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SPECIAL ARTICLES

FORUM – *STEPS, CHALLENGES AND MISTAKES TO AVOID IN THE IMPLEMENTATION OF COMMUNITY MENTAL HEALTH CARE*

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WPA SECTION REPORT

WPA NEWS

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The World Psychiatric Association (WPA)

The WPA is an association of national 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 135, spanning 118 different countries and representing more than 180,000 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 65 scientific sections, aimed to disseminate information and promote collaborative work in specific domains of psychiatry. It has produced several educational programmes and series of books. It has developed ethical guidelines for psychiatric practice, including the Madrid Declaration (1996).

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WPA's achievements 2005-2008: institutional consolidation, global impact, and Psychiatry for the Person

JUAN E. MEZZICH

President, World Psychiatric Association

Midway on the third year of the triennium 2005-2008, it is useful to reflect on the emerging patterns of institutional achievement. To this effect, we can build on the ongoing evaluations of the current WPA Strategic Plan and Presidential Theme (Institutional Consolidation and Global Impact: Towards a Psychiatry for the Person) divided into major areas of WPA's work.

GENERAL GOVERNANCE

A first in WPA's record has been the WPA Governance Plans 2005-2008 (1). It encompasses the Strategic Plan approved by the General Assembly in Cairo and the triennial workplans prepared by each of the members of the Executive Committee, Zonal Representatives, and chairs of Standing Committees and Institutional Programs. Yearly evaluations of the Plans fulfillment have been carried out.

The appointment of Standing and Operational Committees was an exercise in participatory governance involving a call for proposals sent to all our Member Societies. As a result, colleagues of very high professional experience and stature, including more women and representatives of all four WPA Regions than ever before, were appointed.

The Fourth Edition of the Manual of Procedures (2) was completed and then immediately posted on *WPA Online*. The Manual reflects amendments of the Statutes and By-Laws approved at the latest General Assembly as well as laboriously gained operational experience, and constitutes a major tool for enhancing institutional effectiveness and transparency.

The Standing Committee on Nominations, building on the recommendations of an ad-hoc taskforce, elaborated enhanced operational guidelines. The Committee has also recommended the establishment of an independent Electoral Commission and is exploring mechanisms for electronic voting. The Planning Committee has proposed a set of innovative amendments of the Statutes and By-Laws for the consideration of the General Assembly as well as a substantial Action Plan for the next triennium. The Ethics Committee has elaborated recommendations for enhancing our guidelines on challenging topics such as relations with industry and has also cooperated with the review of the World Medical Association (WMA)'s Guidelines for Ethics in Medical Research (Declaration of Helsinki).

The implementation of our Permanent Secretariat in Geneva has been completed. *WPA News* has grown in content and elegance. The *WPA Directory* has gained in clarity. Enhanced versions of the *Informational Leaflet* and *Informational Booklet* have been prepared. *WPA Online*, already informationally rich and punctually updated, is poised to achieve new capabilities as its administration moves in 2008 to the Secretariat. The *General Survey* for this triennium, now on its fourth edition, is completing a systematic appraisal of all WPA components' performance.

WPA's finances are in quite a good shape. The core budget is fully balanced and we enjoy a reserve fund of over half a million US dollars.

PROMOTION OF MEMBER SOCIETIES

The pace of leadership meetings with large as well as with grouped Member Societies increased substantially during this triennium, covering literally all world regions. In a related effort, the WPA President has visited each year over 20 national or regional congresses.

Zonal Representatives are increasingly prominent leaders in our Association, and they have produced outstanding workplans and annual progress reports. The reality and presence of our continental Regions achieved high marks. Through the dedication of the corresponding Zonal Representatives, they have held productive Regions meetings and are publishing electronic bulletins.

Also noteworthy has been the careful preparation of procedures for opening to all Member Societies the opportunity to bid for WPA International Congresses. Support for our societies in developing countries continued growing through sectoral activities and special programs. Large societies are using WPA as preferred channel for international initiatives and small societies are increasingly affirming themselves.

SECTORAL ACTIVITIES

In the Educational area, work on personality and depression programs have advanced substantially as well as that on curricular updating in collaboration with pertinent institutional programs. Particularly valuable is a recently expanded set of CME credits. WPA educational programs are being translated to various languages.

In the Publications arena, *World Psychiatry* has achieved international indexation and is now edited in English, Spanish and Chinese. Volumes on Evidence and Experience in Clinical Psychiatry, Images of Psychiatry in different world areas, Anthologies of Psychiatric Texts, and one series on Psychiatry for the Person continued growing. Steps have been initiated to establish co-publication agreements with Wiley-Blackwell, which promise to enhance substantially our publication capabilities.

Concerning Scientific Meetings, sponsored events take place across the world in the form of World, International and Regional Congresses and Conferences, and many meetings of relevant organizations are granted co-sponsorship. Efforts are being made to evaluate carefully our major events to increase their quality.

The WPA's 65 Sections have been systematically evaluated. Stronger communication and publication tools are being prepared. Many Sections are individually prominent, as is the case of the Classification Section, which has established an impressive WPA Global Network of Classification and Diagnostic Groups collaborating with the development of ICD-11 and related diagnostic systems.

SPECIAL PROGRAMS AND TASK FORCES

Among the Institutional Programs approved by the General Assembly, that on Psychiatry for the Person (IPPP) has been particularly active. Their motto of promoting a psychiatry of, for, by, and with the person has been warmly received wherever presented. Its conceptual, diagnostic, clinical care and public health components have been quite productive. Specially noteworthy events have been the Conferences on Psychiatry for the Person in London, October 2007 (in collaboration with the UK Department of Health) and in Paris, February 2008 (in collaboration with our French Member Societies and European Zonal Representatives). A Geneva Conference on Person-centered Medicine has been organized for May 2008 under the auspices of the Geneva University Hospital and in collaboration with the WMA and six other major international health organizations. A Pinel Prize on Psychiatry for the Person: Articulating Medicine's Science and Humanism has been established. The Book Series on Psychiatry for the Person includes volumes on Psychiatry and Sexual Health: An Integrative Approach (3), Recovery: Das Ende der Unheilbarkeit (4), Psychiatric Diagnosis: Patterns and Prospects (5). Additionally, a number of editorials and journal papers have been invited to introduce several IPPP aspects (6-12).

The Institutional Program on Disasters and Mental Health has been instrumental in the preparation of a WPA-World Health Organization (WHO) Joint Statement (13) and the implementation of our Disaster Response plan which includes the coordination of Taskforces on the South Asian Tsunami, the Kashmir Earthquake, the North American Hurricanes, the Peruvian Earthquake and the Bangladesh Cyclone. The resources of the Section on Disasters and of a Disasters Fund have been also helpful.

The Institutional Program for Young Psychiatrists has continued to collaborate with the organization of Fellowship programs at several WPA major events. It is also assisting the establishment of the WPA Young Psychiatrist Council and the presence in *WPA Online* of the WPA Young Psychiatrists Network.

The Institutional Program on Perinatal Psychiatry and Infant Mental Health is increasingly collaborating with the Scientific Section of similar name. Also, it has recently engaged the corresponding units of WHO.

The Institutional Program on Asian Psychiatry and Mental Health is active through its efforts with regional developing countries and special attention to disasters and their psychosocial consequences.

Three special Task Forces have been established by the Executive Committee on Brain Drain, Mass Violence and Mental Health, and Physicians' Health. They all have prepared substantial work plans and are in the process of implementing them.

COLLABORATION WITH THE WHO AND OTHER INTERNATIONAL ORGANIZATIONS

Cooperation with the WHO has been quite productive. In 2006, the WPA President and Secretary General paid a highly successful visit to J.-W. Lee, WHO Director General, C. Le Gales-Camu, WHO Assistant Director General for Non-Communicable Diseases and Mental Health, and B. Saraceno, Director of the WHO Department of Mental Health and Substance Abuse. The expanded WPA-WHO collaborative program currently includes the Atlas Project in its various versions, the Clinical Comorbidity Project, Disaster Response, and a series of WPA-WHO Joint Statements. Moreover, cooperation on classification and diagnosis includes joint efforts for the revision of the ICD Classification of Mental Disorders as well as for the development of a Person-centered Integrative Diagnostic Model and Guide.

The WPA and the World Federation for Mental Health (WFMH) signed in 2007 for the first time a formal inter-institutional agreement. In line with this, the WFMH leaders have offered lectures and symposia at each of our major congresses and the WPA President delivered the Mary Hemingway-Reese Memorial Lecture at the WFMH World Congress in Hong Kong. Collaboration has also included the WFMH World Mental Health Day and the WPA Program on Psychiatry for the Person, among several other projects.

Interactions with the WMA have included invitations for the WPA President to attend WMA Council Meetings and a General Assembly in 2007, as well as collaboration of WPA in reviewing WMA's Declaration of Helsinki.

The World Federation of Neurology (WFN) is being represented by its President at two major WPA Congresses. They invited the WPA President to speak at the WFN Jubilee Congress in Brussels in 2007. Collaboration is focusing on articulating science and humanism.

The Presidents of the World Organization of Family Doctors (WONCA) and WPA met for the first time in 2007 at our Melbourne International Congress. Collaboration is emerging on comorbidity and person-centered care. WPA is a full member of the Council for International Organizations of Medical Sciences (CIOMS). Our leaders are participating in CIOMS Executive Committee Meetings and General Assembly.

Working sessions with several of the above organizations and others such as the World Association for Psychosocial Rehabilitation and the World Federation of Societies of Biological Psychiatry have taken place at our recent Congresses. Also important is the dialogal process we have started with a range of patient/user groups, including those critical of psychiatry. A WPA Thematic Conference in Dresden, June 2007 was a landmark in this regard (14).

CONCLUDING REMARKS

The review outlined above documents the considerable fulfillment of the Strategic Plan 2005-2008 thanks to the dedicated work of all WPA components. It has become clear that WPA's identity, institutional capacity, and global impact have gained in both depth and recognition. The Institutional Program on Psychiatry for the Person has earned the adherence of many WPA components and is attracting the attention of a number of international health organizations towards the exploration of person-centered medicine and health care.

References

1. World Psychiatric Association. The World Psychiatric Association Governance Plans 2005-2008: a key initiative for institutional development. Geneva: World Psychiatric Association, 2006.
2. World Psychiatric Association. Manual of Procedures, 4th ed. Geneva: World Psychiatric Association, 2008.
3. Mezzich JE, Hernandez R (eds). Psychiatry and sexual health: an integrative approach. New York: Rowman and Middlefield, 2006.
4. Amering M, Schmolke M. Recovery: Das Ende der Unheilbarkeit. Bonn: Psychiatrie-Verlag, 2006.
5. Salloum IM, Mezzich JE. Psychiatric diagnosis: patterns and prospects. Chichester: Wiley-Blackwell (in press).
6. Mezzich JE. Psychiatry for the Person: articulating medicine's science and humanism. World Psychiatry 2007;6:65-7.
7. Mezzich JE. The dialogal basis of our profession: Psychiatry *with* the Person. World Psychiatry 2007;6:129-30.
8. Mezzich JE, Salloum IM. On Person-centered Integrative Diagnosis. Die Psychiatrie 2007;4:262-5.
9. Mezzich JE, Salloum IM. Towards innovative international classification and diagnostic systems: ICD-11 and person-centered integrative diagnosis. Acta Psychiatr Scand 2007;116:1-5.
10. Mezzich JE, Salloum IM. Clinical complexity and person-centered integrative diagnosis. World Psychiatry 2008;7:1-2.
11. Christodoulou G, Fulford B, Mezzich JE. Psychiatry for the Person and its conceptual bases. International Psychiatry (in press).
12. Mezzich JE, Christodoulou G. Psychiatry for the Person and its ethical perspectives. South Afr J Psychiatry 2007;13:71-3.
13. Mezzich JE, Saraceno B. The role of psychiatrists in response to disasters. World Psychiatry 2007;6:1-2.
14. Kallert TW, Monahan J, Mezzich JE. WPA Thematic Conference on Coercive Treatment in Psychiatry: A Comprehensive Review. BMC Psychiatry 2007;Suppl. 1.

SPECIAL ARTICLE

Cannabis use and the risk of developing a psychotic disorder

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We briefly review the evidence that cannabis use in adolescence and young adulthood is a contributory cause of schizophreniform psychoses, by summarising longitudinal studies that: a) have examined relationships between cannabis use and the risk of psychosis or psychotic symptoms; and b) have controlled for potential confounders, such as other forms of drug use and personal characteristics that predict an increased risk of psychosis. There is now reasonable evidence from longitudinal studies that regular cannabis use predicts an increased risk of schizophrenia and of reporting psychotic symptoms. These relationships have persisted after controlling for confounding variables such as personal characteristics and other drug use. The relationships did not seem to be explained by cannabis being used to self-medicate symptoms of psychosis. A contributory causal relationship is biologically plausible because psychotic disorders involve disturbances in the dopamine neurotransmitter system with which the cannabinoid system interacts, as has been shown by animal studies and a human provocation study. We briefly explore the clinical and public health implications of the most plausible hypothesis, that cannabis use precipitates schizophrenia in persons who are vulnerable because of a personal or family history of schizophrenia.

Key words: Cannabis, psychosis, schizophrenia, adolescents, dopamine, educational interventions

(World Psychiatry 2008;7:68-71)

Regular cannabis use and psychotic disorders (such as schizophrenia) are associated in the general population (1,2), and heavy cannabis users are over-represented among new cases of schizophrenia (3-5). These findings, and rising rates of cannabis use among young people in many developed countries, have prompted debates about whether cannabis use may be a contributory cause of psychosis, that is, it may precipitate schizophrenia in vulnerable individuals. This hypothesis assumes that cannabis use is one factor among many others (including genetic predisposition and other unknown causes) that together cause schizophrenia.

There are also other possible explanations of the association. Common factors may increase the risk of cannabis use and psychosis, without the two being directly related. Cannabis could also be used to self-medicate the symptoms of schizophrenia (6-15).

The consistent finding of an association between cannabis use and psychosis makes chance an unlikely explanation of the association, and there are also now a number of prospective studies showing that cannabis use often precedes psychosis. The more difficult task has been excluding the hypothesis that the relationship is due to other factors, such as other drug use or a genetic predisposition to develop schizophrenia and use cannabis.

LONGITUDINAL STUDIES

The strongest evidence that cannabis use is a contributory cause of schizophrenia comes from longitudinal studies of large representative samples of the population who have been followed over time to see if cannabis users are at higher risk of developing schizophrenia. The earliest such study was a 15-year prospective investigation of cannabis use and schizophrenia in 50,465 Swedish conscripts. The study found that those who had tried cannabis by age 18 were 2.4 times more likely to be diagnosed with schizophrenia than those who had not (16) and the risk of this diagnosis increased with the frequency of cannabis use. The risks were substantially reduced but still significant after statistical adjustment for variables that were related to the risk of developing schizophrenia.

Zammit et al (17) reported a 27-year follow-up of the Swedish cohort that also found a dose-response relationship between frequency of cannabis use at baseline and risk of schizophrenia during the follow-up. The relationship between cannabis use and schizophrenia persisted when the authors statistically controlled for the effects of other drug use and other potential confounding factors, including a history of psychiatric symptoms at baseline. Assuming a causal relationship, and given current patterns of use, they estimated that 13% of cases of schizophrenia could be averted if all cannabis use were prevented.

Zammit et al's findings have been supported in a three-year longitudinal study of the relationship between self-reported cannabis use and psychosis in a community sample of 4,848 people in the Netherlands (18). Van Os et al found that cannabis use at baseline predicted an increased risk of psychotic symptoms during the follow-up period in individuals who had not reported these symptoms at baseline. There was a dose-response relationship between frequency of cannabis use at baseline and risk of psychotic symptoms during the follow-up period. This relationship persisted when they statistically controlled for the effects of other drug use, and it was stronger for cases with more severe psychotic symptoms. Individuals who reported any psychotic symptoms at baseline were more likely to develop schizophrenia if they used cannabis than were individuals who were not so vulnerable.

These findings have been replicated in one German and two New Zealand cohort studies. Henquet et al (19) reported a 4-year follow-up of a cohort of 2,437 adolescents and young adults between 1995 and 1999 in Munich. They found a dose-response relationship between self-reported cannabis use at baseline and the likelihood of reporting psychotic symptoms at follow-up. Young people who reported psychotic symptoms at baseline were much more likely to experience psychotic symptoms at follow-up if they used cannabis.

Arseneault et al (20) reported a prospective study of young adults in a New Zealand birth cohort (n=759) whose members had been assessed on risk factors for psychotic symptoms and disorders since birth. They found a relationship between cannabis use by age 15 and an increased risk of psychotic symptoms by age 26. So too did Fergusson et al (21) in a longitudinal study of the relationship between cannabis dependence at age 18 and psychotic symptoms at age 21 in the Christchurch Health and Development Study birth cohort of 1,265 children. They found that cannabis dependence at age 18 predicted an increased risk of psychotic symptoms at age 21 (relative risk, RR=2.3). This association was smaller but still significant after adjustment for potential confounders (RR=1.8).

French researchers studied the relationship between cannabis use and psychotic symptoms using an "experience sampling method" (22). These investigators asked 79 college students to report on their drug use and psychotic symptoms at randomly selected time points, several times each day over 7 consecutive days. The students gave their ratings after being prompted to do so by a signal sent to a portable electronic device. High cannabis users (n=41) and students identified as vulnerable to psychosis (n=16) were over-represented. In time periods when cannabis was used, users reported more unusual perceptions, and vulnerable individuals who used cannabis were more likely to report strange impressions and unusual perceptions than individuals who lacked this vulnerability. There was no relationship between reporting unusual experiences and using cannabis, as would be expected if self-medication were involved.

Moore et al (23) reported a meta-analysis of six major longitudinal studies of the relationship between cannabis use and psychosis. They found an increased risk (odds ratio, OR=1.4; 95% confidence interval, CI: 1.20, 1.65) of psychotic disorder if someone ever used cannabis. There was also a dose-response relationship between self-reported frequency of cannabis use and the risk of subsequently developing psychotic symptoms or a psychotic disorder (OR=2.09; 95% CI: 1.54, 2.84). They argued that reverse causation had been better controlled in the majority of these studies (by either excluding cases reporting psychotic symptoms at baseline or by statistically adjusting for preexisting psychotic symptoms). In all studies the association between cannabis use and psychosis was attenuated after statistical adjustment for potential confounders.

THE EFFECTS OF CANNABIS USE ON THE INCIDENCE OF PSYCHOSIS

Given this evidence, has the incidence of schizophrenia, particularly early-onset acute cases, changed during the 1970s and 1980s, when there have been very substantial increases in cannabis use among young adults in Australia and North America? A study modelling trends in the incidence of psychoses in Australia did not find clear evidence of any increase in incidence following steep increases in cannabis use during the 1980s (24). A more recent modelling study in the UK (25) suggested that it may be too early to detect any effect of cannabis use on the incidence of psychoses, because rates of cannabis use only increased during the 1990s in that country. A recent British (26) and a Swiss study (27) reported suggestive evidence of an increased incidence of psychoses among males in recent birth cohorts with the highest rates of cannabis use in adolescence. This work needs to be replicated in future research.

BIOLOGICAL PLAUSIBILITY

The dopaminergic system has long been considered to play an important role in psychotic disorders (28), but there is increasing evidence that the cannabinoid system may also be involved (29-32). The following types of evidence strongly suggest that a contributory causal role for cannabis in psychoses is biologically plausible.

First, elevated levels of anandamide, an endogenous cannabinoid agonist, have been found in the cerebrospinal fluid of persons with schizophrenia (33). A case-control study found that persons with schizophrenia had a greater density of CB_1 receptors in the prefrontal cortex than controls (34).

Second, an interaction has been reported between cannabis use and the catechol-O-methyl transferase (COMT) $Val^{158}Met$ polymorphism (35). Alterations in catecholamine, particularly dopamine, metabolism have been well documented among persons with schizophrenia and other schizophreniform disorders (36). The COMT functional polymorphism is a methylation enzyme that is important for the metabolism of dopamine (37).

Third, there is evidence from older retrospective (see 38) and more recently from prospective studies of recent onset cases of schizophrenia that regular cannabis use exacerbates the symptoms of the disorder (39-41). Prospective studies that have controlled for the effects of medication noncompliance (39,40) suggest that the relationship is not explained in this way. D'Souza et al (42,43) have found that intravenous tetrahydrocannabinol (THC) given under double-blind placebo control conditions produces dose-dependent increases in positive and negative psychotic symptoms in healthy volunteers and patients with schizophrenia in remission.

A PUBLIC HEALTH CASE FOR PRUDENCE

Given residual uncertainties about the evidence for a causal relation between cannabis and psychosis, we need to consider the possible costs and benefits of different policy actions. This suggests that it is good policy to encourage young individuals to avoid using cannabis or at least to delay such use until early adulthood (44). If the relation is truly causal, the public health gain (a reduction in schizophrenia incidence) would arguably offset the foregone pleasure among those young individuals who either did not use cannabis or delayed using it until young adulthood. This argument makes a good case for discouraging cannabis use among young individuals, but it leaves room for disagreement about the best method of achieving this goal in particular population groups. It is to these latter questions that we now turn.

RESPONDING TO CANNABIS USE AMONG PEOPLE WITH PSYCHOSES

There is reasonable evidence that individuals with psychoses who are regular cannabis users have more positive symptoms, more frequent relapses, and require more hospitalization (41,45). It is accordingly wise to encourage young people with psychotic symptoms who use cannabis to stop or, at the very least, to encourage them reduce their frequency of use.

The major challenges lie in finding ways to persuade individuals with schizophrenia to stop doing something they enjoy and to help those who want to stop using cannabis but find it difficult to do so. Recent evaluations of psychological interventions for cannabis dependence in individuals without psychoses report modest rates of abstinence at the end of treatment (20 to 40%) and substantial rates of relapse thereafter (46). Many individuals with schizophrenia have characteristics that predict a poor outcome: they lack social support, they may be cognitively impaired, they are often unemployed, and they do not comply with treatment (47-49). A recent Cochrane review (50) found no clear evidence that supported any type of substance abuse treatment in schizophrenia over standard care. The development of more effective pharmacologic and psychological methods of treatment for cannabis dependence should be a research priority (29).

INFORMING YOUNG PEOPLE ABOUT THE MENTAL HEALTH RISKS OF CANNABIS USE

Finding effective ways of explaining the psychotogenic effects of cannabis use to young individuals is a major public health challenge. Young people also need to be informed about the risks of becoming dependent on cannabis, impairing their educational achievement, and increasing their risk of depression (51,52). These risks have often been overshadowed in the public debate about cannabis use, yet add weight to the argument for discouraging cannabis use among young individuals.

CONCLUSIONS

Regular cannabis use predicts an increased risk of schizophrenia, and the relationship persists after controlling for confounding variables. The relationship is unlikely to be explained by self-medication. There is increasing evidence that the association is biologically plausible, but given the complex nature of the aetiology of schizophrenia and related disorders, it is unlikely that the relationship will be due to an interaction between cannabis use and a single gene. Uncertainty about the biological mechanisms should not distract us from using educational, psychological and social interventions to reduce the use of cannabis by vulnerable young people and thereby the risk of problems related to its use (53).

References

1. Degenhardt L, Hall WD. The association between psychosis and problematical drug use among Australian adults: findings from the National Survey of Mental Health and Well-being. Psychol Med 2001;31:659-68.
2. Tien AY, Anthony JC. Epidemiological analysis of alcohol and drug use as risk factors for psychotic experiences. J Nerv Ment Dis 1990;178:473-80.
3. Barbee JG, Clark PD, Crapanzo MS et al. Alcohol and substance abuse among schizophrenic patients presenting to an emergency psychiatry service. J Nerv Ment Dis 1989;177:400-17.
4. Cohen M, Klein DF. Drug abuse in a young psychiatric population. Am J Orthopsychiatry 1970;40:448-55.
5. Wheatley M. The prevalence and relevance of substance use in detained schizophrenic patients. J Forensic Psychiatry 1998;9:114-29.
6. Mueser KT, Drake RE, Wallach MA. Dual diagnosis: a review of etiological theories. Addict Behav 1998;23:717-34.
7. Blanchard J, Brown S, Horan W et al. Substance use disorders in schizophrenia: review, integration, and a proposed model. Clin Psychol Rev 2000;20:207-34.
8. Rosenthal R. Is schizophrenia addiction prone? Curr Opin Psychiatry 1998;11:45-8.
9. Batel P. Addiction and schizophrenia. Eur Psychiatry 2000;15:115-22.
10. Gruber AJ, Pope HG. Cannabis psychotic disorder: does it exist? Am J Addict 1994;3:72-83.
11. Thornicroft G. Cannabis and psychosis: is there epidemiological evidence for an association? Br J Psychiatry 1990;157:25-33.
12. Hall WD. Cannabis use and psychosis. Drug Alcohol Rev 1998; 17:433-44.
13. Hall WD, Degenhardt L. Cannabis use and psychosis: a review of clinical and epidemiological evidence. Aust N Zeal J Psychiatry 2000;34:26-34.
14. McKay DR, Tennant CC. Is the grass greener? The link between cannabis and psychosis. Med J Aust 2000;172:284-6.
15. Phillips P, Johnson S. How does drug and alcohol misuse develop among people with psychotic illnesses? A literature review. Soc Psychiatry Psychiatr Epidemiol 2001;36:269-76.
16. Andreasson S, Engstrom A, Allebeck P et al. Cannabis and schizophrenia: a longitudinal study of Swedish conscripts. Lancet 1987;2:1483-6.

