiently comprehensive as to anxiety and irritability. This is the first step in recognizing residual symptomatology.

The second step deals with self-observation of the patient. He or she is instructed to report in a diary (Table 1) all episodes of distress which

Table 1 Example of the assessment diary

Situation	Distress (0-100)	Thoughts
I am watching TV, when the telephone rings	40	Something has certainly happened to...

may ensue in the following two weeks. It is important to emphasize that distress (which is left unspecified) does not need to be prolonged, but may also be short lived. Patients are also instructed to build a list of situations which elicit distress and/or tend to induce avoidance. Each situation should be rated on a 0-100 point scale (0 = no problem; 100 = panic). Patients are instructed to bring the diary at the following visit.

Cognitive behavioral treatment of residual symptoms

After patient's assessment and reading the diary brought by the patient, a cognitive behavioral package is formulated. This may encompass both exposure and cognitive restructuring. Exposure consists of homework exposure only. An exposure strategy is planned with the patient, based on the list of situations outlined in the diary. The therapist writes an assignment per day in the diary, following a graded exposure (26). The patient assigns a score from 0 to 100 for each homework assignment. At the following visit, the therapist reassesses the homework done and discusses the next steps, and/or problems in compliance which may have ensued.

Cognitive restructuring follows the classic format of Beck et al (24,25) and is based on introduction of the concept of automatic thoughts (second session) and of observer's interpretation (third session and on).

The problems which may be object of cognitive restructuring strictly depend on the material offered by the patient. They may encompass insomnia (sleep hygiene instructions are added), hypersomnia, diminished energy and concentration, residual hopelessness, re-entry problems (diminished functioning at work, avoidance and procrastination), lack of assertiveness and self-care, perfectionism and unrealistic self-expectations.

Well-being therapy

At the seventh session well-being therapy is introduced (32). This is a short-term psychotherapeutic strategy, with sessions which may take place every week or every other week. The duration of each session may range from 30 to 50 minutes. It is a technique which emphasizes self-observation (33), with the use of a structured diary, and interaction between patients and therapists. Well-being therapy is based on Ryff's cognitive model of psychological well-being (34). This model was selected on the basis of its easy applicability to clinical populations (35,36). Well-being therapy is structured, directive, problem-oriented and based on an educational model. The development of sessions is as follows.

The seventh session is simply concerned with identifying episodes of well-being and setting them into a situational context, no matter how short lived they were. Patients are asked to report in a structured diary the circumstances surrounding their episodes of well-being, rated on a 0-100 scale, with 0 being absence of well-being and 100 the most intense well-being that could be experienced (Table 2). When patients are assigned this homework, they often object that they will bring a blank diary, because they never feel well. It is helpful to reply that these moments do exist but tend to pass unnoticed. Patients should therefore monitor them anyway.

Meehl (37) described "how people with low hedonic capacity should pay greater attention to the 'hedonic book keeping' of their activities than would be necessary for people located midway or high on the hedonic capacity continuum. That is, it matters more to someone cursed with an inborn hedonic defect whether he is efficient and sagacious in selecting friends, jobs, cities, tasks, hobbies, and activities in general".

Once the instances of well-being are properly recognized, the patient is encouraged to identify thoughts and beliefs leading to premature interruption of well-being (eighth session). For instance, in the example reported in Table 2, the patients added "it is just because I brought two presents". The similarities with the search for irrational, tension-evoking thoughts in Ellis and Becker's rational-emotive therapy (38) and automatic thoughts in cognitive therapy (24) are obvious. The trigger for self-observation is, however, different, being based on well-being instead of distress.

This phase is crucial, since it allows the therapist to identify which areas of psychological well-being are unaffected by irrational or automatic thoughts and which are saturated with them. The therapist may challenge these thoughts with appropriate questions, such as "What is the evidence for or against this idea?" or "Are you thinking in all-or-none terms?" (24). The therapist may also reinforce and encourage activities that are likely to elicit well-being (for instance, assigning the task of undertaking particular pleasurable activities for a certain time each day). Such reinforcement may also result in graded task assignments (24). However, the focus of this phase of well-being therapy is always on self-monitoring of moments and feelings of well-being. The therapist refrains from suggesting conceptual and technical alternatives, unless a satisfactory degree of self-observation (including irrational or automatic thoughts) has been achieved.

The monitoring of the course of episodes of well-being allows the therapist to realize specific impairments in well-being dimensions according to Ryff's conceptual framework (ninth session). Ryff's six

Table 2 Self-observation of episodes of well-being

Situation	Feeling of well-being	Intensity (0-100)
I went to visit my nephews and they greeted me with great enthusiasm and joy	They like me and care for me	40

dimensions of psychological well-being are progressively introduced to the patients, as long as the material which is recorded lends itself to it. Errors in thinking and alternative interpretations are then discussed.

Cognitive restructuring in well-being therapy follows Ryff's conceptual framework (39). The goal of the therapist is to lead the patient from an impaired level to an optimal level in the six dimensions of psychological well-being:

a) *Environmental mastery*. This is the most frequent impairment that emerges. It was expressed by a patient as follows: "I have got a filter that nullifies any positive achievement (I was just lucky) and amplifies any negative outcome, no matter how much expected (this once more confirms I am a failure)". This lack of sense of control leads the patient to miss surrounding opportunities, with the possibility of subsequent regret over them (Table 3).

b) *Personal growth*. Patients often tend to emphasize their distance from expected goals much more than the progress that has been made toward goal achievement. A basic impairment that emerges is the inability to identify the similarities between events and situations that were handled successfully in the past and those that are about to come (transfer of experiences) (Table 3). Impairments in perception of personal growth and environmental mastery thus tend to interact in a dysfunctional way. A university student who is unable to realize the common contents and methodological similarities between the exams he or she successfully passed and the ones that are to be given, shows impairments in both environmental mastery and personal growth.

c) *Purpose in life*. An underlying assumption of psychological therapies (whether pharmacological or psychotherapeutic) is to restore premorbid functioning. In case of treatments which emphasize self-help such as cognitive-behavioral ones, therapy itself offers a sense of direction and hence a short-term goal. However, this does not persist when acute symptoms abate and/or premorbid functioning is suboptimal. Patients may perceive a lack of sense of direction and may devalue their function in life. This particularly occurs when environmental mastery and sense of personal growth are impaired (Table 3).

d) *Autonomy*. It is a frequent clinical observation that patients may exhibit a pattern whereby a perceived lack of self-worth leads to unassertive behavior. For instance, patients may hide their opinions or preferences, go along with a situation that is not in their best interests, or consistently put their needs behind the needs of others. This pattern undermines environmental mastery and purpose in life and these, in turn, may affect autonomy, since these dimensions are highly correlated in clinical populations. Such attitudes may not be obvious to the patients, who hide their considerable need for social approval. A patient who tries to please everyone is likely to fail to achieve this goal and the unavoidable conflicts that may ensue result in chronic dissatisfaction and frustration (Table 3).

e) *Self-acceptance*. Patients may maintain unrealistically high standards and expectations, driven by perfectionistic attitudes (that reflect lack of self-acceptance) and/or endorsement of external

Table 3 Modification of the six dimensions of psychological well-being according to Ryff's model (34)

ENVIRONMENTAL MASTERY

Impaired level

The subject has or feels difficulties in managing everyday affairs; feels unable to change or improve surrounding context; is unaware of surrounding opportunities; lacks sense of control over external world.

Optimal level

The subject has a sense of mastery and competence in managing the environment; controls external activities; makes effective use of surrounding opportunities; is able to create or choose contexts suitable to personal needs and values.

PERSONAL GROWTH

Impaired level

The subject has a sense of personal stagnation; lacks sense of improvement or expansion over time; feels bored and uninterested with life; feels unable to develop new attitudes or behaviors.

Optimal level

The subject has a feeling of continued development; sees self as growing and expanding; is open to new experiences; has sense of realizing own potential; sees improvement in self and behavior over time.

PURPOSE IN LIFE

Impaired level

The subject lacks a sense of meaning in life; has few goals or aims, lacks sense of direction, does not see purpose in past life; has no outlooks or beliefs that give life meaning.

Optimal level

The subject has goals in life and a sense of directedness; feels there is meaning to present and past life; holds beliefs that give life purpose; has aims and objectives for living.

AUTONOMY

Impaired level

The subject is overconcerned with the expectations and evaluation of others; relies on judgment of others to make important decisions; conforms to social pressures to think or act in certain ways.

Optimal level

The subject is self-determining and independent; is able to resist to social pressures; regulates behavior from within; evaluates self by personal standards.

SELF-ACCEPTANCE

Impaired level

The subject feels dissatisfied with self; is disappointed with what has occurred in past life; is troubled about certain personal qualities; wishes to be different from what he or she is.

Optimal level

The subject has a positive attitude toward the self; accepts his/her good and bad qualities; feels positive about past life.

POSITIVE RELATIONS WITH OTHERS

Impaired level

The subject has few close, trusting relationships with others; finds difficult to be open and is isolated and frustrated in interpersonal relationships; is not willing to make compromises to sustain important ties with others.

Optimal level

The subject has warm and trusting relationships with others; is concerned about the welfare of others; is capable of strong empathy, affection and intimacy; understands give and take of human relationships.

instead of personal standards (that reflect lack of autonomy). As a result, any instance of well-being is neutralized by a chronic dissatisfaction with oneself. A person may set unrealistic standards for her performance. For instance, it is a frequent clinical observation that patients with social phobia tend to aspire to outstanding social performances (being sharp, humorous, etc.) and are not satisfied with average performances (despite the fact that these latter would not put them under the spotlights, which could be seen as their apparent goal).

f) *Positive relations with others.* Interpersonal relationships may be influenced by strongly held attitudes of which the patient may be unaware and which may be dysfunctional. For instance, a young woman who recently got married may have set unrealistic standards for her marital relationship and find herself frequently disappointed. At the same time she may avoid pursuing social plans which involve other people and may lack sources of comparison. Impairments in self-acceptance (with the resulting belief of being rejectable and unlovable) may also undermine positive relations with others (Table 3).

Lifestyle modification

One of the aims of therapy is also making the patient aware of allostatic loads (i.e., chronic and often subtle life stresses that exert harmful consequences on the individual over a certain amount of time). Examples may be excessive work loads, unawareness of the longer time that an increasing age requires for recovering from demanding days, inability to protect oneself from requests which exceed the potential of the individual, inappropriate sleeping habits.

Such awareness and the resulting lifestyle implementation are pursued in all phases of psychotherapy, but particularly with well-being therapy. Patients are given instructions in the diary as to this implementation.

DRUG TAPERING AND DISCONTINUATION

Sequential treatment offers a unique opportunity for antidepressant drug tapering and discontinuation. It offers in fact the opportunity to monitor the patient in one of the most delicate aspects of treatment. In the original studies (19,22), antidepressant drugs were mainly tricyclics and were decreased at the rate of 25 mg of amitriptyline or its equivalents every other week. When selective serotonin reuptake inhibitors (SSRIs) are involved, the more gradual tapering is, the better.

It is important to warn the patient that he or she should not perceive "steps" (as one patient defined them) in this tapering (i.e., patients should not perceive substantial differences in their sleep, energy, mood, appetite from 200 mg of amitriptyline per day to 175 mg). If they do, the appropriateness of tapering the antidepressant drug should be questioned. Indeed, in the original studies, drug discontinuation could not take place in a few patients.

The sequential format offers an ideal opportunity to support psychologically the patient when withdrawal syndromes (despite slow tapering, particularly with SSRIs) do occur.

At times patients are fearful of drug discontinuation. It is then helpful to emphasize that a drug-free status is a step forward in therapy and may be associated with an increased quality of life. It is thus a sign of progress. Antidepressant drugs may be prescribed again if they are needed, when prodromal symptoms of mood deterioration appear, and patients should be reassured about this possibility, which is always available.

CONCLUSIONS

This sequential model developed for preventing relapse in depression (19) may potentially apply to any type of psychiatric disorder (1). Isaac Marks (40) suggested that currently prevailing putative mechanisms for explaining therapeutic effectiveness of psychotherapy are about to change. Foa and Kozak (41) wondered whether the slowing advance of cognitive behavioral therapy may be the result of an alienation from psychopathology. The sequential model introduces a conceptual shift in psychotherapy research and practice. The target of psychotherapeutic efforts is not predetermined and therapy-driven (e.g., cognitive triad), but depends on the type and intensity of residual symptomatology (19,22) or the specific impairments in psychological well-being (22,42). The cognitive behavioral approach that is entailed by the sequential model is thus pragmatic, realistic instead of idealistic, with a strictly evidence-based appraisal of its ingredients (43). There is limited awareness that current techniques of treating affective disorders are geared to acute situations more than residual phases of illness (17) and neglect psychological well-being (39). The model may be frustrating to the purist, in its blurring of clear-cut interpretative instruments. However, it is more in keeping with the complexity of the balance of positive and negative affects (44) in health and disease and the clinical needs of patients with affective disorders.

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Understanding the impact of stigma on people with mental illness

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Many people with serious mental illness are challenged doubly. On one hand, they struggle with the symptoms and disabilities that result from the disease. On the other, they are challenged by the stereotypes and prejudice that result from misconceptions about mental illness. As a result of both, people with mental illness are robbed of the opportunities that define a quality life: good jobs, safe housing, satisfactory health care, and affiliation with a diverse group of people. Although research has gone far to understand the impact of the disease, it has only recently begun to explain stigma in mental illness. Much work yet needs to be done to fully understand the breadth and scope of prejudice against people with mental illness. Fortunately, social psychologists and sociologists have been studying phenomena related to stigma in other minority groups for several decades. In this paper, we integrate research specific to mental illness stigma with the more general body of research on stereotypes and prejudice to provide a brief overview of issues in the area.

The impact of stigma is twofold, as outlined in Table 1. Public stigma is the reaction that the general population has to people with mental illness. Self-stigma is the prejudice which people with mental illness

turn against themselves. Both public and self-stigma may be understood in terms of three components: stereotypes, prejudice, and discrimination. Social psychologists view stereotypes as especially efficient, social knowledge structures that are learned by most members of a social group (1-3). Stereotypes are considered "social" because they represent collectively agreed upon notions of groups of persons. They are "efficient" because people can quickly generate impressions and expectations of individuals who belong to a stereotyped group (4).

The fact that most people have knowledge of a set of stereotypes does not imply that they agree with them (5). For example, many persons can recall stereotypes about different racial groups but do not agree that the stereotypes are valid. People who are prejudiced, on the other hand, endorse these negative stereotypes ("That's right; all persons with mental illness are violent!") and generate negative emotional reactions as a result ("They all scare me!") (1,3,6). In contrast to stereotypes, which are beliefs, prejudicial attitudes involve an evaluative (generally negative) component (7,8). Prejudice also yields emotional responses (e.g., anger or fear) to stigmatized groups.

Prejudice, which is fundamentally a cognitive and affective response, leads to dis-

crimination, the behavioral reaction (9). Prejudice that yields anger can lead to hostile behavior (e.g., physically harming a minority group) (10). In terms of mental illness, angry prejudice may lead to withholding help or replacing health care with services provided by the criminal justice system (11). Fear leads to avoidance; e.g., employers do not want persons with mental illness nearby so they do not hire them (12). Alternatively, prejudice turned inward leads to self-discrimination. Research suggests self-stigma and fear of rejection by others lead many persons to not pursuing life opportunities for themselves (13,14). The remainder of this paper further develops examples of public and self-stigma. In the process, we summarize research on ways of changing the impact of public and self-stigma.

PUBLIC STIGMA

Stigmas about mental illness seem to be widely endorsed by the general public in the Western world. Studies suggest that the majority of citizens in the United States (13,15-17) and many Western European nations (18-21) have stigmatizing attitudes about mental illness. Furthermore, stigmatizing views about mental illness are not limited to uninformed members of the general public; even well-trained professionals from most mental health disciplines subscribe to stereotypes about mental illness (22-25).

Stigma seems to be less evident in Asian and African countries (26), though it is unclear whether this finding represents a cultural sphere that does not promote stigma or a dearth of research in these societies. The available research indicates that, while attitudes toward mental illness vary among non-Western cultures (26,27), the stigma of

Table 1 Comparing and contrasting the definitions of public stigma and self-stigma

Public stigma	
<i>Stereotype</i>	Negative belief about a group (e.g., dangerousness, incompetence, character weakness)
<i>Prejudice</i>	Agreement with belief and/or negative emotional reaction (e.g., anger, fear)
<i>Discrimination</i>	Behavior response to prejudice (e.g., avoidance, withhold employment and housing opportunities, withhold help)
Self-stigma	
<i>Stereotype</i>	Negative belief about the self (e.g., character weakness, incompetence)
<i>Prejudice</i>	Agreement with belief, negative emotional reaction (e.g., low self-esteem, low self-efficacy)
<i>Discrimination</i>	Behavior response to prejudice (e.g., fails to pursue work and housing opportunities)

mental illness may be less severe than in Western cultures. Fabrega (26) suggests that the lack of differentiation between psychiatric and non-psychiatric illness in the three great non-Western medical traditions is an important factor. While the potential for stigmatization of psychiatric illness certainly exists in non-Western cultures, it seems to primarily attach to the more chronic forms of illness that fail to respond to traditional treatments. Notably, stigma seems almost nonexistent in Islamic societies (26-28). Cross-cultural examinations of the concepts, experiences, and responses to mental illness are clearly needed.

Several themes describe misconceptions about mental illness and corresponding stigmatizing attitudes. Media analyses of film and print have identified three: people with mental illness are homicidal maniacs who need to be feared; they have childlike perceptions of the world that should be marveled; or they are responsible for their illness because they have weak character (29-32). Results of two independent factor analyses of the survey responses of more than 2000 English and American citizens parallel these findings (19,33):

- a) fear and exclusion: persons with severe mental illness should be feared and, therefore, be kept out of most communities;
- b) authoritarianism: persons with severe mental illness are irresponsible, so life decisions should be made by others;
- c) benevolence: persons with severe mental illness are childlike and need to be cared for.

Although stigmatizing attitudes are not limited to mental illness, the public seems to disapprove persons with psychiatric disabilities significantly more than persons with related conditions such as physical illness (34-36). Severe mental illness has been likened to drug addiction, prostitution, and criminality (37,38). Unlike physical disabilities, persons with mental illness are perceived by the public to be in control of their disabilities and responsible for causing them (34,36). Furthermore, research respondents are less likely to pity persons with mental illness, instead reacting to psychiatric disability with anger and believing that help is not deserved (35,36,39).

The behavioral impact (or discrimination) that results from public stigma may take four forms: withholding help, avoidance, coercive treatment, and segregated institutions. Previous studies have shown that the public will withhold help to some minority groups because of corresponding stigma (36,40). A more extreme form of this behavior is social avoidance, where the public strives to not interact with people with mental illness altogether. The 1996 General Social Survey (GSS), in which the MacArthur Mental Health Module was administered to a probability sample of 1444 adults in the United States, found that more than a half of respondents are unwilling to: spend an evening socializing, work next to, or have a family member marry a person with mental illness (41). Social avoidance is not just self-report; it is also a reality. Research has shown that stigma has a deleterious impact on obtaining good jobs (13,42-44) and leasing safe housing (45-47).

Discrimination can also appear in public opinion about how to treat people with mental illness. For example, though recent studies have been unable to demonstrate the effectiveness of mandatory treatment (48,49), more than 40% of the 1996 GSS sample agreed that people with schizophrenia should be forced into treatment (50). Additionally, the public endorses segregation in institutions as the best service for people with serious psychiatric disorders (19,51).

STRATEGIES FOR CHANGING PUBLIC STIGMA

Change strategies for public stigma have been grouped into three approaches: protest, education, and contact (12). Groups protest inaccurate and hostile representations of mental illness as a way to challenge the stigmas they represent. These efforts send two messages. To the media: STOP reporting inaccurate representations of mental illness. To the public: STOP believing negative views about mental illness. Wahl (32) believes citizens are encountering far fewer sanctioned examples of stigma and stereotypes because of protest efforts. Anecdotal evidence suggests that protest campaigns

have been effective in getting stigmatizing images of mental illness withdrawn. There is, however, little empirical research on the psychological impact of protest campaigns on stigma and discrimination, suggesting an important direction for future research.

Protest is a reactive strategy; it attempts to diminish negative attitudes about mental illness, but fails to promote more positive attitudes that are supported by facts. Education provides information so that the public can make more informed decisions about mental illness. This approach to changing stigma has been most thoroughly examined by investigators. Research, for example, has suggested that persons who evince a better understanding of mental illness are less likely to endorse stigma and discrimination (17,19,52). Hence, the strategic provision of information about mental illness seems to lessen negative stereotypes. Several studies have shown that participation in education programs on mental illness led to improved attitudes about persons with these problems (22,53-56). Education programs are effective for a wide variety of participants, including college undergraduates, graduate students, adolescents, community residents, and persons with mental illness.

Stigma is further diminished when members of the general public meet persons with mental illness who are able to hold down jobs or live as good neighbors in the community. Research has shown an inverse relationship between having contact with a person with mental illness and endorsing psychiatric stigma (54,57). Hence, opportunities for the public to meet persons with severe mental illness may discount stigma. Interpersonal contact is further enhanced when the general public is able to regularly interact with people with mental illness as peers.

SELF-STIGMA

One might think that people with psychiatric disability, living in a society that widely endorses stigmatizing ideas, will internalize these ideas and believe that they are less valued because of their psychiatric disorder. Self-esteem suffers, as does confidence in one's future (7,58,59). Given this research,

models of self-stigma need to account for the deleterious effects of prejudice on an individual's conception of him or herself. However, research also suggests that, instead of being diminished by the stigma, many persons become righteously angry because of the prejudice that they have experienced (60-62). This kind of reaction empowers people to change their roles in the mental health system, becoming more active participants in their treatment plan and often pushing for improvements in the quality of services (63).

Low self-esteem versus righteous anger describes a fundamental paradox in self-stigma (64). Models that explain the experience of self-stigma need to account for some persons whose sense of self is harmed by social stigma versus others who are energized by, and forcefully react to, the injustice. And there is yet a third group that needs to be considered in describing the impact of stigma on the self. The sense of self for many persons with mental illness is neither hurt, nor energized, by social stigma, instead showing a seeming indifference to it altogether.

We propose a situational model that explains this paradox, arguing that an individual with mental illness may experience diminished self-esteem/self-efficacy, righteous anger, or relative indifference depending on the parameters of the situation (64). Important factors that affect a situational response to stigma include collective representations that are primed in that situation, the person's perception of the legitimacy of stigma in the situation, and the person's identification with the larger group of individuals with mental illness. This model has eventual implications for ways in which persons with mental illness might cope with self-stigma as well as identification of policies that promote environments in which stigma festers.

CONCLUSIONS

Researchers are beginning to apply what social psychologists have learned about prejudice and stereotypes in general to the stigma related to mental illness. We have made progress in understanding the dimensions of mental illness stigma, and the processes

by which public stereotypes are translated into discriminatory behavior. At the same time, we are beginning to develop models of self-stigma, which is a more complex phenomenon than originally assumed. The models developed thus far need to be tested on various sub-populations, including different ethnic groups and power-holders (legislators, judges, police officers, health care providers, employers, landlords). We are also learning about stigma change strategies. Contact in particular seems to be effective for changing individual attitudes. Researchers need to examine whether changes resulting from anti-stigma interventions are maintained over time.

All of the research discussed in this paper examines stigma at the individual psychological level. For the most part, these studies have ignored the fact that stigma is inherent in the social structures that make up society. Stigma is evident in the way laws, social services, and the justice system are structured as well as ways in which resources are allocated. Research that focuses on the social structures that maintain stigma and strategies for changing them is sorely needed.

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COMMENTARIES

Strategies for reducing stigma toward persons with mental illness

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Corrigan and Watson have written an excellent overview on the impact of stigma on the lives of persons with severe mental illness (SMI). In this commentary, we would like to expand on one aspect of that article, namely strategies for reducing stigma toward persons with SMI.

Corrigan and Watson have identified three approaches for reducing stigma: protest, education, and contact. Although these approaches have promise, they are not without weaknesses. A potential disadvantage of using protest (i.e., telling the public to stop believing negative views about mental illness) is that it may actually increase, rather than decrease stigma. In fact, research has shown that instructing individuals to ignore or suppress negative thoughts and attitudes towards a particular group can have paradoxical rebound effects; stigma will be augmented rather than reduced (1). To examine this issue with respect to psychiatric stigma, we instructed participants to either suppress or not to suppress their stereotypes of persons with SMI and evaluated the effects on stigma-related attitudes and behaviors (2). The results showed that suppression instructions did reduce negative attitudes, but *did not* impact behavior toward persons with SMI, and that the paradoxical rebound effects did not occur. This suggests that stereotype suppression may have modest, although limited effects, on psychiatric stigma.

There is evidence that individuals who possess more information about mental illness are less stigmatizing than individuals who are

misinformed about mental illness (3). This suggests that providing individuals with factual information about SMI, in particular regarding dangerousness and SMI, would reduce stigmatization. We have generally found support for this hypothesis. Information regarding the residential context of persons with SMI (i.e., that they may live in supervised housing) (4), and the relationship between dangerousness and SMI (5), were both associated with reduced stigmatization to persons with SMI in general and to a hypothetical individual with SMI. However, the positive effects of factual information on psychiatric stigma were attenuated when subjects had to rate their reactions to actual persons with SMI (6). Thus, factual information regarding SMI may be more effective in reducing stigma toward persons with SMI in general, than toward specific individuals.

Finally, there is convincing evidence that increased contact with persons with SMI is associated with lower stigma (7). However, there are a number of problems that plague work in this area. First, many studies have examined the effects of *previous* self-reported contact on stigma, rather than how contact changes stigma *prospectively* (7). In those studies in which direct contact was measured, the manipulation often took place in the context of contrived laboratory situations or as part of a course and/or training program. Scant attention has been placed on how direct interpersonal contact affects stigma during *ongoing naturalistic* relationships. Second, the mechanism(s) underlying stigma reduction, as a function of contact, are unknown. In other words, how does contact reduce stigma? Two theories have been proposed for this. According to the recategorization theory (8), contact with an out-group member results in changes in out-group member classification, from 'them' to

'us'. A related model of stigma change is rooted in attribution theory. Attributions are explanations that an individual makes about another individual's behavior. Although attributions can be made along various dimensions (e.g., internal-external), the controllability dimension is especially relevant to perceptions of persons with SMI. Mental/behavioral disorders are viewed as more controllable than medical disorders and hence, more stigmatizing (9). These attributions result in perceptions of the person with SMI as being responsible for her/his condition, which culminates in feelings of anger and distaste toward her/him (9). Sustained interpersonal contact with a person with SMI may debunk the myth that her/his condition is under her/his control (i.e., that she/he may have caused the disorder). This shift in attributions, from controllable to uncontrollable, should correspond to a change in feelings, from anger to sympathy, which should augment helping behavior. Unfortunately, these theories have not been adequately tested in the area of stigmatization toward persons with SMI.

The foregoing underscores some of the problems with work in this area. Although we have made much progress in reducing stigma, we are, in many ways, still in the nascent stage of research, particularly with respect to theory development. It is hoped that this Forum will serve as an impetus to scientists, practitioners, and persons with SMI to collaborate on efforts to tackle this persistent and pernicious problem presented by psychiatric stigma.

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From intuition- to evidence-based anti-stigma interventions

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Corrigan and Watson propose a conceptual framework for the study of the impact of stigma of mental illness which may prove very helpful for both research and planning of anti-stigma interventions. They speak in their paper of mental illness in general. I think that in a next step their model would benefit from the introduction of differentiations for specific mental disorders. Results of population surveys indicate that there are considerable differences with regard to stereotypes: for example, perceived dangerousness poses a particular and even increasing problem for people with schizophrenia, while people with substance use disorders are at the highest risk of being blamed for their disorders (1). These differences are associated with corresponding differences in emotional reactions and the degree of discrimination. For example, the public's desire for social distance appears strongest against people with drug dependence, followed by those with alcohol dependence and schizophrenia, while people with depression and anxiety disorders are met with less rejection (2,3). There may also be some differences with regard to self-stigmatization and stigma coping. To know more about the variation of the stigma components between

disorders seems important in order to be able to develop interventions tailored more closely to the actual needs.

In the last paragraph, Corrigan and Watson point out that the research reviewed in their paper examines stigma exclusively at the individual psychological level, mostly ignoring the fact that stigma is inherent in the social structures that make up society. One can only agree with them when they emphasize the need for further research, in view of the extreme scarcity of studies on this subject. The exploration of patients' and relatives' subjective views on stigma by means of focus groups proves to be quite revealing in this respect. Here, a wide range of discriminating experiences due to imbalances and injustices inherent in political decisions and legal regulations are reported (4). As a result of stigma, psychiatry is marginalized in the health care system; less money is allocated to the psychiatric sector than to other medical services. There are laws which directly and overtly discriminate against mentally disordered persons, as well as laws which do not fundamentally differentiate between mentally disordered and somatically ill persons, but where the rules are differently applied, and - in most of the cases - with an adverse result. In addition, legal provisions enacted to protect the rights of mentally disordered persons may include some sections resulting in discrimination (5).

Stimulated by the WPA's Global Program and some other national programs, numerous interventions, all aimed at reducing the stigma of mental illness, have recently been initiated throughout the world. It is my impression that the choice of the actions taken has not unfrequently been guided by personal preferences rather than being based on empirical evidence. Just to give an example: where the stigmatising effect of the psychiatric diagnosis and the fact of being a psychiatric patient is concerned, two opposing strategies can be distinguished: medicalisation and normalisation. Proponents of medicalisation expect to achieve a de-stigmatising effect by integrating psychiatry as much as possible into medicine. They support the application of the medical disease concept to psychiatric disorders and encourage conceiving of mental illness in the same way as of physical illness. They propose a clear delineation between normality and mental illness. Psychiatry is understood as a specialist discipline within medicine. The strategy of 'normalisers' pursues exactly the opposite objective: they distance themselves from medicine. Those favouring this approach avoid calling mental health problems an illness and prefer speaking of a 'crisis'. In their opinion, there is a continuum between normality and mental disorder. They strongly oppose the use of psychiatric diagnoses. Labelling as a psychiatric 'patient' is strictly avoided. Rather, those with mental health problems are called 'clients', 'users', 'psychiatric consumers' (or even 'psychiatric survivors'). Which of the two strategies is more successful in avoiding stigma remains, however, an open question. There is a pressing need for studies evaluating the effects of the various anti-stigma strategies. Corrigan's conceptualisation of the stigma of mental illness may provide a useful framework for such studies.

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What else can we do to combat stigma?

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Stigma as a social phenomenon is exercised by groups of humans, one towards another, to fulfil psychological needs and to gain advantages, mostly economic. Stigmatizing groups derive psychological relief and even self-esteem from the mere knowledge that there exist individuals who are less able and less fortunate than they are (1). Also fierce economic competition, particularly on the background of scarce resources, has been associated with stigmatization. For example, by the end of the 19th century, the number of lynchings of blacks in the US was in inverse correlation with the price of cotton (2). Stigmatization of the eccentric and odd is justified by the stigmatizing groups as a tactic to avoid danger and protect the community (3).

Stigmatizing attitudes against mental patients are more prevalent among less educated and more competitive groups. However, mental health professionals, health insurers as well as patients themselves and the fiercely militant support groups are not immune from such attitudes. Furthermore, stigma is not only associated with behaviors related to mental illness per se, but also with everything else associated to it, such as diagnostic classifications, hospitals, doctors, nurses, drugs, rehabilitation

counselors and support programs. This in turn prevents sufferers from seeking and receiving help, thus further perpetuating the illness and the stigma associated with it.

Corrigan and Watson quote evidence that stigma against mental illness is less frequent in the non-Western societies. Interestingly, it was also suggested that the outcome of severe mental illnesses is better in non-Western societies and that immigration from a non-Western country to Britain was associated with increased incidence of severe mental illness. Moreover, the immigrants who feel more discriminated and stigmatized by the hosting society are more likely to develop severe mental illness, underlying the complex bi-directional relationship between mental illness and stigma. It is conceivable that the less stigmatizing attitude in non-Western societies contributes to the better outcome, but the alternative hypothesis, that the better outcome is responsible for the lesser degree of stigma, must also be considered.

Not surprisingly, on the other hand, the most competitive Western societies are also at the forefront of the campaign to destigmatize mental illness. Compassion for the weak and love for the humankind in general are plausible drives towards destigmatization. However, protecting the weak and the stigmatized may serve additional societal purposes. By showing benevolence, society confirms its authority and promises protec-

tion to the strong but potentially vulnerable, hence increasing sense of security and cohesiveness. Whatever the impetus for destigmatization might be, the results of the destigmatization campaigns are far from satisfactory and much research and sophistication are still necessary.

Focusing on the stigmatizers, Corrigan and Watson advocate education of the public and contact between the public and mental patients as ways to combat stigma. However, a significant amount of evidence (4,5) indicates that education is not very effective and that its impact is not long-lasting. Much of the underpinning of educational campaigns focuses on providing 'correct' information and on emphasizing the social unacceptability of stigmatizing attitudes and behaviors. Hence campaigns tend to change cognitions and the resulting responses given in post-campaign surveys, rather than attitudes, emotions and long-lasting behavior (6). Similarly, contact with patients who do not fit the feared stereotype are often viewed as the exception to the stereotype rather than lead to generalization to the entire population of mental patients (6). For example, even successful contacts between patients living in a hostel and the neighborhood residents promoted by an anti-stigma campaign (7) failed to be translated into more tolerant behavior in the long run. On the contrary, even residents who reported positive attitudes after the contacts with mental patients tended to move from the neighborhood (6,7).

Focusing on the stigmatized should also be used as a strategy to combat stigma. While there is very little that can be done to change the circumstances of individuals and groups who are stigmatized because of the color of their skin, religious beliefs or ethnic origin, some of the circumstances which identify and make mental patients the target of stigmatization can be changed. Mental patients are identified as targets of stigmatization by their periodically odd behavior, by adverse effects of the medications they receive, and by their association with facilities and professionals providing mental health care.

Novel antipsychotic drugs have probably reduced the length and the frequency of

active illness often manifested as odd behavior. Also the abnormal movements and posture induced by old antipsychotics and so closely associated with the appearance of severely ill mental patients are about to disappear as more patients are treated with the novel drugs. Since receiving care in psychiatric hospitals and psychiatric outpatient clinics are subjected to stigma, efforts should be made to provide care elsewhere. Without giving up any of the therapeutic advantages offered by neuroscience and modern medicine, as much care as possible should be provided outside of traditional medical facilities, i.e. in youth centers and community centers. When this is not feasible, the general rather than the psychiatric hospital should be utilized and even within the general hospital attempts should be made to provide care in general and not psychiatric wards. For example, elderly psychiatric patients could receive care in geriatric wards, children and adolescents in pediatric and adolescent wards and the less severely ill middle age patients in mixed neurological-psychiatric wards. Although manipulating the environment might not be the ultimate solution to stigma in mental illness, it might make mental health care more acceptable to those who need it.

In the end, the solution to stigma will come from more effective treatments of mental illnesses, rather than voluntary or cajoled benevolence. Until that happens, however, a combination of all reasonable means to combat stigma, including manipulation of the treatment environment, should be employed.

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The power of stigma

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Stigma is a very powerful mechanism. It is the expression of an old coping strategy sometimes very efficient for survival. It serves to identify, and to do it forever, a danger. In order to do so, a characteristic of the danger becomes a distinctive mark, or the bearer is marked, often forcefully.

Stigma is the consequence of prejudice and prejudice is detriment or damage, caused to a person by judgement or action in which his/her rights and dignity are disregarded. Prejudice leads to action, and this action is to stigmatise.

Stigma is a brand. To brand is to mark indelibly as a sign of quality. To brand is also to impress indelibly on one's memory, therefore the stigma is both in the stigmatised person and in the stigmatising one.

Stigma comes from the Greek word *στίγμα*, 'mark', which is related to the word *στίζειν*, i.e., to tattoo, to prick, to puncture. In Latin it became *instigare*, 'to urge'; therefore, stigma also leads to action, and this action is discrimination against the stigma-

tised person. To discriminate is to make adverse distinctions with regards to those stigmatised, and to make distinctions prejudicial to people different from oneself (in race, colour, or sanity). Here the vicious circle is closed, because discrimination leads to prejudice, prejudice to stigma and stigma to discrimination.

Animals too stigmatise. Especially those living in woods mark their territory with signals on trees. Birds too mark their territory with their singing, but the closest to human beings is the cat. Allow me an anecdote. Nisse da Silveira, a Brazilian psychiatrist, devoted her life to the study of the artistic production of mentally ill patients, mainly those with chronic schizophrenia. She worked in the Rio de Janeiro Mental Hospital, which at her time was crowded with cats. She was very fond of them and one day she compared them to me with her patients. Cats rub themselves against human beings, leaving in them the odor of glands they have along their neck. The odor depends on which part of the neck they use to rub, and there are odors for friends and others for enemies. Once a cat has identified a person as a friend or enemy, the odor embedded on him or her marks this person forever. The same happens with patients with schizophrenia. Nisse told that if someone is recognised as a threat and forms part of the delusions of a patient, he or she will remain so forever. The opposite is true also.

This anecdote reveals two important things. First, the mark is embedded on the subject, and from then on it stays there. The 'marker', the stigmatising person, loses the control of the situation, which from then on is imposed on him. Efforts to remove the mark will lead to make it more prominent and to acquire other negative elements.

The second point is that the response to stigma is stigma; stigma is given back as stigma. Cats, and patients with schizophrenia, stigmatise people and are, specially patients, stigmatised themselves. This fact is so prominent and relevant that once I thought of writing a paper entitled "Schizophrenia or stigmaphrenia". The behavior of stigmatising normal persons towards patients with schizophrenia is the same that patients have

towards their delusions. In both cases it consists of something which is experienced as imposed, self-evident, full in certainty, irrefutable to a logical line of argument, as in the old definition of delusion.

This is not new. In the late 1960s, Siegle and Osmond (1) described the models of madness, that is, the basic approaches to conceptualise madness. They described seven of them: medical, psychoanalytic, moral, familiar, social, psychedelic and conspirational. Then, the anthropologist Hsu (2) commented that curiously enough, those same models shape the delusions of patients. The consequence is that, when confronted with madness, the one which may afflict oneself or the one perceived in others, the answers are the same.

The Spanish psychiatrist Sarró (3) devoted his life to study the contents of delusions. He came to the conclusion that delusions are built with the same elements as myths. In total there are 24 themes of delusions and of myths (*mitologemas* in Sarró's words), and all of them are an explanation to the basic facts of life: birth, death, transitions, gender, and so on.

The confrontation with madness is terrible indeed. Madness is conceived as the loss of one's own mind, and this is the source of great anxiety. Fear of dying and the fear of losing the mind are the two basic forms of anxiety (4), because they are the expression of the fear of ceasing to exist, physically or mentally. Anxiety sets up coping mechanisms, not all of them adaptive. The psychologist Kunz (5), many years ago, tried to find a normal mental phenomenon which had the structure of delusions. He found one, the idea of death. Unable to experience death without dying and full of fear of the unavoidable fact, human beings tend to externalise it, to objectify it, to deny it, the same mechanisms which are present in delusions.

Psychiatry has done a great effort to delineate normal from abnormal mental events, following the path of the rest of medical disciplines. At the end, psychiatry has been able to identify the symptoms of madness, something essential in order to reach a diagnosis and to take decisions on the best therapeutic options. But this should not lead to abandon another, essential, perspec-

tive, which is to delve into the meaning of psychiatric disturbances and to look for common structures with normal mental phenomena. This is a way to understand underlying adaptive mechanisms.

The prevailing notion that delusions have a structure different from normal thinking was recently challenged. For instance, Hillman (6) and Blankenburg (7), among others, have reached the conclusion that this is not the case. If the difference does not lie in the structure of the delusions, if both patients with delusions and the rest of us use the same procedures to grasp reality, to build the world in which we live and to endow it with meanings, stigma becomes an essential aspect of mental diseases. Therefore, the fight against stigma becomes an essential part of the fight against mental diseases. It is not just the need to overcome barriers for care, it is essential to recover mental health. In other words, the barriers that sane, including psychiatrists, build to protect themselves against insanity are barriers that the insane has to overcome to recover his or her sanity.