17. Zammit S, Allebeck P, Andreasson S et al. Self reported cannabis use as a risk factor for schizophrenia in Swedish conscripts of 1969: historical cohort study. BMJ 2002;325:1199-201.
18. van Os J, Bak M, Hanssen M et al. Cannabis use and psychosis: a longitudinal population-based study. Am J Epidemiol 2002;156: 319-27.
19. Henquet C, Krabbendam L, Spauwen J et al. Prospective cohort study of cannabis use, predisposition for psychosis, and psychotic symptoms in young people. BMJ 2004;330:11.
20. Arseneault L, Cannon M, Poulton R et al. Cannabis use in adolescence and risk for adult psychosis: longitudinal prospective study. BMJ 2002;325:1212-3.
21. Fergusson DM, Horwood JL, Swain-Campbell NR. Cannabis dependence and psychotic symptoms in young people. Psychol Med 2003;33:15-21.
22. Verdoux H, Gindre C, Sorbara F et al. Cannabis use and the expression of psychosis vulnerability in daily life. Eur Psychiatry 2002;17:180S.
23. Moore TH, Zammit S, Lingford-Hughes A et al. Cannabis use and risk of psychotic or affective mental health outcomes: a systematic review. Lancet 2007;370:319-28.
24. Degenhardt L, Hall WD, Lynskey MT. Testing hypotheses about the relationship between cannabis use and psychosis. Drug Alcohol Depend 2003;71:37-48.
25. Hickman M, Vickerman P, Macleod J et al. Cannabis and schizophrenia: model projections of the impact of the rise in cannabis use on historical and future trends in schizophrenia in England and Wales. Addiction 2007;102:597-606.
26. Boydell J, van Os J, Caspi A et al. Trends in cannabis use prior to first presentation with schizophrenia, in South-East London between 1965 and 1999. Psychol Med 2006;36:1441-6.
27. Ajdacic-Gross V, Lauber C, Warnke I et al. Changing incidence of psychotic disorders among the young in Zurich. Schizophr Res 2007;95:9-18.
28. Julien R. A primer of drug action: a concise, nontechnical guide to the actions, uses, and side effects of psychoactive drugs, 9th ed. New York: Freeman, 2001.
29. Ujike H, Morita Y. New perspectives in the studies on endocannabinoid and cannabis: cannabinoid receptors and schizophrenia. J Pharmacol Sci 2004;96:376-81.
30. Fritzsche M. Are cannabinoid receptor knockout mice animal models for schizophrenia? Med Hypotheses 2001;56:638-43.
31. Glass M. The role of cannabinoids in neurodegenerative diseases. Prog Neuropsychopharmacol Biol Psychiatry 2001;25:743-65.
32. Skosnik PD, Spatz-Glenn L, Park S. Cannabis use is associated with schizotypy and attentional dysinhibition. Schizophr Res 2001;48:83-92.
33. Leweke FM, Giuffrida A, Wurster U et al. Elevated endogenous cannabinoids in schizophrenia. Neuroreport 1999;10:1665-9.
34. Dean B, Sundram S, Bradbury R et al. Studies on [3H]CP-55940 binding in the human central nervous system: regional specific changes in density of cannabinoid-1 receptors associated with schizophrenia and cannabis use. Neuroscience 2001;103:9-15.
35. Caspi A, Moffitt TE, Cannon M et al. Moderation of the effect of adolescent-onset cannabis use on adult psychosis by a functional polymorphism in the catechol-O-methyltransferase gene: longitudinal evidence of a gene X environment interaction. Biol Psychiatry 2005;57:1117-27.
36. Bilder R, Volavka J, Lachman H et al. The catechol-O-methyltransferase (COMT) polymorphism: relations to the tonic-phasic dopamine hypothesis and neuropsychiatric phenotypes. Neuropsychopharmacology 2004;29:1943-61.
37. Mannisto P, Kaakkola S. Catechol-O-methyltransferase (COMT): biochemistry, molecular biology, pharmacology, and clinical efficacy of the new selective COMT inhibitors. Pharmacol Rev 2006; 51:593-628.
38. Hall WD, Degenhardt L. Is there a specific ‘cannabis psychosis’? In: Castle DJ, Murray RM (eds). Marijuana and madness. Cambridge: Cambridge University Press, 2004:89-100.
39. Degenhardt L, Tennant C, Gilmour S et al. The temporal dynamics of relationships between cannabis, psychosis and depression among young adults with psychotic disorders: findings from a 10-month prospective study. Psychol Med 2007;37:927-34.
40. Hides L, Dawe S, Kavanagh DJ et al. Psychotic symptom and cannabis relapse in recent-onset psychosis. Prospective study. Br J Psychiatry 2006;189:137-43.
41. Linszen DH, Dingemans PM, Lenior ME. Cannabis abuse and the course of recent-onset schizophrenic disorders. Arch Gen Psychiatry 1994;51:273-9.
42. D’Souza DC, Abi-Saab WM, Madonick S et al. Delta-9-tetrahydrocannabinol effects in schizophrenia: implications for cognition, psychosis, and addiction. Biol Psychiatry 2005;57:594-608.
43. D’Souza DC, Cho HS, Perry E et al. Cannabinoid ‘model’ psychosis, dopamine-cannabinoid interactions and implications for schizophrenia. In: Castle DJ, Murray RM (eds). Marijuana and madness. Cambridge: Cambridge University Press, 2004:142-65.
44. de Irala J, Ruiz-Canela M, Martinez-Gonzalez MA. Causal relationship between cannabis use and psychotic symptoms or depression. Should we wait and see? A public health perspective. Med Sci Monit 2005;11:RA355-8.
45. Grech A, Van Os J, Jones PB et al. Cannabis use and outcome of recent onset psychosis. Eur Psychiatry 2005;20:349-53.
46. Roffman RA, Stephens RS. Cannabis dependence: its nature, consequences and treatment. Cambridge: Cambridge University Press, 2006.
47. Kavanagh DJ. An intervention for substance abuse in schizophrenia. Behav Change 1995;12:20-30.
48. Mueser KT, Bellack AS, Blanchard JJ. Comorbidity of schizophrenia and substance abuse: implications for treatment. J Consult Clin Psychol 1992;60:845-56.
49. Drake RE, Mueser KT, Brunette MF. Management of persons with co-occurring severe mental illness and substance use disorder: program implications. World Psychiatry 2007;6:131-6.
50. Jeffery DP, Ley A, McLaren S et al. Psychosocial treatment programmes for people with both severe mental illness and substance misuse. Cochrane Database Syst Rev 2000;Issue 2:CD001088.
51. Hall W. The mental health risks of adolescent cannabis use. PLoS Med 2006;3:159-62.
52. Patton GC, Coffey C, Carlin JB et al. Cannabis use and mental health in young people: cohort study. BMJ 2002;325:1195-8.
53 Hall WD, Degenhardt L. What are the policy implications of the evidence on cannabis and psychosis? Can J Psychiatry 2006;51:566-74.

SPECIAL ARTICLE

Mild cognitive impairment: searching for the prodrome of Alzheimer's disease

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The concept of mild cognitive impairment (MCI) identifies persons who are neither cognitively normal nor demented. There is increasing evidence that MCI defines a group of persons who are at near-term risk of developing dementia and particularly Alzheimer's disease (AD). MCI thus constitutes an attractive target population for preventive treatments of AD. MCI is associated with aging and is more prevalent than dementia. There are several clinical and biological markers that are predictive of MCI prognosis, including depressive symptoms, cognitive deficits, brain imaging and neurochemical findings. The clinician needs to be especially alert to depressive and other mood symptoms which are common in MCI and potentially treatable. Trials of current medications for prevention of MCI progression to dementia have been largely negative. There are observational data suggesting that lifestyle modifications including exercise, leisure activities, cognitive stimulation, and social activities may be effective for prevention of MCI progression. There are many novel therapies currently in trials for early AD, and if effective they may prove to be helpful in prevention of MCI progression as well.

Key words: Mild cognitive impairment, Alzheimer's disease, aging, depressive symptoms, exercise, prevention

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Alzheimer's disease (AD) is the most common neurodegenerative disease. It is projected to affect 81 million persons worldwide by 2040 (1). It represents a major cause of disability for patients and caregivers, and is associated with huge financial burden to all societies. Clinically, the disease has an insidious onset and slow progression of characteristic cognitive and functional deficits (2,3) and near-universal incidence of neuropsychiatric symptoms (4). Neuropathologically, AD is associated with the deposition of insoluble amyloid-beta in extracellular plaques and phosphorylated tau in intraneuronal neurofibrillary tangles, microglial activation, and neuronal loss (5).

The disease probably affects the brain many years, possibly many decades (6), before its full clinical expression. By the time Alzheimer's *dementia* becomes clinically apparent, considerable brain damage has occurred, which is likely irreversible. Effective management of AD in the long term will rest on the ability to detect and manage its earliest manifestations in the brain and also clinically. This paper is focused on the latter, namely the earliest clinical manifestations of AD.

Clinicians have long noted that persons who develop AD have cognitive symptoms prior to the onset of dementia. As far back as the 1960s, investigators recognized a group of older persons who were neither cognitively normal nor demented but fit somewhere in between (7). While many of these persons developed dementia, a substantial number did not. This has given rise to the concepts of "cognitive impairment no dementia" (CIND) (8) and "mild cognitive impairment" (MCI) (3,9).

It must be emphasized that MCI represents a *risk group* and not a widely accepted clinical diagnosis. Even with the use of biomarker profiles and sophisticated clinical evaluations to refine the definition, a substantial number of persons with MCI will *not* develop dementia.

In this paper we seek to present the current state of knowledge of the MCI concept, as it applies to clinical evaluation and treatment, with particular emphasis on risk and prognostic factors, lifestyle interventions, and the future of treatment in this area.

MCI AND ITS SUBTYPES

Persons with MCI are by definition neither cognitively normal nor demented. The first part of the definition means that they have subjective cognitive complaints and/or objective evidence of abnormal cognitive testing. In addition to the above evidence of a *decline in cognitive functioning*, the "Petersen criteria" require that to meet criteria for MCI a person must also perform ≥1.5 standard deviations below age-education norms on at least one cognitive test (3). These criteria for MCI are most widely accepted, due to their relatively high specificity.

The second part of the MCI definition – that the person not be demented – means that the person has no functional deficits related to cognitive impairment, often defined as no impairment in instrumental activities of daily living (IADLs). In practice this criterion is harder to operationalize, largely because the cognitive demands of functional activities vary greatly by stage of life cycle and by life situation. For example, older persons still in the workforce often have greater day-to-day cognitive demands than persons who are retired, and thus are more likely to be diagnosed with dementia given the same degree of cognitive impairment. The presence of a living spouse often masks minor functional deficits; living in a retirement community likely decreases the cognitive demands of home maintenance, shopping, cooking etc.; while the need to adhere to a complex medical regimen likely heightens cognitive demands in daily life. Perneczky et al (10) found that persons with rigorously defined MCI in fact had mild IADL impairments, particularly in tasks requiring memory or executive function. Thus, while persons with MCI have subtle deficits in IADLs consistent with their cognitive performance, they generally function independently. Only when their functioning declines in several areas, they are said to "cross the border" into dementia (Figure 1).

MCI has been further subtyped on the basis of cognitive deficits into amnestic vs. non-amnestic and single-domain vs. multiple-domain.

EPIDEMIOLOGY AND PROGNOSIS

The prevalence of MCI in late life varies according to the sample and the definition. Amnestic MCI has a prevalence of 3-6% in population-based samples of older persons, while all MCI subtypes have a prevalence of as high as 16% (11,12). The prevalence of MCI increases with age, ranging in the Cardiovascular Health Study from 15% under age 75 years to 30% over age 85 years (12).

MCI was previously thought to entail an inevitable and relatively rapid progression to dementia. This grim prognosis has been revised recently. In an early study, the rate of progression to dementia was estimated to be 10-15% annually, with >80% of MCI patients developing dementia over 6 years (3,14). Similar rates were reported in the Cache County Study (13). Some investigators concluded that amnestic MCI is simply prodromal AD (15). However, population-based studies or studies with longer follow-up have revised these estimates downward: Devanand et al reported an annual progression rate of 5% (16), Solfrizzi et al of 7.4% (17), and Ganguli et al of 2.7% (18). Clearly the risk of dementia in MCI patients is highly variable, and appears lowest in general population samples.

A substantial number of patients with MCI "revert" to normal (i.e., no longer have subjective or objective cognitive dysfunction). The rate of "reversion" has been reported to range from 17% to 32% (19-21). The rate of progression to AD is highest, while the rate of reversion is lowest, in patients with rigorously defined amnestic MCI (19), particularly if it affects multiple cognitive domains (22), but is still significant in patients with non-amnestic MCI (23). The specificity of MCI subtypes risk for specific dementia subtypes is still unclear. Early reports that amnestic MCI was specific for AD and non-amnestic MCI for other dementias (particularly vascular dementia) have not been replicated (22,23) and are conceptually too simplistic.

Who with MCI is more likely to progress to dementia? In one study, MCI patients who progressed to dementia had worse verbal memory at baseline (24). In MCI patients with a very mild impairment, worse verbal memory and executive function was associated with greater risk of progression (25). Similar findings have been reported from the placebo arm of MCI medication trials (26). Additionally, subtle changes in IADL function predict a worse prognosis (25).

Brain imaging findings clearly can reflect prognosis of MCI. The rate of whole brain or regional volume loss in the hippocampus and entorhinal cortex (27,28), and possibly the rate of increase in ventricular size (29), appear to be good predictors of MCI progression. Decreased glucose uptake in the posterior cingulate and temporo-parietal cortices imaged with fluorodeoxyglucose positron emission tomography (FDG-PET) also predicts MCI conversion to dementia (30,31). Using Pittsburgh Agent B (PIB) (a new PET tracer for imaging amyloid plaques *in vivo)*, binding is higher in MCI patients who progress to dementia than in those who remain functionally stable (32), suggesting that the density of amyloid plaques is higher in MCI patients who develop dementia. Functional magnetic resonance imaging (MRI) may also predict prognosis: for example, Miller et al (33) found that greater hippocampal activation during a visual scene-encoding task was a predictor of future cognitive decline.

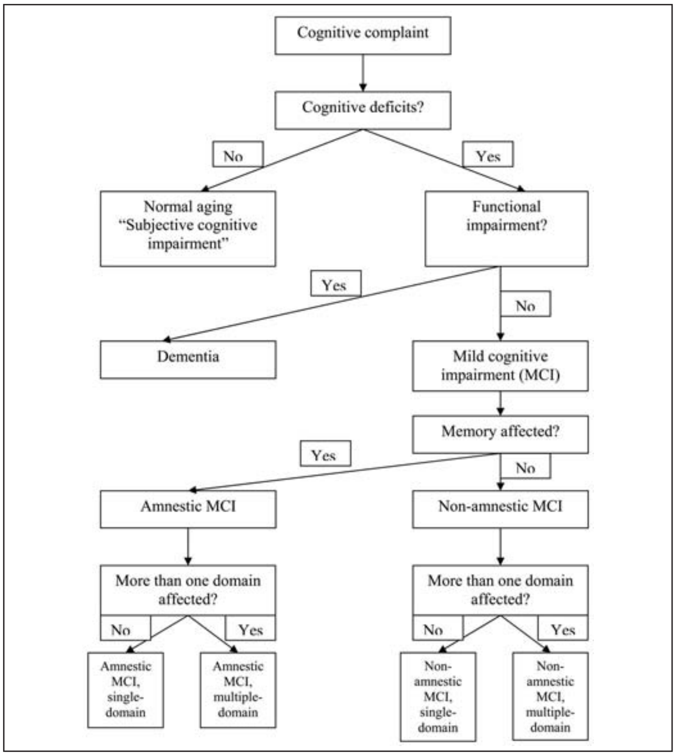

Figure 1 Mild cognitive impairment (MCI) and related syndromes (adapted from Rosenberg et al, 65)

Plasma and cerebrospinal fluid (CSF) amyloid and tau levels also hold promise as prognostic markers in MCI. Hansson et al (34) reported that a combination of decreased parietal blood flow and abnormal CSF amyloid-beta and tau levels was a strong predictor of MCI progression. Two studies reported that a decreased Aβ42/Aβ40 ratio is a risk factor for AD in MCI patients (35,36).

The strongest genetic association reported for AD is with the ApoE4 allele (14). This allele may also be a risk factor for progression of MCI to AD (26).

The association of depression and anxiety with MCI prognosis is of particular importance to psychiatrists. Depression, lack of motivation, and anxiety are more prevalent in MCI patients than in cognitively intact elderly (37). Both major depression (38) and anxiety (37) markedly increase risk of MCI progression to dementia; further, depression and apathy were more common in MCI patients who later progressed to AD (21,39). The majority of older adults with major depression also met criteria for MCI, and their cognitive deficits persisted after remission of depression (40). Other studies of late-life depression have noted a particular association with executive dysfunction (41).

DIAGNOSIS

History

To make a diagnosis of MCI, the clinician must determine that the patient has subjective and/or objective cognitive symptoms, but not dementia. The border between MCI and dementia can be subtle, and the initial definition of MCI requiring no deficits in IADLs has been amended to allow for subtle deficits. The clinician needs to determine if the patient is no longer functioning at his/her baseline at work, home, hobbies, social activities, etc.

Patients with MCI are typically aware of their deficits and can provide a valid history, but confirmation with a knowledgeable informant (typically a family member) is important. Patients most commonly complain of deficits in short-term recall, with common examples being: a) cannot remember if they took medications; b) repeat questions; c) difficulty with driving directions in unfamiliar locations; d) difficulty recalling the time sequence of events; and, e) difficulty organizing complex projects, such as doing taxes or writing reports at work. MCI patients may additionally complain of deficits in executive functioning, such as using information to make judgments and decisions, appreciating the consequences of decisions, etc.; these tend to be more evident in the workplace and are harder to assess in retirees.

The importance of mood symptoms

It is clear that depressive and cognitive complaints often co-occur in older persons, and that depression is frequently prodromal to MCI and dementia. Therefore, the clinician must be alert to depressive symptoms in patients with cognitive complaints and must endeavor to distinguish primary mood changes from cognitive changes. Patients with MCI are among the most worried patients seen in a geriatric psychiatry practice; they often are convinced that they are demented and are prone to catastrophizing rather than adapting to their disability. For this reason, it is important that the clinician presents MCI as what it is – a syndrome and a risk group rather than a clearly defined illness.

There are certain mood features that are more common in MCI than in major depression. For example, patients may complain more of lack of motivation rather than sad or depressed feelings (42). Hopelessness is common, but suicidal ideation is not (43). The clinician should be highly attuned to the possibility that cognitive complaints are actually a presentation of an “atypical” depressive disorder and to make treatment decisions accordingly.

Cognitive assessment

Clinical assessment is rarely definitive in MCI, but useful for validating the patient’s cognitive complaints. The Mini-Mental State Examination (MMSE) is neither sensitive nor specific enough to confirm or reject an MCI diagnosis, with one study showing 70% sensitivity and specificity using a cutoff of 26 or less for cognitive impairment (44). Instruments such as the Modified Mini-Mental State Examination (3MS or mMMSE) (45,46) or Montreal Cognitive Assessment (MoCA) (47) are more difficult, have less of a “ceiling effect”, and as such are more useful in clinical practice for assessment of MCI. There are normative data for the 3MS derived from population-based samples (46); for example, the mean 3MS for a 75-79 year old person with a high school education is 90, while scores below 80 are below the 5th percentile. Neuropsychological testing adds further depth to the MCI evaluation, and there is growing evidence that sensitive tests of immediate and delayed recall particularly improve the predictive power of the evaluation (48).

Laboratory and physical assessment

While laboratory tests are not always necessary in the workup of MCI, it is important to rule out cognitive effects of medical illnesses other than neurodegenerative disease. For this reason, a thorough physical exam and laboratory assessment should be considered part of the assessment of MCI. Common conditions that either mimic or cause cognitive symptoms, even dementia, include hypothyroidism, vitamin B12 deficiency, neurosyphilis, and hypernatremia. A subacute onset of a delirium can mimic MCI, including in the context of urinary tract infection, pneumonia, congestive heart failure, and the effects of sedating medications (especially anticholinergics, benzodiazepines, and opioid analgesics). A thorough neurologic exam is important to assess for long-tract neurologic signs that might suggest an occult stroke, peripheral neuropathy, a myopathic process, or early Parkinson’s disease, which can present with cognitive and motor slowing as a first sign and might mimic MCI.

Brain imaging

In current clinical practice, structural brain imaging is performed largely to rule out uncommon and occult causes of cognitive impairment, such as an occult stroke, subdural hematoma, or brain tumor. As such, it is not of the highest importance in the current diagnosis and management of MCI. But, as reviewed above, new findings from structural MRI, FDG-PET and PIB-PET may greatly improve the clinical utility of these technologies in diagnosing and treating MCI.

MANAGEMENT

The most important aspect of the current management of MCI is making as clear a diagnosis as possible, and supporting patients and their families in the knowledge that they have a risk of dementia but no certainty of outcome. Specific aspects of management include: a) encouraging preventive strategies derived from observational data, and b) treating depression.

Strategies for preventing progression to dementia do not have proven efficacy to date, but there is suggestive evidence for the influence of lifestyle factors. We refer the reader to recent and comprehensive discussions of the biopsychosocial approach to treatment of depression in older persons (49,50) and restrict our comments to lifestyle strategies and medications.

Lifestyle strategies

Patients and families often ask the clinician whether exercise and cognitive activity will improve their memory or prevent dementia. The ideas are attractive and the mechanism of "use it or lose it" is intuitively appealing and widely cited as critical to dementia prevention. Supportive evidence comes from observational studies of community-based samples of older adults. A selection of recent studies is provided in Table 1.

Curiously enough, there is more evidence and stronger results for the protective effect of exercise than for cognitive activity, and moderate exercise (for example, twice weekly in a variety of exercise activities) is sufficient to demonstrate this association (51). The effect of cognitive activity has been less consistently observed and is confounded with education; in other words, education is observed to have a protective effect against dementia and to be associated with cognitive activities in older persons. There may be a similar salutary effect of social activities (52), although recent evidence suggests that reduction of social involvement is more likely to be the result, as opposed to the cause, of impend-

Table 1 Recent studies of lifestyle factors and incident dementia

Author	Lifestyle factor	Sample (mean follow-up)	Results	Comment
Podewils et al (51)	Number of exercise activities	N=3375 (5.4 years)	>3 activities associated with decreased dementia incidence (HR=0.58)	Effect seen in ApoE4 negative
Larson et al (66)	Frequency of exercise	N=1740 (6.2 years)	>3 times weekly exercise associated with decreased dementia incidence (HR=0.62)	Greater effect seen in persons with lower exercise performance levels at baseline
Wilson et al (67)	Number and frequency of cognitively stimulating activities	N=842 (4.1 years)	More cognitive stimulation associated with decreased dementia incidence (OR=0.36 for one-point increase in composite measure)	No effect seen for physical activity
Verghese et al (54)	Number of leisure activities	N=469 (5.1 years)	Greater number of leisure activities was associated with decreased dementia incidence	Activities associated with decreased dementia incidence included reading, playing board games, playing musical instruments, and dancing
Wang et al (68)	Performance-based physical function	N=2288 (5.9 years)	Higher levels of baseline physical performance were associated with decreased dementia incidence	Similar association with cognitive decline
Scarmeas et al (69)	Number of leisure activities dichotomized at the median	N=1772 (2.9 years)	Greater number of leisure activities was associated with decreased dementia incidence	
Rovio et al (70)	Midlife exercise frequency	N=1449 (26 years)	Exercise at least twice weekly in midlife was associated with decreased dementia incidence in late life (OR=0.48)	Note that the association applies to *midlife* (not late life) exercise frequency
Laurin et al (71)	Cognitive activity (composite measure)	N=801 (4.5 years)	Cognitively stimulating activities were associated with decreased dementia incidence	Similar association with global cognition, working memory, and perceptual speed

HR – hazard ratio; OR – odds ratio

The samples are selected to lack dementia or significant functional impairment at baseline, but are not chosen in a manner to include or exclude subjects with mild cognitive impairment ing cognitive decline and dementia (53). In addition, cognitive activities fall into such a variety of categories that it has been difficult to determine the underlying mechanism subsuming different activities such as (for example) crossword puzzles and dancing (54).

The mechanisms of the protective effects of lifestyle factors are not well understood, but exercise and cognitive activity may lead to a greater "cognitive reserve" (55), conceivably through enhanced vascular supply to the brain or more efficient use of cognitive networks (56). "LIFE" is a randomized, controlled trial of an exercise program in physically frail elderly that will examine cognition and dementia risk as secondary outcomes (57).

We recommend that, with an eye toward prevention of cognitive deterioration, persons with MCI: a) pursue a regular but moderate, *variable* exercise program consisting of at least 30 minutes three times weekly of walking alternating with aerobically challenging exercise, and group sports; b) pursue cognitively stimulating activities according to personal interests, abilities and education; c) keep as socially engaged as practically possible.

Medications

Current FDA-approved medications for AD have been systematically studied for their effects on the symptoms and prognosis of MCI. In preclinical studies, all three acetylcholinesterase inhibitors (donepezil, rivastigmine, and galantamine) and the NMDA antagonist memantine improved cognition in transgenic mouse models of AD (58). Galantamine improved memory symptomatically in MCI patients (59). However, the results of controlled trials of cholinesterase inhibitors on the prognosis of MCI have been largely negative (Table 2). The only positive finding, with donepezil, comes from a secondary analysis in a subgroup of patients, and had limited clinical relevance. There are no reported trials with memantine. Given the current state of knowledge, the clinician should not prescribe these drugs to MCI patients with the hope of preventing progression to AD. However, high-risk patients with amnestic MCI and declining cognitive function may symptomatically benefit from these treatments, since they likely have early AD.

CONCLUSIONS

What we know at the present

When patients present with memory deficits, clinicians can evaluate their near-term risk of developing dementia with the clinical tools and diagnostic assessments reviewed here. The most important concept for patients and families is that identifying a patient as having MCI assigns him or her to a *risk group* and is not a definitive diagnosis of disease, since a substantial proportion of persons with MCI will not develop dementia and will continue to function normally. Mood and anxiety symptoms are very prevalent in MCI and the clinician should pay particular attention to their diagnosis and treatment. Current medications for AD do not appear effective in preventing the progression of MCI to AD, but there is encouraging evidence for the beneficial role of exercise, cognitive stimulation, leisure activities, and socialization.

What the future holds

The rapid pace of innovation in preclinical and translational research in AD has led to an increasing pace of novel AD treatments entering clinical trials, including immunotherapies (60,61), secretase inhibitors (62), inhibition of the receptor for advanced glycation end-products (RAGE) (63), and anti-inflammatory agents (64). Since

Table 2 Randomized controlled trials of prevention of MCI progressing to dementia or AD

Author	Treatment	N (duration)	Outcomes	Results	Comments
Feldman et al (73)	Rivastigmine	1018 (48 months)	1. Progression to AD 2. Change on composite cognitive score	No difference between drug and placebo	No difference in MRI measure (ventricular volume)
Salloway et al (74)	Donepezil	270 (6 months)	1. Global impression of change 2. Change in delayed logical recall	No difference between drug and placebo	
Petersen et al (75)	Donepezil ± Vitamin E	769 (36 months)	Incident AD	1. Donepezil was not protective on primary outcome, but had a limited effect at 12 months in a secondary analysis. 2. No effect of Vitamin E	1. Donepezil effect observed at 36 months in ApoE4 carriers 2. No effect on rate of brain atrophy (76)

MCI – mild cognitive impairment; AD - Alzheimer's disease; MRI – magnetic resonance imaging
Two trials of galantamine in MCI have been reported as negative in a recent systematic review (72)

amnestic MCI includes a large group of patients with prodromal AD, if a new treatment is effective in early AD it may also prevent progression of amnestic MCI to AD. There is much investigation of biomarkers of preclinical AD which will help identify MCI patients at greatest risk of AD, and may allow for identification of patients before they develop MCI, so that treatment becomes possible in a preclinical state. Additionally, the near-future will likely produce an explosion of results on the effectiveness of lifestyle interventions in MCI. The clinician should keep alert for findings in all of these areas, which offer great hope of improving our management of MCI and possibly preventing incident AD and reducing its enormous public health burden.