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The roots of stigmatization

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Stigma and discrimination of the mentally ill is a complex issue. There is one perspective that I miss in most of the discussions on the topic. Identifying similarities and differences is a general phenomenon in biological systems. Humans as well as all higher animals are always evaluating creatures around them. Males are evaluating other males as well as females and females are evaluating males and females. In the evolutionary development it is apparent that there is a need of evaluation of other creatures around us. Why do we continuously assess others? There are a number of basic issues. Is this somebody to be afraid of, is this a competitor in any respect - competing for mates, competing for status, for resources, is this somebody who will be a burden for you somehow and is this somebody who is disturbing the equilibrium in your group/society? Or is this a possible partner, to mate or to join somehow? This evaluation is a more or less conscious continuously ongoing process and I think this is the basis for the negative stigmatization process finally resulting in discrimination and exclusion of the mentally ill.

So, one important task would be to try to identify which features in people with mental disorders evoke these negative emotions and reactions. It is obvious that a psychotic, badly dressed, bad smelling, aggressive and disturbing person evokes feelings of disgust and fear and runs the risk of discrimination and exclusion. I think we have to find out more precisely what is deviant in a negative way in the appearance and behavior of the many different kinds of mental illnesses and then try to support and as much as possible restore the human dignity of patients suffering from different kinds of disturbances. This we can do through better treatments and better general care in society.

The issue of self-stigmatization is extremely important but has also attracted

less attention. Maybe this is as great a problem in the Western world as stigmatization from others. This in turn has probably to do with the cultural perceptions of mental disorders and mental disturbances. This leads into the cultural differences which are observed. Existing research indicates that traditional societies seem to be less stigmatizing and discriminating towards the mentally ill. However, there is stigma even in traditional societies, which is shown in a number of studies. But there are obvious differences regarding stereotypes, prejudices and resulting discrimination. In a recent study of the perception of stigma among family members of individuals with schizophrenia and major affective disorders in rural Ethiopia, only a small proportion "felt that somehow it might be their fault" that their family member had become sick (only 4.5% indicated such a feeling) (1).

How to counteract self-blame and self-stigmatization? The modern society places very much of the responsibility for one's own life on the individual person. Possible ways to counteract self-blame and self-stigmatization would be to increase the knowledge about the causes and the background of mental health problems. The everyday problems people experience are often the effect of a complicated sequence of events for which the individual person is only partly responsible. The responsibility of the individual for his/her own well-being is not unlimited. And, of course, self-stigmatization is also an effect of having a stigmatizing attitude towards others with mental illness. So, it is necessary to work with the general stereotypes and prejudices regarding mental illness in general in society to reduce the risk of both external and self-stigmatization.

Finally I think that the most important way to reduce stigma and discrimination is through improved treatment and care of the mentally ill. The example of epilepsy is encouraging. Since there are effective treatments and these are available for the general population, the perceptions about epilepsy have changed and prejudice and discrimination have decreased considerably. The positive experience of a better community

based and integrative care of the mentally retarded is also very promising. When mentally retarded are identified early and given opportunities to develop and to live according to their functional, intellectual and social capacities, their quality of life improves enormously and they are being accepted and included in society in a much more humane way.

So there are a number of promising strategies to combat stigma and discrimination of the mentally ill based on research and experiences from other human ailments causing suffering, stigma and discrimination. The evolutionary basis for assessing and discriminating others, however, means that we have to be very persistent and consequent in our efforts to combat stigma and discrimination.

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What causes stigma?

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In Greek society, *stizein* was a mark placed on slaves to identify their position in the social structure and to indicate that they were of less value. The modern derivative, *stigma*, is therefore understood to mean a social construction whereby a distinguishing mark of social disgrace is attached to others in order to identify and to devalue them. Thus, stigma and the process of stigmatization consist of two fundamental elements, the recognition of the differentiating 'mark' and the subsequent devaluation of the per-

son. Throughout history and in practically every culture, groups of persons, including mental patients, have been stigmatized. The reasons for this remains obscure, but how it is sustained and its deleterious impact on the victims is better known, as Corrigan and Watson indicate.

Although the Greeks did not seem to have stigmatized the mentally ill as such, they nevertheless thought that being mentally ill carried a connotation of shame and weakness of character. These beliefs are still found in many contemporary societies that consider being mentally ill as a shameful condition that causes the person or the family to lose face. In some cultures, to have a mentally ill relative could damage the possibilities of advancement of the other members of the family and might even harm the marriage prospects of a young daughter or sister. In those cultures, mental illness not only causes problems to the sufferer but it also has extreme negative connotations to the family. Hence, people do not seek treatment and either hide the symptoms or, when these are too obvious, the family hides the person in the home or sends the person to far away hospitals or locked up asylums (1). In a similar way, families hide the fact that a relative has committed suicide.

Corrigan and Watson describe in their paper how stigma has two major components: a *public* one, or the reaction that the general population has to people with mental illness, and *self-stigma*, or the prejudice that people with mental illness tend to turn against themselves. Furthermore, these authors differentiate three concepts in the understanding of stigma: *stereotypes*, defined as positive, but more frequently, negative social knowledge structures that predetermine our attitudes; *prejudice*, which is the cognitive and affective response that develops when a person or group endorse negative stereotypes; and *discrimination*, which is the behavioral reaction once prejudice sets in. To these very pivotal concepts three others should be added that help perpetuate stigmatizing attitudes: visibility, controllability and impact. The more *visible* the stigmatizing mark or condition, the more the public perceive it to be under the *control* of the

bearer, and the more the possibilities that it will have an *impact* on others, the strongest the stigma, the prejudice and the discriminating behaviors (2).

Unfortunately, our understanding of *what* stigma is and how it develops is not matched by our knowledge of *why* it develops, although a model posits that the original functional impetus is an initial perception of tangible or symbolic threat (3). Tangible threats are those that pose a risk to material or concrete goods and symbolic ones are those that threaten beliefs, values, ideology or the way in which a group ordains its social, political or spiritual domains. Two most enduring threats would help originate and perpetuate the stigma of mental illness in many societies. The first considers that mental illness is under the control of the sufferer and hence that the patient is lazy and cannot hold a regular job (4), thus becoming a tangible threat to beliefs on self sufficiency and communal sharing of hardships and rewards. The second paints the mental patient as unpredictable and dangerous, hence representing a material threat to personal security. While the first threat fails to recognize that there is a spectrum of disability in mental illness not unlike that found in any other type of illness, the second is based on sensationalistic media and misleading measures of community risk (5).

While, as Corrigan and Watson point out, knowledge of the social dimensions of stigma and the impact of stigma and discrimination on mental patients has begun to accumulate, much remains to be known specially on models to understand self-stigma and the development of adequate instruments to measure it. Similarly, while programs to combat the stigma of mental illness are now well organized in many countries, what are effective interventions and how and to what groups should they be targeted to make them more efficient are areas that require further research and elucidation.

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Fighting stigma: theory and practice

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Corrigan and Watson's paper is easy to read and presents valuable information. It is based on the author's experience and publications by psychologists, sociologists and psychiatrists. This is a point that is worth a mention, because papers published by the representatives of the three professions usually cite only papers written by other members of their own profession, neglecting the others. The literature cited is all anglophone, a sign of times. There are also publications relevant to the issue of stigma and its elimination in other major languages (1): perhaps *World Psychiatry* will follow this review by another, later on, covering that literature.

Corrigan and Watson draw attention to the fact that more research on stigma is needed: indeed, most of the work that has

been cited in this article was carried out in the USA and in a small number of other countries. This is a recommendation that remains relevant even if one does examine literature in other languages as well as publications dealing with transcultural psychiatry and psychology. Another recommendation that could have been made is that information about the experience of people who have a mental illness should be more systematically recorded and used in anti-stigma activities. Most of that type of data is anecdotal and there is, to my knowledge, no systematic assembly of accounts by patients and families about their lives since a mental illness struck them. To an extent that has to do with the attitudes of researchers: it might be that they also see people with mental illness as being unreliable sources of information.

Corrigan and Watson also list some of the broad scale interventions that were found to be useful. These interventions are probably among those that cost most and achieve least. Action on a less grandiose scale seems to be more effective. An example are interventions directed at medical personnel (including psychiatrists), who are often important sources of stigmatization. Work with them to make them aware of their (stigmatizing) behaviour - in small groups or on a one to one basis - is among strategies that can be used in many settings and at relatively low price. Changes in the curricula of medical schools and of schools of other helping professions might also be important: to combat stigma it is necessary to think and develop long-term programmes, since campaigns that last a short while leave little trace in people's behaviour.

Another important area of work is also touched upon in the review: the self-stigmatization and the loss of self-respect of people affected by a mental illness. The search for ways to prevent these feelings is of high priority. The experience of the Canadian site of the WPA Program against Stigma and Discrimination because of Schizophrenia showed that the establishment of a speakers' bureau, in which people with schizophrenia were taught how to best present their views and then invited to present their

history and ideas about ways to handle people with mental illness in schools, was outstandingly useful. It did change the attitudes and ideas of the teenagers in those schools; just as importantly it gave the speakers reassurance of their own value and made them regain some of the self-respect that they have lost in their illness.

The reader of the review might have been interested to see a list of currently ongoing programs against stigma, possibly join them. The WPA has recently started a Program against Stigma and Discrimination because of Schizophrenia, which is underway in some twenty countries, in Europe, the Americas, Asia and Africa. The program is characterized by the selection of its targets according to patient and family accounts of their experience, by the involvement of various social sectors and by the collaboration among centres in different parts of the world (more information can be found on the program's web site openhendoors.com). There are also

other programs in the United Kingdom (carried out by the Royal College of Psychiatrists), in Australia, in Sweden, in the USA and elsewhere.

Finally, we should be grateful to Corrigan and Watson for this fine article and hope that the subject of stigma will find a regular presence in the World Psychiatry journal. There is no doubt in mind about the fact that stigma is the most important obstacle to the provision of mental health care to those who need it and to the advancement of psychiatry and related disciplines.

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Integrating people who are stigmatized: the tetralogue model

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Although present everywhere, segregation of people with mental illness and their relatives and violation of their human rights cannot be justified any longer. What can change the status quo? Breaking the silence of a society that does not recognize or acknowledge its mental health problems. Communicating about them opens the doors for the integration of mental health into general health and people with mental illness into society. In Michalovce, Slovakia, the tetralogue model (a dialogue of four sides) supports this necessary communication to overcome stigma by integrating people with mental illness into society, bringing benefit to all parties involved: people with mental illness, their relatives, professionals and the public.

First and foremost, we recognized that people with mental illness and their relatives are the best experts on issues of stigma and discrimination. The motivation to improve their own situation needs to be supported. Having formed associations in 1997, users and relatives are able to act as equal partners with the professionals, moving from dialogue to trialogue.

The first result of regular monthly meetings of the trialogue was a patients' advocacy programme, changing the way that patients and professionals relate to each other. Each week, individuals from the local users' organization visit the hospital, hearing the concerns of patients and finding solutions by working as partners with the professional staff. At first, the nurses expressed resistance to this programme, fearing criticism and rebellion. In a short time, they found that addressing problems openly helped solve

them more quickly, with less stress and conflict. In addition, patients have started to contribute to their own treatment plans. The professionals are finding their work easier as they share the responsibility for treatment with the patients, rather than taking the traditional, patriarchal, non-participatory approach.

Real integration is not possible without winning over the public. People with mental illness must be the main actors who, together with their relatives and professionals, help the public overcome fear and anger. Our Club of People with Schizophrenia is talking to school groups and meeting with public administrators. The response from the participants - the presenters and the audiences, especially the students - has been overwhelmingly positive. We have seen these interactions benefit society by encouraging individuals to become more interested in their own mental health.

Our participation in the WPA Program against Stigma and Discrimination has enabled us to involve more people across Slovakia in our work. This not only strengthens the Slovak users' and relatives' movement, but also motivates professionals to participate in this partnership. The result is a stronger tetralogue at the national level. As more people at all levels become interested in mental health, the walls around society can slowly come down, replaced with bridges to mental health and open doors to integration.

Stigma is universal but experiences are local

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A striking aspect of stigma about mental disorders is its universality. Stigma has been recognised as important in mental

health care in countries with extensive services (1,2) and those with limited services (3-5). For too long the deviance model has dominated the public discourse. A very recent example is the manner in which the September 11 terrorists have been referred to as 'crazy' or 'mad' by the politicians and the media. Such association does not help in the fight against stigma.

Against the universality of stigma, studies across the globe present different pictures of stigma experiences in different countries and communities. In Ethiopia, 75% of family members are stigmatised. Urban residents experience more stigma, as well as the older age group (3). In Canada, persons of 60 years and older are more socially distancing (2). Studies from Bangalore, India found that persons presenting with somatic forms of depression are less stigmatised than those with psychological symptoms (6). Persons with depression in London experience restricted disclosure as stigma, while Indian patients experience discrimination in the marital area (6).

In the recently completed WPA stigma project from India, conducted in four cities with 463 ill persons with schizophrenia and 651 family members, two thirds reported discrimination (7). Women were more stigmatised, as well as those living in urban areas. There was less stigma and more acceptance in those with limited literacy. Males experienced greater discrimination in the job area, while women experienced more problems in the family and social area. Relatively high experience of subtle discrimination (decreased love, avoidance, rejection, distance, excessive caution) was reported in the family area. The differing types and areas of stigma emphasise the need to consider the 'local' experiences.

Programmes to fight stigma and discrimination should address the study of local experiences in different groups using qualitative and quantitative methods; the interventions should be group specific and the effort at mental health literacy (8) should focus on the understandability of mental phenomena and on the 'normalcy' model rather the deviance model.

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Working together to modify prejudices

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It is impossible for some patients to have access to the efficient treatments which are

available at present, due to the stigma and discrimination (open or concealed) the mentally ill suffer nowadays.

Some time ago, a psychiatric diagnosis often meant an unappealable sentence which led to invalidism and the psychic and social deterioration of the patient. Lately, the scientific-technological progress experienced by our speciality has led to important achievements as regards the understanding and treatment of these problems. Mental health professionals are proud of the fact that, nowadays, the majority of people with mental disorders can be successfully treated and well integrated in their social and family environment, leading a useful and productive life.

The 'good quality of life' objective may be attained thanks to: adequate policies and mental health programs; changes in the organization of health services; inclusion of scientific and technological advances; new therapeutical approaches (new drugs, etc.); inclusion of modern psychoeducational and psychosocial rehabilitation techniques; multiple evaluations (peer and consumers).

For instance, we know that people who suffer from schizophrenia are at high risk of chronicity; however, we also know that such risk can be reduced due to the previously mentioned progress. We also know that 40% of people on antipsychotic treatments do not respond favourably to them, but we

believe that this is due to a number of factors which can be brought under control, especially if the good clinical practice criteria are followed.

In order to better achieve what was mentioned above, we adhere to the concepts listed in the consensus document on psychosocial rehabilitation produced by the World Health Organization and the World Association for Psychosocial Rehabilitation, which, among other things, sets the following definitions and objectives (1). Psychosocial rehabilitation is the process which: enables individuals who are deteriorated, handicapped or crippled by a mental disorder to reach an optimum level of independent functioning; improves the competence of individuals; promotes changes in their environment to improve their quality of life. Its objectives are: to reduce symptomatology; to reduce iatrogenia; to improve social competence; to reduce discrimination and stigma; family support; social support; more power for the consumer. The document also recommends action strategies at different levels. As regards the social level, the recommendations are: to improve the pertaining legislation; to give more power to the consumer; to improve the public opinion and attitudes related to mental disorders (2).

There are many initiatives and programs which follow these strategies, as a means to fight stigma and discrimination, in a part-

nership with advocacy groups and patients' and relatives' associations. Contener Foundation is an Argentina based organization which aims at the promotion and guarantee of the rights of the mentally ill; the fight against stigma and discrimination and the promotion of changes in the attitude of the community; the acknowledgement of such issues among patients, relatives, community leaders, political and economic decision makers, mass media and the public.

The work of the Foundation has been welcome by both professionals and the community in the Latin American region. Its activities have been very successful, showing that there is increasing interest among the population, both professional and non-professional, in this type of initiatives (3).

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The WPA and the fight against stigma because of mental diseases

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The WPA has, among others, the goals of improving the care for the mentally ill; promoting the prevention of mental disorders; promoting mental health; preserving the rights of the mentally ill; promoting the development of the highest quality standards in psychiatric care and promoting non-discrimination (parity) in the provision of care of the mentally ill.

The WPA has always been concerned with the fate of those who suffer from mental illnesses, trying to put an emphasis not only on the best available interventions, but also on the dignity of patients, and the dignity of their relatives and the mental health personnel.

In the late 1960s and 1970s, claims on the abuse of psychiatry in the former Soviet Union were raised and strong pressures fell on the Association to expel the All Union Society of Psychiatrists and Narcologists (AUSPN), the member society in that country. The abuse was real, and it was recognised by the AUSPN during a General Assembly (Athens, 1989), but the WPA never expelled the Society, although this one withdrew twice: in 1983 and in 1991. The AUSPN was readmitted in 1989, with the condition that the abuse had finished, something that a visit of international experts was able to confirm in 1991.

In essence, to expel a society on the grounds of political abuse of psychiatry in its country may not be the best way to proceed, as this decision by itself does not automatically lead to the end of the abuse, and may even close all the possibilities to stop it. The concern of the WPA is not international politics but the fate of those who suffer from mental illnesses and the improvement of the standards of the practice of psychiatry. Therefore the answer of the WPA to the alleged abuse of psychiatry was to promulgate the Hawaii Declaration (1977/83), which provided guidelines against the abuse of psychiatry because of political, ideological or religious ideas. In parallel, the Association set up a mechanism to investigate alleged cases of abuse, ideally in collaboration with local Member Societies.

During the discussions of that period, the WPA started to pay attention to other kinds of abuse, more of a social nature, and therefore more widespread. The need of updating the Hawaii Declaration became evi-

dent, and finally a new, and quite different document was prepared and approved in the General Assembly of 1996, the Madrid Declaration (1).

The Madrid Declaration has its roots in current bio-ethical trends, such as the ethics of autonomy and the ethics of equity. It gives prominence to the patient in clinical decisions and puts on the shoulders of psychiatrists to fight for better resources for mental patients, according to their needs.

But declarations are not enough, and that is why, when the WPA had the opportunity, it engaged in a more direct way. In 1995 the Association started an educational program on schizophrenia which gathered very impressive material, among other things, on brain imaging. The program was very useful to psychiatrists, but it produced the admiration of other colleagues who, in a sense, for the first time were able to *see* images of a mental disorder, the same as if it was a disorder of any organ of the body. This at least was my experience.

Later on, the WPA received an offer to develop another educational program on schizophrenia, and I recommended to orient it to physicians, patients, relatives and the public at large, focusing on the issue of stigma. The task seemed too ambitious, but the success of the Educational Program "Schizophrenia: Open the Doors" between 1996 and 1999 was so big that the General Assembly in Hamburg in 1999 decided to transform it into an Institutional Program.

Today stigma is accepted as one of the main barriers, if not the main, to the appropriate treatment and rehabilitation of those who suffer from mental illness. As such it is recognised in the 2001 World Health Report of the World Health Organization (WHO) (2). There are many initiatives, within the WHO and in different countries, to address this issue. Nevertheless, the program "Schizophrenia: Open the Doors" has some special characteristics:

1. It focuses only on one disease, the one which seems to be accompanied by the highest level of stigma. The hope is that this will help patients suffering from other conditions; if not, other specific programs may follow. The fact is that the stigma attached to each disease is different and that the strategies to fight it should also be specific. The messages, the target populations are dif-

ferent but, specially, the associations of users are, and they are essential for the program.

2. The program is more than a campaign. It aims at becoming a long-term activity, because stigma flourishes back and changes along the time. Therefore it is also cumulative, and the experience of its application in a site is transferred to the next.

3. The program is tailored to local situations and is constantly evaluated.

4. The program includes the participation not only of psychiatrists,

but also of all parties concerned with schizophrenia, from those responsible of the administration to the users.

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Mental health in Africa: the role of the WPA

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Africa is a large continent, prone to strife, especially south of the Sahara. Most of its countries are characterized by low incomes, high prevalence of communicable diseases and malnutrition, low life expectancy and poorly staffed services (1,2). Mental health issues often come last on the list of priorities for policy makers (3). Where mortality is still mostly the result of infectious diseases and malnutrition, the morbidity and disablement due to mental illness receive very little attention from the government. Health in general is still a poorly funded area of social services in most African countries (1) and, compared to other areas of health, mental health services are poorly developed. Indeed, most African countries have no mental health policies, programs or action plans (4,5). In 1988 and 1990, the member states in the African Region of the World Health Organization (WHO) adopted two resolutions to improve mental health services, and each state was expected to formulate mental health policies, programs and action plans. A survey was conducted two years later to see if the countries that had adopted these resolutions had done anything to implement them. Despite some modest achievements, the situation of mental health programs in most countries was found to be unsatisfactory (4). Compelling evidence shows that a large proportion of the global health burden is due to mental disorders, and this proportion is projected to rise in many African countries (6).

In its African Regional Strategy for Mental Health in the year 2000, the WHO emphasizes that populations in the African region are beset by numerous mental and neurological disorders that are a major cause of disability. Furthermore, there is a lack of reliable information systems in most countries. However, some primary observations and estimates can be made:

- In many African countries, the most frequent presentation of psychosis is acute or subacute: acute transient psychoses, paranoid psychoses, psychoses resulting from cerebral involvement in infectious diseases, like malaria, typhoid fever or human immunodeficiency virus (HIV) infection. These conditions produce only temporary disability, but cause much suffering and can have chronic consequences if not properly treated.
- The prevalence of epilepsy is high, largely due to inadequate care at childbirth, malnutrition, malaria and parasitic diseases. Epilepsy is still highly stigmatized, particularly because it is often considered infectious, which leads

to the social isolation of the sufferer.

- Half of the population of the region is made up of children below age of 15 years. It is estimated that, of those aged 0-9 years, about 3% suffer from a mental disorder. Many children suffer from poor psychosocial development because of neglect by their mothers and other caretakers. Brain damage is one of the main causes of serious mental retardation.

- The population of elderly people is still low, with only 3-4% of the total population aged above 65 years. While the prevalence of dementia is therefore not very high, other brain syndromes, which usually follow an infection or trauma of the central nervous system, are common in the African region.

- Many countries in the African region are engulfed in conflicts and civil strife, with the attendant adverse impact on the mental health and well-being of the affected populations, foremost post-traumatic stress disorder.

- Alcohol, tobacco and drug related problems are becoming an increasing concern in the region. Many of the countries in Africa are used as transit points for illicit drug trade and these drugs are finding their way into local populations, adding to the indigenous problems associated with cannabis consumption. There is an increased demand for home-brewed beer or locally distilled liquor. In most countries there are no national policies on alcohol or tobacco; consequently, their advertising, distribution and sale are largely uncontrolled.

- Increasing poverty, natural disasters, wars and other forms of violence and social unrest are major causes of growing psychosocial problems, which include alcohol and drug abuse, prostitution, street children, child abuse and domestic violence.

- HIV infection has added considerably to the psychosocial problems already being experienced in many countries of the region, creating a need for extra support and counseling for those affected and care for their surviving family members, especially children. In parts of southern Africa the prevalence of HIV in the general population exceeds 30% (7) and over 90% of those cases are attributable to heterosexual activity. According to the Joint United Nations Programme on HIV/AIDS (UNAIDS) and WHO estimates, 7 out of 10 people newly infected with HIV in 1998 live in sub-Saharan Africa; among children under 15, the proportion is 9 out of 10. Of all deaths from acquired immune deficiency syndrome (AIDS)

since the epidemic started, 83% have been in this region. At least 95% of all AIDS orphans have been African. Since the start of the epidemic, an estimated 34 million people living in sub-Saharan Africa have been infected with HIV. Some 11.5 million of those people have already died, a quarter of them children. In Botswana, Namibia, Swaziland and Zimbabwe, current estimates show that over one person in five between the ages of 15 and 40 is living with HIV infection. 1.6 million Zimbabweans have contracted HIV infection since the beginning of the epidemic; 400 thousand of them have developed AIDS, 300 thousand have already died, about 800 people die every week and 2000 get infected every week.

For several years it has been the concern and strategic commitment of the WPA to help the development of psychiatry and mental health care in the regions where they encounter the greatest difficulties in the world, namely sub-Saharan Africa and Central Asia. On that matter the WPA decided to work in close collaboration with WHO for a number of projects, including the WPA program for promoting mental health services in sub-Saharan Africa and Central Asia. The objectives of this program are to strengthen mental health policies and adopting and implementing regional strategies to prompt mental health and prevent mental, neurological and psychosocial disorders and drug abuse-related problems; to reduce disability associated with neurological, mental and psychosocial disorders through community-based rehabilitation, and to reduce the use of psychoactive substances (alcohol, tobacco and other drugs). On a public level, it is the objective of the program to change people's negative perceptions of mental and neurological disorders, to formulate or review existing legislation in support of mental health and the prevention of substance abuse and to provide equitable access to cost-effective mental, neurological and psychosocial care.

Milestones on the road to that overall goal include the achievement of a change in the negative perception of and attitudes to mental disorders by the public as well as the policy makers. People's attitudes are usually influenced by traditional beliefs in supernatural causes and remedies, and this belief system often leads to an unhelpful or health-damaging response to mental illness, stigmatization of mentally ill persons and those who attempt suicide, and reluctance or delay in seeking appropriate care for these problems.

Furthermore, the WPA targets the maximization of the scarce public resources and support of families in the provision of the best possible care for the mentally ill. The fact that mental disorders are among the top ten causes of disability in Africa and the rest of the world, and that their contribution to the overall burden of disease is going to rise, makes a strong case for giving them the attention and resources they need. Policy makers need to stress the cost-benefit ratio of treating persons with mental illness and making them active participants in national economic activities. Patients with mental illness are easily marginalized by the social services, including health care services. Shortage of money, staff and facilities make unequal access to care more likely, but equity is about the way the available resources are distributed, however inadequate.

Another goal of the WPA program is the initiation of mental health policies and their integration in primary health care, the adoption of mental health legislation and securing equity in the provision of mental health services and adequate care for mentally ill through proper funding of those services.

In the early 1990s, only 23% of member states of the African Region of WHO were reported to have a mental health legislation. Mental health legislation in Africa must be brought up to date. The human rights of the mentally ill must be given prominence with relevant legal provisions. What is needed is a broad view of mental illness as a major cause of morbidity and a burden to victims, their families, and society. An integrated mental health policy reduces morbidity and burden by emphasizing primary and secondary prevention and all forms of mental rehabilitative care of the more severely ill. Policy goals may include bringing families with mentally ill members together, encouraging the creation of consumer groups, and developing broader views of rehabilitation.

In January 2001, African leaders of psychiatry were invited by the WPA program for promoting mental health in sub-Saharan Africa and Central Asia to meet in Cairo to discuss the current mental health situation in the continent and agree on a plan of cooperation within the framework of the WHO/WPA collaboration. The meeting was attended by psychiatrists from Egypt, Morocco, South Africa, Ethiopia, Uganda, Nigeria, Sudan, Zimbabwe and Kenya, in addition to three members of the Executive Committee of the WPA, representatives of the World Bank and the President of the World Federation of Mental Health. Several presentations revealed the problems both in services provision and mental health status in Africa (Table 1).

While the European Region of the WHO has more than 86 thousand psychiatrists and 280 thousand psychiatric nurses for a population of 840 million, countries in the African Region have only about 1200 psychiatrists and 12,000 psychiatric nurses for a population of about 620 million. The average number of psychiatrists is 9/100,000 population in the European Region and 0.05/100,000 population in the African Region. In several African countries mental health services are provided by psychiatric nurses. For instance, in Ethiopia all psychiatric clinics are run by nurses; they prescribe medications and treat acute conditions.

The WPA recognizes a number of constraints to the development of mental health programs in Africa:

- Lack of awareness of the magnitude of the problem.
- Lack of a reliable information system. Information on the efficiency and cost of various forms of intervention is needed to permit enlightened planning and allocation of resources. Questions about the prevalence in communities of common disorders of childhood or old age, or about substance use, or about factors associated with the HIV/AIDS pandemic are largely unanswerable in most African countries. Also in the allocation of scarce resources, prioritization is essential. Research is needed to determine the best policy for the particular country concerned, prevailing social and cultural circumstances, the main constraints, and the options for a viable model of care within them.

Table 1 Mental health resources in some African countries (updated September 2000)

Country	Population (million)	Psychiatrists (n.)	Psychologists (n.)	Psychiatric nurses (n.)	Psychiatric hospitals (beds)	Mental health act	Mental health policy
Botswana	1.7	5	1	55	1 (162)	yes	yes
Egypt	65.0	700	2400	1355	14 (9700)	yes	yes
Eritrea	4.2	1	1	7	1 (160)	no	yes
Ethiopia	64.0	10	2	144	1 (360)	no	no
Kenya	32.0	35	2	1100	1 (500)	yes	yes
Mozambique	17.0	4	5	34	2 (460)	no	yes
Namibia	1.5	3	10		1 (50)	yes	yes
Nigeria	128.0	70	14	7200	8 (4000)	yes	yes
South Africa	45.0	350	4179	7000	15 (7500)	yes	no
			clinical 1507				
Swaziland	1.0	1	2	30	1 (150)	yes	no
Tanzania	34.0	10	2	1232	1 (1600)	yes	yes
Uganda	22.0	9	5	400	1 (450)	yes	no
Zambia	1.0	5	2	640	1 (470)	yes	yes
Zimbabwe	12.5	10	15	500	3 (1720)	yes	yes

- Insufficient human and financial resources.
- Absence of national mental health policies.
- Shortage of specialized personnel.
- Constant brain drain.
- Widespread civil strife and violence. Wars and internecine strife disrupt social and community life and spread hunger, disease and homelessness. Psychological morbidity usually accompanies and outlasts the physical morbidity of war.

Although most African societies are fortunate in still being able to draw on the support of families for the care of the mentally ill, urbanization is becoming more widespread and the system of extended families is breaking down, depriving mental patients from a traditional source of support.

Another challenge in African countries is the role played by traditional healers. Many of them are strongly against any medication intake and therefore constitute an obstacle rather than an asset to mental health care provision. In many cases traditional treatments are characterized by injurious methods. In Nigeria about 20% of patients with mental disorders had previously consulted a traditional healer before consulting a general practitioner or psychiatrist; the corresponding percentage in Egypt is 70% (5). How could this be turned from a challenge to an asset? A policy of integration ought to have among its goals an examination of the nature of traditional practices and a process of isolating and improving the more efficacious and safe components of this form of care. WHO has training packages specifically designed for primary care workers, focusing on such conditions as depression, anxiety, somatization disorders and substance abuse. An equivalent tool for traditional healers could be considered.

In view of the above-mentioned challenges and the ambitious endeavors for the future, African leaders of psychiatry have agreed to create the African Association of Psychiatry and Allied Professions, in an attempt to coordinate and join efforts in analyzing, planning and promoting the situation of mental health and

mental health care in Africa. All the participants in the above-mentioned meeting in Cairo agreed about the importance of initiating this Association, despite the difficulties existing, especially in communication. It was considered essential:

- to create a network for collecting and disseminating relevant information in the fields of psychiatry and mental health;
- to make contacts with policy makers (especially ministers of health) with the help of WHO;
- to associate French and Portuguese speaking African psychiatrists and to encourage regional meetings in West Africa;
- to maintain close liaison with the respective ministers of health, especially before they go to Geneva for the World Health Assembly;
- to collect information about national mental health programs and legislation, with the help of the World Bank (mapping mental health needs in Africa);
- to support training activities, especially by disseminating WPA educational programs;
- to encourage the creation of national psychiatric associations and their affiliation to the WPA (Kenyan, Sudanese, and Ethiopian associations are willing to join the WPA);
- to organize scientific meetings within regional and international scientific activities to bring forward the mental health concerns of the continent;
- to find contacts with expatriate African psychiatrists, especially if they have an association, in order to help their counterparts working in the country of origin;
- to encourage the help given to academic libraries in Africa;
- to encourage and facilitate the attendance of African psychiatrists in African meetings.

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The WPA International Guidelines for Diagnostic Assessment

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Diagnostic assessment is a fundamental aspect of clinical care. It involves gathering key information to describe and understand the patient's clinical condition and to organize an effective care plan. The diagnostic model underlying the assessment enterprise should be consistent with up-to-date international standards and be as highly reliable and valid as possible. The actual diagnostic assessment should be conducted from the start with a clear therapeutic goal and tone, engaging the patient and family throughout the process.

The need to upgrade along these perspectives the quality of psychiatric diagnostic assessment across the world has led the WPA to organize and carry out since the mid 1990s a project towards the preparation of International Guidelines for Diagnostic Assessment (IGDA). This report briefly describes the background and development of this project, the content of its first product, i.e. the IGDA Essentials Booklet, and its future perspectives.

BACKGROUND

Clinical diagnosis involves knowledge, skills, and attitudes that demand the best of our scientific, humanistic and ethical talents and aspirations. The philosopher and historian of medicine Pedro Lain-Entralgo (1) cogently argues that diagnosis is more than just identifying a disorder (nosological diagnosis) and more than distinguishing one disorder from another (differential diagnosis); it is in fact understanding thoroughly what goes on in the mind and the body of the person who presents for care. Furthermore, this understanding must be contextualized within the history and the culture of each patient for it to be meaningful and helpful.

Recent advances in the methodology for psychiatric diagnosis have included a more systematic and reliable description of disorders and multiaxial schemas for addressing the frequent plurality of the patient's clinical problems and their biopsychosocial contextualization (2). On the other hand, compelling arguments have been made about the need to enhance the validity of these diagnostic formulations by attending to symbols and meanings that are pertinent to the identity and perspectives of the patients involved (3). Furthermore, in

the increasingly multicultural world in which we live, it is essential to strive for an effective integration of universalism (that facilitates professional communication across centers and continents) and local realities and needs (which address the uniqueness of the patient in his/her particular context) (4).

Some of the roots of the WPA project on IGDA can be found in the dedicated collaboration between the World Health Organization (WHO) and the WPA, through its Executive Committee and its Section on Classification and Diagnostic Assessment, towards the development of the ICD-10. Additionally, the WPA Classification Section as such or some of its leaders assisted in the development of the DSM-IV, the recent Chinese classification of mental disorders (CCMD-2-R, CCMD-3), the Third Cuban Glossary of Psychiatry (GC-3) and the Latin American Guide for Psychiatric Diagnosis. Relevant also to this project has been the work of the WPA Classification Section on international psychiatric classification and diagnosis, as reflected in two conferences over the past two decades, during which African, Chinese, Egyptian, French, Japanese, Latin American, North American, Russian, Scandinavian, and South Asian perspectives were discussed (5,6).

DEVELOPMENT OF THE IGDA PROJECT

The conceptualization and organization of the IGDA project has been, from beginning to present, an initiative of the WPA Section on Classification and Diagnostic Assessment. The idea of the project was a result of the International Survey on Diagnostic Assessment Procedures conducted by the Section in the early 1990s. The survey revealed a widely perceived need for more comprehensive diagnostic approaches, which were recommended to be culturally informed and generated in a truly international manner (7).

In consideration of this international survey, the Section on Classification and Diagnostic Assessment decided in 1994 to start the development of the IGDA project. The first meeting for this purpose took place in Kaufbeuren, Germany. Since then, meetings have been held in Canada, China, France, Germany, Mexico, India, Turkey, and the United States. The initial work group

for this project has been composed of experts representing several theoretical approaches and fields of psychiatry. As a group, they cover all continents, consistent with the diversity of the Section membership. They include J.E. Mezzich (Chair), C.E. Berganza, M. von Cranach, M.R. Jorge, M.C. Kastrup, R. Srinivasa Murthy, A. Okasha, C. Pull, N. Sartorius, A. Skodol and M. Zaudig. In 1997, the WPA Executive Committee adopted the project as a WPA Educational Program. Later the project received central institutional funding to facilitate its progress.

CHARACTERISTICS AND COMPONENTS OF THE IGDA PROJECT

A central feature of the IGDA project involves the assessment of the psychiatric patient as a whole person, rather than just as a carrier of disease. Thus, it assumes in the clinician the exercise of scientific competence, humanistic concern, and ethical aspirations. Another essential feature is the coverage of all key areas of information (biological, psychological and social) pertinent to describing the patient's pathology, dysfunctions and problems as well as his/her positive aspects or assets. A third important feature involves basing the diagnostic assessment on the interactive engagement among the clinician, the patient, and his/her family, leading to a joint understanding of the patient's clinical condition and a joint assumption and monitoring of the treatment plan. Fourth, IGDA uses ICD-10 as a basic reference in general, and in particular for the first three axes of its multiaxial formulation (classification of mental and general medical disorders, disabilities, and contextual factors). Regional adaptations of ICD-10, such as DSM-IV, the Chinese CCMD-2-R, the Cuban GC-3, or the Latin American Guide for Psychiatric Diagnosis, may be used as well.

It is important to point out the need to employ, in the diagnostic assessment process, scientific objectivity and evidence-based procedures, as well as intuition and clinical wisdom, in order to enhance the descriptive validity and the therapeutic usefulness of the diagnostic formulation. Furthermore, it is critical for the effectiveness of the diagnostic enterprise to use a culturally informed framework, both for the development of updated diagnostic models and procedures as well as for the conduction of a competent clinical evaluation of every patient.

The main products of the IGDA project include the following:

1. An Essentials Booklet, presenting concisely the guidelines. This component has already been completed and is being published elsewhere. It is outlined in the next section.
2. An Educational Protocol, to organize various educational formats for the presentation of the guidelines to different audiences and settings, from a short lecture to an extended course.
3. A Bases Book, to provide literature reviews related to the development and content of the guidelines and to discuss their implications.
4. A Case Book, to present illustratively and heuristically the results of the application of the guidelines to diverse cases from across the world.

The IGDA Essentials Booklet

This booklet presents concisely the 100 IGDA guidelines, along with explanatory graphs and tables, and additional recommended readings. This material is organized into ten sections covering, broadly speaking, conceptual bases, interviewing and informational sources, symptom and supplementary assessments, comprehensive diagnostic formulation, treatment planning and chart organization.

These guidelines are offered as recommendations for both inpatient and outpatient care, and for both child and adult psychiatry. The manner of their application is expected to be informed by local realities and needs. The guidelines are presented in a deliberately compact form, deferring for the Bases Book a detailed presentation of their implications and adaptations to different clinical situations.

Section 1 offers a conceptual framework for the whole diagnostic process, including historical, cultural and clinical perspectives, definitions of core constructs and procedures, and their overall articulation for enhancing clinical care.

Section 2 focuses on patient interviewing. It is based on the establishment of optimal clinician-patient engagement aimed at systematic data gathering through a fluid process, maintaining a deliberate therapeutic tone. The interviewing process is organized into opening, body, and closure phases. Complementarily, Section 3 deals with the use of extended sources of information. It discusses the covering of key additional informational sources, such as relatives, friends, other living informants, and documentary sources. It also attends to the resolution of conflictual information and the protection of confidentiality.

Guidelines for the core characterization of a psychopathological case are the subject of Section 4. It organizes the assessment of major symptomatological areas and the key components of the mental status examination. Supplementary assessment procedures are reviewed in Section 5 (concerning psychopathological, neuropsychological and physical aspects) and Section 6 (concerning functioning, social context, cultural framework and quality of life).

One of the most innovative contributions of these guidelines involves a new comprehensive diagnostic model that articulates a standardized multiaxial evaluation with a personalized idiographic one. Personalized interventions call for personalized assessments. The corresponding recommendations concerning the conceptualization and formulation of a comprehensive diagnostic statement are the matter of Sections 7 and 8. Section 7 focuses on the standardized multiaxial formulation, involving clinical disorders, disabilities, contextual factors, and, as a new axis, quality of life. Section 8 deals with the idiographic personalized formulation, which integrates the perspectives of the clinician, the patient, and his/her family into a jointly understood narrative description of clinical problems, patient's positive factors, and expectations about restoration and promotion of health. The idiographic formulation may be the most effective way to address the complexity of illness, the patient's whole health status and expectations and their cultural framework.