References

1. Ferri CP, Prince M, Brayne C et al. Alzheimer's Disease International: global prevalence of dementia: a Delphi consensus study. Lancet 2005;366:2112-7.
2. Binetti G, Magni E, Padovani A et al. Executive dysfunction in early Alzheimer's disease. J Neurol Neurosurg Psychiatry 1996;60:91-3.
3. Petersen RC, Doody R, Kurz A et al. Current concepts in mild cognitive impairment. Arch Neurol 2001;58:1985-92.
4. Steinberg M, Shao H, Zandi P et al. Point and 5-year period prevalence of neuropsychiatric symptoms in dementia: the Cache County Study. Int J Geriatr Psychiatry 2008;23:170-7.
5. Selkoe DJ. Deciphering the genesis and fate of amyloid beta-protein yields novel therapies for Alzheimer disease. J Clin Invest 2002;110:1375-81.
6. Snowdon DA, Kemper SJ, Mortimer JA et al. Linguistic ability in early life and cognitive function and Alzheimer's disease in late life. Findings from the Nun Study. JAMA 1996;275:528-32.
7. Kay DW, Beamish P, Roth M. Old age mental disorders in Newcastle Upon Tyne. I. A study of prevalence. Br J Psychiatry 1964; 110:146-58.
8. Graham JE, Rockwood K, Beattie BL et al. Prevalence and severity of cognitive impairment with and without dementia in an elderly population. Lancet 1997;349:1793-6.
9. Petersen RC, Smith GE, Waring SC et al. Mild cognitive impairment: clinical characterization and outcome. Arch Neurol 1999; 56:303-8.
10. Perneczky R, Pohl C, Sorg C et al. Impairment of activities of daily living requiring memory or complex reasoning as part of the MCI syndrome. Int J Geriatr Psychiatry 2006;21:158-62.
11. Feldman HH, Jacova C. Mild cognitive impairment. Am J Geriatr Psychiatry 2005;13:645-55.
12. Lopez OL, Jagust WJ, DeKosky ST et al. Prevalence and classification of mild cognitive impairment in the Cardiovascular Health Study Cognition Study: Part 1. Arch Neurol 2003;60:1385-9.
13. Tschanz JT, Welsh-Bohmer KA, Lyketsos CG et al. Conversion to dementia from mild cognitive disorder: the Cache County Study. Neurology 2006;67:229-34.
14. Petersen RC, Smith GE, Ivnik RJ et al. Apolipoprotein E status as a predictor of the development of Alzheimer's disease in memory-impaired individuals. JAMA 1995;273:1274-8.
15. Morris JC, Storandt M, Miller JP et al. Mild cognitive impairment represents early-stage Alzheimer disease. Arch Neurol 2001;58: 397-405.
16. Devanand DP, Pradhaban G, Liu X et al. Hippocampal and entorhinal atrophy in mild cognitive impairment: prediction of Alzheimer disease. Neurology 2007;68:828-36.
17. Solfrizzi V, D'Introno A, Colacicco AM et al. Alcohol consumption, mild cognitive impairment, and progression to dementia. Neurology 2007;68:1790-9.
18. Ganguli M, Dodge HH, Shen C et al. Mild cognitive impairment, amnestic type: an epidemiologic study. Neurology 2004;63:115-21.
19. Lopez OL, Kuller LH, Becker JT et al. Incidence of dementia in mild cognitive impairment in the Cardiovascular Health Study Cognition Study. Arch Neurol 2007;64:416-20.
20. Maioli F, Coveri M, Pagni P et al. Conversion of mild cognitive impairment to dementia in elderly subjects: a preliminary study in a memory and cognitive disorder unit. Arch Gerontol Geriatr 2007;44(Suppl. 1):233-41.
21. Gabryelewicz T, Styczynska M, Luczywek E et al. The rate of conversion of mild cognitive impairment to dementia: predictive role of depression. Int J Geriatr Psychiatry 2007;22:563-7.
22. Busse A, Hensel A, Guhne U et al. Mild cognitive impairment: long-term course of four clinical subtypes. Neurology 2006;67: 2176-85.
23. Fischer P, Jungwirth S, Zehetmayer S et al. Conversion from subtypes of mild cognitive impairment to Alzheimer dementia. Neurology 2007;68:288-91.
24. Albert M, Moss MB, Blacker D et al. Longitudinal change in cognitive performance among individuals with mild cognitive impairment. Neuropsychology 2007;21:158-69.
25. Dickerson BC, Sperling RA, Hyman BT et al. Clinical prediction of Alzheimer disease dementia across the spectrum of mild cognitive impairment. Arch Gen Psychiatry 2007;64:1443-50.
26. Fleisher AS, Sowell BB, Taylor C et al. Clinical predictors of progression to Alzheimer disease in amnestic mild cognitive impairment. Neurology 2007;68:1588-95.
27. Jack CR Jr, Weigand SD, Shiung MM et al. Atrophy rates accelerate in amnestic mild cognitive impairment. Neurology (in press).
28. DeCarli C, Frisoni GB, Clark CM et al. Qualitative estimates of medial temporal atrophy as a predictor of progression from mild cognitive impairment to dementia. Arch Neurol 2007;64:108-15.
29. Carmichael OT, Kuller LH, Lopez OL et al. Cerebral ventricular changes associated with transitions between normal cognitive function, mild cognitive impairment, and dementia. Alzheimer Dis Assoc Disord 2007;21:14-24.
30. Drzezga A, Grimmer T, Riemenschneider M et al. Prediction of individual clinical outcome in MCI by means of genetic assessment and (18)F-FDG PET. J Nucl Med 2005;46:1625-32.
31. Mosconi L, Perani D, Sorbi S et al. MCI conversion to dementia and the APOE genotype: a prediction study with FDG-PET. Neurology 2004;63:2332-40.
32. Forsberg A, Engler H, Almkvist O et al. PET imaging of amyloid deposition in patients with mild cognitive impairment. Neurobiol Aging (in press).
33. Miller SL, Fenstermacher E, Bates J et al. Hippocampal activation in adults with mild cognitive impairment predicts subsequent cognitive decline. J Neurol Neurosurg Psychiatry (in press).
34. Hansson O, Buchhave P, Zetterberg H et al. Combined rCBF and CSF biomarkers predict progression from mild cognitive impairment to Alzheimer's disease. Neurobiol Aging (in press).
35. Hansson O, Zetterberg H, Buchhave P et al. Prediction of Alzheimer's disease using the CSF Abeta42/Abeta40 ratio in patients with mild cognitive impairment. Dement Geriatr Cogn Disord 2007;23:316-20.
36. Graff-Radford NR, Crook JE, Lucas J et al. Association of low plasma Abeta42/Abeta40 ratios with increased imminent risk for mild cognitive impairment and Alzheimer disease. Arch Neurol 2007; 64:354-62.
37. Palmer K, Berger AK, Monastero R et al. Predictors of progression from mild cognitive impairment to Alzheimer disease. Neurology 2007;68:1596-602.
38. Modrego PJ, Ferrandez J. Depression in patients with mild cognitive impairment increases the risk of developing dementia of

Alzheimer type: a prospective cohort study. Arch Neurol 2004; 61:1290-3.
39. Teng E, Lu PH, Cummings JL. Neuropsychiatric symptoms are associated with progression from mild cognitive impairment to Alzheimer's disease. Dement Geriatr Cogn Disord 2007;24:253-9.
40. Lee JS, Potter GG, Wagner HR et al. Persistent mild cognitive impairment in geriatric depression. Int Psychogeriatr 2007;19:125-35.
41. Alexopoulos GS, Kiosses DN, Heo M et al. Executive dysfunction and the course of geriatric depression. Biol Psychiatry 2005;58:204-10.
42. Kumar R, Jorm AF, Parslow RA et al. Depression in mild cognitive impairment in a community sample of individuals 60-64 years old. Int Psychogeriatr 2006;18:471-80.
43. Lopez OL, Becker JT, Sweet RA. Non-cognitive symptoms in mild cognitive impairment subjects. Neurocase 2005;11:65-71.
44. Loewenstein DA, Barker WW, Harwood DG et al. Utility of a Modified Mini-Mental State Examination with extended delayed recall in screening for mild cognitive impairment and dementia among community dwelling elders. Int J Geriatr Psychiatry 2000;15:434-40.
45. Bland RC, Newman SC. Mild dementia or cognitive impairment: the Modified Mini-Mental State Examination (3MS) as a screen for dementia. Can J Psychiatry 2001;46:506-10.
46. Bravo G, Hebert R. Age- and education-specific reference values for the Mini-Mental and Modified Mini-Mental State Examinations derived from a non-demented elderly population. Int J Geriatr Psychiatry 1997;12:1008-18.
47. Smith T, Gildeh N, Holmes C. The Montreal Cognitive Assessment: validity and utility in a memory clinic setting. Can J Psychiatry 2007;52:329-32.
48. Loewenstein DA, Acevedo A, Ownby R et al. Using different memory cutoffs to assess mild cognitive impairment. Am J Geriatr Psychiatry 2006;14:911-9.
49. Dombrovski AY, Lenze EJ, Dew MA et al. Maintenance treatment for old-age depression preserves health-related quality of life: a randomized, controlled trial of paroxetine and interpersonal psychotherapy. J Am Geriatr Soc 2007;55:1325-32.
50. Cuijpers P, van Straten A, Smit F. Psychological treatment of late-life depression: a meta-analysis of randomized controlled trials. Int J Geriatr Psychiatry 2006;21:1139-49.
51. Podewils LJ, Guallar E, Kuller LH et al. Physical activity, APOE genotype, and dementia risk: findings from the Cardiovascular Health Cognition Study. Am J Epidemiol 2005;161:639-51.
52. Fratiglioni L, Paillard-Borg S, Winblad B. An active and socially integrated lifestyle in late life might protect against dementia. Lancet Neurol 2004;3:343-53.
53. Green RC, Rebok GW, Lyketsos CG. Influence of social network characteristics on cognition and functional status with aging. Int J Geriatr Psychiatry (in press).
54. Verghese J, Lipton RB, Katz MJ et al. Leisure activities and the risk of dementia in the elderly. N Engl J Med 2003;348:2508-16.
55. Stern Y. Cognitive reserve and Alzheimer disease. Alzheimer Dis Assoc Disord 2006;20:S69-S74.
56. Scarmeas N, Zarahn E, Anderson KE et al. Association of life activities with cerebral blood flow in Alzheimer disease: implications for the cognitive reserve hypothesis. Arch Neurol 2003;60:359-65.
57. Espeland MA, Gill TM, Guralnik J et al. Designing clinical trials of interventions for mobility disability: results from the Lifestyle Interventions and Independence for Elders Pilot (LIFE-P) trial. J Gerontol A Biol Sci Med Sci 2007;62:1237-43.
58. Van Dam D, Abramowski D, Staufenbiel M et al. Symptomatic effect of donepezil, rivastigmine, galantamine and memantine on cognitive deficits in the APP23 model. Psychopharmacology 2005; 180:177-90.
59. Koontz J, Baskys A. Effects of galantamine on working memory and global functioning in patients with mild cognitive impairment: a double-blind placebo-controlled study. Am J Alzheimers Dis Other Demen 2005;20:295-302.
60. Arbel M, Solomon B. Immunotherapy for Alzheimer's disease: attacking amyloid-beta from the inside. Trends Immunol 2007;28: 511-3.
61. Gardberg AS, Dice LT, Ou S et al. Molecular basis for passive immunotherapy of Alzheimer's disease. Proc Natl Acad Sci USA 2007;104:15659-64.
62. Melnikova I. Therapies for Alzheimer's disease. Nat Rev Drug Discov 2007;6:341-2.
63. Lue LF, Yan SD, Stern DM et al. Preventing activation of receptor for advanced glycation endproducts in Alzheimer's disease. Curr Drug Targets CNS Neurol Disord 2005;4:249-66.
64. Rosenberg PB. Clinical aspects of inflammation in Alzheimer's disease. Int Rev Psychiatry 2005;17:503-14.
65. Rosenberg PB, Johnston D, Lyketsos CG. A clinical approach to mild cognitive impairment. Am J Psychiatry 2006;163:1884-90.
66. Larson EB, Wang L, Bowen JD et al. Exercise is associated with reduced risk for incident dementia among persons 65 years of age and older. Ann Intern Med 2006;144:73-81.
67. Wilson RS, Bennett DA, Bienias JL et al. Cognitive activity and incident AD in a population-based sample of older persons. Neurology 2002;59:1910-4.
68. Wang L, Larson EB, Bowen JD et al. Performance-based physical function and future dementia in older people. Arch Intern Med 2006;166:1115-20.
69. Scarmeas N, Levy G, Tang MX et al. Influence of leisure activity on the incidence of Alzheimer's disease. Neurology 2001;57:2236-42.
70. Rovio S, Kareholt I, Helkala EL et al. Leisure-time physical activity at midlife and the risk of dementia and Alzheimer's disease. Lancet Neurol 2005;4:705-11.
71. Laurin D, Verreault R, Lindsay J et al. Physical activity and risk of cognitive impairment and dementia in elderly persons. Arch Neurol 2001;58:498-504.
72. Loy C, Schneider L. Galantamine for Alzheimer's disease and mild cognitive impairment. Cochrane Database Syst Rev 2006;CD00 1747.
73. Feldman HH, Ferris S, Winblad B et al. Effect of rivastigmine on delay to diagnosis of Alzheimer's disease from mild cognitive impairment: the InDDEx study. Lancet Neurol 2007;6:501-12.
74. Salloway S, Ferris S, Kluger A et al. Efficacy of donepezil in mild cognitive impairment: a randomized placebo-controlled trial. Neurology 2004;63:651-7.
75. Petersen RC, Thomas RG, Grundman M et al. Vitamin E and donepezil for the treatment of mild cognitive impairment. N Engl J Med 2005;352:2379-88.
76. Jack CR Jr, Petersen RC, Grundman M et al. Longitudinal MRI findings from the vitamin E and donepezil treatment study for MCI. Neurobiol Aging (in press).

SPECIAL ARTICLE

Barriers in the mind: promoting an economic case for mental health in low- and middle-income countries

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In recent years, policy makers in high-income countries have placed an increasing emphasis on the value of maintaining good mental health, recognizing the contribution that this makes to quality of life, whilst ever more mindful of the socio-economic consequences of poor mental health. The picture in many other parts of the world is much less encouraging; policy attention and resources are still directed largely at communicable diseases. We reflect on some of the challenges faced in these countries and outline the role that economic evidence could play in strengthening the policy case for investment in mental health. Clearly this should include assessment of the economic impact of strategies implemented outside, as well as within the health sector. The ways in which mental health services are delivered is also of critical importance. Non-governmental organizations (NGOs) have long been shown to be key stakeholders in the funding, coordination and delivery of these services in high-income countries. Their role in low- and middle-income countries, where infrastructure and policy focus on mental health are more limited, can be even more vital in overcoming some of the barriers to the development of mental health policy and practice.

Key words: Mental health policy, economics, service development, non-governmental organizations

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The 2001 World Health Report made plain the global challenge posed by poor mental health. Worldwide, 20% of individuals may experience mental health problems during their lifetime, and such disorders account for approximately a third of all years lived with a disability (1). The consequences of poor mental health range far and wide, of course; they are associated with higher rates of non-mental health-related comorbidity and premature mortality. Some mental health problems are also associated with poor employment experiences, poor personal relationships, strain on families, and a higher-than-average risk of homelessness and contact with the criminal justice system.

The 2001 report helped to raise awareness of the importance of mental health. The need to promote and maintain good mental health and well-being as integral elements of health policy is now quite widely recognised in high-income countries. For instance, the European Commission published in 2005 a Green Paper on mental health (2) and all 52 Member States in the European Region of the World Health Organization (WHO) endorsed a Declaration and Action Plan at Helsinki earlier that same year (3,4). In the United States, a Presidential Commission called for investment in actions to ensure that mental health receives the same level of attention as physical health problems, specifically recommending actions to tackle suicide and reduce stigma, as well as interventions to promote child mental health (5). Positive actions can also be seen in the Pacific region, where, for instance, New Zealand has a ten-year national mental health strategy (6), with implementation monitored by a separate Mental Health Commission.

The picture in many other parts of the world is much less encouraging. Although there has been some recent focus on the need to tackle the mental health consequences of major disasters such as the Asian Tsunami (7), policy attention and resources in many low- and middle-income countries are still directed largely at communicable diseases.

The purpose of this paper is to reflect on some of the challenges faced in low- and middle-income countries and the role that economic evidence could play in strengthening the policy case for investment in mental health. There is obviously a need to improve our understanding of the cost-effectiveness of specific interventions within the health care system. But there is also a pressing need to expand the role of economic analysis in looking at non-health sector interventions that can have a direct impact on mental health or can indirectly help with the uptake and maintenance of treatment. The ways in which services are delivered are of critical importance and also need evaluation. In particular, we shall argue that non-governmental organizations (NGOs) can be key players in the funding, coordination and delivery of services.

THE SOCIO-ECONOMIC IMPACT OF POOR MENTAL HEALTH

The burden of mental illness is predicted to increase from its current level of 12% of global disease burden to approximately 15% by 2020; much of this additional burden is projected to occur in low-income countries (8). The consequences of poor mental health in low-income countries may be even worse than in high-income ones, because of the absence of social protection safety nets, compounded by the high levels of stigma and superstition (9). The cycle between poor mental health and poverty in low-income countries has been observed in several studies (10-12). Poor maternal mental health also has long-term adverse consequences for infants in low- and middle-income countries, limiting their own lifetime opportunities (13). Communicable diseases, the focus of much health policy in poorer countries, are also inextricably linked and exacerbated by poor mental health; interventions to prevent and treat mental health problems could help in the management of these conditions, as for instance in the case of HIV/AIDS (14,15).

The economic costs of poor mental health are well documented in high-income countries, conservatively estimated to account for between 3% and 4% of gross domestic product (GDP). Few estimates have been made outside the developed world. One exception is a study in Kenya (16) that estimated that the total costs per patient for 5,678 individuals with mental health problems hospitalised in 1999 were US$ 2,351. This included out of pocket costs to family members of US$ 51 and productivity losses of US$ 453. Total economic costs for this group alone were more than US$ 13.3 million, equivalent to 10% of the Ministry of Health's budget; yet these figures would have been substantially larger if costs had also been included for those individuals who were not institutionalised or were treated by traditional healers. To put this in context, the average income per head of the population in Kenya is just US$ 580 per annum, and more than half the population live on less than US$ 1 per day (17).

Other examples can be found in India, where the overall costs for outpatients with schizophrenia have been found to be similar to those of people living with another long-term condition, diabetes; a key difference between them, however, is the much greater contribution of indirect costs to overall costs (63% versus 29%) in the case of schizophrenia. This included not only the costs of lost opportunities to work for the individuals with the illness and their families, but also the loans taken out to meet the costs of treatment and money spent on repairing damage to property. In total the annual cost per outpatient treated for schizophrenia was estimated to be US$ 274 (18). Another Indian study where free access to essential drugs was provided as part of community outreach services for people with schizophrenia reported that these led to a number of improvements in quality of life over an 18-month period. The impact on cost was modest, with the investment in community outreach services partly offset by a reduced need for caring by family members (19).

This impact on family caregivers can be considerable. In Ethiopia, Shibre et al (20) looked at the impact of schizophrenia on 300 family caregivers in traditional rural communities. Relatives experienced financial difficulties, constraints on their social life, reduced opportunities to work and strained family relationships. These problems were particularly challenging for female caregivers. Similarly, a study of 66 caregivers in Zimbabwe reported that two-thirds experienced financial difficulties, especially as food consumption by their relative increased (21).

THE ROLE OF ECONOMIC EVIDENCE

Some people have argued a moral case for greater investment in mental health, given the high number of individuals affected and the ensuing profound consequences (22). Such a case obviously needs substantiating with evidence that targeting more investment on mental health will be effective in preventing or treating mental disorders, and that it represents a cost-effective use of a country's scarce resources. In turn, this generates a need for economic analyses to support clinical and strategic decision-making. Of course, decisions should never be made on the basis of cost or cost-effectiveness alone, and other factors such as fairness, human rights and ethics are usually highly relevant.

There has been significant growth in the evidence base on the effectiveness and cost-effectiveness of interventions aimed at treating the consequences of poor mental health (particularly drug therapies) (23-26). Increasingly, economic analyses are being undertaken in low- and middle-income countries (27-31), but the overwhelming majority of studies are from high-income countries. This is not surprising: between 1992 and 2001 only 4% of articles in journals on the ISI Web of Science databases were on mental health issues; of these a mere 6% were from low- and middle-income countries (32). Similarly, Patel and Kim (33) found, from their review of publications between 2002 and 2004 in six leading journals, that only 3.7% of papers were from low-income countries. Unfortunately, economic evaluation findings do not transfer easily between countries, because infrastructures, resources, incentives and cultures can be very different. There is therefore a need to develop the evidence base on the effectiveness and cost-effectiveness of interventions in low- and middle-income countries through additional empirical studies. Practically, however, even with a substantial injection of funding, this evidence base will take some time to emerge, given the human and infrastructure capacity constraints within countries (34).

In the meantime, how can economics best be used to inform policy making? In the absence of empirical evidence, careful use of economic "models" which seek to adapt evidence on effect to take account of different local circumstances and cost structures can play a role. The most significant such endeavour is the ongoing work of the WHO CHOICE (Choosing Interventions that are Cost Effective) Programme. CHOICE aims to assess the cost-effectiveness of a wide range of interventions for conditions that make significant contributions to the burden of disease in a range of epidemiological and geographical settings. The core aim is to feed information into the policy process (35).

Thus far, the CHOICE programme has looked at schizophrenia, bipolar disorder, depression and panic disorder. It has estimated, for example, that cost-effective interventions can be provided for US$ 3-4 per capita in low-income settings of Sub-Saharan Africa and South East Asia, or around US$ 10 in middle-income regions such as Eastern Europe. These are typically a combination of older off-patent antipsychotic or mood stabilising drugs plus psychosocial therapy. It has also been estimated that, globally, between 300 and 500 million healthy years of life could be gained for each additional US$ 1 million invested. Around one third of the gains would be for severe mental disorders, schizophrenia and bipolar disorder, with the most cost-effective interventions being for depression and panic disorder (36).

Welcome though the CHOICE programme is, it has focused largely on health care interventions to improve mental health outcomes, although there is in high-income countries a growing body of evidence related to the role of employment and living arrangements. There is an urgent need to assess the cost-effectiveness of prevention and promotion strategies, many of which lie outside the health system, for example in the school or workplace. There is also very little research evidence from low- and middle-income countries on how poverty and related socio-economic factors impact on the success of mental health policy and practice. Do these broader developmental issues have an opportunity to influence mental health policy thinking?

BARRIERS TO INVESTMENT IN MENTAL HEALTH

Despite the substantial adverse impact of poor mental health and the emerging evidence base on the availability of potentially cost-effective interventions, there remain many difficulties in trying to ensure that mental health both receives a fair level of investment in low- and middle-income countries and that, when services are available, there is fair access to them.

Low policy priority

Historically, mental health may have appeared to be a low priority for both national policy makers and external donors. Rather symbolic of this was the fact that the World Bank's 1993 World Development Report highlighted that poor mental health was a major contributor to the global burden of disease, but its recommended minimum essential services package (ESP) for health services did not seek to address mental disorders, even though their overall burden was twice that of ESP priority areas tuberculosis and HIV/AIDS (37). This omission generated some criticism and was addressed in a later version of the ESP.

Nonetheless, it remains the case today that in both low- and middle-income countries the focus of much health policy (and international assistance) has been geared towards communicable diseases that lead to premature mortality, most notably HIV/AIDS, malaria and tuberculosis. Substantial international efforts have been launched, such as the "3 by 5 Initiative", aimed at providing greater access to drug therapy for AIDS. The Millennium Development Goals explicitly recognize the contribution of good health towards economic growth, and include several health-related targets, yet mental health is noticeable by its absence, despite the production of background papers prepared for the Commission which emphasized the strong links between poverty, lack of economic growth and poor mental health (38,39).

This low perceived priority is exacerbated by stigma. This undoubtedly has contributed to a lack of attention from policy makers and the public alike, in turn leading to a lack of resources, poor staff morale, decaying institutions, lack of leadership, inadequate information systems and inadequate legislation (40).

Absence of needs-based policy assessment

Even if policy-makers give greater priority to mental health, a key constraint on the development of services and their allocation so as to meet needs is the lack of epidemiological data. This situation is not confined to low-income countries: one recent review could not find adequate prevalence data on mental disorders in 13 of the 25 European Union Member States (41). Unfortunately, the infrastructure required to provide such information is not insignificant.

Moreover, in the assessment of needs it is important not to rely solely on epidemiological data. The views of all stakeholders need to be considered; yet it remains rare for people with mental health problems and their advocates to have an opportunity to participate in or inform the policy process. As a result, there is a danger that policy gives insufficient emphasis to measures that can alleviate some of the broader impacts of mental disorders, such as lost opportunities to work or to participate in education. There is also the risk that policy makers fail to appreciate the challenges of implementing programmes on the ground.

Diagnosis of disorders

Primary health care professionals may lack the training to recognize mental health problems. Depression in particular may be poorly recognized (and thus not treated) in many low-income countries (42). One study from Zimbabwe suggested that over 90% of primary health care workers acknowledged deficiencies in the recognition and knowledge of treatment for depression (43). Lack of knowledge among health care professionals may be compounded by the stigmatization of mental illness, with some studies indicating that many professionals believe that such conditions either do not exist or cannot be treated (44). Stigmatization might also mean that only physical symptoms or comorbid conditions are treated, rather than the underlying disease.

Insufficient resources

Countries accounting for more than 2 billion of the world's population spend less than 1% of their total public sector health care budgets on mental health (45). The majority of countries in Africa are in this category. Only 51% of the world population in low-income countries have access to any community care services (45). Evidence on utilization of mental health services is limited, but at least 85% of people with severe mental health problems do not receive treatment within any 12-month period in some low-income countries (46). One recent community-based survey in Nigeria found that only 9% of people with DSM-IV disorders received some type of formal treatment for mental health problems during a one-year period (47). In Sao Paolo, Brazil, where the overwhelming majority of people with schizophrenia are covered by the public system, it has been estimated that over 70% still do not make use of services (48).

Even where there is a political commitment to fund mental health, the level of available resources will be dependent on the state of the economy. So, even if more than 5% of the total health budget is allocated to mental health, this will not amount to much in terms of overall resources if the overall level of national income is low. The need to keep public finance under control or to make loan repayments might also mean that public services have to be cut; mental health services may be particularly vulnerable in such circumstances.

Access to drug therapy remains limited: worldwide, the WHO found that, by 2001, 20% of all countries were not providing at least one antidepressant (amitryptyline), one antipsychotic (chlorpromazine) and one antiepileptic (phenytoin) (45). This situation is unlikely to be helped by the enforcement of World Trade Organization's Trade Related Intellectual Property Rights (TRIPs) agreement. Under this agreement no country can produce cheap generic bioequivalent versions of patented drugs and furthermore the price of patented drugs must be set by the manufacturer (49). While there are some exemptions to these rules for national emergencies and diseases which are life threatening, there are no exemptions for mental disorders. In addition, a number of bilateral free trade agreements have been signed between the US and some developing countries. These agreements can be even stricter than TRIPs, for instance extending the period of patent protection (50). There are also human resource challenges, especially since health systems have to contend with the lure of high countries that can offer better pay and conditions to these professionals.

Different but equally pertinent challenges confront the middle-income countries of the former Soviet Union. Here a major problem continues to be the high rates of suicide and alcohol-related disorders, which may stem partly from rapid economic and social transition (51). Existing mental health services are being put under great pressure as public resources for health systems decline. Moreover, the supplementary private health insurance arrangements purchased by many people to cover gaps in tax-funded health care systems typically do not provide cover for long-term mental health problems.

Financial barriers to access

The extremely limited budgets for mental health in many low- and middle-income countries inevitably mean that access to many services is dependent on payment at the point of use. Around 40% of low-income countries reported out-of-pocket payments to be the primary method for financing mental health care, compared with only 3% of high-income countries (45). Even this figure of 40% is undoubtedly conservative, as it does not take account of costs incurred through consultation with traditional healers. This reliance on out-of-pocket payments is both inefficient and inequitable, as it discourages utilization of services by those with limited incomes, which is especially worrisome given the close links between poverty and poor mental health (52). Paying for services may lead to poverty or indebtedness if families borrow from moneylenders at very unfavourable terms. Opportunities to reduce some of the externalities associated with poor mental health are thus lost.

Optimizing use of available resources

A number of challenges in making use of resources have been set out on detail elsewhere by Knapp et al (53). While these barriers may also be applicable to health systems generally, they are likely to be more difficult to overcome in mental health contexts. Indeed, their impact may be greatest in low- and middle-income countries, where human and financial resources are scarce and where there are many competing claims on available resources.

Two of these barriers have already been discussed: the paucity of information on effectiveness and cost-effectiveness, and the limited level of resources committed to mental health treatment and care. Another key factor is the poor distribution of available resources, which are often heavily concentrated in urban areas. The distance to be travelled to reach a community-based mental health facility can be substantial: in one Indian study a key reason for the lack of continued use of antipsychotic medication was the need for individuals to have to travel more than 10 kilometres to their nearest outreach clinic (19). In some rural areas of South Africa there is only one psychiatrist per 5 million population (54). Changing migration patterns, particularly from rural communities to urban areas, can also act as a barrier to sustaining treatment. Seasonal migration in India is significant, with the National Sample Survey of 1999-2000 estimating that 8.64 million people migrated seasonally for short periods (55). Resources may also be distributed inefficiently across different disorders or needs. Historically, for example, depression has been viewed as a lower priority compared to schizophrenia within the health systems of developing countries (56).

There is also the problem that resources are used inappropriately to support services that do not match epidemiological needs or the preferences of service users or the evidence base on effectiveness and cost-effectiveness. The WHO (54) has recommended the development of primary care-led mental health systems, where mental health is fully integrated into the health system; countries which continue to rely heavily on institutional-based care are unlikely to be providing an appropriate mix of services.

Resource inflexibility is a related concept: it may prove difficult to reorganize and move resources so as best to meet population needs. Health systems may be highly bureaucratic, with little opportunity for decentralization or local management of funds. In countries where most resources are "locked" within a highly institutionalized system, as in the former Soviet Union, it can be extremely difficult to release resources from institutions to fund community-based alternatives (57).

The uptake of community outreach services might also be poor because of the practical problems of poverty-related food insecurity, lack of transportation and financial resources. To ensure a course of treatment is successfully completed may require dealing with food insecurity: one survey in Zimbabwe suggested that more than 10% of family carers could not afford to pay for the additional food required for relatives with mental health problems (21). It is important therefore to ensure that unused resources are not wasted, and furthermore for policy-makers to think not only about clinical strategies but also about some of the factors that might limit the use of services.

Where there is decentralized responsibility, as in India, local governance structures need to have the skills to ensure that funds are allocated to mental health. Resources may also be held by a number of different budget holders, not only health, but also education, employment and social welfare. Poor coordination and cooperation between central and local governments and NGOs can hamper the development of flexible services. In Zambia, for example, the collapse of both primary and community services for mental health was attributed to a lack of coordination (58).

Policy makers also need to be aware that reconfiguration of existing services or greater investment does not necessarily mean that there will be immediate improvements in mental health outcomes. Investing in workforce development may take several years to generate benefits in terms of better treatment and care. Politically, policy makers may therefore be tempted to concentrate on areas of the health system where more visible and immediate benefits can be generated, even if the need for them is lower. A related issue is the need to ensure that there is a sufficient long-term commitment to service delivery, so as to support vulnerable individuals over time within their communities.

MEETING THE CHALLENGE

Clearly one need is to improve access to information on both effectiveness and cost-effectiveness of interventions to treat mental health symptoms. Improved understanding of population needs is also important. Other information deficits that need to be addressed include finding affordable and cost-effective ways to deliver mental health training to primary care and other professionals, and launching awareness initiatives and anti-discrimination measures to tackle some of the consequences of stigma. Plugging the information deficit and making more efficient use of scarce resources would go some way to strengthening the arguments for mental health.

Having a better understanding of how resources are allocated to mental health and other health priorities would also be helpful. In many instances where national health budgets are tiny, there is high dependence on external sources of funding for health programmes. Some insight into the ways that external donor programmes and international aid organizations are involved in setting priorities in health and other sectors would help if a case is to be built for more investment in mental health. Creating opportunities for mental health service users and other stakeholders to participate in the drafting of Poverty Strategy Reduction Papers would also be desirable, particularly as many of these papers appear to focus almost exclusively on physical health.

Initiatives that have helped emphasize the integration of physical and mental health objectives in different settings might also help build the case for greater resources for mental health programmes. Investment in mental health can also benefit physical health. More engagement with mainstream NGOs that focus on physical health issues might help encourage their involvement in mutually beneficial mental health and psychosocial programmes. One exploratory review of 19 UK-based international NGOs concluded that many felt they did not have the skills to address mental health needs and were in favour of greater collaboration with NGOs that specialized in the mental health field (59).

It is important also to expand the role of economic analysis to look at the potential cost-effectiveness of initiatives to tackle macroeconomic risk factors for poor mental health, such as poor living conditions, financial insecurity, rapid economic transition and low levels of education. For instance, what benefits to mental health might be achieved through the operation of fair credit schemes in low-income countries? Again, the benefits of such initiatives will not be restricted to mental health alone, so that a partnership approach illustrating all health (and non-health) benefits would be merited.

The way in which effective interventions are delivered and/or funds channelled to mental health-related activities is also of importance. One issue here is the organization and financing of public health (and other) systems. There is a substantial body of literature in place looking at approaches to address the fragmentation of service delivery and the need to coordinate services across different sectors (53).

Funds cannot simply be transferred from inappropriate long-stay institutional care facilities to community-based alternatives. In the short to mid-term, additional funding will be required so as to continue to operate existing services until new community based services are developed and become operational. Pragmatic initiatives which seek to ensure existing long-stay institutions have funding to be transformed so as to also provide primary mental health care services, as with the Butabika hospital in Uganda, may also merit further development (60).

The high reliance on out-of-pocket payments is a major barrier to access to treatment, and countries should be working towards health finance systems built on tax-funded or social insurance prepayment schemes. A major challenge, however, is that the structures for revenue collection often do not exist in low-income countries (52). Less ambitious initiatives, such as very local community insurance schemes, might represent a way forward.

Delivery mechanisms also need attention. Although the CHOICE programme does take into account the rate of uptake of services, few economic evaluations conducted in low- and middle-income countries have considered this issue. What are the barriers to service use, such as lack of transportation? Would it be prudent to tackle these barriers, and if so how? Many services are delivered by NGOs, but there is a paucity of information on the quality, effectiveness or cost-effectiveness of the services they offer. Can they, as it has been shown in high-income countries, offer flexible, innovative services that can meet the needs of local populations in ways that public services often cannot (61)? How do NGO programmes compare with public and private (for-profit) alternatives? Can their involvement with local communities, perhaps through the participation of volunteers, encourage greater uptake and use of services compared with government-run programmes? To whom and how accountable are they? These are key questions to which we now turn.

The roles of NGOs in meeting the mental health challenge

Many countries report that they have some NGOs working in the field of mental health. Faith-based health services (missions) were early providers of care in many countries, while more recently, secular NGOs (international or national) have also come to play significant roles. These organizations may be self-funded or receive support from local government, external donors or other NGOs. Some may also play significant roles in training, resource provision and policy advocacy.

At international level, it is difficult to identify NGOs that specifically focus on mental health. One recent survey looked at NGOs that provide emergency mental health services following disasters as well as developmental services. Of 119 English language organizations listed on the United Nations website www.reliefweb.int, only 55 (46%) reported being engaged in mental health programmes. Forty-seven of these had engaged in at least one long-term developmental programme, but only four were deemed to provide comprehensive international mental health programmes (62).

There are prominent exceptions, including the US-based Carter Center's mental health programme, and the Budapest-based Mental Disability Advocacy Centre. Such organizations may not only raise and distribute funding for mental health, but also help to deliver services. Another example is Basic Needs, which works in partnership with government health units to help deliver mental health services at primary care level in several programme sites across seven countries in Africa and Asia (Ghana, Kenya, India, Lao People's Democratic Republic, Sri Lanka, Tanzania and Uganda).

NGOs can address some of the barriers to the development of mental health policy and practice, for example by helping to raise awareness of the importance of mental health and by stimulating demand for access to services in low-income communities. A community development or grassroots approach, which involves engagement within local communities with key stakeholders including service users and their families, is often used because of the challenges in translating dialogue at a high political level into action on the ground (63).

The community partnership model that NGOs often adopt can help build on social capital in communities to support the work of primary health centres. Local volunteers and village health workers can be trained, undertaking follow-up of service users to ensure regular use of medicine, monitoring side effects and relapse, as well as maintaining and updating records. NGOs can also act as bridges between traditional healers and conventional medicine. For example, Basic Needs has engaged with traditional healers as one of their target stakeholder groups in Northern Ghana, where some of these healers have subsequently begun to refer some people with mental health problems to health services staff.

Such partnerships between the NGO and the statutory sectors provide opportunities for health professionals, especially psychiatric nurses, to enhance their skills. Ongoing access to psychiatrists can help in developing a deeper understanding of how to meet mental health needs in community contexts. Through a greater level of contact with people with mental health problems within local health care systems, local health personnel may make requests at district or regional levels for drugs and other services to meet these previously hidden local needs.

Partnerships with NGOs can also be helpful for the heads of government mental health services. They can act as catalysts to respond to often long-standing demands for greater investment. In one country where Basic Needs operates, for example, the chief psychiatrist was hopeful that starting a mental health and development programme would help to move mental health up the government agenda. This partnership approach has very gradually begun to bear fruit, including a commitment of 55 million Uganda shillings (approximately US$ 30,157) for mental health in Kampala, and a joint World Bank/Ministry of Health project, developed with Basic Needs inputs, in Sri Lanka to develop community partnerships in the Uva and North Western provinces.

CONCLUSION

Mental health problems are a major contributor to the global disease burden, they are associated with premature mortality and profound socio-economic impacts on individuals, and they generate substantial costs to the economy. Despite the availability of proven cost-effective interventions in high-income countries and some more limited but accumulating evidence in low- and middle-income countries, mental health promotion and care have been widely neglected when compared with levels of investment in interventions for somatic health disorders. Even where funding is available, access to and utilization of services may be poor, even if payment systems are ostensibly fair (which, of course, they generally are not).

A combination of factors, some almost unique to mental health, has contributed to these inequities. Stigmatization, lack of empowerment within a highly vulnerable population, abuse of individual human rights and reluctance to change historical allocations of resources have perpetuated a situation in which the opportunity to prevent and alleviate mental health problems has so far largely been missed.

Overcoming these challenges requires a multi-dimensional strategy. Economic analysis of the cost-effectiveness of interventions can play a role in this strategy. Such analysis needs to look beyond interventions that address the symptoms of mental disorders alone; a better understanding is also needed of the health system (broadly defined) and the cultural and socio-economic contexts in which interventions are to be delivered. Economic analysis is also needed of more holistic strategies to address risk factors for poor mental health, such as poverty, lack of access to fair credit and interrupted education. Effective strategies will have benefits that go beyond mental health, and partnerships with other groups are merited, such as those working with communicable diseases.

Analysis of the implementation process is potentially helpful. In countries where government health systems are weak and/or poorly funded, and where mental health is a low priority, NGOs can play vital roles. If some of the benefits of working with NGOs can be assessed more systematically, this might help strengthen the case for investment in mental health. International agencies have long worked, with some success, in the areas of malaria, tuberculosis, HIV/AIDS and maternal and child health. What, then, is more difficult or different in looking at mental health problems in the same villages and often in the same families? The emerging experience from NGOs such as Basic Needs indicates that even modestly resourced efforts can have some impact, which in turn suggests that the neglect of people with poor mental health in low-income countries is not as insurmountable as is sometimes inferred at the policy making level.

Perhaps the key difference between mental disorders and other health concerns is that the former are more often viewed as a low priority because they are perceived as less life-threatening. Too often mental health only comes to the attention of local policy makers after a terrible global tragedy such as the Asian Tsunami or a high profile local event such as the fire in Erawadi, India. The latter resulted in the deaths of 25 people who had been left chained within a private psychiatric asylum. A subsequent Commission provided the impetus for mental health policy directives and initiatives by state and central governments, NGOs, and even the supreme court of India. But as these events fade from memory, it is easy for mental health to slip off government and NGO priorities for action. Getting the message across that investment in mental health can generate economic as well as quality of life benefits is vital to its inclusion on the agenda for economic development. This is no easy task, since barriers to effective mental health care start with barriers in the mind.

References

1. World Health Organization. The world health report 2001. Mental health: new understanding, new hope. Geneva: World Health Organization, 2001.
2. European Commission. Improving the mental health of the population: towards a strategy on mental health for the European Union. Green Paper. Brussels: Health and Consumer Protection Directorate, European Commission, 2005.
3. World Health Organization. Mental health declaration for Europe. Facing the challenges, building solutions. Copenhagen: World Health Organization, 2005.
4. Muijen M. Challenges for psychiatry: delivering the Mental Health Declaration for Europe. World Psychiatry 2006;5:113-7.
5. President's New Freedom Commission on Mental Health. Achieving the promise: transforming mental health care in America. Rockville: President's New Freedom Commission on Mental Health, 2003.
6. New Zealand Ministry of Health. Te Tähuhu – Improving mental health 2005 – 2015: the second New Zealand mental health and addiction plan. Wellington: New Zealand Ministry of Health, 2005.
7. Saraceno B. The WHO's mental health response to the Asian tsunami. World Psychiatry 2005;4:66-7.
8. Murray C, Lopez A. The global burden of disease. Boston: Harvard School of Public Health, WHO and the World Bank, 1996.
9. Gureje O, Olley BO, Ephraim-Oluwanuga O et al. Do beliefs about causation influence attitudes to mental illness? World Psychiatry 2006;5:104-7.
10. Patel V, Kirkwood BR, Pednekar S et al. Risk factors for common mental disorders in women. Population-based longitudinal study. Br J Psychiatry 2006;189:547-55.
11. Araya R, Rojas G, Fritsch R et al. Common mental disorders in Santiago, Chile: prevalence and socio-demographic correlates. Br J Psychiatry 2001;178:228-33.
12. Patel V, Araya R, de Lima M et al. Women, poverty and common mental disorders in four restructuring societies. Soc Sci Med 1999; 49:1461-71.
13. Prince M, Patel V, Saxena S et al. No health without mental health. Lancet 2007;370:859-77.
14. Cournos F, McKinnon K, Wainberg M. What can mental health interventions contribute to the global struggle against HIV/AIDS? World Psychiatry 2005;4:135-41.
15. Collins PY, Holman AR, Freeman MC et al. What is the relevance of mental health to HIV/AIDS care and treatment programs in developing countries? A systematic review. AIDS 2006;20:1571-82.

16. Kirigia JM, Sambo LG. Cost of mental and behavioural disorders in Kenya. Ann Gen Hosp Psychiatry 2003;2:7.
17. World Bank. Kenya data profile. Washington: World Bank, 2007.
18. Grover S, Avasthi A, Chakrabarti S et al. Cost of care of schizophrenia: a study of Indian out-patient attenders. Acta Psychiatr Scand 2005;112:54-63.
19. Srinivasa Murthy R, Kishore Kumar KV, Chisholm D et al. Community outreach for untreated schizophrenia in rural India: a follow-up study of symptoms, disability, family burden and costs. Psychol Med 2005;35:341-51.
20. Shibre T, Kebede D, Alem A et al. Schizophrenia: illness impact on family members in a traditional society - rural Ethiopia. Soc Psychiatry Psychiatr Epidemiol 2003;38:27-34.
21. Nyati Z, Sebit MB. Burden of mental illness on family members, care-givers and the community. East Afr Med J 2002;79:206-9.
22. Patel V, Saraceno B, Kleinman A. Beyond evidence: the moral case for international mental health. Am J Psychiatry 2006;163:1312-5.
23. Knapp M, Simon J, Percudani M et al. Economics of schizophrenia: a review. In: Maj M, Sartorius N (eds). Schizophrenia. Chichester: Wiley, 2002:407-54.
24. Knapp M, Mangalore R, Simon J. The global costs of schizophrenia. Schizophr Bull 2004;2:297-93.
25. Barrett B, Byford S, Knapp M. Evidence of cost-effective treatments for depression: a systematic review. J Affect Disord 2005;84:1-13.
26. Romeo R, Byford S, Knapp M. Economic evaluations of child and adolescent mental health interventions: a systematic review. J Child Psychol Psychiatry 2005;46:919-30.
27. Patel V, Chisholm D, Rabe-Hesketh S et al. Efficacy and cost-effectiveness of drug and psychological treatments for common mental disorders in general health care in Goa, India: a randomised, controlled trial. Lancet 2003;361:33-9.
28. Araya R, Flynn T, Rojas G et al. Cost-effectiveness of a primary care treatment program for depression in low-income women in Santiago, Chile. Am J Psychiatry 2006;163:1379-87.
29. Chisholm D, Sekar K, Kumar KK et al. Integration of mental health care into primary care. Demonstration cost-outcome study in India and Pakistan. Br J Psychiatry 2000;176:581-8.
30. Gillis LS, Koch A, Joyi M. The value and cost-effectiveness of a home-visiting programme for psychiatric patients. S Afr Med J 1990; 77:309-10.
31. Gureje O, Chisholm D, Kola L et al. Cost-effectiveness of an essential mental health intervention package in Nigeria. World Psychiatry 2007;6:42-8.
32. Saxena S, Paraje G, Sharan P et al. The 10/90 divide in mental health research: trends over a 10-year period. Br J Psychiatry 2006; 188:81-2.
33. Patel V, Kim YR. Contribution of low and middle income countries to research published in leading general psychiatry journals, 2002-2004. Br J Psychiatry 2007;190:77-8.
34. Soltani A, Moayyeri A, Raza M. Impediments to implementing evidence-based mental health in developing countries. Evid Based Ment Health 2004;7:64-6.
35. Hutubessy R, Chisholm D, Edejer TT. Generalized cost-effectiveness analysis for national-level priority-setting in the health sector. Cost Eff Resour Alloc 2003;1:8.
36. Chisholm D, on behalf of WHO-CHOICE. Choosing cost effective interventions in psychiatry: results from the CHOICE programme of the World Health Organization. World Psychiatry 2005;4:36-44.
37. World Bank. World development report 1993. Investing in health. New York: Oxford University Press, 1993.
38. Whiteford H, Teeson M, Scheurer R et al. Responding to the burden of mental illness. Commission on Macroeconomics and Health, Paper 12. Washington: World Health Organization, 2001.
39. Bir A, Frank R. Mental illness and the labour market in developing countries. Commission on Macroeconomics and Health, Paper 6. Washington: World Health Organization, 2001.
40. Jenkins R. Supporting governments to adopt mental health policies. World Psychiatry 2003;2:14-9.
41. Wittchen H-U, Jacobi F. Size and burden of mental disorders in Europe – a critical review and appraisal of 27 studies. Eur Neuropsychopharmacol 2005;15:357-76.
42. Patel V. The need for treatment evidence for common mental disorders in developing countries. Psychol Med 2000;30:743-6.
43. Abas M, Mbengeranwa OL, Chagwedera IV et al. Primary care services for depression in Harare, Zimbabwe. Harv Rev Psychiatry 2003;11:157-65.
44. Nasir LS, Al-Qutob R. Barriers to the diagnosis and treatment of depression in Jordan. A nationwide qualitative study. J Am Board Fam Pract 2005;18:125-31.
45. Saxena S, Sharan P, Garrido Cumbrera M et al. World Health Organization's Mental Health Atlas 2005: implications for policy development. World Psychiatry 2006;5:179-84.
46. Wang PS, Angermeyer M, Borges G et al. Delay and failure in treatment seeking after first onset of mental disorders in the World Health Organization's World Mental Health Survey Initiative. World Psychiatry 2007;6:177-85.
47. Gureje O, Lasebikan VO. Use of mental health services in a developing country. Results from a Nigerian survey of mental health and well-being. Soc Psychiatry Psychiatr Epidemiol 2006;41:44-9.
48. Leitao RJ, Ferraz MB, Chaves AC et al. Cost of schizophrenia: direct costs and use of resources in the State of Sao Paulo. Rev Saude Publica 2006;40:304-9.
49. World Trade Organization and World Health Organization. WTO agreements and public health. Geneva: World Trade Organization, 2002.
50. Correa CM. Implications of bilateral free trade agreements on access to medicines. Bull World Health Organ 2006;84:399-404.
51. Brainerd E. Economic reform and mortality in the former Soviet Union: a study of the suicide epidemic in the 1990s. European Economic Review 2001;45:1007-19.
52. Dixon A, McDaid D, Knapp M et al. Financing mental health services in low and middle income countries: equity and efficiency concerns. Health Policy and Planning 2006;21:171-82.
53. Knapp M, Funk M, Curran C et al. Economic barriers to better mental health practice and policy. Health Policy and Planning 2006;21:171-82.
54. World Health Organization. Investing in mental health. Geneva: World Health Organization, 2003.
55. National Sample Survey Organization. Migration in India. 1999-2000. New Delhi: Ministry of Statistics and Programme Implementation, Government of India, 2001.
56. Abas M, Broadhead J. Mental disorders in the developing world. BMJ 1994;308:1052-3.
57. McDaid D, Samyshkin Y, Jenkins R et al. Health system factors impacting on delivery of mental health services in Russia: multi-methods study. Health Policy 2006;79:144-52.
58. Mayeya J, Chazulwa R, Mayeya PN et al. Zambia mental health country profile. Int Rev Psychiatry 2004;16:63-72.
59. Gilbert J. UK NGOs and international mental health: an exploratory review. www.janegilbert.co.uk, 2005.
60. Njenga F. Challenges of balanced care in Africa. World Psychiatry 2002;1:96-8.
61. Kendall J, Knapp M, Forder J. Social care and the nonprofit sector in the western developed world. In: Powell W, Steinberg R (eds). The non-profit sector research handbook, 2nd ed. New Haven: Yale University Press, 2006:415-31.
62. Sanchez SH, Katz CL. International disaster mental health services: a survey. Psychiatr Serv 2006;57:420-1.
63. Cutler P, Hayward R. Stakeholder involvement: a challenge for intergovernmental organisations. J Publ Ment Health 2006;5:14-7.

Steps, challenges and lessons in developing community mental health care

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This paper summarises our own accumulated experience from developing community-orientated mental health services in England and Italy over the last 20-30 years. From this we have provisionally concluded that the following issues are central to the development of balanced mental health services: a) services need to reflect the priorities of service users and carers; b) evidence supports the need for both hospital and community services; c) services need to be provided close to home; d) some services need to be mobile rather than static; e) interventions need to address both symptoms and disabilities; and f) treatment has to be specific to individual needs. In this paper we consider ten key challenges that often face those trying to develop community-based mental health services: a) dealing with anxiety and uncertainty; b) compensating for a possible lack of structure in community services; c) learning how to initiate new developments; d) managing opposition to change within the mental health system; e) responding to opposition from neighbours; f) negotiating financial obstacles; g) avoiding system rigidities; h) bridging boundaries and barriers; i) maintaining staff morale; and j) creating locally relevant services rather than seeking "the right answer" from elsewhere.

Key words: Community care, community mental health services, psychiatric services

(World Psychiatry 2008;7:87-92)

Three elements can serve as a guide in improving mental health services: ethics, evidence and experience (1). In our view, when planning community-based mental health services, it is preferable to start with a statement of the principles intended to guide new service developments. Such principles can be used in a form of *triangulation*, so that this ethical base is combined directly with the relevant evidence base and with the experience base to produce the strongest possible case for change.

In this paper we shall present key issues which arise in everyday clinical practice, so that these can be helpful as you implement better mental health care. We shall therefore discuss here only one of the above three key elements, the *experience base*, which is relatively rarely covered in the literature. We shall organise our main findings in relation to ten key challenges which are often faced by those attempting to improve community mental health services. Our starting point for this paper is our own accumulated experience from developing community-orientated mental health services in England and Italy over the last 20-30 years.

A FRAMEWORK FROM EXPERIENCE

From our own experience, we have provisionally concluded that the following issues are central to the development of balanced mental health services (2): a) services need to reflect the priorities of service users and carers; b) evidence supports the need for both hospital and community services; c) services need to be provided close to home; d) some services need to be mobile rather than static; e) interventions need to address both symptoms and disabilities; f) treatment has to be specific to individual needs.

DEVELOPING COMPREHENSIVE GENERAL ADULT MENTAL HEALTH CARE

Within the wider context of these guidelines, we shall discuss next the main categories of service which are necessary for comprehensive care. We have proposed that there are five key categories of service, all of which are necessary to provide a comprehensive range of local services (2): a) out-patient/ambulatory clinics; b) community mental health teams; c) acute in-patient care; d) long-term residential care in the community; e) rehabilitation, work, and occupation.

In addition to these main categories, it may be important to develop variations, or even separate forms of support, which are directly service user-led, such as peer support workers, peer advocacy workers, or self-help groups (3). Pragmatically this means that, for a service in transition (4), it is not necessary to delay reducing the size of a long-stay psychiatric hospital until all these components exist in the community. That would often be impossible because the main or the only source of funds for community services is from savings made at the large hospital as it reduces in size (5).

In fact, there is often a dilemma about whether to spend money on increasing the quality of care within large and usually neglected psychiatric hospitals, or rather on developing services outside hospital. In our experience the answer to this dilemma will need to be resolved according to local circumstances, but in general it is important to progressively move an increasing proportion of the whole mental health budget, and in many cases eventually the majority of the budget, to community based services while simultaneously bringing the quality of care in the (shrinking) institutions to an acceptable level. Here again there is a balance: too rapid a shift of resources can produce unstable and confused new clinical services that are unable to offer integrated care, especially to people with long-term mental disorders; too slow a process may not allow any momentum for change to be created.

Investment during the transition from a more hospital to a more community oriented system often needs a focus upon training to achieve individually-orientated staff attitudes and practices (invisible inputs), for staff in hospital and community settings, rather than upon investment in the physical environment. The advantage of this way of setting priorities is that staff in the future, wherever they work, will have a more therapeutic approach.

STAKEHOLDERS

In our view, mental health services are best planned by bringing together the whole range of stakeholders who have an active interest in improving mental health care (6-8), including: a) service users; b) family members/carers; c) professionals (mental health and primary care); d) other service provider groups (e.g., non-governmental organisations); e) policy makers; f) advocacy groups; g) planners.

There is also a need to ensure that groups which are not powerful advocates for their own interests are also given equitable consideration in planning services, such as recently established service user groups (9). What can be done where some key stakeholder groups do not exist? In this case it may be necessary to take a long-term view and for those controlling mental health financial resources to invest to initiate and support the growth of, for example, service user and family member groups.