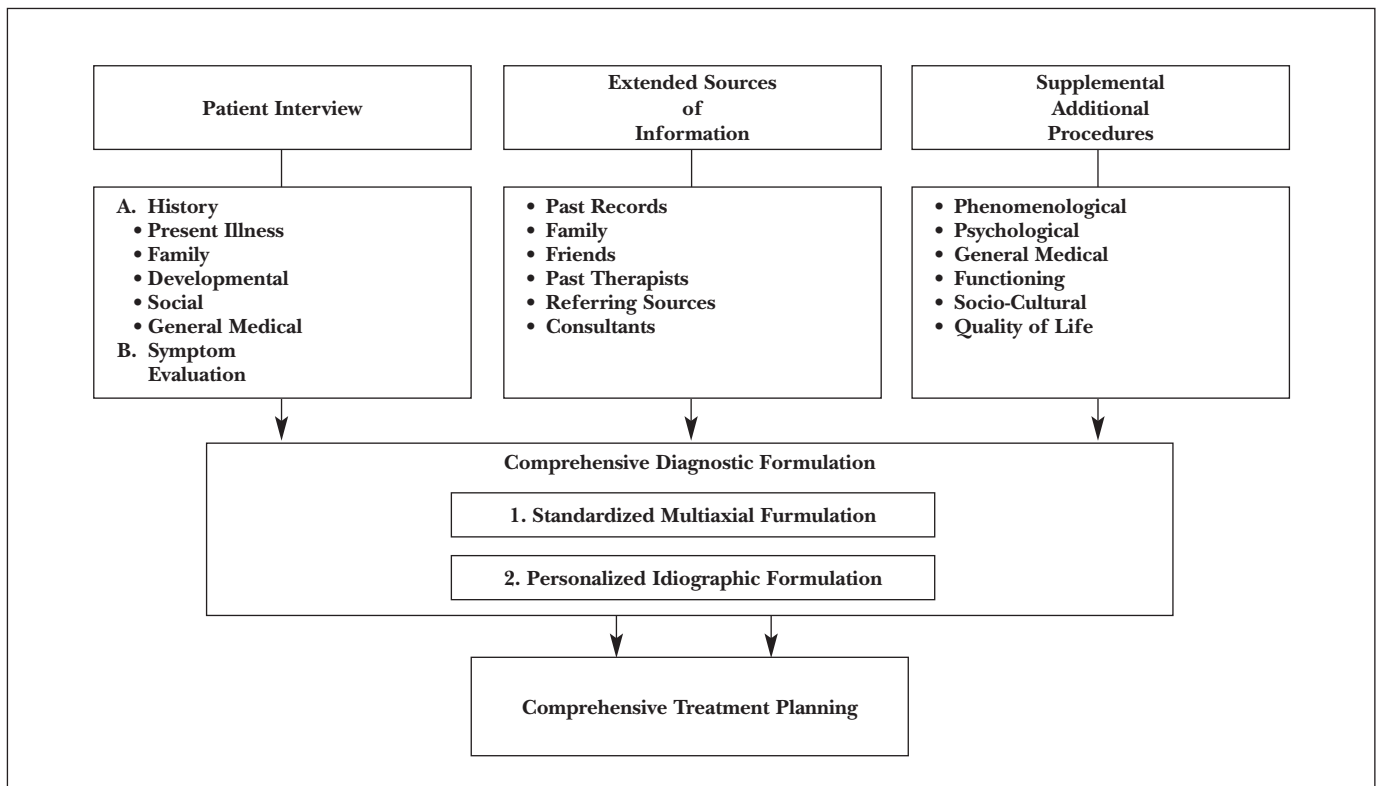


Figure 1 A diagrammatic view of comprehensive diagnostic assessment

Section 9 organizes the utilization of the information contained in the diagnostic formulation for the purpose of treatment planning. It configures the patient's set of clinical problems by extracting pertinent elements from both the standardized and the idiographic components of the diagnostic formulation. It then delineates an intervention package (including appropriate diagnostic studies as well as treatment and health promoting activities) for each one of the problems listed.

Finally, Section 10 contains recommendations on organizing the clinical chart. Attended to are basic demographic identification data, informational sources and reasons for evaluation, history of psychiatric and general medical illnesses, familial, personal, and social history, psychopathological and physical examination, supplementary assessments, comprehensive diagnostic formulation, and treatment plan. Chart organizing principles that are emphasized include adequate coverage of clinical areas as well as the combination of narrative presentations with semi-structured components as needed. The handling of the clinical charts is expected to ensure safe and efficient accessibility to clinical information as well as maintaining its confidentiality.

In each section of the Essentials Booklet the following elements are included: a) the ten guidelines corresponding to that section; b) recommended readings, listed in bibliographical form; c) an illustrative diagram, an explanatory table, or an organizing form to facilitate the use of the guidelines. As an example, Figure 1 presents a

diagrammatic view of comprehensive diagnostic assessment. The booklet ends with an illustrative clinical case.

FUTURE PERSPECTIVES

Now that the IGDA Essentials are completed, further work on the IGDA project will focus on its Educational Protocol, a Bases Book, and a Case Book. Additionally, translations to major languages are being considered.

Along with and complementing the development of the IGDA, an empirical assessment of their validity and usefulness for clinical care should be attempted. This should be organized, as much as possible, in diverse national and cultural settings, to determine and ensure their generalizability as is germane to an enterprise of the WPA.

With the IGDA project, the WPA in general and its Section on Classification and Diagnostic Assessment in particular are making an innovative and broadly based contribution to higher standards in international mental health care. A related contribution has been the recent Symposium on International Classification and Diagnosis, organized by the classification components of WPA and WHO within the framework of the WPA European Congress in London, July 2001. A volume emerging from this symposium is being published as a special issue of *Psychopathology*, the official journal of the WPA Section on Clinical Psychopathology. These contributions illustrate our institutional efforts to work in partnership

with the WHO and with national and regional psychiatric associations towards a more integrated and culturally-informed international classification and diagnostic system.

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Mental health resources in the world: results from Project Atlas of the WHO

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An estimated 450 million people alive today suffer from mental or behavioural disorders or from psychosocial problems such as those related to alcohol and drug abuse (1). Mental disorders account for a substantial proportion of disease disability and burden, yet current resources for mental health are grossly inadequate. It is indeed a paradox that though substantial information is available on the incidence, prevalence, course, diagnosis, classification, disability and burden of mental disorders, hardly any information is available on the resources that exist to respond to this burden (2).

Over the last several decades, the interest in evaluating mental health care processes has greatly increased and there are calls for development of increased information and research on mental health services (3-9). Individual country information about mental health resources from some of the developed and rich countries is available, but very little is known from most of the developing and poor countries. The information that does exist cannot be compared across countries, because reports use varying definitions and units of measurement. This imbalance between 'disease information' and 'resources information' is a major impediment to planning mental health services. Lack of information on resources also hampers efforts made by non-governmental organizations, professional associations and consumer groups to demand improvement of mental health care services and to highlight specific needs (2). The need to improve mental health services and integrate mental health into primary care was emphasized by most of the Ministers of Health who attended the World Health Assembly, 2001 (10).

Project Atlas was launched by the World Health Organization (WHO) in 2000, with the basic aim of collecting, compiling and disseminating information related to mental health resources from the WHO Member States.

METHODS

The data were collected and assimilated in a number of steps. In the first step, consultations were held with mental health experts to identify the areas of mental health resources in which there was a definite lack of

information. A rough draft of a questionnaire was prepared along with a glossary of terms that were being used in the questionnaire. The working definitions of the terms were provided in the glossary in order to maintain uniformity of data. Once the questionnaire and glossary were pilot tested, the necessary amendments were made and the final version of both were translated into some of the other official WHO languages.

In the second step, the questionnaire and glossary were distributed among the focal points for mental health in the Health Ministry of each Member State with the support of the Regional Offices. The respondents were requested to follow the glossary of terms while completing the questionnaire and provide copies of documents wherever possible. In this initial phase, information was collected primarily from the governmental sources, though most governments relied on their experts to provide the available information. Data from the questionnaires were supplemented by information gathered through a literature search.

In the third step, all information collected through the questionnaire and literature search was suitably coded and keyed into an electronic database that had been created for that specific purpose. Once the dataset had been finalized it was analysed using the program SPSS 9.0. Descriptive analyses for assessing frequency and measures of central tendency for different variables were done. Qualitative data were used to enrich the information from countries and were used for the country profiles on mental health resources.

RESULTS

One hundred eighty-five Member States from the total of 191 responded. This covered 99.3% of the world's population.

As shown in Table 1, mental health policies are present in 59.5% of the countries in the world. A mental health policy is present in only 47.8% and 48.1% of countries of the African and Western Pacific Regions, respectively. More than 30% of countries do not have a national mental health programme. The European Region has the lowest number of national mental health programmes, as many European countries have mental

Table 1 Mental health policies, programmes and legislations in countries of the WHO Regions

WHO Region	Presence of a mental health policy (%) (N=185)	Presence of national mental health programme (%) (N=185)	Presence of a law in the field of mental health (%) (N=170)	Presence of disability benefits for psychiatric patients (%) (N=179)
Africa	47.8	73.9	71.1	46.5
Americas	64.5	80.6	67.9	87.1
Eastern Mediterranean	68.2	86.4	57.1	75.0
Europe	67.3	55.1	91.7	98.0
South-East Asia	70.0	80.0	70.0	90.0
Western Pacific	48.1	59.3	76.0	61.5
World	59.5	69.7	75.3	75.4

Table 2 Budget for mental health in countries of the WHO Regions

WHO Regions	Specified budget for mental health (%) (N=175)	Less than 1% of total health budget spent for mental health (%) (N=91)
Africa	62.2	78.9
Americas	92.6	27.8
Eastern Mediterranean	80.0	40.0
Europe	72.3	4.2
South-East Asia	66.7	62.5
Western Pacific	63.0	29.4
World	72.0	36.3

health programmes/plans at the provincial level and not at the national level. About a quarter of the countries do not have a law related to the field of mental health. Though 91.7% of the countries in the European Region have a mental health legislation, the same is present in only 57.1% of the countries of the Eastern Mediterranean Region. However, the majority of policies, programmes and legislations are relatively recent, most having been developed after 1990. Disability benefits for psychiatric patients are absent in one quarter of countries of the world, with the African Region having disability benefits in only 46.5% of countries.

As shown in Table 2, worldwide only 72% of countries have a specified budget for mental health. Of those countries which reported their mental health budget, 36.3% spend less than 1% of their total health budget on mental health. Almost 80% of countries of the

African Region reported that they spend less than 1% of their health budget on mental health. Though the most common source of financing mental health care around the world is tax-based, out-of-pocket payment is also used by a number of countries, especially the poorer countries.

In the world, 87% of countries, covering a population of 97%, have mental health care facilities at primary care level. However, treatment facilities for severe mental disorders are present in only 59.1% of countries, with an even lower coverage for most of the other regions, except the Americas and the European Region. Even in these Regions, treatment facilities are available in only about 65% of countries. About 20% of countries do not have three of the most common psychotropic drugs required for treating mental disorders at the primary health care level. Community care programmes for mental

Table 3 Mental health care at the primary care level and in the community in countries of the WHO Regions

WHO Region	Presence of treatment facilities for severe mental disorders in primary care (%) (N=181)	Presence of three* essential therapeutic psychotropic drugs at primary care level (%) (N=175)	Presence of mental health care in community care (%) (N=183)
Africa	56.5	71.1	54.3
Americas	66.7	90.0	71.0
Eastern Mediterranean	50.0	78.9	54.5
Europe	65.3	77.8	72.3
South-East Asia	44.4	88.9	50.0
Western Pacific	55.6	88.9	66.7
World	59.1	80.6	63.4

*phenytoin, amitriptyline and chlorpromazine

Table 4 Psychiatric beds and mental health professionals in countries of the WHO Regions

WHO Region	Number of psychiatric beds per 10,000 population (median) (N=183)	Number of psychiatrists per 100,000 population (median) (N=182)	Number of psychiatric nurses per 100,000 population (median) (N=164)	Number of psychologists working in mental health per 100,000 population (median) (N=164)	Number of social workers working in mental health per 100,000 population (median) (N=147)
Africa	0.34	0.05	0.20	0.05	0.04
Americas	3.30	1.60	2.70	2.80	1.90
Eastern Mediterranean	0.79	0.95	0.50	0.20	0.40
Europe	8.70	9.00	27.50	3.00	2.35
South-East Asia	0.33	0.21	0.16	0.02	0.05
Western Pacific	0.98	0.28	1.10	0.03	0.13
World	1.60	1.00	2.00	0.40	0.30

health are present in 63.4% of countries worldwide. The African, Eastern Mediterranean and South-East Asia Regions have even fewer countries with such programmes (Table 3)

The median number of psychiatric beds per 10,000 population varies from 0.33 in the South-East Asia Region to 8.7 in the European Region. Most of the psychiatric beds (65.1%) in the world are in mental institutions. The European Region has the highest number (median) of psychiatrists and psychiatric nurses per 100,000 population amongst all the WHO Regions. The median number of psychologists and social workers active in the mental health sector per 100,000 population in the world is very low, 0.4 and 0.3 respectively. The Regions of Africa, South-East Asia and Western Pacific are particularly deficient in the number of mental health professionals (Table 4).

Special mental health programmes for children and elderly are present in about 60% and 48% of countries in the world, respectively, though the coverage and quality of services available vary between Regions and individual countries. Non-governmental organizations in mental health are reported to be active in 88% of the countries. Mental health monitoring systems are important tools in assessing the overall mental health situation of a country; however, mental health reporting is not done by 27% of countries and data collection or epidemiological studies are absent in 44% of countries.

DISCUSSION

The development of mental health services has generally lagged behind other health services. While some countries (mostly from the economically developed regions) have well-developed resources, the majority are poor in resources. Atlas provides a baseline measure to assess these resources and also to monitor them in future.

A mental health policy, programme or legislation are important tools for the overall development of mental health resources. They act as a broad guideline and provide direction and impetus to the development of mental health care facilities in a country. The absence of one or the other in such a large proportion of countries helps to understand the poor condition of mental health care in those countries. Though the majority of countries have a law related

to mental health, this law is often not comprehensive and does not adhere to the international legislation concerning human rights. Often mental health legislative issues are simply mentioned as part of a general health law or a law related to forensic medicine. Disability benefits, though present in many countries, are neither comprehensive in nature nor easily accessible and lack standardized assessment procedures. The benefits are at times in the form of premature retirement from job with a pension or a small monetary support for a brief period of time. This is inadequate for the needs of most psychiatric patients, as disability in mental disorders is often long-lasting.

For any form of service delivery, it is essential to have adequate monetary support. However, the analyses show that the governmental budget support to mental health is often miniscule. Mental health budget should increase for most countries in order to improve the resources. The proportion of mental health budget to the total health budget should be between 5 and 15% (2). This increase is required in view of the increasing burden due to neuropsychiatric disorders, which are currently estimated to account for more than 12% of the global burden due to disease, and are projected to increase to 15% in the year 2020 (1). With more money allocated to mental health, countries would be better placed to increase their infrastructure, initiate new programmes and develop human resources. More could also be spent on training, research and monitoring the mental health of the population, which are all in need of development.

The integration of mental health into primary and community care has been recommended by WHO for a long time (11,12). With the movement of deinstitutionalization, an increasing proportion of patients are being treated in the community in most developed countries. However, this is not the same across all countries. Analyses show that, though a majority of countries have incorporated mental health care facilities in their primary care level, more than 40% do not have the actual treatment facilities for severe mental disorders and about 20% lack the availability of at least three of the commonest drugs at primary level to treat mental disorders. Even when primary care facilities are present, they are not evenly distributed within a country. Large areas often do not have them. Community care facilities, though present in a larger proportion of countries compared to primary level care, are often not comprehensive and are

available in only selected centres as pilot programmes. Two of the most populous countries of the world, China and India, are examples where primary and community care facilities for mental health are available in selected areas only. However, there are a number of other countries having the same problem. This goes to show the magnitude of the lack of services in terms of actual population coverage. The importance of development of community care facilities for deinstitutionalization to happen in the true sense has been emphasised by many (4,13-16). However, a lot remains to be done.

The number of mental health professionals is low in the majority of countries. This is more so in the economically poorer Regions of Africa, South-East Asia and Western Pacific. Even in the other Regions, the distribution is not even and often the less developed countries in the Region lack an adequate number of mental health professionals. Psychiatrists, along with psychiatric nurses, psychologists and social workers, are key professionals in the delivery of psychiatric care, be it in hospitals, community settings or primary care level. Training of professionals must be adequate and in keeping with the needs of the country.

The number of psychiatric beds in large psychiatric institutions should be reduced gradually and more facilities should be made available in general hospitals and rehabilitation centres. Unfortunately, this is not the case at present, where a large proportion of psychiatric beds are still in psychiatric institutions. Countries which are in the process of deinstitutionalization should also develop a community care system simultaneously to avoid the burden of the homeless patients.

Specific population groups have their own needs and children and elderly population form a sizeable population of every country. The psychiatric problems facing these two groups of population vary to some extent from that in the general population. Methods of treatment also differ. Thus, it is essential that special programmes for mental health be available for at least these two population groups. The results obtained through this project show that there is a huge gap in the availability of services for these special populations and much needs to be done to improve the current situation. Many countries have reported having non-governmental organizations (NGOs) working in the field of mental health. However, information on the quality of services provided by them is not available. NGOs can play a constructive role in service provision in the mental health sector in the fields of advocacy, prevention, promotion, treatment and rehabilitation. The results show that there is a large number of countries not having data collection or epidemiological studies in the field of mental health. This sort of studies not only help in assessing the current situation but can also act as monitoring systems. In order to plan and implement programmes, it is essential to have a good monitoring system that can properly assess the benefits of a programme and help in providing proper direction to it.

The data collected in the course of this project have a number of limitations. The project used working definitions. The aim was to strike a balance between the definitions that are most appropriate

and those that the countries currently use. Currently the definitions for mental health resources, like policy, primary care facilities, community care facilities, health information systems, vary from country to country. As a result, countries may have had difficulty in interpreting the definitions provided in the glossary and in reporting accurate information, which might be a reason for the missing information for some variables. Some of the definitions provided in the glossary, e.g. those on availability of a mental health budget, availability of disability benefits, availability of services for special populations, definition of psychologists, psychiatric nurses and social workers, would need to be amended and expanded in the future, as it was felt that some countries had problems interpreting them. Qualitative information related to implementation of policies, programmes or legislation, type of disability benefits, distribution of resources among rural and urban settings, quality of services available at primary or community level, proportion of financing for rural or urban settings, quality of services available for special populations, quality of services provided by NGOs and quality of information gathering systems cannot be gauged from these data. The information collected on the number of psychiatric beds and professionals gives the average figure for the country but does not provide information about distribution across rural or urban settings or distribution across different regions within the country (17).

In spite of these limitations, Atlas data provide a snapshot of how well prepared the countries are to respond to the increasing burden of mental disorders. The picture that emerges is indeed alarming: most countries have a gross deficiency of resources devoted to mental health care. The resources are also unevenly distributed across and within countries. It is hoped that these data will help focus attention to the urgent need to enhance the availability of mental health resources in the world.

Project Atlas is an ongoing project. Future studies are planned to collect information that is more comprehensive and also more relevant to the needs of further policy planning for individual countries. These studies will also provide comparison across time to assess any progress made in the availability of mental health resources. Studies on access to services and barriers that prevent access are also planned.

Acknowledgements

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The EPSILON Study - a study of care for people with schizophrenia in five European centres

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Schizophrenia causes suffering as a result of symptoms, lower quality of life, loss of independence, poorer social integration, increased mortality, the burden on informal caregivers, and reduced economic productivity. There are not many comparative studies of relationships between inputs, processes, outcomes and costs of care for people with schizophrenia. The EPSILON (European Psychiatric Services: Inputs linked to Outcome Domains and Needs) Study combined the aims of:

- translating and adapting research instruments for use in five European countries (Denmark, England, Italy, Spain, The Netherlands);
- describing cross-sectionally the care provided for people with schizophrenia in five centres in these countries (Amsterdam, Copenhagen, London, Santander, Verona) (1). Care systems in the centres all subscribed to a broad model of community mental health care, and the research groups had been involved in prior collaborative projects.