TEN KEY CHALLENGES

From our experience in developing and working in community mental health services, we have identified ten key challenges facing people committed to improving mental health care. We present each key challenge in the form of a statement (in italics) followed by a brief discussion on each challenge.

Challenge 1. Anxiety and uncertainty

Creating new services necessarily produces uncertainty about the future. It is usually helpful if clear undertakings can be given, for example, guarantees to staff to avoid redundancies. It is an advantage to have some staff who prefer to work in hospital as such services will continue to be needed in future. Service leaders can help staff by openly supporting shared risk taking, and by allowing mistakes as long as there is a learning/adaptation process at the same time.

Although guarantees of no redundancies, if possible, can be very helpful, for example through constructive discussions with trade unions, in low resource countries there may be high staff vacancy rates and the question of redundancy does not arise. Similarly, if the service provider organisation can make a clear statement of support to staff, such as that below on risk-taking, then this can provide a clear framework for staff to work with confidence (Table 1).

Challenge 2. Lack of structure in community services

The change of service structure, and in particular developing more and smaller services away from the main hospital site, can run the risk of destroying established routines and structures. One of the positive functions of these routines is to reduce anxiety, and recognising this it may be important to develop, especially for a transitional period, even more structure and routine than is strictly necessary. This may include, for example, staff support groups, regular information sharing meetings between managers and staff, and clear timetable of regular clinical meetings, as well as written operational policies and referral procedures.

In the first stages of working in services which operate outside hospital sites, staff often feel an increased level of anxiety as the structures and routines they were familiar with do not operate in the same way in community services. At least in the transitional period until community services become consolidated, it may be useful to deliberately introduce arrangements which give many levels of structure to reduce such staff anxiety. Examples include regular staff group and individual supervision meetings, regular clinical case review meetings, and periodic forms of audit or self-appraisal on the performance of the clinical team.

Table 1 South London and Maudsley NHS Foundation Trust policy on responsible risk-taking

The Board accepts that staff, users and carers will all make decisions which are risky in that they may not have predictable or definitely successful outcomes. Taking these often difficult decisions are a part of everyday practice. The Board fully supports staff in taking these decisions provided they are made responsibly by reference to the principles of good professional practice.

Examples of ensuring responsible risk taking include:
- Making use of the care programme approach (case management and care planning) policy; crisis and contingency planning can help in arriving at a high risk decision and ensuring good communication
- Risky decisions are discussed fully with key members of the team
- Testing decisions with colleagues
- Seeking advice from professional bodies
- Seeking advice from Trust lawyers
- Clear entries in the healthcare record should outline how the decision was made and the alternatives considered
- Good note-keeping enables one to justify decisions

Challenge 3. How to initiate new developments?

Often the biggest challenge facing stakeholders in beginning a process of reform is that it is difficult to imagine how the mental health system could possibly be different. An invaluable way to begin is by visiting other places which have started or completed the development of community-based care. It is often helpful to borrow a copy of some of their basic tools such as timetables, assessment forms, job descriptions, or operational policies. As a local service development plan develops, it is often important to allocate each task to a person or group and to set a deadline for its completion, along with a mechanism, such as the next meeting of the planning group, to see whether tasks have been completed or not. It may need to become clear to staff that it does matter, for example to their salary or to their promotion, whether they fulfil the agreed tasks or not.

One of the first difficulties for staff with long experience of institutional practice is that they cannot imagine working in any other way. A remedy that is often used is to visit services in otherwise comparable sites, perhaps in the same region, that have recently initiated community-based care. Such visits provide the opportunity to see ideas in practice and from one's own direct experience what it is possible to do, and to learn from specific aspects of practice elsewhere, and then to adapt this for local benefit. For example staffing rotas, operational policy documents, and job descriptions can be taken away and adapted for local use.

Challenge 4. How to manage opposition within the mental health system

Commonly there will be a range of staff views on proposals to change the care system. Many opportunities may be necessary to involve the range of staff, including a widespread process of consultation, with planning groups including diverse opinions. Linking local specific proposals to generally agreed plans, such as the World Health Organisation declarations, can put your services in a wider context, and help to create a sense of the inevitability of change.

Many staff members will be rightly cautious about large scale service changes. They may fear that changes are motivated by cost-cutting reasons, or that any such changes will leave people with mental illness liable to neglect. Such reasonable concerns need to be addressed directly, explaining in good faith why the new model of care is expected to provide better services. If budget changes are planned, they need to be made explicit. Often, after lengthy discussion, a number of staff will make it clear that, despite all the arguments for developing community services, they wish to remain working on in-patient units. In the balanced care model that we have described (2,10), there is a clear need for some (limited) acute in-patient facilities (usually in general hospitals) and there is a continuing need for specialists in acute in-patient treatment and care.

Challenge 5. Opposition from neighbours

Neighbours will often have reservations, or may protest against plans for new mental health facilities in their locality. There is a dilemma here between maintaining the confidentiality of patients, and so not telling neighbours in advance about the new residents, or trying to engage support of neighbours through information-sharing and consultation. Our view is that involving neighbours throughout the process of developing of services is usually the better long-term option.

It is often the case that when new projects are proposed within local communities, neighbours are opposed to such developments. Often this is because their limited knowledge about people with mental illness leads them to believe (wrongly) that any new mental health facility will bring with it a high level of risk, especially to their children (11). Despite this, many staff feel strongly that it is unhelpful to inform neighbours about the nature of a new community mental health facility in advance. Indeed, a decision not to give advance notice to neighbours can be seen as a way to avoid marginalising people with mental illness and related disabilities. There is no research base to help decide what to do in these situations, and in England, for example, it is common to inform neighbours in advance of the planned new service (12), often with many detailed meetings to address the concerns of neighbours. In our view, whatever the stage at which neighbours are informed, or become aware of the nature of the new facility, it is very important to take seriously their views. The ultimate aim will be to foster good neighbourly relations between people in the community care home and local residents.

Challenge 6. Financial obstacles

Although some policymakers, politicians or managers may see a move from hospital towards community care as a cost saving process, the experience of many countries is that money can only be saved by reducing the quality of care. It is therefore essential to monitor very closely the resources available to mental services, and to ensure that no monies mysteriously become lost in the process. One very valuable asset that can be released in changing the system of care is the value of land and buildings occupied by the large psychiatric hospitals. It is important to establish whether you can retain the money realised by their rental or sale to use for new staff and facilities. Wherever possible keep maximum flexibility in your mental health service budgets, and share these budgets with other agencies if this is an advantage to you.

Money is critical for mental health care. The purpose of the balancing hospital and community care is *not* to reduce the mental health budget. Rather it is to provide the best possible services with the resources available. In relation to moving long-stay patients from large psychiatric institutions to community facilities, the evidence from evaluations carried out in high resource countries shows that, where this is done reasonably well, it is overall cost-neutral (5). Indeed, there is no evidence that comprehensive mental health care costs less than long-stay psychiatric hospitals. On the other hand, there is no support from research for the common idea that block treatment in hospital is more cost-effective (unless it is lower quality care). At the same time, such service changes can be used as the occasions to make budget cuts.

One important financial issue is whether the total resources available for mental health care, for example for a local area, can be identified and protected (sometimes called "ring-fenced"). This is a very important issue, because where such budgetary protection is not maintained, then it is very common to see mental health budgets lost to other medical or surgical departments. More positively, the resale value of the land and buildings occupied by long-stay hospitals depends upon its location, condition and reputation, and often the value cannot be realised to use for other mental health services locally.

Challenge 7. System rigidity

One of the organisational features of large institutions is their hierarchical nature and the rigidity of their procedures. In community systems it is possible to adopt a more flexible approach to how staff are used. For example, secondments to other services, or periods of shadowing key members of staff can be useful to develop new skills and roles. Sometimes it is helpful to make joint appointments, where one post is shared between two organisations.

A frequently occurring problem when initiating community-based services is that the financial system underpinning clinical care is hospital based. For example, reimbursement to the mental health care provider may be on the basis of the number of beds occupied. In this case establishing a new community mental health team may be difficult, as there is no tariff or currency that will allow for the costs to be paid. In such cases it is necessary to create new categories of payment, but as these financial changes are usually very slow to take place, in the interim considerable flexibility is needed on all sides to allow new services to start up using the old financial rules. For example, a day hospital may be paid for the number of people attending each day, rather than for the number sleeping on the unit each night. While this flexible approach can help new teams or services to start up, they rely on good will and are vulnerable to changes in staff or political will. So, it is vital to institutionalise new financial rules as soon as possible to explicitly pay for the new categories of community care services.

Challenge 8. Boundaries and barriers

As community mental health systems tend to be more complex than their hospital predecessors, it is vital that senior staff can maintain an overall view of the system as a whole. Individual components of service, for example clinical teams, must not be allowed to define their roles in isolation. They must be required to negotiate with other clinical teams to agree how they will put into practice a joint responsibility for all those patients who need to care. One way to manage inevitable ongoing boundary discussions about who does what is to have regular and frequent meetings between the leaders of all the clinical teams which serve a particular area.

It is common to hear those who wish to develop "seamless" care. In fact any local service will necessarily include many different teams or services. Every boundary between different teams is a potential point for boundary disputes or service dysfunction, for example communication problems between an in-patient ward and a community mental health team. It is therefore necessary to create methods to minimise the disruptive effect of friction at such boundaries. Ways to do this include arranging for staff from one team to "shadow" their equivalent person in the other team, for example for a day or for a week. Another mechanism is to arrange staff rotation schemes, so that for example doctors or nurses work for one or two years in a hospital team, and then for a period in a community mental health team. The central issue is to promote ways for staff in each part of the system as a whole to understand the perspective of their colleagues in other teams, and to want to work together to solve problems which detract from the quality of clinical care.

Challenge 9. Maintain morale

The morale of mental health staff is usually found to be low wherever the study takes place. In addition, morale may be particularly low during times of system change. Managers may therefore need to make special arrangements, during these transitional periods, to boost morale, for example by paying attention to social events, by communicating successes, and by taking any excuse to throw a party.

Creating and maintaining high staff morale is universally recognised as vital to an effective mental health service, both the morale of individual staff members, and developing a strong reputation as a modern and professional team. One way to enhance team morale is to visit other centres, for example abroad. This can have several advantages: to realise that one's own problems occur also elsewhere, to promote better social contact between staff team members, to learn directly from the practical experiences of others, and for the staff to be given some valuable reward for their commitment to the service, often over years or decades. There are considerable cultural differences in what activities raise staff morale: in some settings it may be frequent staff parties, in others it may be close attention to accurate job descriptions, aiming to reduce role blurring. In each case the starting point is for team leaders to be able to assess the morale of their team, and to understand what is necessary to keep this reasonably high most of the time.

Challenge 10. What is the right answer?

There is no right answer! Although there are a large number of mental health service models and theories, these are best seen as suggestions for what might help you in your particular situation. Maintain as much flexibility as you can in the new system, because you will make mistakes and need to change the service as it develops. The best guide about whether your mental health services are going in the right direction is the feedback you receive from service users and family members about how far their preferences and needs are being responded to.

It is common for those starting a process of mental health service change to believe that someone else, in some other place, knows exactly what should be done. In our view each local setting needs to find its own specific way to better mental health care. A vital guide to doing this will stem from supporting, seeking and using feedback from service users and family members. Feedback can be based on comments or complaints received, or it can be formally invited, for example with service user satisfaction surveys. It is often the case that, before feedback can be received, statutory services need to invest time and money to support the creation and initial survival of service user groups. In this way, over time, advocacy groups can join forces with staff to lobby for more resources allocation to mental health care, and often politicians are more moved and persuaded by individuals who have personal experience of mental illness than by staff, whom they may suspect of being motivated for reasons of self-interest.

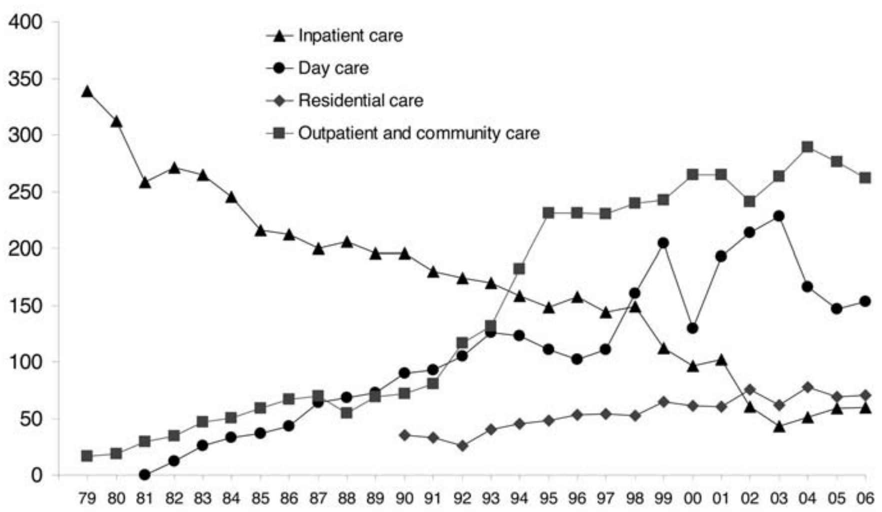
LESSONS LEARNED

What are the overall lessons that we feel we have learned that others may be able to learn from? First, robust service changes, improvements that will last, *take time*. Part of the reason for this is that staff will need to be persuaded that change is likely to bring improvements for patients, and indeed their scepticism is a positive asset, to act as a buffer against changes that are too rapid or too frequent. Another reason for not rushing change is that in order to succeed one is likely to need the support of many organisations and agencies, and they need to be identified and included gradually, at the start of each cycle of service changes. Those which are, or which feel, excluded are likely to oppose change, sometimes successfully. Further, in situations where health service changes may be a topic for political debate, then it is usually necessary to build a cross-party consensus on the mental health strategy, so that it will continue intact if the government changes. Again this will often take time to achieve.

Time is also needed to progress from the initiation stage of a change to the *consolidation phase*. Typically at the early stages of service reform a charismatic individual or small group will champion the main proposals, and recruit support from stakeholder groups and from others with influence within the health care system. In Eastern European countries, for example, the medical director/superintendents of the psychiatric hospital will in practice hold a veto for or against change (4). But, after a series of initiatives, such as creating mental health day centres in the larger cities of a country, the mental health system needs to systematise these changes so that they can continue over many years. In this subsequent phase, it is often true that charismatic leaders go on to new challenges, and the people who are most useful are those who are able to patiently consolidate the new organisation, and to establish consortia that are viable in the long term. For example, these less visible individuals will set up proper supervision for staff, ensure the regular maintenance of buildings, arrange for personnel to undergo regular training, set up multi-agency working groups to identify and fix day-to-day problems in the running of the services, establish and take part in consultation or partnership meetings with service users/consumers and with family members, and monitor that the services run properly within their allocated budgets.

While maintenance activities of a newly established system may be less attractive to innovators, in fact this consolidation is vital to make services robust and able to survive and thrive in the long term. This will not usually require a single high-profile leader, but rather a consortium made up of a wider group of stakeholders who need to cooperate in providing all the service components within the wider system of care. The successful completion of these policy decisions, and their implementation on the ground, will often also need organised and repeated lobbying by a coalition of stakeholder groups, to build sufficient political pressure, for example for modernised mental health laws. An example of the timescale required is the pattern of service changes in Verona, Italy over the last 30 years, derived from the local case register, founded in 1979 (13) (Figure 1). As the number of psychiatric beds has progressively declined, so the provision of day care, residential care, and out-patient and community contacts has steadily increased over many years.

The second overall lesson is that it is essential to *listen to users and families' experiences and perspectives*. Everyone involved needs to keep a clear focus on the fact that the primary purpose of mental health services is to improve outcomes for people with mental illness. The intended beneficiaries of care therefore need to be, in some sense, in the driving seat when planning and delivering treatment and care. This is a profound transformation, changing from a traditional and paternalistic perspective, in which staff were expected to take all important decisions in the "best interests" of patients, to an approach in which people with mental illness work, to a far greater extent, in partnership with care providers. This requires a fun-



Inpatient care includes days in hospital. Long-stay patients in state mental hospitals and patients admitted to neurological wards (with psychiatric diagnosis) are included. Day care includes days in the day hospital and in the day centre and sessions of rehabilitation groups at the community mental health centre. Outpatient and community care include all out-patient attendances and home visits. Contacts with the Service for Drug Dependence (SDD) are excluded.

Figure 1 Patterns of mental health service provision in Verona, 1979-2006

damental re-orientation for staff, for example to be and to feel less responsible for deciding all aspects of a patient's life. It also requires that people with mental illness become able to express their views and expectations of care. At the outset this may be very difficult, for example for people who have lived for many years in psychiatric institutions, where their views and preferences were rarely sought or valued. This will often require a stage of support, for example from advocacy workers, so that such individuals can in a sense be re-activated to recognise and express their own points of view. One consequence is that while service quality may improve during a period of developing community mental health services, commonly the expectations of the people being treated rise even faster, leading to a paradoxical decrease in satisfaction. While staff may interpret this as a criticism of the care they provide, another way of looking at this is that such dissatisfaction or complaints are in fact very clear signals of which parts of the service need to be improved next. In other words *service users are the best experts*.

The third lesson that emerges from this overview is that the team managing such a process needs clear expertise to manage the whole *budget* and that the risks are high that services changes will be used as an occasion for budget cuts. Having a protected budget is necessary but not sufficient, as it is also vital to be able to exercise flexibility within the overall budget, typically to re-use money saved by reducing the use of in-patient beds for community mental health teams, or occupational or residential services. When such a financial boundary (sometimes called a "ring fence") for mental health funds is not established and fiercely maintained, then money can easily be diverted to other areas of health care. In other words, financial mechanisms need to be created which ensure that money follows service users into the community.

References

1. Thornicroft G, Tansella M. Better mental health care. Cambridge: Cambridge University Press (in press).
2. Thornicroft G, Tansella M. Components of a modern mental health service: a pragmatic balance of community and hospital care: overview of systematic evidence. Br J Psychiatry 2004;185:283-90.
3. Chamberlin J. User/consumer involvement in mental health service delivery. Epidemiol Psichiatr Soc 2005;14:10-4.
4. Knapp M, McDaid D, Mossialos E et al (eds). Mental health policy and practice across Europe. Buckingham: Open University Press, 2007.
5. Knapp M, Beecham J, Anderson J et al. The TAPS project. 3: Predicting the community costs of closing psychiatric hospitals. Br J Psychiatry 1990;157:661-70.
6. Campbell SM, Shield T, Rogers A et al. How do stakeholder groups vary in a Delphi technique about primary mental health care and what factors influence their ratings? Qual Saf Health Care 2004;13:428-34.
7. Griffiths KM, Jorm AF, Christensen H et al. Research priorities in mental health, Part 2: an evaluation of the current research effort against stakeholders' priorities. Aust N Zeal J Psychiatry 2002;36:327-39.
8. Pescosolido BA, Wright ER, Kikuzawa S. "Stakeholder" attitudes over time toward the closing of a state hospital. J Behav Health Serv Res 1999;26:318-28.
9. Rose D. Users' voices, the perspectives of mental health service users on community and hospital care. London: The Sainsbury Centre, 2001.
10. Thornicroft G, Tansella M. Balancing community-based and hospital-based mental health care. World Psychiatry 2002;1:84-90.
11. Thornicroft G. Shunned: discrimination against people with mental illness. Oxford: Oxford University Press, 2006.
12. Reynolds A, Thornicroft G. Managing mental health services. Buckingham: Open University Press, 1999.
13. Tansella M. Community-based psychiatry. Long-term patterns of care in South Verona. Psychological Medicine Monograph Supplement 19. Cambridge: Cambridge University Press, 1991.

Experience counts

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Thornicroft et al share with us their knowledge and experience in developing community mental health services for several decades. Their focus is on how best to use the accumulated experience in this process. In an era in which only hard evidence extracted from well designed studies seems to count, it is refreshing to read a paper in which experience is presented as a valuable resource.

Experience as a general concept comprises knowledge usually acquired through involvement or exposure to something. As such it is not subject to the rigour of the scientific method used to generate the knowledge in line with the emergent evidence-based movement in medicine. Some of the limitations of the scientific evidence have helped to increase the relative importance of the value given to experience in our decision making process. Scientific evidence can be flawed, not only because of lack of rigor but also because of other practices leading to publication bias (1-3). Besides, most medical dilemmas still remain scientifically unresolved and published scientific papers arising from the developing world are virtually non-existent (4). So, experience might have a larger place informing important decisions, especially where there is no hard, scientific evidence. Undoubtedly there is a need to improve our methods to systematize the information obtained from experiences so that their relative value can be more accurately assessed.

Primary care services are not mentioned explicitly by Thornicroft et al in the list of key services that a comprehensive general adult mental health care system should have. Although the authors might have thought of these services as outpatient or ambulatory facilities, it may be better to highlight these services more prominently. According to the authors, World Health Organizations (WHO)'s advice can be powerful ammunition to sell changes to hard-to-convince people. In a recent speech for the Fourth Global Meeting of Heads of WHO Country Offices, the WHO Director General, Margaret Chan, repeated a call to return to primary care as the key sector to strengthen health services throughout the world.

It is interesting to note the advice given not to delay the reduction of long-stay hospitals, because the main or only source of funds for community services would be from savings made as large hospitals are reduced in size. Rationally it is difficult to disagree with this point; however, reality is much more complex than this and often defies rationality. Take for instance the case of Brazil, a large country where there is an ongoing reform of psychiatric services (5), one of whose aims is to reduce the number of beds in large psychiatric hospitals. There is a heated debate at present because some experts claim that the funds saved from these closures are not being re-invested in mental health services (6,7). The destiny of saved resources is often uncertain and delays may be advisable in order to clarify the ultimate destiny of saved resources. This process often takes time and requires strong political alliances and lengthy negotiations with many stakeholders. Later in the paper we are warned that changes take time, something that most people involved with improving health services in the developing world would agree with (8).

The authors also wisely warn us that a rapid shift of resources can produce unstable and confused new clinical services unable to offer good care. There are many examples of this situation in developed and developing countries. For instance, the Chilean government introduced a ground-breaking programme that offers a state guarantee to every citizen suffering from depression that timely and adequate treatment will be available (4). Private health insurance schemes have to adhere to this ruling too. One of the implications of this wonderful change has been that many of those psychiatrists who were still working in the state sector have now moved to the private sector, which needs more professionals to cater for an increased demand. State mental health clinics have been deprived of vital resources and are struggling to deliver adequate care.

Although I doubt anyone will disagree with the idea of greater participation of users and carers deciding upon priorities, my experience is that there is still little real participation in most parts of the world. Decisions are made at the top, but some form of "protected participation" is offered, often merely to satisfy political correctness. The authors wisely advise us that we should try to persuade governments to fund participation, but nobody should be under any illusion that this will be a short and easy process.

When it comes to challenges, some of the advice needs to be carefully adapted to the local context where it may be applied. Some of the suggestions, such as assuring people that there will be no redundancies, are impossible to offer in many parts of the developing world. Similarly, calming anxiety with "regular staff group and individual supervision meetings, regular clinical case review meetings, and periodic forms of audit or self-appraisal on the performance of the clinical team" may be an impossible recipe for most poor countries in the world. However, the general idea I extract from this advice is that more and better communication, and increased real participation of those involved in the change, may help.

How to manage opposition is another interesting section. The authors advised on wide consultation previously in the paper and this could help to decrease opposition. However, changes are often centrally led with little prior debate, and opposition is just but the natural consequence. Personally, I would have preferred to hear more about the vast experience of the authors in persuading people rather than dealing with the opposition. It can be rather irritating when one is invited to a process of consultation whose ultimate decision seems already made. Other than the reasons given by the authors, I have come across people who do not want changes because it is against their own interests. For instance, a consultant who has spent years setting up a successful inpatient unit may have little interest to start all over again. In such circumstances, advice given to outmanoeuvre opposition is essential.

Since the paper focuses on experience rather than evidence, it would have been most informative to hear more about the authors' experiences and advice on how to deal with political and other vested interests. Taking advantage of political opportunities and/or forging alliances with powerful players may be critical to introduce changes in many parts of the world. Changes can also be used to obtain quick political gains or reposition political forces. Likewise, I would have liked to hear more about the powerful influence of the media and in particular public scandals to promote changes. Horrible pictures of unacceptable human right abuses widely publicised in newspapers or journals may have made larger contributions to the improvement of mental health services than any other well-thought document in many countries throughout the world. For instance, the acceptance of some countries into the European Union was made conditional upon rectifying some of such abuses. Finally, the other thing on my wish list for the next version of this paper would be something about the role and importance of leadership in the process of developing or improving health services. The authors are leaders in the field and it is something to which they can contribute greatly with their experience.

Of course space is limited and it is commendable that such a vast experience was condensed in this paper, full of the wisdom obtained through a life dedicated to this field. It is particularly refreshing to read this paper because it returns some value to experience, often rapidly dismissed but also the only support available to reach critical decisions in many countries where hard evidence through research is still a dream.

References

1. Ioannidis JP. Why most published research findings are false. PLoS Med 2005;2:e124.
2. Fava GA. Financial conflicts of interest in psychiatry. World Psychiatry 2007;6:19-24.
3. Turner EH, Matthews AM, Linardatos E et al. Selective publication of antidepressant trials and its influence on apparent efficacy. N Engl J Med 2008;358:252-60.
4. Patel V, Araya R, Chatterjee S et al. Treatment and prevention of mental disorders in low income and middle income countries. Lancet 2007;370:991-1005.
5. Ministério da Saúde, Secretaria de Atenção à Saúde/DAPE. Saúde Mental no SUS: acesso ao tratamento e mudança do modelo de atenção. Relatório de Gestão 2003-2006. Brazilia: Ministério de Saude, 2007.
6. Andreoli S, Almeida-Filho N, Martin D et al. É a reforma psiquiátrica uma estratégia para reduzir o orçamento da saúde mental? O caso do Brasil. Rev Bras Psiquiatr 2007;29:43-6.
7. Gentil V. More for the same? Rev Bras Psiquiatr 2007;29:188-9.
8. Berwick D. Lessons from developing nations on improving health care. BMJ 2004; 328:1124-9.

Different contexts, different challenges

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The article by Thornicroft et al on the challenges in improving community mental health care emphasizes staff-related problems – staff anxiety about change, staff concern regarding lack of structure in a non-institutional setting, staff's difficulty in visualizing new developments, staff opposition to change, staff creating system rigidity and inter-team barriers, and low staff morale. Only three out of the ten challenges they cite relate to non-staff issues: neighbors' opposition to the location of new programs, policymakers' deception, and the need for user feedback. This is not the constellation of problems which routinely confront program developers in the US. American administrators face challenges primarily from the structure imposed by government and the health insurance industry.

The European challenges arise from a number of sources which are not common in the US. Firstly, because the US psychiatric institutional care system was almost entirely destroyed in the 1960s and 1970s before the community mental health system was well established, few hospital staff transferred to employment in the community mental health system. As a result, US community staff were, in general, not psychiatric nurses with an institutional background, but social workers and psychologists with no hospital experience. The demand for retraining, therefore, was not as acute as in Europe, where deinstitutionalization proceeded at a more leisurely pace and staff were transferred from one treatment environment to another. Secondly, in contrast to Britain and Italy, the US community mental health workforce is largely non-unionized, and worker concerns have not been taken as seriously as in Europe. Finally, US community mental health agencies are often not governmental bodies but independent non-profit entities. As such, they are not bound by governmental personnel policies and pay scales, but can operate more fluidly with respect to staff hiring and firing, training, and incentives. Many of these agencies have been able to develop a flat administrative structure, with few layers of administration between the staff who provide services and the director of the agency. This type of structure enhances communication and reduces problems with staff morale.

In contrast, a major challenge faced by program developers in the US is system fragmentation. There is enormous variation in the different American states' organization, funding and delivery of services, and no broad national policies govern system activities. Funding sources are highly fragmented. At least 42 different federal programs assist people with serious mental illness, most of which were never designed to serve this population. These programs are weakly administered by state and local programs, resulting in lack of coordination of health, mental health, vocational, housing and other services (1). Efforts to coordinate services through a centralized mental health authority have been unsuccessful (2).

It should be recognized that system fragmentation can provide opportunities for entrepreneurialism and inventiveness which are rarely available in Europe. Pockets of excellent service delivery can be developed where administrators are effective in combining funding streams and in creating collaborative relationships with other agencies. On the other hand, when local managers are not competent, there is no centralized bureaucratic system to make up for their deficiencies. In consequence, the quality of service provision may vary dramatically from one district to another.

Fragmentation also results from the existence of multiple points of entry into care. A patient may be evaluated in one hospital emergency room and denied treatment, but may approach another emergency room on the same day and be admitted to hospital care. On one occasion he or she may be treated in one hospital; on the next occasion it may well be another. Transfer of information about the client from one hospital to another is made difficult by confidentiality law. At discharge from hospital, moreover, there is often difficulty in locating a community agency willing to provide ongoing community care.

A second challenge in the US is represented by competing models of care. Governmental and private health insurance programs impose a medical model which requires proof of "medical necessity" before funding can be approved – a standard which usually excludes reimbursement for vocational and psychosocial rehabilitation.

A third challenge concerns interagency cooperation. It is difficult to build cooperative programs between different community agencies to aid an identified at-risk group. For example, children and adolescents at risk of out-of-home placement (in foster care or a juvenile detention facility) are best served by collaborative programs involving mental health, criminal justice and social service agencies. The management and funding of these various agencies are in discrete "silos", which makes obtaining the necessary collaboration and sharing of funds a difficult task (3). The state-level bureaucracy for an entity such as youth corrections may not be capable of adapting to the requirements of a collaborative enterprise developing at a county level. In addition, the lack of contiguity between the geographic districts for law enforcement, health, social services and local government can be a major problem. Cooperation between police and mental health crisis services is another area in which the provision of optimal services for people with acute psychiatric disturbance is often frustrated.

It is clear that the challenges facing program developers are context-related, an observation which underlines one of Thornicroft et al's conclusions: it is not likely that one will learn the right answer for one's own service area by visiting model programs in another, remote part of the world.

References

1. Gold PB, Glynn SM, Mueser KT. Challenges to implementing and sustaining comprehensive mental health service programs. Evaluation and the Health Professions 2006;29:195-218.
2. Goldman HH, Morrissey JP, Rosenheck RA et al. Lessons from the evaluation of the ACCESS program. Psychiatric Serv 2002; 53:967-9.
3. President's New Freedom Commission on Mental Health. Goal 2 - Mental health care is consumer and family driven. www.mentalhealthcommission.gov/reports/finalreport/fullreport-03.htm.

Why are psychiatric services getting better but looking worse

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Thornicroft et al have provided a service to the mental health community worldwide by summarising their combined experiences in developing community orientated mental health services in England and Italy over the past 30 years. The challenges they identify go a long way to explaining why mental health reform is often piecemeal and incomplete, sometimes leaving the system more fragmented than it was before reform was embarked upon. This has certainly been the case in Australia, where mental health reforms, whilst occurring in the context of a well articulated and universally agreed national mental health policy (1), have been differentially implemented in the various state and territory jurisdictions. Even within such jurisdictions there is inconsistency with respect to how community care is provided.

Within Australia, the state of Victoria has arguably undertaken the most comprehensive and rapid restructuring of mental health services, closing all its psychiatric hospitals within the decade of the 1990s. This rapid deinstitutionalisation was hugely successful in shifting the locus of mental health care into the community, along with a shift of resources. For example, between 1993 and 2003, expenditure on mental inpatient facilities in Victoria was reduced by AU$ 184 million, with a growth in spending on community based care of some AU$ 323 million (2). Each of the urban area mental health services provides services to around 250,000 people. Each has a small number of acute inpatient beds (around 20; average length of stay 10-14 days) co-located with general hospitals, but also has access to 20 bed continuing care units for longer-stay rehabilitation (length of stay from 3 months to 2 years) and various other facilities provided either solely by, or in partnership with, non-government organizations. Community health services are configured uniformly, with acute crisis work being performed by a crisis and assessment team, longer-term care by a continuing care team, and intensive case management by a multidisciplinary mobile support and treatment team.

Thus, both in terms of emphasis of dollar allocation, as well as staffing and overall service provision, Victoria has delivered on the imperative to shift mental health care into the community. However, we have been struck by the dissonance that has arisen between many mental health professionals who are convinced that services are much better than they were, and many in the community (including consumers and particularly carers) who are convinced they are worse.

One explanation for this phenomenon is the changing expectation of the community in response to the benefits of community psychiatry having been oversold by its vigorous and sometimes zealot proponents. These advocates (perhaps more in the past than at present) appear to be working on certain assumptions about the nature of mental health and its amenability to treatment. We (3) have recently published a summary of these premises and the reality that decades of experiences with deinstitutionalisation has subsequently generated about them. They are as follows:

- Psychotropic drugs, particularly the newer atypical antipsychotics, will deal effectively with most psychotic symptoms and reduce markedly consequent disability.
- Insight into the need for treatment will be enhanced, so that adherence to treatment will improve.
- Intensive case management (or assertive community treatment) will only be required for brief periods, and have lasting gains for individuals.
- Substance abuse will not increase in the psychiatrically ill population.
- Stigma against the mentally ill in the community at large will decrease.
- The justice system will be more tolerant of mentally ill people who run foul of the law.
- Mentally ill patients will be adequately serviced by available accommodation options as well as adequately dealt with by the general health system in regard to their physical health.
- Effective community services will substantially reduce if not eliminate the need for acute and (more specifically) chronic beds.
- Demand for psychiatric service will remain stable over time.
- The costs of community services can be constrained by limiting services to the low prevalence disorders (or those with "severe mental illness").

Anyone who has lived through the full implementation of a comprehensive mental health reform program will recognise that many of these premises are substantially misguided. This does not mean that community care for the vast majority of psychiatric patients is impossible, or that we should reverse the process of deinstitutionalisation. But we would argue that further reforms need to be more cognisant of the reality and tragedy of mental illness, and that there is no panacea. We need to keep on trying new ways of enhancing community care to the betterment of the health of our patients, rather than continually restructuring service delivery models. Much more needs to be done to reduce community stigma against people with illnesses such as schizophrenia, and concerted approaches adopted more effectively to reintegrate these individuals into mainstream living. Lack of suitable accommodation and very low work participation rates are particular barriers in this regard.

It is true that mental health systems, perhaps more obviously than general health systems, are under-funded for what they are expected to achieve. This is certainly the case even in an affluent country such as ours. But significant gains have been made, and our profession should expend energy on building on those gains rather than seeking to dismantle them.

Thus, we would contend that any approach to improving the mental health of the population needs to take particular heed of the strength of the challenges articulated by Thornicroft et al, namely to acknowledge that there is no right way but that each community society and nation needs to put the necessary elements for care together in a package that makes sense for them. We would add the imperative to ensure ongoing evaluation of the effectiveness of service interventions, and continuing to listen to all the main stakeholders, not least staff within services, and patients and carers themselves.

References

1. Australian Health Ministers. National mental health policy. Canberra: Australian Government Publishing, 1992.
2. Boston Consulting Group. Improving mental health outcomes in Victoria. Melbourne: Boston Consulting Group, 2006.
3. Singh BS, Castle D. Why are community psychiatry services in Australia doing it so hard? Med J Australia 2007;187:410-2.

Experience base and system context in mental health care reform

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Thornicroft et al offer a cogent account of the *experience base* for implementing better mental health care in the community. They describe ten key challenges in the process of change, from "anxiety and uncertainty" to the "maintenance of morale", and discuss whether there is always "a right answer" in the process. Their perspective is highly relevant as it focuses on *people* or *groups of people* who initiate and maintain change. In this commentary, we focus on structural factors affecting mental health service change and on cross-national variation to complement this perspective.

A recent editorial (1) pointed out that, in spite of a tendency for homogenisation of different systems of care in Europe, "…a long road remains to be made in order to achieve a real homogeneity between mental health services in different countries composing the European mosaic", partly due to the gap between acquisition of knowledge and application. According to de Girolamo et al (2), the Italian mental health reform led to the establishment of a broad network of facilities meeting diverse care needs, but efforts are required to improve care quality and develop a more integrated care system. For England, another country with a tax-based national health service (3), Glover (4) stated that mental health care is undergoing significant change as a result of major government initiatives, with new types of (specialist community) service being introduced quickly and others being scaled down. There are also accounts of current mental health care and service change in two countries with health insurance-based care systems (3), namely France and Germany. Against the background of a current high density of psychiatrists in the country, Verdoux (5), in her paper on France, described a structural crisis due to the reduction in public health budgets and an expected 30% decrease in the number of psychiatrists, while numerous national programmes aimed at renovating the care system have not kept their promises. As regards Germany, Salize et al (6), against the background of psychiatric reform and substantial achievement in integrating two mental health care systems following re-unification, described an ongoing struggle, in a well-resourced service system (3), to adapt to changing administrative set-ups, legal frameworks, financial constraints and privatisation of some mental health provider trusts. The authors concluded that the system is facing a serious challenge in defending service improvements achieved during the last 35 years.

One way of looking at these national accounts of mental health systems is to emphasise the contrast between systems with a strong central public health perspective and (some) central control over guiding principles of mental health care (Italy, UK), on the one hand, and health insurance-based systems (France, Germany) with a lack of central control of mental health care, on the other. These latter systems often lack the power to implement key elements of service set-up across regions.

Thornicroft spelled out that community care "is a service delivery vehicle. It can allow treatment to be offered to a patient, but is not the treatment itself. This distinction is important, as the actual ingredients of treatment have been insufficiently emphasised" (7). Also, a recent review of the literature on "assessing the content of mental health services" (8) came to the conclusion that measures providing a greater depth of information about the nature of interventions are needed. Thus, apart from the impact of health and social service constraints on mental health service change, it is this uncertainty on what makes mental health care "work" that suggests additional caution when we discuss the ups-and-downs of mental health care reform.

On another note, Thornicroft et al highlight the importance of resources and "ring-fencing" of mental health budgets, and there is no doubt that this is a key issue. However, some cross-national studies indicate that there is not always a clear-cut relationship between funding level and patient outcome (9). On the basis of health economic analyses, some authors suggest that the cost-effectiveness of psychiatric services could be significantly improved by shifting resources from the current mix of interventions to evidence-based optimal treatment strategies (10-13). Nonetheless, as mentioned by Thornicroft et al, the shift of resources from less effective to more effective types of intervention is often difficult, due to inflexible reimbursement systems or admission practices. This carries the risk that initiatives to make the system more cost-effective might end up in a cost-minimisation policy. One way of tackling the risks of a simple cost-minimisation perspective would be to combine the proposition of this commentary, namely that historic and structural constraints shape service change, with the proposition in Thornicroft et al's paper that it is essential to build an enthusiastic workforce devoted to a range of guiding principles, their implementation and evaluation.

One key challenge, in the broader health and social care system, is to insist on the importance of mental health, the ethics base, and user and carer values in promoting social inclusion. In the broader context, the set of guiding principles shared by protagonists concerns the social care system as a whole. The general concepts of social inclusion, social choice and human rights inform both the mental health care agenda and the societal project of non-discrimination of people struggling with deficits.

References

1. de Girolamo G, Neri G. Mental health in Europe: a long road ahead. Eur Arch Psychiatry Clin Neurosci 2007;257:63.
2. de Girolamo G, Bassi M, Neri G et al. The current state of mental health care in Italy: problems, perspectives, and lessons to learn. Eur Arch Psychiatry Clin Neurosci 2007;257:83-91.
3. Knapp M, McDaid D, Amaddeo F et al. Financing mental health care in Europe. J Ment Health 2007;16:167-80.
4. Glover G. Adult mental health care in England. Eur Arch Psychiatry Clin Neurosci 2007;257:71-82.
5. Verdoux H. The current state of adult mental health care in France. Eur Arch Psychiatry Clin Neurosci 2007;257:64-70.
6. Salize HJ, Rössler W, Becker T. Mental health care in Germany. Current state and trends. Eur Arch Psychiatry Clin Neurosci 2007;257:92-103.
7. Thornicroft G. Testing and retesting assertive community treatment. Psychiatr Serv 2000;51:703.
8. Lloyd-Evans B, Johnson S, Slade M. Assessing the content of mental health services: a review of measures. Soc Psychiatry Psychiatr Epidemiol 2007;42:673-82.
9. Becker T, Kilian R. Psychiatric services for people with severe mental illness across Western Europe: what can be generalized from current knowledge about differences in provision, costs and outcomes of mental health care? Acta Psychiatr Scand 2006; 113(Suppl. 429):9-16.
10. Issakidis C, Sanderson K, Corray J et al. Modelling the population cost effectiveness of current and evidence based optimal treatment for anxiety disorders. Psychol Med 2004;34:19-35.
11. Andrews G, Sanderson K, Corray J et al. Cost effectiveness of current and optimal treatment for schizophrenia. Br J Psychiatry 2003;183:427-35.
12. Andrews G, Issakidis C, Sanderson K et al. Utilising survey data to inform public policy: comparison of the cost effectiveness of treatment of ten mental disorders. Br J Psychiatry 2004;184:526-33.
13. Saxena S, Sharan P, Garrido Cumbrera M et al. World Health Organization's Mental Health Atlas 2005: implications for policy development. World Psychiatry 2006;5:179-84.

Cider house rules

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The authors, two of them among the very grand "old" men – godfathers – in European community psychiatry, have written *The Cider House Rules for Community Psychiatry*, of which we bring some examples below:

- Money is critical for mental health care.
- A day-hospital may be paid for the number of people attending each day.
- It may need to become clear to the staff that it does matter, for example to their salary or to their promotion, whether they fulfil the agreed tasks or not.
- It is vital that senior staff can maintain an overall view of the system as a whole.
- Robust service changes, improvements that will last, take time.
- Time is also needed to progress from the initiation state of a change to the consolidation phase.
- Everyone involved needs to keep a clear focus on the fact that the primary purpose of mental health service is to improve outcomes for people with mental illness.
- Feedback can be based on comments or complaints received, or it can be formally invited, for example with service user satisfaction surveys.
- You will make mistakes and need to change the service as it develops.

Breaking news! In their obvious self evidence they, just like the originals – pinned up on the wall of the cider house by Olive Worthington – express the high level of wisdom which can be reached only after 25 years of experience. For the benefit of the reader, we bring three examples from the original list:

- Please don't smoke in bed or use candles.
- Please don't go up on the roof if you've been drinking – especially at night.
- There should be no more than half a dozen people on the roof at any one time.

The two senior authors are among the pioneers who took the European community psychiatry from ideology and social romanticism into an era of evidence. They established their pioneering research in the 1980s. Since then things have developed, very fast indeed. The Verona/Camberwell model may have had its finest hour. Today's pioneering services are now gradually terminating this model from the 1980s which is not any longer pioneering but traditional. Instead we see establishing of diagnosis-based expert clinics organized within centralized outpatient units. These expert clinics have links to a few intensive beds in wards in general hospitals on the one side and to outreach psychosis teams for long-term patients, most often with schizophrenia, on the other side. This model has several advantages, of which the more important are:

- It can easily intercept and integrate the enormous amount of new knowledge available for updated treatment and not least prevention of the mental brain diseases in its full spectrum.
- It can easily include somatic expertise to the very many psychiatric ill patients who also suffer from physical illnesses.
- It opens the possibility for effective and rational treatment of the majority of psychiatric illnesses, the common mental disorders: depression, anxiety, obsessive-compulsive disorder, and others.

One could ask why services still basing themselves on the hospital model should be encouraged to implement a traditional community model; why not go directly to present times using recent knowledge, or with the poet *"Hence from Verona"* – and maybe from Camberwell too? – *"art thou banished. Be patient,"* – (!?) – *"for the world is broad and wide".*

European community psychiatry represented by the Italian/British model replaced mental hospitals, asylums, and manicomios. Hard and condescending words were spoken to these replaced services. This was not totally fair. When asylums were established, they were really a shift in paradigms established by idealistic humanistic thinking *alienists*. The fact that they were overtaken by the development is quite another story.

The 1980s model of community psychiatry is at high-risk for ending up in the same position, backwards thinking, obstructing patients from access to new and better treatment. Among the younger generations of psychiatrists, community psychiatry has already been baptised *postal code psychiatry*, and that is not meant as a compliment.

The authors open their paper by declaring that they will exclusively report and discuss their experiences without including evidence based knowledge. Therefore, when doing so, choosing eminence – not the evidence based model – they cannot be criticised for not going into a documented discussion about what really matters: outcome (the patients', not as in the paper, mostly the staff's welfare). But next time the Verona/Camberwell axis publishes a paper, I myself should wish that they discuss, for example, the following:

- How can community psychiatry reach the critical mass of top skilled, highly educated neuropsychiatrists making it possible to keep the organization professionally updated at any time? (1).
- How can psychiatry based on community psychiatry attract psychiatrists? (2).
- How does community psychiatry prevent the much too high prevalence of physical illness and premature death by physical illnesses in mentally ill? (3-5).
- How does community psychiatry stop and prevent the reinstitutionalization seen after change from hospital to community based treatment? (6).
- How does community psychiatry prevent polypharmacy? (7).
- How does community psychiatry stop and prevent the increasing criminality seen among persons with mental diseases since change from hospital to community based treatment? (6).

References

1. Søndergård L. Recruitment problems in psychiatry: just a matter of more exposition? Acta Psychiatr Scand 2007;116:235-7.
2. Malhi GS, Parker GB, Parker K et al. Shrinking away from psychiatry? A survey of Australian medical students' interest in psychiatry. Aust N Zeal J Psychiatry 2002; 36:416-23.
3. Leucht S, Burkard T, Henderson J et al. Physical illness and schizophrenia: a review of the literature. Acta Psyhiatr Scand 2007;116:317-33.
4. Harris EC, Barraclough B. Excess mortality of mental disorder. Br J Psychiatry 1998; 62:247-53.
5. Amaddeo F, Barbui C, Perini G et al. Avoidable mortality of psychiatric patients in an area with a community based system of mental health care. Acta Psychiatr Scand 2007;115:320-5.
6. Priebe S, Badesconyi A, Fioritti A et al. Reinstitutionalisation in mental health care: comparison of data on service provision from six European countries. BMJ 2005; 330:123-6.
7. Tomasi R, de Girolamo G, Santone G et al. The prescription of psychotropic drugs in psychiatric residential facilities: a national survey in Italy. Acta Psychiatr Scand 2006; 113:212-23.

Bridging experience and evidence in mental health care reform

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The US Community Mental Health Act of 1963 led to a deinstitutionalization process which proved to be a mixed failure, particularly when community services were not available in the catchment areas. Ten years later, John Talbott (1) reported that hospital readmission or "revolving door" was a significant problem and that nearly half of it could be prevented with minor improvements of existing services. In spite of this early evidence, "revolving door" effects followed psychiatric reforms in many countries. Thirty years later, Talbott published the "ten commandments" of community mental health care, and summarized the reasons for the problems created by deinstitutionalization in four main factors: lack of consensus about the movement, no real testing of its philosophic bases, the lack of planning for alternative facilities and services, and the inadequacies of the mental health delivery system (2).

The paper by Thornicroft et al uses an expert knowledge approach to frame community care on common sense and to describe ten key challenges to implement it and to improve balance of care. The paper is mainly focused on the challenges of care reform at individual services (microlevel). A number of comments may be added to better understand the current trends of decision making and planning at the upper side of the Thornicroft and Tansella matrix (3): the regional or national care system (macro-level).

Mental health care in the real world performs as a complex environmental system characterized by multidisciplinarity, high dimensionality with ill-structured and nonlinear domains, and high uncertainty with heterogeneity of data and imprecise information (4,5). Complex care systems demonstrate other identifiable characteristics such as embeddedness, self-organization, or unpredictability. Under these conditions, evidence cannot be generated using the designs and statistical methods of evidence-based medicine. New health technology assessment tools include outcomes management, decision support systems and knowledge discovery from data (KDD). KDD is a hybrid of statistics and artificial intelligence which incorporates implicit expert knowledge into the data analysis. In the analysis of complex systems, expert opinion is not a source of bias but a key component of the knowledge management and the development of mathematical models. Thus, experience is incorporated into evidence-base mental health care planning (5).

The classical debate between hospital and community psychiatry is already closed. Today´s mounting evidence delivers a simple and clear message: traditional psychiatric hospitals are part of an outdated system of service provision which should be abandoned or entirely transformed. Although failures exist and they replicate at a stubborn pace, psychiatric hospitals have been successfully closed in several countries or regions, whilst in other areas these services have been changed into integrated health care systems (6). On the other hand, the closure of a psychiatric hospital produces similar social resistance and unrest as any other service in obsolete economic sectors, particularly when the hospital is a major source of employment in what are often isolated communities (7). Surprisingly the staff´s needs and the social dynamics are not handled in a similar way to other economic sectors. Involving other ministries or national agencies may favour deinstitutionalization in middle income countries. As Thornicroft et al put it forward, the reform of psychiatric hospitals should be led by experience and common sense as much as by values. Bulgaria and other Eastern European countries provide a good example of the complexities of hospital reform. Criticism raised against the World Bank policy to fund "improvement" of the Bulgarian psychiatric hospitals confronts the reality of emergency crisis and human rights of people living in these institutions. The balance of care approach may facilitate a better appreciation of these problems.

Classical community psychiatry put major emphasis on closing psychiatric hospitals and on developing specialized community services, mainly residential and intermediate care for severe mental illness. During the last years, a new balance of care model is providing a broader view of the mental health system. Person-centered approaches and longitudinal perspectives are key to this new framework. It takes into consideration the equilibrium between residential and community care, primary and specialized care, or health, social and forensic care within an integrated (multi-sectoral) approach to the delivery of services (7). A special focus is provided on the transitional arrangements needed during the process of re-balancing care for people with mental health problems, or on the outputs at later stages of this process. For example, re-institutionalization has been identified as a worrying trend of well developed community care systems in Western Europe (8).

To date, mental health systems have been extensively described by system characteristics, macro indicators of system development and the specific focus on deinstitutionalization and community psychiatry. However, little information has been provided on the financing of mental health systems until very recently. Care financing studies are concerned with the flow of expenditure throughout the care system. The Mental Health Economics European Network has described the financing systems of 17 European countries and identified commonalities and differences (9). A thorough information on the financing system of a number of these countries have been published separately (10,11). Assessing and comparing financing systems represents a "follow the money" approach which may provide a more accurate information on the care system than other traditional description methods. The World Health Organization has also provided a framework to produce standard reports on mental health financing (including pooling, context, mapping, resource base, allocation, budgeting, purchasing, and financing analysis). Financing is a main policy tool to lead mental health reforms (12,13).

References

1. Talbott JA. Stopping the revolving door – a study of readmissions to a state hospital. Psychiatr Q 1974;48:159-68.
2. Talbott JA. Deinstitutionalization: avoiding the disasters of the past. Psychiatr Serv 2004;55:1112-5.
3. Tansella M, Thornicroft G. A conceptual framework for mental health services: the matrix model. Psychol Med 1998;28:503-8.
4. Spate J, Gibert K, Sànchez-Marrè M et al. Data Mining as a tool for environmental scientists. Presented at the First Workshop of Data Mining Techniques for Environmental Scientists, Vermont, July 2006.
5. Salvador-Carulla L, Haro JM, Ayuso-Mateos JL. A framework for evidence based mental health care and policy. Acta Psychiatr Scand 2006;111(Suppl. 432):5-11.
6. Meyer RE. The Sheppard and Enoch Pratt Hospital, Towson, Maryland. In: Meyer RE, McLaughlin CJ (eds). Between mind, brain and managed care. Washington: American Psychiatric Press, 1998:235-6.
7. Medeiros H, McDaid D, Knapp M et al. Shifting care from hospital to the community in Europe: economic challenges and opportunities. www.mheen.org.
8. Priebe S, Badesconyi A, Fioritti A et al. Reinstitutionalisation in mental health care: comparison of data on service provision from six European countries. BMJ 2005; 330:123-6.
9. Knapp M, McDaid D, Amaddeo F et al. Financing mental health care in Europe. J Ment Health 2007;16:167-80.
10. Salvador-Carulla L, Garrido M, McDaid D et al. Financing mental health care in Spain. Eur J Psychiatry 2006;20:29-44.
11. Zechmeister I, Oesterle A. Distributional impacts of mental health care financing arrangements: a comparison of the UK, Germany and Austria. J Ment Health Policy Econ 2006;9:35-44.
12. World Health Organization. Mental health financing. Geneva: World Health Organization, 2003.
13. Saxena S, Sharan P, Garrido Cumbrera M et al. World Health Organization's Mental Health Atlas 2005: implications for policy development. World Psychiatry 2006;5:179-84.

Casting a cold but hopeful eye

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Complex systems, rooted in age-old beliefs, and buttressed by powerful interest groups, are notoriously difficult to change. And yet, in a span of only two or three decades, from the early 1960s through the 1980s, the system for "caring" for people with serious mental illness appeared to have been virtually demolished. In the US, the resident population of state mental hospitals plunged from over 500,000 in the 1950s to about one-tenth that figure 50 years later. This transformation, which continues in the US to this day, as in other parts of the world, was the result of a "perfect storm" of independent forces working at a broad range of societal levels. At the highest levels: a) a civil rights movement swept American society, fueled by international conflicts with the totalitarian fascism and communism; b) visionary policy experts, hoping to transform the lives of people with serious mental illness, sought institutional reform; and c) government budgeters, facing increased wages for hospital workers, sought to shave stretched budgets by reducing costly hospital care. At intermediate levels, mental health system managers responsible for designing regional care systems, local facility directors, and clinical managers within such facilities sought to create new programs, train new kinds of professionals, and restructure care so that it would support fuller lives closer to communities where people reside. Finally, clinicians, working directly with clients (and at the same time, trying to preserve their jobs), and clients and their families tried to pilot their way to a new kind of interaction that would allow a freer more dignified life.