CASE IDENTIFICATION

Patients included in the study screening phase were adults aged 18-65 with an ICD-10 diagnosis of any non-affective psychotic disorder. Administrative prevalence samples of people with these diagnoses were identified, and patients needed to have been in contact with mental health services during the preceding three-month period. In a second step, cases identified were diagnosed by research staff on the basis of case note/clinician information using the Item Group Checklist (IGC) of the Schedules for Clinical Assessment in Neuropsychiatry (SCAN). Only patients with an ICD-10 diagnosis of schizophrenia were included. Exclusion criteria included secure (forensic) service use and extended inpatient treatment episodes (>1 year), to avoid bias between sites due to variation in the population of patients in long-term institutional care, and to concentrate on those in current 'active' care by specialist mental health teams. The numbers of patients finally included in the study varied from 52 to 107 between the five sites, and sampling fractions varied across sites. A total of 404 patients were included.

INSTRUMENTS

The instruments used in the study are described (and references given) in Thornicroft et al (2). Core study instruments translated and adapted for use in the five countries/languages included the following:

- The Camberwell Assessment of Need (CAN-EU), an interviewer administered instrument assessing 22 individual domains of need (ranging from accommodation, food, and household skills to welfare benefits, basic education and telephone), was used to assess the patient needs.
- The Client Socio-Demographic and Service Receipt Inventory (CSSRI-EU) was used to record, on an interview basis, sociodemographic data, accommodation, employment, income and all health, social, education and criminal justice services received by a patient during the preceding six-month period. This instrument allows costing of services received after weighting with unit cost data.
- The Involvement Evaluation Questionnaire (IEQ-EU) was used to measure caregiving consequences among informal caregivers. It contains four sections: general information on patient, caregiver and household, caregiving consequences, costs, a general health component (GHQ-12), and the consequences for patients' children. The time frame is the foregoing month.
- The Lancashire Quality of Life Profile (LQoLP-EU) was used to elicit objective quality of life indicators and subjective quality of life appraisal through patients' answers to interviewer administered questions concerning nine dimensions (from work/education, leisure/participation to social relations and health).
- The Verona Service Satisfaction Scale (VSSS-EU), a self-administered instrument comprising seven domains (global satisfaction, skill and behaviour, information, access, efficacy, intervention, and relatives' support), was used to assess satisfaction with services.

SITES

Amsterdam

Data were collected in Amsterdam South East (residential middle-class area of 110,000, high proportion of minority ethnic groups). Mental health services in

Amsterdam South-East are in a process of integration (service provision by Santpoort hospital, outpatient services provided by Regional Institute for Ambulatory Mental Health Care, outpatient department of Academic Medical Centre, and outpatient department of Santpoort hospital). There are non-hospital residential services, home care, two shelters for homeless people with mental disorders, a day care centre and vocational rehabilitation services.

Copenhagen

Vesterbro and Kongens Enghave are two neighbouring districts (population 48,000) in Copenhagen. Comprehensive mental health services are provided by Hvidovre Hospital. There is close collaboration between the community mental health centres and other health services (general practitioners, social and residential services, voluntary organisation, etc.).

London

Croydon is a suburban borough in South London (of 330,000). The population is mixed deprived and middle class. There are four community mental health centres for the whole borough of Croydon. Social Services and the private and voluntary sectors also provide day-care places, work opportunities and 'pop-in' services. Sampling in this study was from the Central East and West localities with a population of about 67,000.

Santander

The study was conducted in Santander (capital of Cantabria) in northern Spain. The city of Santander is predominantly middle class (population 194,000). Mental health services comprise an acute psychiatric inpatient unit, and a 24-hour acute emergency unit. Cantabria is divided into four areas, each with a community mental health service. The Santander mental health centre has two multi-disciplinary adult mental health teams.

Verona

South-Verona is a predominantly urban area with a mainly middle class population (70,000). The South-Verona community mental health service is the main psychiatric service. It includes comprehensive and integrated programmes and provides inpatient and day care, rehabilitation, outpatient care and home visits, as well as a 24-hour emergency service and residential facilities for long-term patients.

STUDY RESULTS

Needs

The mean number of needs, across the centres, varied from just under five (Santander and Verona) to about six (Amsterdam and

London); met needs were between about three and four; unmet needs varied from 1.3 in Copenhagen to 2.5 in Amsterdam (3). Differences between the sites were significant for unmet needs, both with and without adjustment for socio-demographic and illness-related covariates. Service supply effects appeared moderate, although data suggested some effects of differences in provision (day care scarce in Santander; met need for psychotic symptoms high in London). With respect to accommodation, a 'culture effect' was discussed, with limited provision of residential care in the southern sites not matched by high unmet need.

Service utilisation and cost

In the course of 12 months, 11.6% of patients had utilised inpatient care (lowest in Amsterdam, highest in Copenhagen) (4). Mean number of community contacts (in 3 months) was 8.0 (high for Amsterdam, low in Santander). Days in residential care varied from 25 days in Amsterdam to 6.7 days in Verona. Mean one-year cost per patient, in the total sample, was at £5038 (95% CI £3888-£6237). There was substantial cost variation (ranging from £1558 in Santander to £9934 in Copenhagen). Multivariate statistics to account for cost variation in the pooled data set resulted in the following associations: treatment of male patients is associated with 50% higher cost; each episode of past inpatient care increases cost by 2%; cost of care increases by 3% per unit reduction in the Global Assessment of Functioning (GAF) score; cost increases by about 13% per met need; there was a weak indication of cost reduction with increasing service satisfaction.

Family caregiving

The factors derived from simultaneous components analysis were comparable with the original IEQ factors with minor deviations (5). There were four factors with comparable reliability (tension, supervision, worrying, and urging) with identical rank order (worrying being highest). In terms of the level of caregiving consequences, the five sites differed significantly on all scales, with the highest scores generally found in Verona, and the lowest in Amsterdam and Copenhagen (Santander and London holding intermediate position). IEQ scores were generally higher if patients were older, were native speakers, had more contact with the caregiver, had a caregiver with impaired coping, or lived in places with fewer psychiatric beds. There were differences in sample characteristics between the sites, and adjusted IEQ scores were computed and resulted in the same overall picture, with Verona, Santander and London scores being higher than those in Amsterdam and Copenhagen.

Service satisfaction

Patient satisfaction differed significantly across the sites, with scores ranging mostly from 3 to 4 on a 5-point Likert scale (1 being 'terrible', and 5 being 'excellent') (6). The highest scores were

observed in Copenhagen, the lowest in London. Verona had the highest satisfaction score concerning the types of intervention available (Santander scoring lowest). After adjusting for differences in sample characteristics, the differences remained significant, and the gap between Copenhagen and the other sites widened. Considering specific areas of dissatisfaction, subjects were generally least satisfied in London and most satisfied in Copenhagen, and a wide variability of scores was observed. Living in London and Santander (centre effect), being retired or unemployed, having a high number of hospital admissions, a high level of psychopathological impairment, a large number of unmet needs and poor quality of life (social relations and health) correlated with lower service satisfaction. It is noteworthy that 'information about illness' and 'involvement of relatives' are the satisfaction domains with the worst performance in all the sites. These findings are in line with other studies, and the issues of information and relative involvement require specific attention in service planning and quality management. Among the predictors of service satisfaction, the social relations and health domains of the quality of life (QoL) measure had the strongest impact.

Quality of life

Where subjective QoL is concerned, the average mean LQoLP score, at 4.67 (SD 0.76), was close to the midpoint of 4 (towards the better end, 7 being 'completely satisfied'). Life satisfaction scores were lowest in the domains of work and finances. Copenhagen was the centre with the highest ratings in six of the nine QoL domains (work, leisure activities, religion, finances, living situation, safety), while London was the centre scoring lowest. Among the predictors of subjective QoL scores, the BPRS anxiety-depression and positive symptom subscales, number of psychiatric admissions and history of alcohol abuse accounted for 18% of the variance.

CONCLUSIONS: CENTRE DIFFERENCES

Provision of mental health care varies across countries, cities and regions. In the EPSILON study, London had the oldest patient population. Almost three-quarters of patients in Santander and half in Verona lived with relatives, and these two sites had the highest percentages of people living in mainstream accommodation. On the contrary, between two thirds and half of the patients in Copenhagen, Amsterdam and London lived alone. Informal caregivers in Verona had more difficulty in coping with the caregiving experience. In describing the pattern of differences, Copenhagen can be described as a relatively affluent and safe place with comprehensive service provision, while Santander has a more restricted range of services. Living with family, in the southern sites, is con-

trasted with living alone in the northern European centres, and London is characterised by some degree of social deprivation among people suffering from schizophrenia.

The directions and extremes of inter-site differences vary in this study. On many, albeit not all, of the domains taken into consideration, the centres in Copenhagen and London represent opposite end points in the distribution of data. A clear concordance between subjective QoL and objective living conditions was found in some instances. However, in the case of finances, more than 90% of patients received social benefits in Copenhagen, but the specific level of satisfaction in this area was lower than in Santander and Verona, where the number of persons receiving social benefits was considerably lower. Thus, the perception of reality appears to be different across the sites. It might be that in the southern European centres the family constitutes an important source of social support and income, accounting for the objective-subjective discrepancy. Services in Copenhagen received the highest level of funding (costs of care were highest). This difference between Copenhagen and the other sites can be traced throughout most areas assessed, whether we consider the range and number of services, staffing levels or provision of residential care places. This may make for the decisive difference that differentiates Copenhagen from the other sites: here was a well-resourced service with reasonable staffing providing care for people comparatively severely ill.

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BALANCE: a large simple trial of maintenance treatment for bipolar disorder

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Despite recent developments in the treatment of the acute manic and depressive phases of bipolar disorder, the frequently recurrent nature of the disorder means that ongoing treatment for long-term relapse prevention is often needed. Drugs that are effective in the acute phase are commonly continued in remission to prevent or delay another relapse, but it is unclear which of these drugs is most effective or whether a combination of individually less than ideal drugs may be better than any monotherapy. Lithium effectively halves the relapse rate but it is not effective for all patients and it has a narrow therapeutic index (1). This often leads to low levels of treatment adherence and acute discontinuation may result in new episodes of illness (2). Lower plasma levels improve tolerability and adherence but probably at the cost of optimum efficacy (3). Alternative drug treatments, such as carbamazepine and valproate, have emerged, prompted by the analogy between recurrence in bipolar disorder and the recurrence of seizures in epilepsy (4). Valproate seems to be effective and well tolerated in acute mania (5), although the evidence in maintenance is equivocal, and it is unclear if lithium or valproate is superior (6).

Combinations of drugs, particularly lithium plus valproate, are both recommended and frequently used in clinical practice for mood stabilization, especially for patients who have not responded to monotherapy (7,8). Synergy between lithium and valproate may occur because their putative mechanisms of action converge on signal transduction pathways critical for neurotransmitter function and neuroprotection (9). Clinically, the combination of moderate doses of lithium plus valproate may be more effective than either drug alone.

In the US, use of valproate (both alone and in combination with lithium) for the acute and maintenance treatment of bipolar disorder has increased dramatically since the early 1990s - prescriptions for valproate in bipolar disorder have now overtaken those for lithium (8,10,11). By contrast, in the UK and Europe lithium is still the most frequently used mood stabilizer (12). These variations in clinical practice reflect the absence of evidence, rather than failure to implement it, and highlight the current uncertainty about the appropriate places of lithium and valproate.

THE BALANCE TRIAL

BALANCE (Bipolar Affective disorder: Lithium/ANTiconvulsant Evaluation) is a large simple randomised clinical trial designed to test the relative efficacy of the combination of lithium and valproate compared with lithium monotherapy and with valproate monotherapy. Trials commonly fail because: they fail to meet recruitment targets, are too small to detect plausible treatment effects, or are too late and the trial question is overtaken by changing conditions or practice (13,14). Although there is relatively little research on randomized trials in psychiatry, there is rather more in other areas of medicine where large, simple trials have been useful in answering important clinical questions. The main principles that inform the design of such trials are the following:

- The benefits of medical treatments on important outcomes are usually only moderately sized, although clinically worthwhile. This means that the trial needs to be very large to be able to detect the effect reliably.
- Inclusion criteria should be as broad and as unrestricted as possible. Recruitment has been shown to be adversely affected by the use of strict eligibility criteria (15). Unrestrictive entry criteria make it more likely that the required sample size will be achieved and a broad, heterogeneous range of patients can be recruited, thereby increasing the general applicability of the trial results. The key entry criterion is that both the patient and investigator are substantially uncertain which of the trial treatments would be most appropriate. This is ethical because it effectively excludes patients for whom a specific treatment is known to be most appropriate. It maximizes recruitment by allowing the widest possible eligibility for trial entry. Crucially, the uncertainty principle also makes clinical sense.
- All trial procedures are radically simplified. One of the key barriers to participation in trials by clinicians is time availability. Removing this barrier, by keeping the trial procedures and data collection to an absolute minimum, is essential to achieve the widespread participation and, hence, the required sample size for realising the key objectives of the trial (14,16-18).
- The trial should have adequate support materials, to make sure that patients understand the reasons for the

trial, and patients should be given additional verbal explanations by their physician (19,20).

DESIGN OF BALANCE

BALANCE has been designed using these principles. Patients with bipolar disorder who consent to join the trial enter an active run-in phase during which they will receive combination lithium plus valproate semisodium for up to 8 weeks. Patients will then be randomized to receive lithium monotherapy or valproate semisodium monotherapy or combination therapy with lithium plus valproate semisodium and followed for up to 2 years (Figure 1).

Interventions

Lithium

The dose of lithium in BALANCE will be flexible, but is fixed during the run-in to be *both* tolerated by the patient *and* achieving a plasma level between 0.4 to 1.0 mmol/l.

Valproate

The optimal levels of valproate for maintenance treatment are unclear, but levels between 50 and 150 mcg/ml appear to be optimal for *acute* treatment (21). The dose of valproate semisodium will be 1250 mg/day unless the patient cannot tolerate this dose, in which case 750 mg will be used.

Following randomization, each allocated drug will continue to be prescribed in the dose fixed in the run-in. This will facilitate centralised drug provision and allow the use of time to relapse of mood disorder requiring adjunctive treatment as a primary outcome measure.

Eligibility

The trial is open to any patient with a diagnosis of bipolar disorder who has agreed to commence or continue maintenance therapy, but there is uncertainty about which treatment is likely to be optimal.

Run-in phase

The run-in will increase the likelihood that patients who cannot tolerate the drugs, or who will not comply, withdraw before randomization, enhancing the validity and efficiency of the trial (22). Ensuring that participants are tolerant under normal clinical conditions during the active run-in phase should also facilitate recruitment of patients and increase the general applicability of the results of the trial, since, in normal clinical practice, patients would undergo a trial of a proposed medication before long-term treatment was recommended.

At the end of the run-in phase, if there remains uncertainty, the participant is allocated to trial therapy using telephone randomization with minimization. If allocated to monotherapy, the discontinued drug will be withdrawn gradually over 28 days to reduce the likelihood of withdrawal relapses (2,23,24).

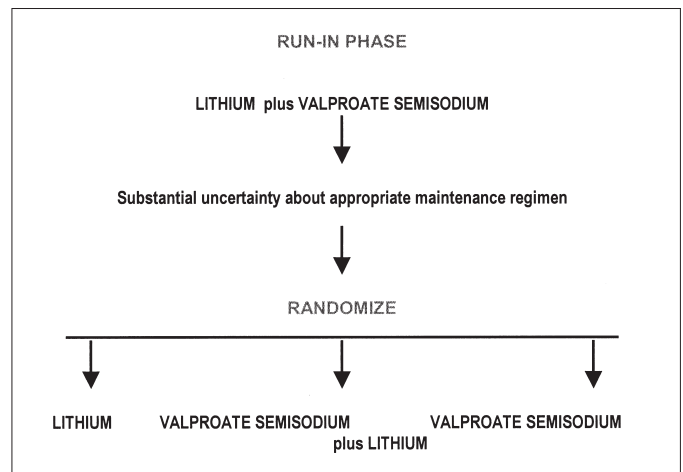


Figure 1 Design of BALANCE

Primary outcomes

The principal primary outcome will be the time to hospital admission during the scheduled randomized treatment period. Although there is general agreement that admission to hospital is a clinically meaningful and measurable outcome, it is a potentially insensitive measure of the less severe mood fluctuations that cause considerable disability in bipolar disorder. Furthermore, manic episodes are more likely than depressive episodes to result in hospital admission. The use of adjunctive antidepressant and antipsychotic medication and of mood stabilizers other than lithium and valproate semisodium will provide another measure of the occurrence of mood episodes that are not severe enough to lead to admission.

Secondary outcomes

Secondary outcomes will include the Global Assessment of Functioning, deliberate self-harm, quality of life, treatment-emergent adverse events, withdrawal from allocated treatment and adherence.

Open design

An open design has been selected to improve recruitment and because the principal primary outcome is objective and so the risk of ascertainment bias is relatively low. Performance bias will be reduced by the use of fixed post-randomization doses and the use of the pragmatic outcome to use additional treatment as co-primary outcome.

Maximizing follow-up

In BALANCE, a high follow-up rate on the principal outcome will be achieved by the use of hospital admission as primary outcome, the pre-randomization run-in phase and the minimization of the burden on patients and investigators imposed by the trial procedures.

Sample size and power

Recent trials suggest a 70% admission-free survival rate on lithium monotherapy during the trial (24 months), with a 30% rate of lapse from treatment (25,26). A 10% improvement in the absolute survival rate in the combination group is both feasible and clinically important. Power calculations have included an adjustment for a 30% rate of withdrawal from study treatment. To achieve 90% power, a 2-sided significance level of $2p < 0.05$, and assuming a 5% loss to follow-up rate, 878 participants will be needed in each treatment group. The target total sample size for BALANCE will be 3000 participants. This sample size will have >95% power to detect a 10% absolute improvement in the prescription-free survival for antidepressants or antipsychotics.

Planned analyses

The primary analysis (by full intention-to-treat) will be a survival analysis of time to hospital admission during the scheduled treatment period of patients allocated to lithium plus valproate vs. those allocated to valproate monotherapy; patients allocated to lithium plus valproate vs. those allocated to lithium monotherapy, and those allocated to lithium monotherapy vs. those allocated to valproate monotherapy. These analyses will be repeated for time to use of adjunctive drug treatment.

CURRENT STATUS OF BALANCE

The start-up phase of BALANCE is currently in progress in seven centres in the UK. The trial will be extended across the UK during the next 2 years.

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Families and mental health workers: the need for partnership

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In Western countries, the movement from treatment in large mental hospitals to treatment in community mental health facilities has resulted in a heavy burden of care for the families of people with mental illness (1). The nature of this caregiving role is often not understood by professional mental health workers. Blaming families for causing these illnesses has not completely disappeared, although it is decreasing as evidence mounts for a neurobiological explanation of mental illness.

Families are frequently excluded from treatment and care plans. Reasons for this include the belief that the individual has the right to a confidential relationship with his doctor. Mental health professionals are trained to maintain confidentiality. This can assume precedence over other treatment and care issues that may be of greater benefit to the patient (2). Secondly, mental health professionals are not skilled in working with families. Some recent programs now train mental health workers to provide families with the skills needed to be active, positive carers rather than passive victims to the difficult situations created by a relative's illness (3).

In Eastern societies, the relationship between families and mental health professionals is different. Families have never been excluded from the treatment process, and are the mainstay of care for their relatives with mental illness. Confidentiality is not a problem, although stigma is even greater than it is in the West. Nevertheless, the intrinsic and tremendous potential of families to facilitate recovery in their ill relative has generally not been recognized. Families receive information about the need to continue medication (in fact, medication is often entirely supervised by families and the patient is only a passive participant). In developing countries, caregivers have a major role to play in the resocialisation, vocational and social skills training of the patient, not only because of close family ties that exist in these traditional societies, but also because developing countries lack rehabilitation professionals to deliver these services. Carer burden is exacerbated by issues of poverty and illiteracy (4).

Regardless of whether the country is in the developed or developing world, there are too few instances where families receive the information,

education, training and emotional support that they need in order to facilitate their loved one's recovery.