Thornicroft et al draw on years of practice transforming and being transformed by public mental health systems to sketch their experiences at the intermediate level of this long chain. They center their presentation around "ten key challenges". The word "challenge" has achieved a remarkable ambiguity in common English parlance, reflecting alternatively an opportunity for triumphant victory and a euphemism for unavoidable failure, with many shades in between. True to both meanings, Thornicroft et al describe the rich possibilities that emerge when people learn from each other, observe how each other adapts to new circumstances, bond in mutual support, and even party in celebration to create "learning communities". On the darker side, they depict challenges posed by staff anxieties about change and loss of familiar job routines, rigid opposition from threatened interests, reluctant neighbors, and heartless budget cutters at upper levels of government. Their meditation reads as if its authors have briefly come up for air during a battering struggle, to tell us that the road is very rough in places but that mutual support and mutual learning sometimes present unexpected opportunities for success and succor. For all of us, it depicts the bittersweet balance of a social movement between notable progress in the face of great obstacles, and failure to accomplish its overarching goal of allowing people with serious mental illness to experience the same range of opportunities as other members of their communities.

The focus on experience is wisely differentiated from that on ethics and on evidence, drawing attention to the murky middle ground of tactics, strategies and policies intended to move things forward through small negotiations, successful persuasions and studied alliances. These "moves" may inspire hope, but typically achieve only partial success. Charles Lindbloom (1) famously described the implementation of public policy as "muddling through", and Grob and Goldman (2) applaud the quiet successes of small incremental changes.

It is remarkable and dispiriting that the very persistence of the field of community mental health is in part attributable to the fact that the huge strides that have been made in basic brain science in recent years have not yielded useful knowledge about the causes of serious mental illness, much less led to its cure. Medical scientific progress has been slow and benefits from the perspective of the clinician or consumer are close to nil. And so the task remains to muddle through, doing the best we can in times which promise no swift biomedical breakthrough. Nevertheless, from year to year, decade to decade, systems seem to get stronger, clinicians are more expert at working in the free setting of the community. Peer support, recovery and other innovations have emerged from clients themselves, and along with practical interventions such as supported employment or assertive community treatment, continue, one can hope, to make things a little bit better.

By focusing on these challenges, Thornicroft et al offer a realistic but hopeful vision of what is to be done in the grey world of community mental health. Their counsel echoes that of W.B. Yeats: "Cast a cold eye, on life, on death, Horseman, pass by!".

References

1. Lindblom C. The science of 'muddling through'. Public Administration Review 1959;19:79-88.
2. Grob GN, Goldman HH. The dilemma of federal mental health policy: radical reform or incremental change. New Brunswick: Rutgers University Press, 2007.

Challenges of building community mental health care in developing countries

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The stimulating and thought provoking paper by Thornicroft et al takes us back to the time we started psychiatric career in the early 1970s, when the issue of deinstitutionalization was in the forefront of professional discussions. During that period, while colleagues in the Western countries were thinking of developing community mental health programmes, the challenge for us in countries like India was to develop services utilizing the community resources already available. As pointed out by German (1), "The major advantage for the psychiatrist in a developing country is the very paucity of previous provision for the mentally sick. Thus, he does not have to expend his energies in frustrating attempts to dismantle an inert and cumbersome administrative infrastructure; nor does he have to concern himself with finding a method of absorbing large numbers of solidly built, prison-like mental hospitals into a more efficient and humane psychiatric programme. There is little need for him to struggle with large armies of personnel in various categories, each unwilling to change from the security of well defined roles to meet the challenge of the present and future…".

Many of us in developing countries initially seized the opportunity of "open canvas" by implementing a community based approach (2) aimed to enhance the availability of mental health manpower. This was both a matter of necessity, as there were no institutions caring for the persons with mental disorders, as well as a choice, driven by the changes in the international scene as well as the cultural aspects of the society.

A good example, in the initial phase of development of mental health care in India, was the way family members were involved in day-to-day mental health care (3,4). Other approaches we used were the integration of mental health into general health care, and the utilization of non-specialist personnel for a wide variety of mental health tasks, including suicide prevention, disaster psychosocial care, drug dependence care, rehabilitation, care of persons with mental retardation and schizophrenia, public mental health education, and mental health care in children and in the elderly (5-8).

The challenges faced in this process, in developing countries, have been as follows:

- The need to simplify mental health care skills and continually review and innovate them, in order to suit the reality of the community needs. For care to be undertaken by health workers, teachers, volunteers, family members, there is need for simple interventions. Professionals have to develop the appropriate information in a simple format and identify the level and limits of care to be provided by these personnel. These include choosing priority mental disorders to be addressed in training, limiting the range of drugs to be used by the general practitioners, developing strong referral guidelines.
- The availability to share the mental health caring responsibilities with non-specialists, overcoming the fear of some professionals to lose their work, identity and income. The method used by many of us was not to convert the non-specialist into a mini-psychiatrist, but to identify what is relevant, feasible and possible for the specific non-specialist to undertake.
- The need to decrease the amount of time devoted to individual clinical care and increase the time for training of other personnel. This is a big challenge for clinicians who value caring for ill people by themselves. This change in role becomes meaningful when we recognize that training of other personnel has a multiplier effect on mental health services for the population.
- The need to devote significant time to periodic support and supervision of the non-specialists. Reports of mental health care in developing countries have repeatedly shown the importance of support and supervision by psychiatrists to the non-specialist personnel. Fortunately, the easy and inexpensive availability of mobile phones and internet allows for distant support to the non-specialists on a continuous and interactive basis.
- The need to acquire the skills to work with the community, education sector personnel, welfare sector personnel, voluntary organizations, and policy makers. This includes understanding the planning process, fighting for getting priority for mental health in health programmes, becoming familiar with legislations and budget procedures, and developing skills to negotiate with different stakeholders.

As a consequence of these challenges, the psychiatrist can feel overwhelmed and experience feelings of inadequacy. However, our experience tells us that there is also considerable satisfaction, as the opportunity to take services to the people, and to contribute to a better understanding of the needs of the persons with mental disorders, can occur within a short period of time (9). In addition, these approaches have the potential to provide new insights into the caring processes (6).

References

1. German A. Trends in psychiatry in Black Africa. In: Arieti S, Chrzanowski G (eds). New dimensions in psychiatry – A world view. New York: Wiley, 1975:409-27.
2. Srinivasa Murthy R, Wig NN. The WHO collaborative study on strategies for extending mental health care, IV: A training approach to enhancing the availability of mental health manpower in a developing country. Am J Psychiatry 1983;140:1486-90.
3. Agarwaal SP, Goel DS, Ichhpujani RL et al (eds). Mental health – An Indian perspective (1946-2003). New Delhi: Directorate General of Health Services, Ministry of Health and Family Welfare, 2004.
4. World Health Organization. Mental health in the Eastern Mediterranean region – reaching the unreached. Cairo: World Health Organization, 2006.
5. Patel V, Thara R (eds). Meeting mental health needs in developing countries: NGO innovations in India. New Delhi: Sage, 2003.
6. Srinivasa Murthy R (ed). Mental health by the people. Bangalore: Peoples Action For Mental Health, 2006.
7. Chatterjee S, Patel V, Chatterjee A. Evaluation of a community based rehabilitation for chronic schizophrenia in India. Br J Psychiatry 2003;182:57-62.
8. Srinivasa Murthy R, Kumar KV, Chisholm D et al. Community outreach for untreated schizophrenia in rural India: a follow-up study of symptoms, disability, family burden and costs. Psychol Med 2004;34:1-11.
9. Srinivasa Murthy R. The National Mental Health Programme: progress and problems. In: Agarwaal SP, Goel DS, Ichhpujani RL et al (eds). Mental health – An Indian perspective (1946-2003). New Delhi: Directorate General of Health Services, Ministry of Health and Family Welfare, 2004:75-91.

Effectiveness and specificity of a classroom-based group intervention in children and adolescents exposed to war in Lebanon

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The purpose of this study was to examine the effectiveness and specificity of a classroom-based psychosocial intervention after war. All students (n=2500) of six villages in Southern Lebanon designated as most heavily exposed to war received a classroom-based intervention delivered by teachers, consisting of cognitive-behavioural and stress inoculation training strategies. A random sample of treated students (n=101) and a matched control group (n=93) were assessed one month post-war and one year later. Mental disorders and psychosocial stressors were assessed using the Diagnostic Interview for Children and Adolescents - Revised with children and parents. War exposure was measured using the War Events Questionnaire. The prevalence of major depressive disorder (MDD), separation anxiety disorder (SAD) and post-traumatic stress disorder (PTSD) was examined pre-war, one month post-war (pre-intervention), and one year post-war. Specificity of treatment was determined by rating teachers' therapy diaries. The rates of disorders peaked one month post-war and decreased over one year. There was no significant effect of the intervention on the rates of MDD, SAD or PTSD. Post-war MDD, SAD and PTSD were associated with pre-war SAD and PTSD, family violence parameters, financial problems and witnessing war events. These findings have significant policy and public health implications, given current practices of delivering universal interventions immediately post-war.

Key words: War, depression, separation anxiety, post-traumatic stress disorder, classroom-based group intervention

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Many models for post-trauma group treatment of children and adolescents have been proposed and implemented in the last two decades, providing guidelines for psychological first aid and intervention (1-4). However, there is little empirical evidence to support the various treatment interventions and a paucity of well-designed studies to examine their effectiveness (5,6). The most robust evidence for efficacy of post-trauma interventions has come so far from randomized controlled studies of individual treatment for child sexual abuse using trauma-focused cognitive-behavioural therapy (CBT) (7). Providing individual therapy on a large scale may not be practical, however, and interventions targeting groups of children are needed.

Studies of group interventions for children and adolescents have been conducted following natural disasters (8-11), man-made disasters (12,13), single-incident stressors (14) and community violence (15). However, many studies are limited in their lack of a control group. Thus, it is difficult to conclude whether the improvement reported in mental health and other psychosocial outcomes was due to the model underlying the intervention itself, to non-specific factors common to all interventions, to non-measured factors related to social support or to the effect of time alone. Additionally, most group intervention studies used child self-ratings only, and none used diagnostic interviews with both child and parents.

The evidence for efficacy of interventions following war and terrorism is even more scant (16). Manual-based programs after terrorist attacks have been used in the United States, but their outcome has not been yet examined (17,18). Models of post-war group and community interventions have also been proposed, but their efficacy has not been investigated (19-23). One study reported improvement on some measures in Bosnian children whose mothers were randomized to receive either weekly group psychosocial support and basic medical care or basic medical care only (24). In a non-controlled study evaluating the effectiveness of trauma/grief-focused group psychotherapy in Bosnian adolescents, a decrease in post-traumatic stress disorder (PTSD), depression, and grief symptoms was reported (25). There was no significant impact of group interventions on self-rated post-traumatic stress and depressive symptoms in severely affected Palestinian children allocated to three different group interventions (26). In a controlled group CBT study of young war-exposed refugees, improvements were not maintained at follow-up two months later (27). In a study of Palestinian children and adolescents from the West Bank and Gaza who received group structured activities and parent training, the post-intervention Child Behavior Checklist scores were significantly lower in the intervention group than controls, but only for girls (28). Other uncontrolled pilot studies included a trial of narrative exposure therapy for Somali refugee adolescents reporting a decrease in post-traumatic stress and depressive scores (29), a trial of a multimodality program for Kosovan refugee adolescents reporting a decrease in depressive and anxiety symptoms but persistence of PTSD in 3 out of 6 participants (30), and a study of mind-body techniques in 139 Kosovan high-school students also reporting a decrease in post-traumatic stress scores after the intervention (31).

There is therefore a dramatic lack of well-designed controlled studies of group treatment of children and adolescents after trauma (32), and very little is known about the specific aspects of these interventions that may lead to improved outcomes (33).

Southern Lebanon, which has been the scene of war for many decades, was the theater in 1996 of a major military operation in the South and South-West Bekaa regions. Families in their homes or in shelters were exposed to shelling and bombardment by tanks, airplanes and warships lasting for 15 days and resulting in hundreds of fatalities, thousands of casualties, substantial destruction of property and displacement of entire communities. The purpose of this paper is to examine the effectiveness and specificity of a classroom-based psychosocial intervention implemented after that war.

METHODS

Subjects

All students (n=2500, grades 1-9) of six public schools located in six villages designated by the Ministry of Education as most heavily exposed to war received the intervention. Of these students, 116 who were randomly selected to represent different schools and grade levels underwent the evaluation process. The control group consisted of 93 students who were selected from a different group of schools where the intervention was not delivered. Random assignment of students to treatment and control groups was not possible since it was mandated that these particular six schools receive the intervention. Students in treatment and control groups were matched on age, gender and degree of war exposure.

Procedures

The baseline assessment was conducted one month post-war in both subject groups, administering the Diagnostic Interview for Children and Adolescents - Revised (DICA-R) (34) to both subjects and their parents. Interviews were conducted at their respective schools after getting informed written consent from parents. Interviewers were bachelor-level health-care workers from the Ministry of Education who received a four-day training on the interview battery. The DICA-R was adapted to Arabic in its three versions (child, adolescent and parent). Back translation was done by an independent translator followed by pilot field-testing. The final form was adopted after consensus meetings to resolve differences between versions if still present. The diagnostic entities used were major depressive disorder (MDD), separation anxiety disorder (SAD) and PTSD. Diagnoses were established according to DSM-III-R criteria (35). However, the endorsement of functional impairment was required to ensure clinical significance and to be more compatible with the spirit of DSM-IV (36). Some subjects were interviewed 3 weeks post-war and as such the needed 4 weeks duration of PTSD symptoms was not possible to fulfill for all. The diagnostic assessment was repeated one year later.

Psychosocial stressors (serious illness, chronic medical non-psychiatric illness, financial problems, bereavement, family quarrels, fear of being beaten by someone, having been severely beaten by someone, and a family member severely beaten) were assessed at baseline by using the DICA-R.

The nature and magnitude of war exposure were assessed using the War Events Questionnaire (WEQ). This is a face-to-face interview administered to parents, inquiring about the children's exposure and direct witnessing of home destruction and/or physical injury to the child, to family members or to others close to the child. The WEQ was developed and used previously by the authors' team with an inter-rater reliability coefficient ranging from 0.3 to 0.8 (37,38).

Approval for the study was obtained from the Ethics Review Board of St. George Hospital University Medical Center / University of Balamand Faculty of Medicine, Beirut, Lebanon.

Intervention

The intervention was conceptualized after the work of Pynoos and Nader (3), but was adjusted to fit the specific context of the post-war circumstances. It consisted of a combination of cognitive-behavioural strategies and stress inoculation training. Examples of strategies used in the intervention are cognitive restructuring, expression and spontaneous sharing of common fears including individual traumatic experience; focus on problem-solving and coping strategies; use of tools such as drawing, role playing and writing of essays to explore assumptions and beliefs; discussion of bereavement, grief, anxiety, and depression, as well as enhancing help-seeking and the recovery process. These techniques were tailored to the developmental level of the students.

The intervention was delivered by 68 full-time teachers from the selected schools to all 2500 students. Teachers were chosen by each school principal based on their reliability, assertiveness, and the greatest time spent with their students in class. The intervention was delivered in daily sessions of 60 minutes each, taking place over 12 consecutive school days.

Teachers were trained intensively in one day and were closely supervised every 2-3 sessions subsequently. Training followed a structured manual which informed teachers about the goals of the treatment and the specific sequence of steps to be taken in delivering the intervention. In the last part of the training, teachers were themselves asked to role-play as well as express their own fears, struggles and problems resulting from exposure to war.

Teachers were asked to compile a structured diary, providing a detailed day-by-day description of the intervention sessions, including the content of each session, issues raised, responses of the students, their level of cooperation, students' behaviour during the intervention, and the teachers' own observations and remarks. Six months after the intervention, the research team reviewed the therapy diaries, and rated blindly compliance to the intervention techniques and training instructions. The treatment group was divided into two subgroups: the one in which ratings were above the mean (specific treatment, ST group) and the one in which ratings were below the mean (non-specific treatment, NST group).

Two subjects from the treatment group were lost to follow-up a year later, and diaries for two classrooms related to 13 students were lost. Thus, treatment data on 15 subjects could not be retrieved. There were no significant differences between these subjects and the total treatment sample on demographic variables, psychosocial stressors and prevalence of disorders, except for a lower prevalence of MDD at baseline for subjects with missing data. Results in this paper will be reported only for the 101 students for whom full data sets were available at both phases (ST, n=51; NST, n=50).

Data analyses

The treatment and control groups were compared on demographic characteristics, war exposure, and psychosocial variables using chi-square and t-tests. Generalized estimating equation (GEE) was used to examine the effect of the intervention on MDD, SAD and PTSD. Group, time, and group by time interactions were included in the models controlling for covariates that were found to be significantly different between the treatment and control groups. GEE is a quasi-likelihood estimation technique (39). The procedure accounts for the correlation between observations (same people measured at different time points) by specifying the response covariance matrix and estimating it (40). GEE models were run on SAS V8.0 using the GENMOD procedure with the REPEAT option. All tests were two-tailed and significance was determined at $p<0.05$.

RESULTS

The mean age in the treatment and control groups was 11.7±2.7 and 11.8±3.1 years respectively, with an age range of 6-18 years. Boys and girls were equally represented in the groups. There were more children than adolescents in both groups, which is consistent with the distribution of the population of students from which they were randomly selected (Table 1).

There was no significant difference between the two groups concerning psychosocial stressors or war events. Almost 20% of subjects in both treatment and control groups directly witnessed partial or total destruction of their own home or the home of a close person and/or witnessed fatal or non-fatal injuries of a family member or other close person. About 25% of subjects in both groups heard of the occurrence of the above war events but did not witness them (Table 1).

In both groups, there was a peak in the rates of disorders one month post-war and a decrease over one year. There was no significant difference between the two groups with respect to lifetime, baseline or one-year follow-up rates of MDD, SAD and PTSD (Table 2).

Table 1 Demographic and psychosocial variables and war exposure in treatment and control groups

Variable	Treatment group (n=101)	Control group (n=93)	χ^2	p
Gender (% males)	51.5	50.5	0.017	0.895
Age (% less than 12 years)	58.4	59.1	0.010	0.918
Ever seriously ill (%)	38.0	34.4	0.268	0.604
Chronic medical illness (%)	20.2	15.0	0.872	0.350
Family quarrels (%)	33.7	47.3	3.752	0.053
Financial problems (%)	57.4	55.9	0.045	0.831
Bereavement (%)	47.5	55.9	1.364	0.243
Fear of being beaten (%)	45.5	40.9	0.433	0.511
Ever severely beaten (%)	24.8	29.0	0.452	0.501
Family member ever severely beaten (%)	19.8	23.7	0.424	0.515
War events				
Witnessed any event (%)	19.8	19.4	0.006	0.937
Heard of any event (%)	25.7	25.8	0.0001	0.991

Table 2 Prevalence (%) of mental disorders over study periods for treatment (n=101) and control (n=93) groups

Disorder	Lifetime (pre-war)		Baseline (4 weeks post-war)		One-year follow-up (12 months post-war)	
	Treatment group	Control group	Treatment group	Control group	Treatment group	Control group
Major depressive disorder	10.0	3.3	32.7	26.9	16.8	8.6
Separation anxiety disorder	4.0	4.3	22.8	17.2	14.3	6.4
Post-traumatic stress disorder	2.0	3.2	27.7	31.2	1.0	2.2

Table 3 Generalized estimating equation analysis in treatment (n=101) and control (n=93) groups: treatment/time effect

	Major depressive disorder		Separation anxiety disorder		Post-traumatic stress disorder	
	β (± SE)	p	β (± SE)	p	β (± SE)	p
Group (treatment vs. control)	-0.25 (± 0.37)	0.501	-0.44 (± 0.41)	0.284	0.22 (± 0.34)	0.517
Time	-0.57 (± 0.83)	0.496	-0.09 (± 0.96)	0.923	-4.29 (± 2.17)	0.048
Group x time interaction	-0.47 (± 0.58)	0.420	-0.62 (± 0.64)	0.337	0.36 (± 1.23)	0.773

Table 4 Generalized estimating equation analysis in treatment (n=101) and control (n=93) groups: covariates (only significant relationships are reported)

	Major depressive disorder		Separation anxiety disorder		Post-traumatic stress disorder	
	OR	95% CI	OR	95% CI	OR	95% CI
Pre-war separation anxiety disorder			11.6	3.7-36.6		
Pre-war post-traumatic stress disorder					11.5	1.1-121.0
Family quarrels	3.1	1.6-5.6	2.3	1.1-4.9		
Fear of being beaten	2.6	1.4-4.7	5.4	2.7-10.8	2.2	1.1-4.4
Financial problems					3.2	1.5-6.7
Witnessing any war event	2.1	1.1-4.1	2.9	1.4-6.1	2.2	1.0-4.7

In the GEE analyses, we found no treatment effect. Group differences were not significant for all three disorders. Time was significant only for PTSD. All group by time interactions were not significant (Table 3). When group by time interactions were removed from the model, time became significant for MDD (β=-1.27±0.27; p<0.0001) and SAD (β=-0.95±0.31; p=0.003). Pre-war SAD and PTSD, family violence parameters, financial problems and witnessing war events were all associated with post-war disorders (Table 4).

The ST and NST treatment groups did not differ significantly with respect to gender, war exposure, and most of the psychosocial stressors. However, the ST group included more children (72.6% vs. 44.0%, χ^2=8.47, df=1, p=0.003), more subjects suffering from chronic medical illness (30.6% vs. 10.0%, χ^2=6.52, df=1, p=0.01), more having ever been seriously ill (50.0% vs. 26.0%, χ^2=6.11, df=1, p=0.01), more having ever been beaten (33.3% vs. 16.0%, χ^2=4.07, df=1, p=0.04) and more reporting the death of a close person (64.7% vs. 40.0%, χ^2=6.18, df=1, p=0.01).

Since we found no treatment effect, we next examined the effect of specificity of treatment by comparing outcomes between the ST and NST groups controlling for differences between the groups at baseline. We found a statistically significant change in the rates between the groups only for MDD (time and group by time interaction), favoring outcome in NST (Table 5). Covariates found to be significantly related to MDD were younger age (OR = 2.8; 95% CI = 1.17-6.55), family quarrels (OR = 4.5; 95% CI = 2.03-10.18), and fear of being beaten (OR = 7.4; 95% CI = 2.98-18.36). Covariates significantly related to SAD were pre-war SAD (OR = 67.4; 95% CI = 6.29-720.76), family quarrels (OR = 4.0; 95% CI = 2.30-9.26), fear of being beaten (OR = 6.7; 95% CI = 2.30-19.81) and hearing of the injury of a close person (OR = 2.7; 95% CI = 1.21-6.12). Covariates significantly related to PTSD were pre-war SAD (OR = 7.4; 95% CI = 2.69-20.24), pre-war PTSD (OR = 8.2; 95% CI = 3.62-18.49) and family quarrels (OR = 4.5; 95% CI = 2.07-9.80).

Table 5 Generalized estimating equation analysis in specific (n=51) and non-specific (n=50) treatment groups: treatment/time effect

	Major depressive disorder		Separation anxiety disorder	
	β (± SE)	p	β (± SE)	p
Group (specific vs. non-specific treatment)	0.14 (± 0.54)	0.795	0.34 (± 0.58)	0.555
Time	-4.64 (± 1.47)	0.001	-3.22 (± 1.70)	0.058
Group x time interaction	2.00 (± 0.88)	0.022	1.48 (± 0.99)	0.134

Significant covariates are mentioned in the text
There were not enough cases of PTSD to conduct the specificity analyses

DISCUSSION

This is the first study to evaluate the effectiveness and specificity of school-based group treatment after war trauma in a representative community sample using structured interviews, multiple informants and a control group. The results demonstrate that, at best, there was no significant treatment effect one year after war trauma, but that specific aspects of the intervention may have had deleterious effects on some.

While the studies of interventions for children in post-war settings have so far demonstrated either short-lived (27) or limited (24-28) benefits, our study confirms the absence of positive impact of psychosocial interventions reported in a controlled intervention in Palestine (26). The decrease in PTSD rates over time is consistent with results of prospective studies of children post-war (16).

The results of this study should be interpreted in the light of several limitations. First, although students in the treatment and control groups were matched on age, gender and war exposure, there was no group randomization, and the control group was not selected from the same restricted pool of students who received the intervention. In addition, it is conceivable that there may have been other differences between the two samples which were not measured, for instance concerning social support. Despite the devastation and loss, the entire Lebanese population was mobilized to support displaced families in shelters and upon returning to their villages later. Although we do not have any evidence that the two samples received different degrees of support, we do not have evidence to the contrary. The two samples may have also differed in risk factors proven to be important in the literature which were not measured, including parental mental health (1), the child's coping style (41), and the child's political beliefs and commitment (42).

A second limitation involves training teachers who had no mental health background and whose own mental state following the war trauma was a factor we could not control for completely (despite addressing it in their training) which might have biased some of their interactions with their students. However, in the absence of trained professionals for emergency interventions, mobilizing teachers was the best alternative to reach the largest number of students. Although we attempted to control for the quality of delivered treatment by frequent supervision sessions and subsequently rating the teachers' therapy diaries, a better approach could have been used, such as taping sessions and reviewing them to assess the reliability of teachers and identify those who needed to be retrained. However, this was not feasible under the circumstances.

A third limitation involves measurement of outcomes of treatment one year after intervention. It is likely that the intervention may have had short-term therapeutic effects had we measured outcomes sooner. On the other hand, students may have improved in other psychosocial domains which we did not measure such as coping skills and adaptive functioning.

Some other methodological limitations of the study design include the absence of self-rating scales by parents and children to bolster findings from structured interviews for detection of milder or sub-threshold cases, but again this was not possible with the limited resources and the time allocated. Additionally, the relation between mental disorders and the 1996 war events could have been shaped by exposure to other traumatic war events during the course of the long-standing conflict in Southern Lebanon.

Our study is methodologically unique in its design, where neither students, teachers nor interviewers knew the specificity of treatment group, which was determined *a posteriori*. This eliminated any bias which may arise when assigning therapists to a control group (e.g., knowing they are delivering "supportive therapy" as opposed to those delivering a specific intervention) (43). Additionally, using structured interviews with both parents and children decreased the chance of missing important clinical data endorsed by one informant and not the other, which has been the case in most war-related studies of children and adolescents so far.

The fact that there was a significant difference in the change between specific and non-specific treatment for MDD, where none existed between treatment and control groups, suggests the possibility that specific aspects of intervention might have been deleterious for some subjects. To investigate this further, we examined the school and classroom distribution of all students with disorders at follow-up. Indeed, we found that the majority of students with MDD and SAD at follow-up in ST (58.8% and 71.4%, respectively) came from a single classroom (grade 3) in one particular school. Students in this classroom were more exposed to war events than another selected classroom in the same school and all other classrooms in other schools. This high war exposure may not have been the sole contributing factor: other factors particular to this specific classroom could have included the teacher's psychological profile or contamination effects among the students themselves within this classroom. We, therefore, reanalyzed the data excluding students selected from this classroom, finding that the outcome between ST and NST was similar.

Treatment outcome apart, our study demonstrated the feasibility of carrying out a large-scale community intervention targeting students in their schools under dire circumstances.

In conclusion, establishing the effectiveness of community group treatment of children and adolescents exposed to war needs additional careful investigation, since well-designed controlled group psychotherapy studies in war-affected populations are still in short supply to allow definitive conclusions. Replicating our results would be of paramount importance from a public health and policy planning perspective, given the current practices of governmental and non-governmental organizations to immediately implement very costly large-scale interventions after disasters and wars without sufficient proof of long-term benefits.