FAMILIES HELPING FAMILIES

Failure of mental health systems to involve family carers has resulted in the growth of family self-help organizations. Some of these organizations have developed their own often highly sophisticated information, education and support programs, such as 'Understanding and coping with schizophrenia: 14 principles for the relatives' (5) and the 'Family-to-family education program' (6). Family members who develop these programs use their personal 'lived experiences' of day-to-day coping with mental illness in a close relative as the basis for teaching other families how to cope. They claim that their personal experience gives them a deeper understanding of what does or does not work; an understanding that inexperienced professional workers often do not appreciate.

These programs have not been subjected to rigorous evaluation, nor are they likely to be mentioned in professional journals. Self-help organizations rarely have the money or the expertise to carry out the necessary steps to have their work recognized in evidence-based research. Nevertheless, thousands of family carers will attest to their value, claiming that the real difference in their lives came from attendance at these 'peer support' educational courses (7).

Part of the family carers' subjective burden relates to the failure of mental health professionals to listen to and include family members in their mentally ill relative's treatment and care plan. Perhaps this is not surprising as the professional mental health workforce has little real training in psycho-education as a total package of care. Goldstein (8) states that he has 'observed a resistance to applying these techniques ...many practitioners have never worked with families and understandably find the prospect quite intimidating.'

Where they exist, the development of family initiated and implemented programs presently provide for many of the needs of family carers, but there is concern that they may become a substitute for, and therefore prevent or delay the development of comprehensive psycho-

education, where a strong emphasis is put upon the development of a collaborative relationship between clinicians, family carers and patients.

The strongest reasons for the implementation of programs that emphasise collaborative partnerships are summarized in the following statement: "Since 1980, twenty-two controlled studies of long-term cognitive-behavioural family interventions integrated with optimal drug and case management have shown substantial additional benefits for people with schizophrenic disorders. These include 14 random-controlled comparisons carried out with sound scientific methods that document the significant clinical, social and economic advantages of these new approaches that include patients, relatives and close friends in the continuing care program.... All recent authoritative reviews of this body of research have reached a consistent conclusion that further delays in implementing these methods in clinical practice can no longer be justified, either on the grounds of insufficient scientific evidence for their effectiveness, or on account of problems with securing additional manpower resources for implementation" (9).

Although these trials have been carried out predominantly in the West, there are notable inclusions from trials in China.

PRINCIPLES FOR WORKING WITH FAMILIES

The World Fellowship for Schizophrenia and Allied Disorders - an international organization of national family support organizations - developed principles for working with families as the first step in its 'Families as partners in care' project (10). These principles are particularly relevant for countries where there is a mental health workforce able to be trained in 'family interventions'. Variations of these principles are presently being formulated for countries where numbers of mental health professionals and services are minimal. Nevertheless, many of these principles are relevant regardless of differing social, economic and cultural conditions.

The following principles, drawn from positive evidence found in research, state the need to:

- *Coordinate all elements of treatment and rehabilitation to ensure that everyone is working towards the same goals in a collaborative, supportive relationship.* Working together ensures that the goals for treatment and care are understood and agreed by the treatment team which includes the family. This will overcome the isolation that is experienced by both professionals and families.
- *Pay attention to the social, as well as the clinical needs of the patient.* It is insufficient to focus exclusively on medication management. Needs for appropriate accommodation, employment or alternative occupation, economic support, recreation and a supportive social network must be taken into account.
- *Provide optimum medication management.* Clinicians should be alert to signs of overmedication and to the unpleasant and disabling side effects of antipsychotics. There should be regular reviews of the medication with the patient and family. Education about

medications plus regular assessment, particularly in relation to side effects, will encourage compliance.

- *Listen to families and treat them as equal partners.* Relatives have gained a great deal of experience and have much to teach professional caregivers. Their expertise should be acknowledged and valued. Clinicians should consult with family throughout the treatment and care program, to improve effectiveness, understanding and empathy. Speaking to families in their homes may help in initiating family contact.

- *Explore family members expectations,* concerning: a) the treatment program (each family member may have different expectations; because these may be unrealistic it is important to explain what the team hopes to achieve); b) the patient (after an episode of illness, particularly at the beginning, family members may expect the person to return rapidly to his/her previous level of functioning; the family will need to adjust their expectations and form new goals; throughout the treatment process, family and patient expectations have to be regularly evaluated).

- *Assess the family's strengths and difficulties.* It is too easy to focus on the family's problems and ignore their strengths. Simply staying together constitutes a strength. A major strength is their intimate knowledge of the patient and what they have learned through a process of trial and error. Caring for someone with a mental illness exacts an emotional toll. Anxiety and depression should not be neglected. These symptoms reduce their capacity to support the patient.

- *Help resolve family conflict by providing sensitive response to emotional stress.* Anger, anxiety and guilt expressed by family members should be dealt with in a sensitive way. Anger can usually be reframed as showing concern. Expressions of warmth are encouraged. Recreational activities should be promoted that are likely to lead to family members enjoying things together. When conflicts stemming from antagonistic relationships arise, clinicians need to listen to the differing viewpoints impartially and seek resolution through compromise.

- *Address feelings of loss.* Family members experience loss of hopes and expectations for their sick relative. They also feel that the person they know has been changed by the illness. Their grief needs to be acknowledged. They need help in coming to terms with both these kinds of loss.

- *Provide relevant information for patient and family at appropriate times.* An introductory education program is an effective way of engaging families, but needs to be followed by continuing education throughout the period of treatment and care. Clinicians and families need to appreciate each patient's individual signs of relapse in order to bring about an early treatment intervention. Each family has its own concerns which need to be addressed. In addition, clinicians should recommend that the family attend a support group.

- *Provide an explicit response plan for crises.* The family should have access to the treatment team when they know that their relative is in danger of relapse. A provisional plan, which includes relevant telephone numbers of key contacts and services, should be in place.

- *Encourage clear communication among family members.* In some

families, members find it difficult to communicate with each other. They have stopped listening. It is common for the person with mental illness to be left out of discussions. Clinicians need to suggest simple ground rules for clear communication, and support the family in their efforts to observe them.

- *Provide training for the family in structured problem-solving techniques.* This cognitive-behavioural approach is of great value in helping families to tackle the main problems they face in caring for a person with mental illness. It is sensible to guide the family towards applying the techniques to a simple problem first, so that they are likely to achieve success.

- *Encourage the family to expand their social support networks.* Families tend to withdraw from their natural support networks through burden, shame and embarrassment. Initially they benefit from social interaction through relatives' support groups, or multi-family problem solving groups. It is important that the caring role does not absorb all their life and that a balance be maintained. Patients may be helped to increase their social activity by social skills training, often with the assistance of siblings and friends.

- *Be flexible in meeting the needs of the family.* Clinicians may decide to work with a single family or groups of families. Family members and/or the patient may need to be seen separately. The patient may need to discuss some concerns privately when they do not concern the family.

- *Provide the family with easy access to a professional in case of need if work with the family ceases.* It is essential to leave the family with a phone number and a named person who will deal with any future enquiries. Sometimes a telephone discussion will suffice; at other times additional sessions may be required to help family to cope with a crisis or a change in their circumstances.

Some family carers who gain confidence in their caregiving role should be used as:

- *Educators and trainers of mental health professionals.* Work with families can take place through a 'reflective' learning process between family care and professionals at undergraduate and postgraduate levels of training as well as in-service workplace training.

- *Advisors at all levels of policy development in mental health services.* Family and consumer perspectives must inform mental health policies through advocacy groups alerting governments to mental health issues.

- *Advocates for community acceptance of mental illness.* Carer organizations have an important role in mental health advocacy, particularly through community awareness campaigns aimed at reducing the stigma associated with mental illness.

- *Developers of a wide range of community support services.* Family organisations in both developed and developing countries have raised funds for, and then run 'drop-in' centers, rehabilitation programs, accommodation facilities and respite care services (11).

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Women's mental health in Tunisia

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Tunisia is the only country in the Arab world where the principle of equality between genders has been consecrated in legal texts. In 1956, the Code of Personal Status introduced the equality of rights, through a set of provisions such as the abolition of polygamy, the institution of legal divorce and recognition of both spouses' right to seek divorce, and the setting of a minimum age for marriage to young women. From that time on, these rights have become irreversible and have continued to adapt to social transformations which have occurred in Tunisia. However, women keep on being more exposed than men to many specific risk factors which greatly contribute to threaten their mental health, throughout their life (1).

Being a woman is still a misfortune, and discrimination against girls starts since their birth, because a girl is unable to transmit the family name and is considered potentially dangerous for the honor of the family. They will thus be brought up under close surveillance. Suicide attempts, far more frequent in female teenagers, are too often the only solution for them to advocate some freedom (2). Besides, the ultraconservative upbringing of many females paves the way to development of morbid fear of sexual intercourse and even non-consummation of marriage. In fact, one woman in two declares being indifferent to sexual relationships (3).

Women have gained today the right to be educated, but not too high! So, despite steady investment (as much as 10 per cent of the state budget is allocated to education) and progress, women are still the major victims of illiteracy (41% of females over 15). This affects twice as many women over 15 as men.

Similarly, women have now conquered the right to work (the percentage of women in the working population has risen from 6% in 1966 to 25% in 1999), but they are mainly represented in sectors of activity which resort traditionally to female manpower, such as education, health, or textile industry. Moreover, this resulted in work overload, marital conflict and exposure to moral and sexual harassment. In fact, several women develop depressive disorders and are required to give up working (4).

The taboo of sexuality keeps on being highly significant and often causes suicidal behaviors in young girls who lost their virginity. In a recent survey, virginity was considered by 90% of women "a social rule to be main-

tained" (3). This taboo ends up only with marriage (30% of women are still opposed to sex before marriage) but, then, women have to rapidly prove their ability to procreate, males preferably.

That's why infertility is still a real drama, which justifies divorce and provokes mental disorders. The importance of being fertile is also a major obstacle to contraception. Despite the intensive family planning policy carried out for decades, the contraceptive prevalence reaches only 51%. Many studies have reported a high rate of psychiatric morbidity in women on contraceptive pills or women who had their tubes tied. On the other hand, illicit pregnancy is strongly condemned and leads in most cases to abortion or to the newborn's abandonment (5). In the same way, menopause (which in Arabic is called 'despair') triggers depressive and anxious disorders in 37% of women (6).

Women remain the main victims of domestic violence. Some surveys in various medical and psychiatric settings have shown that 30 to 40% of women report having been assaulted by their husband or another family member at least once (7). The major problem is that most of them keep the violence a secret. Women who are beaten by a relative are often reluctant to report the crime to police, family or others. In the above survey, only 60% of women and 50% of men considered wife abuse intolerable! In case of disclosure, family, police and even health professionals are often not of great help, given the importance attached to maintaining the marital link. Women are thus advised to pardon to protect children and home. However, a recent study showed that abused women were at higher risk than a control group to develop depressive (98% vs. 50%) and medical problems (72.5% vs. 27.5%) (8).

Finally, when they are mentally ill, women don't benefit from the same protection as men and suffer from a worse clinical and social outcome. Given the stigma attached to mental disorders in women and their important role in the family, they are referred to care at a later stage and quickly discontinue treatment. Moreover, women are underrepresented among psychiatric inpatients, because their admission carries greater stigma and reduce their marriage prospects. Indeed, they are far more likely than men to be divorced and separated from their children, or to be rejected by their families and to end up their life in a mental hospital.

Women's mental health is inextricably linked to their status in society. It benefits from equality and suffers from discrimination. Despite their privileged status, Tunisian women share the same mental health problems as all the other Arab females. The example of Tunisia shows that a legislation empowering women is necessary but insufficient to guarantee them a real promotion. The gap remains large between the legal framework and the reality. This means that the protection of women's mental health is not only a medical challenge but also a cultural one, involving many partners to second a policy of steady empowerment and advances to reach a real equality.

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Creating a department of psychiatry in a developing country

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There are more than 3,000 faculties of Medicine in the world. Almost all of them have a department of psychiatry. Only less than one third of these departments are located in developing countries, where 80% of the world population actually live.

Creating a new department of psychiatry is not an easy task anywhere, but it is a much bigger challenge in a developing country. The reasons are that resources are meagre on the one hand, and that decision makers in such countries wrongly believe that their highest priorities are infectious diseases and infantile mortality, and that very few resources should be given to psychiatry and mental health care, because mental disorders belong to the developed world, not the developing one.

In this paper, I will summarize my own experience in building up the Department of Psychiatry of the University of Casablanca, Morocco, and I will draw the main concepts that helped in this endeavour, and the difficulties encountered, and how they were tackled.

When I came back to my country in 1979, after a 6-year training in psychiatry in Paris, France, I found myself being the only psychiatrist in the public sector for four cities (Casablanca, Mohammedia, El Jadida and Benslimane) and a population of about 5 million inhabitants. With only one resident with me, we were on duty 24 hours over 24, receiving almost exclusively severe emergencies, having 55 beds only for 20 to 30 patients who needed hospitalisation every day. We nicknamed the unit 'Intensive Care Psychiatry', as only the most severe patients were admitted. Not only the number of beds was insufficient, but the material status of the institution was desperate: no windows, metallic doors did not close when needed, no electricity, no water supply, no medication.

The total number of fully trained psychiatrists in Morocco was in 1979 less than 10, taking care of a population of about 18 million people. The situation of nurses and other staff working in the ward was as disastrous as the one of the walls. Burn-out syndrome was obvious in all personnel.

The current situation is much better. In the same region, that is the four cities, about fifty psychiatrists and trainees in psychiatry work in the public and the academic sectors, five of them being professors of psychia-

try and two assistant professors. The situation of the institution is also much better, new wards having been built, although it needs constant maintenance and improvement. The impact on the patients has been spectacular: the number of relapses and readmissions has dropped sharply, and the families, as well as the patients, have often expressed their satisfaction about the quality of provided service. The number of hospitalised patients every year is about 1,500. The creation of nine outpatient clinics has also been very helpful: scattered all over the city of Casablanca, they are in charge of well-defined catchment areas. The number of patients seen in these clinics is about 30,000 every year. The Ibn Rushd University Psychiatric Centre has also a mission of training under- and post-graduates, as well as psychiatric nurses and clinical psychologists. It is for the time being the only World Health Organization (WHO) Collaborating Centre in Morocco, all clinical specialties included.

The progress made during these two decades has not been steady. We had extremely difficult moments, and others much easier than expected. The principles that made relative success possible, despite an extremely difficult situation, are the following:

- *Build partnerships in Morocco.* It was clear from the beginning that the work before us was so enormous on the one hand, and that the resources were so scarce on the other, that our small team had to look urgently for partners. They were found in the newly created Faculty of Medicine, in the University hospital to which the department belongs, among the decision makers in the city, but also in the community. Individuals and companies were asked for financial help, and were generally responsive. One of the important ways of doing it was to organize fund raising dinners, with the kind performance of non-paid artists. Another one was the direct contact with benefactors, being individuals or institutions. It was essential to make the persons who take the decision visit the department, showing the needs, asking for a reasonable help, and auditing the accounts of the Casablanca League for Mental Health when the money was given directly to the association for a specific project. Before it became fashionable, we were using techniques of social marketing. Besides the League, a number of other NGOs were created in relationship with the

Department: e.g. associations of relatives of patients, an association for prevention of drug abuse, an association to help academically deficient students in poor neighbourhoods when mental action is needed. 80 beds (out of the 104 existing at present in the Ibn Rushd University Psychiatric Centre) have been created with funds coming exclusively from private donors.

- *Build partnerships outside the country.* From the very beginning, it was obvious that we needed the help from outside the country to build a library (no money is given by the government for journal subscriptions or to buy books), to send post-graduates abroad for training, especially in France, and to be part of a network. The collaboration with WHO started in 1980, and this helped the team keeping abreast with the new knowledge rising in the field. International collaboration contributed also in building a sense of pride in the team, that helped in turn to strengthen its identity.

- *Improve the situation of wards.* Every single improvement helped fighting the burn-out syndrome, and sometimes with not much money needed. A particular attention was given to the gardens, and to the colours. Architects and painters helped make out of a grey environment a better place to live for the patients and for the staff.

- *The rights of patients* became more and more of a concern, with the evolution of the social situation in Morocco towards a more democratic way of life. The introduction of this new concept was not easy, as many of the staff members were reluctant, especially with the introduction of the chart of rights of the patients posted in Arabic and French in the various wards. A problem remained however a serious threat for the credibility of the department: bribery in non-medical staff. We tried many ways to overcome this problem without success. The solution came when we gathered with families of hospitalised patients on a weekly basis. This allowed not only to educate them about what is a mental disorder, and how important it is to continue the treatment as long as needed, but also to discuss institutional issues, including bribery.

- *Liaison psychiatry* is a major aspect of our work, as we are located in the campus of the University hospital. Not only we see the patients who need a psychological or a psychiatric help, but we initiated a number of studies on the prevalence of depression and anxiety disorders in patients in the various specialty departments (burns, obstetrics, dermatology, cardiology, orthopaedics). We also conducted clinical trials showing that psychotropic medication can improve remarkably the mental health state of the patients, but also their physical one. This gave the Department of Psychiatry a good image in the University hospital and made the relationship with other departments much smoother.

- *Education in psychiatry.* Education of undergraduates has been given one of the highest priorities for a number of reasons: one is that the better memory medical students have of their rotation, the more applicants there are for psychiatric residency. On the other hand, the 350 clerks that had their rotation every year in the

Department represent the best ambassadors in the community when they witness the efforts made to improve the situation. This moral credit in the community is important when it comes to raising funds or to take an action for the mental health services with the help of the community. On the other hand, continuous medical education was considered from the beginning as another priority, as it serves better the patients, and as it helps relieving the work load on the psychiatric institutions. As a matter of fact, integration of mental health in the primary health care is of essence in a developing country.

It is not easy to create a department of psychiatry, and having visited personally a large number of such institutions in the world, I can say that there are much more similarities between countries than there are differences (1). Even in developed countries, a few decades ago, the situation was somewhat similar to what exists at present in developing countries. For example, when I complained in 1979 to friends from abroad about the harsh situation I was working in, many were very supportive, and one of them (Alfred M. Freedman) told me that it reminded him of the situation in New York when he was resident himself. This helped a lot to keep up with the hard work.

Despite all the efforts, many difficulties are still hampering the functioning of the Department: small medication budget, insufficient number of nurses, no stable clinical psychologist, and no social worker to mention a few. However, one of the most important aspects we learned from this experience is that the improvement of one of the institutional activities has a positive impact on all other facets of the system, and the circle can go up in a virtuous way, or down in a vicious one. We realized recently that we were doing during these two decades most if not all of what is recommended in the World Health Report 2001 (2): provide treatment in primary care, make psychotropic medicines available, give care in the community, educate the public, involve communities, families and public, establish national policies, develop human resources, link with other sectors, monitor community mental health, and support more research.

It was obvious along the way, and it is still today, that our effort must be constant, creative, cost-effective, and developed in partnership for a better mental health of our patients, and of our community at large.

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The scientific programme of the 12th World Congress of Psychiatry

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The 12th World Congress of Psychiatry (WCP) is scheduled to take place in Yokohama, Japan next August. It will be the first ever World Congress of Psychiatry in Asia. It is expected that it will attract people from all over the world: the previous WPA Congresses, in particular the most recent ones in Madrid and Hamburg, brought together psychiatrists from nearly a hundred countries.

While similar to these earlier congresses, the 12th WCP will also have its unique features. First, it will explore the possibilities of partnership in developing mental health programmes. Special Forums will be convened to examine collaboration between neuroscientific disciplines and psychiatry, between countries (developing and developed, East and West) and between various organisations (e.g. the World Health Organization, the World Bank, and others) in international mental health work, and to identify possible areas of better collaboration between patients, families and the various mental health professionals.

Symposia that will pursue the notion of partnership - e.g. those bringing together experts from different disciplines - will be given a special place in the programme. The differences between countries and in the experience of psychiatrists working in them could be a rich source of inspiration for research and service development. Ways of developing mental health programmes of good quality in conditions of economic scarcity could be immensely useful models for a psychiatry in richer countries currently facing budgetary and economic difficulties. Research opportunities - e.g. exploring the effects of different diets and climates on cognitive function, and effects of new treatments in "drug-naïve" persons - are one area of

potential gain from such collaboration. The other concerns the contribution that collaborative multicentric research could make to stemming the brain drain sapping the strength of mental health programmes in many countries.

The special emphasis that WPA has placed on helping young psychiatrists over the past few years - an emphasis that found its expression in the fellowship programmes during the 10th and 11th WCP and in the WPA Programme for Professional Development of Young Psychiatrists - will be pursued by reserving time for a special programme. This will consist of a series of update sessions and several "tracks" on special topics that will allow young psychiatrists to meet their peers in other countries and gain new knowledge in various fields of psychiatry.

Some 200 symposia have already been accepted for presentation in the Congress and it is expected that at least 50 more will be proposed before the deadline for the acceptance of proposals. The symposia deal with a variety of topics, ranging from recent results of investigations on the biological correlates of mental illness to the ethical issues in psychiatric education. Numerous symposia will deal with the treatment of mental disorders in different settings and using different methods. Symposia organized by Japanese psychiatrists and colleagues from other countries of East Asia will provide a new understanding of the strengths and orientations of research in that part of the world.

The poster sessions will be different from those in the previous congresses. It is expected that the posters will be exposed throughout the time of the Congress, grouped in clusters by their topic. The posters belonging to the same group will have a circular arrangement surrounding an area in their midst allowing discussion and meetings of the presenters and other participants in the Congress. The presenters will be invited to

be in the area of their poster at the same time each day.

Another new feature of the Congress will be the organization of events that will inform the broader Japanese public about the Congress and its deliberations. An Open Forum will be organized by the Mayor of the host city, Yokohama to inform the general public and the media about the main issues and findings of the Congress. Foreign and Japanese speakers will be invited to participate and it is expected that the Forum will be transmitted by the media to other parts of Japan. An exhibition of art works by people who suffered from mental illness and other artists will be organized and, if successful, transferred to other parts of Japan (and possibly elsewhere). Two "open days" will be organized - one intended to facilitate discussion about the problems related to the recognition and treatment of depression among other medical specialists and psychiatrists, and the other to report on the results of the programme against stigma and discrimination that the Japanese Society of Psychiatry and Neurology has initiated and will continue to carry on in the future.

A series of lectures by eminent psychiatrists will be included in the scientific programme as well as four magistral lectures - a first given by the President of the WPA, a second by a Japanese speaker dealing with a topic central to Japanese culture - the Tea Ceremony and its psychological and cultural significance, a third by the winner of the WPA most important recognition of excellence - Jean Delay Prize, and a fourth by the incoming President of the WPA.

Preparations are also being made to organize visits to psychiatric institutions in Japan and to convene symposia dealing with various topics in other towns in Japan before and after the Congress, thus giving the participants an occasion to become acquainted with some of the many beautiful sites of the host country. A special event preceding the World Congress will also be the celebration of the 100th anniversary of the Japanese Society of Psychiatry and Neurology - an occasion which might be graced by the presence of a member of Japan's imperial family.

The 12th World Congress of Psychiatry will provide opportunities to learn about new findings of science, meet old friends and make new ones, see Japan and its many beau-

tiful attractions. Its success will as always depend on its participants and their willingness to join hands in making this Congress a truly memorable and valuable occasion.

dementia and obsessive-compulsive disorder - are now sold out and are being reprinted. The royalties from the sales of those volumes have been the second most important source of income for the WPA in the years 2000 and 2001. The tables of contents of the two new volumes are presented in Tables 1 and 2.

New and forthcoming WPA books

MARIO MAJ

WPA Secretary for Publications

Fifteen new WPA books have just been published or are going to be published during the year 2002.

The fifth and sixth volume of the series "Evidence & Experience in Psychiatry", dealing respectively with bipolar disorder and eating disorders, are forthcoming. This series, published by J. Wiley & Sons, aims to compare research evidence and clinical experience concerning the diagnosis and management of the most common mental disorders. The background of the series is

the acknowledgement of the substantial gap still existing in psychiatry between research evidence and clinical practice: clinicians are sometimes incompletely aware of research findings, or regard them as biased, not convincing or not relevant to their practice. Each volume of the series covers a specific mental disorder, by means of a set of systematic reviews of the available research evidence, each followed by many commentaries produced by psychiatrists from many countries and belonging to different schools of thought. The first four volumes of the series - dealing respectively with depressive disorders, schizophrenia,

Three more forthcoming volumes published by J. Wiley & Sons will deal respectively with the future of psychiatric diagnosis and classification, the changing social contexts of psychiatry, and psychiatry as a neuroscience. These volumes are based in part on lectures delivered at the 11th World Congress of Psychiatry. In fact, the WPA Executive Committee decided not to produce the usual ponderous volumes containing the proceedings of the World Congress, but to select the most innovative presentations and build from them three high-quality thematic volumes. In order to ensure comprehensiveness, some key issues in the relevant areas not adequately represented in the programme of the World Congress have

Table 1 Contents of "Bipolar Disorder", fifth volume of the WPA series "Evidence & Experience in Psychiatry"

Classification, Diagnosis and Boundaries - <i>Systematic review:</i> H.S. Akiskal. <i>Commentaries:</i> J. Angst, P. Bech, R.H. Belmaker, M. Bourgeois, G.B. Cassano, D. Dunner, M.L. Figueira, S. Gershon, R.M.A. Hirschfeld, D.S. Janowsky, T. Kato, M. Keller, W.A. Nolen, Z. Rihmer, C. Stefanis, S. Strakowski, A.C. Swann, P.C. Whybrow.
Prognosis - <i>Systematic review:</i> A. Marneros et al. <i>Commentaries:</i> W. Coryell, M. Harrow, L. Kessing, A. Koukopoulos, B. Lerer, G.S. Leverich, P.P. Roy-Byrne, T. Silverstone, D.A. Solomon, M. Tohen, L. Tondo, M.T. Tsuang, C.L. Turvey, E. Vieta, T.A. Wehr.
Pharmacological Treatment - <i>Systematic review:</i> C. Bowden. <i>Commentaries:</i> C. Andrade, R. Baldessarini, M. Berk, J. Calabrese, K.N.R. Chengappa, A. Gelenberg, W. Greil, P. Grof, H. Grunze, S. Kasper, R. Joffe, B.E. Leonard, R.W. Licht, J. Rybakowski, G. Sachs, J.C. Soares, T. Suppes, P. Vestergaard, S. Walton, A. Young, C.A. Zarate.
Psychosocial Interventions - <i>Systematic review:</i> M. Bauer. <i>Commentaries:</i> G.A. Fava, P.J. Goodnick, A. Heerlein, N. Huxley, S.L. Johnson, G.I. Keitner, A.G. Mallinger, J. Miklowitz, D. Moussaoui, A. Palmer, Y. Papakostas, S.V. Parikh, E. Paykel, B. Rothbaum, C. Salzman, H.A. Swartz, M.E. Thase.
Effects of Gender and Age on Phenomenology and Management - <i>Systematic review:</i> K.I. Shulman et al. <i>Commentaries:</i> J. Allilaire, E. Belfort, C. Berganza, C. Borchardt, G.A. Carlson, S.V. Faraone, B. Geller, J.N. Giedd, G. Goodwin, C.G. Gottfries, V. Kusumakar, E. Leibenluft, P.M. Lewinsohn, Y.C.J. Reddy, R.R. Silva, E.B. Weller.
Economic and Social Burden - <i>Systematic review:</i> J. Goldberg. <i>Commentaries:</i> P. Clayton, M. DelBello, J.R. DePaulo, M.J. Gitlin, P.E. Keck, J.H. Kocsis, P.L. Morselli, A. Okasha, G. Parker, G. Simon, D. Souery, J. Unutzer, J.E. Whiteside.

Table 2 Contents of "Eating Disorders", sixth volume of the WPA series "Evidence & Experience in Psychiatry"

Diagnosis, Classification and Comorbidities - <i>Systematic review:</i> K.A. Halmi. <i>Commentaries:</i> S. Abraham, A. Andersen, L. Bellodi, T. D. Brewerton, K. D. Brownell, A. Claudino, D. Clinton, P. J. Cooper, M. Fichter, M. Flament, H. Matsunaga, D. Westen.
Epidemiology and Cultural Aspects - <i>Systematic review:</i> H.W. Hoek. <i>Commentaries:</i> J. Carlat, S. Cervera, A. Drewnowski, A. Furnham, G. Hsu, S. Lee, D. Moussaoui, Y. Nakai, M. A. Nunes, A. Okasha, R. Peng, P. Santonastaso, H. C. Steinhausen, S. Tyano, S. Wonderlich, B. Woodside.
Physical Complications and Physiological Aberrations - <i>Systematic review:</i> A. Kaplan. <i>Commentaries:</i> B. Baranowska, W. Kaye, D. Jimerson, K.L. Klump, R.G. Laessle, A. Marcos, G. Milos, P. Monteleone, Y. Nakai, J. Russell, R. Stoving, J. Treasure.
Pharmacological Treatment - <i>Systematic review:</i> M. de Zwaan. <i>Commentaries:</i> J. C. Appolinario, J. Bacaltchuk, P. Beaumont, R. H. Belmaker, C. Bergh, J.E. Blundell, F. Brambilla, C. Freeman, J. Mitchell, C.P. Szabo, T. Walsh.
Psychological Interventions - <i>Systematic review:</i> T. Wilson. <i>Commentaries:</i> E. Asen, M. Botbol, R. Casper, T. Cordas, P. Hay, P. Jeammet, H. Lacey, M. Lawrence, S. Touyz, N. A. Troop, E. F. van Furth, G. Waller, D.E. Wilfley.
Social and Economic Burden - <i>Systematic review:</i> S. Crow. <i>Commentaries:</i> S. Agras, A. Crisp, A. Favaro, P.E. Garfinkel, A. Liakos, R. Palmer, N. Piran, P. Powers, M. Råstam, R. Striegel-Moore, L. J. Surgenor.

Table 3 Contents of the volume “Psychiatric Diagnosis and Classification”

A. Jablensky, R.E. Kendell - *Criteria for assessing a classification in psychiatry*
B. Ustun et al. - *International classifications and the diagnosis of mental disorders: strengths, limitations and future perspectives*
D. Regier et al. - *The APA classification of mental disorders: strengths, limitations and future perspectives*
C.R. Cloninger - *Implications of comorbidity for the classification of mental disorders: the need for a psychobiology of coherence*
H. Fabrega Jr. - *Evolutionary theory, culture and psychiatric diagnosis*
J. Parnas, D. Zahavi - *The role of phenomenology in psychiatric diagnosis and classification*
J. Mezzich et al. - *Multiaxial diagnosis in psychiatry*
C. Pull et al. - *Clinical assessment instruments in psychiatry*
D. Goldberg et al. - *Psychiatric diagnosis and classification in primary care*
N. Wig, S. Murthy - *Psychiatric diagnosis and classification in developing countries*

Table 4 Contents of the volume “Psychiatry in Society”

L. Eisenberg - *The impact of sociocultural and economic changes on psychiatry*
H. Hafner - *Changes in health care systems and their impact on mental health care*
G. Lewis, R. Araya - *Globalization and mental health*
J.M. Bertolote et al. - *The impact of legislation on mental health policy*
A. Okasha - *The new ethical context of psychiatry*
P. Bebbington et al. - *Community mental health care: promises and pitfalls*
H. Katschnig, M. Krautgartner - *Quality of life - a new dimension in mental health care*
B. Saraceno et al. - *Mental health problems in refugees*
V. Kovess - *The homeless mentally ill*
E. Bromet, J.M. Havenaar - *Mental health consequences of disasters*
O. Cuenca - *Mass-media and psychiatry*

Table 5 Contents of the volume “Psychiatry as a Neuroscience”

P. McGuffin - *Genetic research in psychiatry*
S. Stahl, A.B. Niculescu - *Molecular and cellular biology research in psychiatry*
G. Sedvall, S. Pauli - *Brain imaging research in psychiatry*
C.B. Nemeroff, D.A. Gutman - *Neuroendocrinological research in psychiatry*
J.H. Gruzelier et al. - *Neurophysiological research in psychiatry*
K. Ritchie, M. Richards - *Neuropsychological research in psychiatry*
F.M. Benes, C.A. Tamminga - *The neurobiology of schizophrenia*
T.W. Uhde, R. Singareddy - *Biological research in anxiety disorders*
S. Lovestone - *Biological research on dementias*

been covered by additional contributions. The tables of contents of the three volumes are presented in Tables 3-5.

One volume has just appeared and five more are forthcoming within the series “Images of Psychiatry”, which aims to provide a picture of the past and the present of psychiatry in individual countries or groups of countries, covering such issues as mental health care, psychiatric education, psychiatric research, epidemiology of psychiatric disorders, child and adolescent psychiatry and geriatric psychiatry. The already published volume deals with Arab countries; the forthcoming ones deal with German-speak-

ing countries, Latin America, Spain, Poland and Greece.

Finally, one volume has just been published and three more are forthcoming within the series “Anthologies in Psychiatry”, which contains classical psychiatric texts never appeared up to now in English, accompanied by essays on their authors. The already published volume contains classical texts originally produced in Spanish; the forthcoming ones include texts originally produced in German, Italian and Japanese.

Further information on WPA books can be requested from the Secretary for Publications (majmario@tin.it).

News from the WPA secretariat

JUAN E. MEZZICH

WPA Secretary General

The WPA Secretariat has the basic purpose of supporting administratively the functioning of WPA, to facilitate the achievement of its statutory goals within the framework of policies and guidelines formulated by the General Assembly and the Executive Committee. Some of the Secretariat’s principal lines of work and recent activities are highlighted below.

Communicational and informational activities

Communication is the lifeline of any organization. WPA’s growth, as indicated by its currently 118 Member Societies in 102 different countries, constitutes a stimulating challenge. Secretariat work in this regard includes the following activities:

- Updating and maintaining an electronic database of institutional members and components, from which a WPA Directory is published annually and special listings are produced as needed. A new edition of the Directory is forthcoming in early 2002.
- A WPA Informational Folder and Leaflet is produced triennially for public relations and membership recruitment.
- WPA News is an agile newsletter published quarterly and distributed to all members and components.
- WPA Online is our award-winning institutional website, maintained and upgraded in collaboration with the Educational Coordination Center operating as webmaster.
- Extensive correspondence is received, sent out, and monitored by regular mail, fax, and, increasingly, e-mail. The latter is now used by 85% of our Member Societies and is growing quickly.
- Mass mailings are distributed to WPA members and components every one or two

months carrying key institutional, professional, and public health documents.

Survey and consultations

These activities are crucial to institutional democratization and responsiveness to member and component needs. Most fundamental here is the triennial General Survey, which has been conducted in 1998 and in 2001, with response rates consistently above 90%. Its results have documented the growing maturity and effectiveness of WPA and informed the preparation of updated Action Plans and of Strategic and Financial Triennial Plans.

Additionally, surveys have been conducted by the Secretariat for educational programs, special Section projects, and institutional programs. Carried out most recently has been an

institutional survey of postgraduate training in psychiatry as the basis for the development of a Post-Graduate Core Curriculum.

Work on normative instruments

The Secretariat has had an instrumental role in preparing, under the guidance of the Executive Committee, the long-ambitioned Manual of Procedures, aimed at enhancing the operational effectiveness and transparency of WPA. It is widely regarded as one of our highest institutional achievements and is currently in its second edition.

As pertinent illustration of its support to various WPA components, the Secretariat is currently assisting the Planning Committee in the drafting of Statutes and By-Laws amendments for presentation to General Assembly.

To be highlighted are a number of other

important Secretariat activities, such as the following:

- support to the work of Zonal Representatives and other WPA components;
- organization and follow-up of all WPA business meetings, such as those of the Executive Committee, General Assembly, and Standing and Operational Committees;
- accounting and financial management.

No operational plan can succeed without competent manpower, and our Secretariat is fortunate to have a strong team of colleagues with outstanding administrative, writing, computer, multilingual, and diplomatic skills. Thanks to the academic setting where the Secretariat is located (International Center for Mental Health of Mount Sinai School of Medicine of New York University), a group of research associates participate and assist in our endeavors.

Calendar of events

■ March 21-24, 2002

Chicago, USA

Annual Meeting of the American Society for Adolescent Psychiatry

Contact: F.M. Roton (e-mail: frda1@airmail.net)

■ April 10-13, 2002

Bethesda, USA

35th Annual Conference of the American Association of Suicidology

Contact: A.J. Kulp (e-mail: ajkulp@suicidology.org)

■ April 19-22, 2002

Athens, Greece

Panhellenic Congress of Psychiatry (co-sponsored by WPA)

Contact: G. Christodoulou (e-mail: gnchrist@compulink.gr)

■ May 4-8, 2002

Stockholm, Sweden

11th Congress of the Association of European Psychiatrists (AEP), "European Psychiatry, Science and Humanity in Health Care"

Contact: A. Khoury (e-mail: amal@ics.dk)

■ May 10-19, 2002

Philadelphia, USA

91st Annual Meeting of the American Psychoanalytic Association

Contact: American Psychoanalytic Association
(fax +12125930571)

■ May 18-23, 2002

Philadelphia, USA

155th Annual Meeting of the American Psychiatric Association

Contact: American Psychiatric Association (fax +12026826114)

■ May 31-June 2, 2002

Sofia, Bulgaria

5th International Conference "Mental Health for a United Europe: Service Research in Context"

Contact: Company for International Meetings
(e-mail: cim@einet.bg)

■ June 9-12, 2002

Barcelona, Spain

6th World Congress of the International Association for Emergency Psychiatry (co-sponsored by WPA)

Contact: A. Andreoli (e-mail: christa.terpelle@hcuge.ch)

■ June 19-22, 2002

Lisboa, Portugal

24th European Conference on Psychosomatic Research

Contact: Memotur (e-mail: memotur@mail.telepac.pt)

■ June 23-27, 2002

Montreal, Canada

23rd Congress of the Collegium Internationale Neuro-Psychopharmacologicum

Contact: JPdL Multi Management Inc. (e-mail: info@cinp2002.org)

■ August 24-29, 2002

Yokohama, Japan

12th World Congress of Psychiatry, "Partnership for Mental Health"

Contact: Convention Linkage (e-mail: wpa_sec@c-linkage.co.jp)

■ October 4-6, 2002

Lima, Peru

WPA Regional Meeting

Contact: D. Warthon (e-mail: warthon@amauta.rcp.net.pe)

■ October 5-9, 2002

Barcelona, Spain

15th Congress of the European College of Neuropsychopharmacology

Contact: ECNP Office (e-mail: secretariat@ecnp.nl)

■ October 8-12, 2002

Brussels, Belgium

10th World Congress of Psychiatric Genetics

Contact: ICEO (e-mail: wcpvg2002@iceo.be)

■ October 29 – November 2, 2002

New Delhi, India

15th Congress of the International Association for Child and Adolescent Psychiatry and Allied Professions (co-sponsored by WPA)

Contact: S. Malhotra (e-mail: savitam@sancharnet.in)

Scheduled to appear in forthcoming issues of “World Psychiatry”

Attachment and psychopathology

P. CRITTENDEN

Dysfunctional connectivity in psychiatric disorders

K. FRISTON

Early interventions for psychotic disorders

P. MCGORRY

Promises and limitations of the neurodevelopmental model of schizophrenia

R. MURRAY

Autism in schizophrenia

J. PARNAS

The evolving epidemiology of bipolar disorder

J. ANGST

Balancing community-based and hospital-based mental health care

G. THORNICROFT, M. TANSELLA

Disasters and mental health: an overview

R. COHEN

Comparing ICD-10 and DSM-IV

G. ANDREWS

Towards the DSM-V

D. REGIER

Psychiatric diagnosis and classification: a perspective from developing countries

C. BERGANZA

Dis-sociality: the phenomenological approach to social dysfunction in schizophrenia

G. STANGHELLINI

Mental health care for people with mental retardation: a global perspective

N. BOURAS

Measurement of some novel concepts in psychiatry

A. JANCA, J.E. COOPER

The UK 700 Trial: an overview

T. BURNS

Similar neurobiological effects of antidepressants and psychotherapy

F. HENN

Mental health and mental health care in Asia

P. DEVA

Usefulness and limitations of treatment guidelines in psychiatry

J. MCINTYRE

Bioethics and psychiatry: a challenging future

F. LOLAS

The future of drugs for schizophrenia

J. KANE

The future of drugs for depression

C. THOMPSON

Mental health and mental health care in Latin America

R. ALARCON

Supporting governments to adopt mental health policies

R. JENKINS

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