While current recommendations for post-disaster interventions revolve around integrating psychosocial and mental health services into a larger scheme of delivery of humanitarian aid to affected populations (44,45), the state of science is still far from determining the effectiveness or specificity of either "social" or "psychological" components of these interventions. The debate remains open on issues of timing of intervention and the targeted groups of children and adolescents. Our findings suggest that it may not be advisable to intervene in traumatized populations immediately, but rather a few months later. By then, it is probably more cost-effective to screen for cases remaining ill, targeting them for more focused treatment at that point.

Another recommendation based on our findings is not to limit interventions to PTSD only, but to include other disorders that arise after wars and disasters, possibly with greater frequency than PTSD. In addition to MDD and SAD, other psychological symptoms and conditions may need to be addressed in planning services for children after war (46). Findings from other studies conducted by our group highlight the need to address externalizing and impulse-control disorders as well (47,48).

Finally, given the fact that pre-war disorders and concurrent psychosocial stressors such as family violence and financial problems were strong predictors of post-war disorders, it is imperative to identify children and adolescents at highest risk for more targeted interventions.

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References

1. Laor N, Wolmer L, Spirman S et al. Facing war, terrorism and disaster: toward a child-oriented comprehensive emergency care system. Child Adolesc Psychiatr Clin N America 2003;12:343-61.
2. Yule W. From pogroms to ethnic cleansing: meeting the needs of war affected children. J Child Psychol Psychiatry 2000;41:695-702.
3. Pynoos RS, Nader K. Psychological first-aid and treatment approach to children exposed to community violence: research implications. J Trauma Stress 1988;1:445-73.
4. Vernberg EM. Intervention approaches following disasters. In: La-Greca AM, Silverman WK, Vernberg EM et al (eds). Helping children cope with disasters and terrorism. Washington: American Psychiatric Association, 2002:55-72.
5. Taylor TL, Chemtob CM. Efficacy of treatment for child and adolescent traumatic stress. Arch Pediatr Adolesc Med 2004;158:786-91.
6. American Academy for Child and Adolescent Psychiatry. Practice parameters for the assessment and treatment of children and adolescents with posttraumatic stress disorder. J Am Acad Child Adolesc Psychiatry 1998;37:4S-26S.
7. Cohen JA, Mannarino AP, Knudsen K. Treating sexually abused children: 1 year follow-up of a randomized controlled trial. Child Abuse Neglect 2005;29:135-45.
8. Goenjian AK, Walling D, Steinberg AM et al. A prospective study of posttraumatic stress and depressive reactions among treated and untreated adolescents 5 years after a catastrophic disaster. Am J Psychiatry 2005;162:2302-8.
9. Wolmer L, Laor N, Dedeoglu C et al. Teacher-mediated intervention after disaster: a controlled three-year follow-up of children's functioning. J Child Psychol Psychiatry 2005;46:1161-8.
10. Chemtob CM, Nakashima JP, Hamada RS. Psychosocial intervention for postdisaster trauma symptoms in elementary school children. Arch Pediatr Adolesc Med 2002;156:211-6.
11. Galante R, Foa D. An epidemiological study of psychic trauma and treatment effectiveness for children after a natural disaster. J Am Acad Child Adolesc Psychiatry 1986;25:357-63.
12. Stallard P, Salter E. Psychological debriefing with children and young people following traumatic events. J Child Psychol Psychiatry 2003;8:445-57.
13. Yule W, Udwin O. Screening child survivors for posttraumatic stress disorders: experiences from the Jupiter sinking. Br J Clin Psychol 1991;30:131-8.
14. March JS, Amaya-Jackson L, Murray MC et al. Cognitive-behavioral psychotherapy for children and adolescents with posttraumatic stress disorder after a single-incident stressor. J Am Acad Child Adolesc Psychiatry 1998;37:585-93.
15. Stein BD, Jaycox LH, Kataoka SH et al. A mental health intervention for school children exposed to violence; a randomized controlled trial. JAMA 2003;290:603-11.
16. Barenbaum J, Ruchkin V, Schwab-Stone M. The psychosocial aspects of children exposed to war: practice and policy initiatives. J Child Psychol Psychiatry 2004;45:41-62.
17. Fremont WP. Childhood reactions to terrorism-induced trauma: a review of the past 10 years. J Am Acad Child Adolesc Psychiatry 2004;43:381-92.
18. Hoagwood KE, Vogel JM, Levitt JM et al. Implementing an evidence-based trauma treatment in a state system after September 11: the CATS project. J Am Acad Child Adolesc Psychiatry 2007;46: 773-9.
19. Webb NB. Groups for children traumatically bereaved by the attacks of September 11, 2001. Int J Group Psychother 2005;55:355-74.
20. Saltzman WR, Layne CM, Steinberg AM et al. Developing a culturally and ecologically sound intervention program for youth exposed to war and terrorism. Child Adolesc Psychiatr Clin N Am 2003;12:319-42.
21. Silva RR, Cloitre M, Davis L et al. Early intervention with traumatized children. Psychiatry Q 2003;74:333-47.
22. Klingman A. Children under stress of war. In: LaGreca AM, Silverman WK, Vernberg EM et al (eds). Helping children cope with disasters and terrorism. Washington: American Psychiatric Association, 2002:359-80.
23. Kuterovac-Jagodic G, Kontac K, Zubenko WN. Group interventions for children in crisis. In: Zubenko W (ed). Children and disasters. Oxford: Oxford University Press, 2002:135-58.
24. Dybdahl R. Children and mothers in war: an outcome study of a psychosocial intervention program. Child Develop 2001;72:1214-30.
25. Layne CM, Pynoos RS, Saltzman WR et al. Trauma/grief-focused group psychotherapy: school-based postwar intervention with traumatized Bosnian adolescents. Group Dynamics: Theory, Research Practice 2001;5:277-90.
26. Thabet AA, Vostanis P, Karim K. Group crisis intervention for children during ongoing war conflict. Eur Child Adolesc Psychiatry 2005;14:262-9.
27. Ehntholt KA, Smith PA, Yule W. School-based cognitive-behavioral therapy group intervention for refugee children who have experienced war-related trauma. J Child Psychol Psychiatry 2005; 10:235-50.
28. Loughry M, Ager A, Flouri E et al. The impact of structured activities among Palestinian children in a time of conflict. J Child Psychol Psychiatry 2006;47:1211-8.
29. Onyut LP, Neuner F, Schauer E et al. Narrative exposure therapy as a treatment for child war survivors with posttraumatic stress disorder: two case reports and a pilot study in an African refugee settlement. BMC Psychiatry 2005;5:7.
30. Mohlen H, Parzer P, Resch F et al. Psychosocial support for war-traumatized child and adolescent refugees: evaluation of a short-term treatment program. Aust N Zeal J Psychiatry 2005;39:81-7.
31. Gordon JS, Staples JK, Blyta A et al. Treatment of posttraumatic stress disorder in postwar Kosovo high school students using mind-body skills groups: a pilot study. J Trauma Stress 2004;17:143-7.
32. Caffo E, Forresi B, Strik-Lievers L. Impact, psychological sequel and management of trauma affecting children and adolescents. Curr Opin Psychiatry 2005;18:422-8.
33. Vostanis P. The impact, psychological sequelae and management of trauma affecting children. Curr Opin Psychiatry 2004;17:269-73.
34. Welner Z, Reich W, Herjanic B et al. Reliability, validity and parent-child agreement studies of the Diagnostic Interview for Children and Adolescents (DICA). J Am Acad Child Adolesc Psychiatry 1987;26:649-53.

35. American Psychiatric Association. Diagnostic and statistical manual of mental disorders, 3rd ed, revised. Washington: American Psychiatric Association, 1987.
36. American Psychiatric Association. Diagnostic and statistical manual of mental disorders, 4th ed. Washington: American Psychiatric Association, 1994.
37. Karam EG, Howard DB, Karam AN et al. Major depression and external stressors: the Lebanon wars. Eur Arch Psychiatry Clin Neurosci 1998;248:225-30.
38. Karam EG, Al Atrash R, Saliba S et al. The War Events Questionnaire. Soc Psychiatry Psychiatr Epidemiol 1999;34:265-74.
39. Liang KY, Zeger SL. Longitudinal data analysis using generalized linear models. Biometrika 1986;73:13-22.
40. Stokes ME, Davis SD, Koch GG. Categorical data analysis using the SAS system. Cary: SAS Institute, 2000.
41. Magwaza AS, Killian BJ, Petersen I et al. The effects of chronic violence on preschool children living in South African Townships. Child Abuse Neglect 1993;17:795-803.
42. Punamaki RL. Can ideological commitment protect children's psychological wellbeing in situations of political violence? Child Develop 1996;67:55-69.
43. Harrington D, Black MM, Starr RH Jr et al. Child neglect: relation to child temperament and family context. Am J Orthopsychiatry 1998;68:108-16.
44. Van Ommeren M, Saxena S, Saraceno B. Mental and social health during and after emergencies: emerging consensus? World Health Organ Bull 2005;83:71-5.
45. Mezzich JE, Saraceno B. The WPA-WHO Joint Statement on the Role of Psychiatrists in Disasters Response. World Psychiatry 2007; 6:1-2.
46. Jones L, Rustemi A, Shahini M et al. Mental health services for war-affected children: report of a survey in Kosovo. Br J Psychiatry 2003; 183:540-6.
47. Karam EG, Mneimneh Z, Karam AN et al. Prevalence and treatment of mental disorders in Lebanon: a national epidemiological survey. Lancet 2006;367:1000-6.
48. Cordahi C, Karam EG, Nehme G et al. Orphans of war: a four year prospective longitudinal study. Presented at the 49th Annual Meeting of the American Academy of Child and Adolescent Psychiatry, San Francisco, October 2002.

RESEARCH REPORT

Mood and disruptive behavior disorders and symptoms in the offspring of patients with bipolar I disorder

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The study aimed to ascertain the prevalence of mood and disruptive behavior disorders and symptoms in 35 children of 29 adult outpatients with a DSM-IV diagnosis of bipolar I disorder, compared with 33 children of 29 healthy adults, matched with patients on age, socioeconomic status and education. The offspring of bipolar patients had a 9.48 fold higher risk of receiving a psychiatric diagnosis. While only two children of patients with bipolar disorder were diagnosed with a mood disorder, 30.9% displayed mild depressed mood, compared with 8.8% of the controls, a statistically significant difference. The bipolar offspring also scored significantly higher on the hyperactivity and conduct problems subscales as well as the ADHD index of the Conners' Teacher Rating Scale. The disruptive behavior and mood symptoms observed in early life in the offspring of bipolar patients may indicate the need for early psychosocial intervention.

Key words: Childhood bipolar disorder, disruptive behavior disorder, attention-deficit/hyperactivity disorder, early psychosocial intervention

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Childhood bipolar disorder has not been diagnosed with any regularity until recently (1), although 59% of adults with bipolar I disorder recall having had their first mood symptoms as children or adolescents (2). The reliability and validity of the diagnosis of bipolar disorder in children and adolescents is a topic of considerable controversy. Leibenluft et al (3) suggested four phenotypes for juvenile mania: the narrow one (meeting the full DSM-IV diagnostic criteria, including duration and hallmark symptoms of mania); two intermediate ones (a clearly episodic illness failing to meet strict criteria for mania or hypomania either because the episodes are too short or because they lack the hallmark symptom of elevated mood); and the broad one (a chronic, nonepisodic illness lacking the hallmark symptoms of mania or hypomania but presenting severe irritability and hyperarousal). These criteria await validation.

Carlson and Weintraub (4) suggested that attention and behavioral problems in children of bipolar patients might predict the development of mood disorders in young adulthood. Indeed, a number of studies on children of people with bipolar disorder have shown an elevated risk for a wide range of psychopathology, including depressive, substance use, conduct, opposition defiant and anxiety disorders (5-9). None of these studies, however, distinguished between the offspring of patients with bipolar disorder I, II, or not otherwise specified (5).

The aim of the present study was to determine the prevalence of mood and disruptive behavior disorders and symptoms in the offspring of a sample of patients with bipolar I disorder in comparison with the offspring of matched healthy controls.

METHODS

The study was carried out in an adult mood disorders outpatient clinic. Forty-five families having one parent with bipolar I disorder and at least one child aged 7-18 years were invited to participate. The diagnosis of bipolar I disorder was made according to the DSM-IV and ascertained by the Structured Clinical Interview for DSM-IV Axis I Disorders, Clinician Version (SCID-CV, 10). Twenty-nine families agreed to take part in the study. The control group consisted of 29 healthy adults, matched with patients for age, socioeconomic and educational status, and their 33 children. They were randomly selected from the epidemiologic catchment area of Dokuz Eylül University Hospital. The absence of psychiatric disorders was verified by the SCID-CV. Families were excluded if the second parent in the case group and any parent in the control group received a psychiatric diagnosis. We excluded children with intellectual disability from both case and control groups. All parents gave informed consent for their children to participate in the study, and children gave assent.

Parents and children were interviewed using the Kiddie and Young Adult Schedule for Affective Disorders and Schizophrenia – Present State and Lifetime (WASH-U-KSADS, 11) to assess the presence of symptoms of bipolar disorder. The mania and depression sections of this instrument were translated into Turkish and back-translated to English. They were administered by two experienced clinicians to parents about their children and to children about themselves separately. Endorsement from both the child and the parents was required for an item to be rated as positive.

Parents completed the Turgay DSM-IV Scale (12) to assess the presence of attention-deficit/hyperactivity disorder (ADHD), opposition defiant disorder, and conduct disorder in their children. This is a parent report scale including all DSM-IV disrupting behavior disorders symptoms. Both parents' endorsement is required for an item to be rated as positive. Evidence supporting the instrument's reliability and validity in the Turkish population has been reported (12).

Teachers completed the Conners' Teacher Rating Scale (CTRS-28, 13) for the assessment of children's classroom behavior. This is a scale consisting of twenty-eight questions, grouped into four subscales: hyperactivity, conduct problems, inattention-passive and ADHD index. Raw scores for each subscale are transformed by age and sex into T scores. Evidence supporting the instrument's reliability and validity in a Turkish population has been published (14).

An ad-hoc form was used to collect information on educational, occupational and economic status of parents and on the illness of the bipolar parent.

Chi-square was used for categorical data and Mann Whitney-U test was used to analyse non-parametric data. Fisher's exact test was applied when necessary.

RESULTS

The case group consisted of 35 children (18 males and 17 females; mean age 12.2±3.3 years, range 7-17 years). The control group consisted of 33 children (22 males and 11 females; mean age 11.8±3.2 years, range 7-17 years).

Among the bipolar offspring, 8 children (22.9%) received at least one lifetime DSM-IV diagnosis as compared to only one (3.0%) of the control children. Thus, the offspring of bipolar parents had a 9.48 fold higher risk for receiving a psychiatric diagnosis than the control group (OR = 9.48; 95% CI=1.07-21.5; p=0.028). Two children (5.7%) in the bipolar offspring group were diagnosed as having a mood disorder (one had bipolar I disorder and one cyclothymic disorder); three (8.6%) had a disruptive behavior disorder (two had ADHD and one oppositional defiant disorder), and three (8.6%) had another psychiatric disorder (one had enuresis and two separation anxiety disorder). One child from the control group received an oppositional defiant disorder diagnosis.

On the CTRS-28, the bipolar offspring scored significantly higher than the control group on the hyperactivity and conduct problems subscales as well as the ADHD index, but not on the inattentive-passive subscale (Table 1). On the WASH-U-KSADS, children of patients with bipolar disorder were more likely than the controls to present, at a mild severity level, depressed mood (30.9% vs. 8.8%; OR=7.88; 95% CI=2.24-29.11; p=0.0004), irritability and anger (23.5% vs. 5.9%; OR=6.44; 95% CI=1.64-27.37; p=0.004), and excessive or inappropriate guilt (17.6% vs. 1.5%; OR=18.3; 95% CI=2.16-404.7; p=0.002).

Table 1 Mean T scores on the Conners' Teacher Rating Scale (CTRS-28) subscales in the offspring of bipolar patients and matched healthy controls

Subscale	Cases	Controls	Z	p
Hyperactivity	50.28 ± 8.6	48.78 ± 3.8	2.53	0.012
Conduct problems	55.08 ± 8.8	48.84 ± 4.9	0.33	0.001
Inattention-passive	46.25 ± 5.4	43.93 ± 4.3	1.78	0.075
ADHD index	51.91 ± 12.1	47.18 ± 4.8	2.66	0.008

DISCUSSION

Our findings are consistent with previous data showing that children of bipolar patients are at increased risk for the development of psychiatric disorders, especially ADHD and mood disorders (5,9,15-17). Moreover, these children are more likely to display subsyndromal mood and disruptive behavior symptoms. Mild depression and emotional dysregulation may herald the development of the full bipolar syndrome in some children. A recent well-designed study reported that a family history of bipolar disorder is associated with an increased risk of subsyndromal bipolar disorders (cyclotaxia) and not just fully syndromal bipolar disorder (18).

Chang et al (9) reported psychiatric diagnoses and symptoms in a cohort of 60 bipolar offspring. They found that offspring who had bilineal pedigrees for mood disorders (bipolar disorder in one parent, bipolar disorder or unipolar depression in the other) had higher WASH-U-KSADS scores for irritability, depression, rejection sensitivity, and lack of mood reactivity (defined as mood regulation problems) than bipolar offspring with unilineal pedigrees. Because we excluded families in which both parents had a mood disorder, our study is not directly parallel to Chang et al's, but we did observe high rates of depression and irritability in our high-risk offspring.

Short-lived hypomanic episodes during early childhood have been reported to be more frequent than manic and mixed episodes among children at risk for bipolar disorder (5,19). A recent study found that "episodic irritability" in childhood was a better predictor of later mania than chronic irritability (20). Thus, mild, episodic symptoms of mania or depression, which were observed more frequently in our high-risk children, may be early signs of bipolarity.

ADHD may increase the risk for developing bipolar disorder, especially when the child is genetically at risk for bipolar disorder (5,21-25). Additionally, several studies have found that bipolar disorder and ADHD are often comorbid (22). Only a prospective follow-up of our sample would reveal whether bipolar offspring with hyperactivity and conduct problems are more likely to develop bipolar disorder, ADHD or simply ongoing subsyndromal mood dysregulation.

Our study had a small sample size and a large age range. It was cross-sectional in design and interviewers were not blind to parental diagnosis. Because it was not designed as a genetic study, and because the sample size was limited and detailed information on pedigrees was missing, we could not make a proper estimation of the patterns of inheritance. Thus, the symptoms observed in the offspring may have had environmental as well as genetic underpinnings. Some investigators have observed correlations between pathological family environments and severity of illness in bipolar offspring (25,26). Family environment may have a negative effect on the psychiatric status of offspring, or early mood instability could occur as a reaction to having a bipolar parent.

In conclusion, results from this study indicate that children of bipolar I patients may have a significantly higher rate of psychiatric symptoms at both the syndromal and subsyndromal level than do children of healthy controls. The children of people with bipolar disorder can be considered a risk group in which early diagnosis and intervention are important. Therefore, the disruptive behavior and mood symptoms observed in early life may indicate the need for early psychosocial intervention. Observing these children longitudinally may clarify the developmental pathways to bipolar disorder among children at risk.

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References

1. Carlson GA. Identifying prepubertal mania. J Am Acad Child Adolesc Psychiatry 1995;34:750-3.
2. Lish JD, Dime-Meenan S, Whybrow PC et al. The National Depressive and Manic Depressive Association (DMDA) survey of bipolar members. J Affect Disord 1994;31:281-94.
3. Liebenluft E, Charney DS, Towbin KE et al. Defining clinical phenotypes of juvenile mania. Am J Psychiatry 2003;160:430-7.
4. Carlson GA, Weintraub S. Childhood behavior problems and bipolar disorder: relationship or coincidence? J Affect Disord 1993;28: 143-53.
5. DelBello M, Geller B. Review of studies of child and adolescent offspring of bipolar parents. Bipolar Disord 2001;3:325-34.
6. Chang KD, Steiner H, Dienes K et al. Bipolar offspring: a window into bipolar disorder evolution. Biol Psychiatry 2003;53:945-51.
7. Gershon ES, Homovit J, Guroff JJ. A family study of schizoaffective, bipolar I, bipolar II, unipolar and normal control probands. Arch Gen Psychiatry 1982;39:1157-67.
8. Lapalme M, Hodgings S, La Roche C. Children of parents with bipolar disorder: a metaanalysis of risk for mental disorders. Can J Psychiatry 1997;42:623-31.
9. Chang KD, Steiner H, Ketter TA. Psychiatric phenomenology of child and adolescent bipolar offspring. J Am Acad Child Adolesc Psychiatry 2000;39:453-60.
10. First BM, Spitzer LR, Gibbon M et al. Structured Clinical Interview for DSM-IV Axis I Disorders, Clinician Version (SCID-CV). Washington: American Psychiatric Press, 1996.
11. Geller B, Williams M, Zimerman B et al. Washington University in St. Louis Kiddie Schedule for Affective Disorders and Schizophrenia (WASH-U-KSADS). St. Louis: Washington University, 1996.
12. Ercan ES, Amado S, Somer O. Dikkat Eksikligi hiperaktivite Bozuklugu ve Yikici Davranis Bozukluklari icin bir test bataryasi gelistirme calismasi. Cocuk ve genclik Ruh Sagligi dergisi (Journal of Child and Adolescent Mental Health) 2001;8:132-44.
13. Conners CK. Conners abbreviated symptom questionnaire. North Tonawanda: Multi Health Systems, 1994.
14. Sener S, Dereboy F. Conners ögretmen derecelendirme ölçegi Türkçe uyarlamasi. Çocuk ve gençlik ruh sagligi (Journal of Child and Adolescent Mental Health) 1995;2:131-41.
15. Duffy A, Alda M, Kutcher S et al. Psychiatric symptoms and syndromes among adolescent children of parents with lithium-responsive or lithium-nonresponsive bipolar disorder. Am J Psychiatry 1998;3:431-3.
16. Souttullo CA, DelBello MA, Casuto LS et al. Psychiatric disorders in children of bipolar patients versus controls: preliminary results. Presented at the Annual Meeting of the American Psychiatric Association, Washington, May 1999.
17. Walls M, Hillegers MH, Reichart CG et al. Prevalence of psychopathology in children of a bipolar parent. J Am Acad Child Adolesc Psychiatry 2001;40:1094-102.
18. Findling RL, Youngstrom EA, McNamara NK et al. Early symptoms of mania and the role of parental risk. Bipolar Disord 2005;7: 623-34.
19. Akiskal HS, Downs J, Jordan P et al. Affective disorders in referred children and younger siblings of manic depressives: mode of onset and prospective course. Arch Gen Psychiatry 1985;42:996-1003.
20. Leibenluft E, Cohen P, Gorrindo T et al. Chronic versus episodic irritability in youth: a community-based, longitudinal study of clinical and diagnostic associations. J Child Adolesc Psychopharmacol 2006;16:456-66.
21. Faraone S, Biederman J, Wozniak J et al. Is comorbidity with ADHD a marker for juvenile-onset mania? J Am Acad Child Adolesc Psychiatry 1997;36:1046-55.
22. State RC, Altshuler LL, Frye MF. Mania and attention deficit hyperactivity disorder in a prepubertal child: diagnostic and treatment challenges. Am J Psychiatry 2002;159:918-25.
23. Wozniak J, Biederman J, Mundy E et al. A pilot family study of childhood-onset mania. J Am Acad Child Adolesc Psychiatry 1995; 12:1577-83.
24. Faraone S, Biederman J, Mennin D et al. Attention deficit hyperactivity disorder with bipolar disorder: a familial subtype? J Am Acad Child Adolesc Psychiatry 1997;36:1378-90.
25. Chang K, Steiner H. Offspring studies in child and early adolescent bipolar disorder. In: Geller B, DelBello MP (eds). Bipolar disorder in childhood and early adolescence. New York: Guilford, 2003:107-29.
26. Duffy A, Alda M, Trinneer A et al. Temperament, life events, and psychopathology among the offspring of bipolar parents. Eur Child Adolesc Psychiatry 2007;16:222-8.

The roots of the concept of mental health

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This paper reviews the origins of the current concept of mental health, starting from the mental hygiene movement, initiated in 1908 by consumers of psychiatric services and professionals interested in improving the conditions and the quality of treatment of people with mental disorders. The paper argues that, more than a scientific discipline, mental health is a political and ideological movement involving diverse segments of society, interested in the promotion of the human rights of people with mental disorders and the quality of their treatment.

Key words: Mental health, history, psychiatry, human rights, social movements

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The concept of mental health, given its polysemic nature and its imprecise borders, benefits from a historical perspective to be better understood. What today is broadly understood by "mental health" can have its origins tracked back to developments in public health, in clinical psychiatry and in other branches of knowledge.

Although references to mental health as a state can be found in the English language well before the 20th century, technical references to mental health as a field or discipline are not found before 1946. During that year, the International Health Conference, held in New York, decided to establish the World Health Organization (WHO) and a Mental Health Association was founded in London. Before that date, found are references to the corresponding concept of "mental hygiene", which first appeared in the English literature in 1843, in a book entitled *Mental hygiene or an examination of the intellect and passions designed to illustrate their influence on health and duration of life* (1). Moreover, in 1849, "healthy *mental* and physical development of the citizen" had already been included as the first objective of public health in a draft law submitted to the Berlin Society of Physicians and Surgeons (2).

In 1948, the WHO was created and in the same year the first International Congress on Mental Health took place in London. At the second session of the WHO's Expert Committee on Mental Health (September 11-16, 1950), "mental health" and "mental hygiene" were defined as follows (3): "Mental hygiene refers to all the activities and techniques which encourage and maintain mental health. Mental health is a condition, subject to fluctuations due to biological and social factors, which enables the individual to achieve a satisfactory synthesis of his own potentially conflicting, instinctive drives; to form and maintain harmonious relations with others; and to participate in constructive changes in his social and physical environment."

However, a clear and widely accepted definition of mental health as a discipline was (and is) still missing. Significantly, the *Dorland's Medical Dictionary* does not carry an entry on mental health, whereas the *Campbell's Dictionary of Psychiatry* gives it two meanings: first, as a synonym of mental hygiene and second, as a state of psychological well-being. The *Oxford English Dictionary* defines mental hygiene as a set of measures to preserve mental health, and later refers to mental health as a state. These lexicographic concepts nonetheless, more and more mental health is employed in the sense of a discipline (e.g., sections/divisions in health ministries or secretaries, or departments in universities), with an almost perfect replacement of mental hygiene.

In addition, given this polysemic nature of mental health, its delimitation in relation to psychiatry (understood as the medical specialty concerned with the study, prevention, diagnosis and treatment of mental disorders or diseases) is not always clear. There is a more or less widespread effort to set mental health at least aside from psychiatry and at most as an overarching concept with encompasses psychiatry.

THE ORIGINS OF MENTAL HEALTH

The mental hygiene movement

The origin of the mental hygiene movement can be attributed to the work of Clifford Beers in the USA. In 1908 he published *A mind that found itself* (4), a book based on his personal experience of admissions to three mental hospitals. The book had a great repercussion and in the same year a Mental Hygiene Society was established in Connecticut. The term "mental hygiene" had been suggested to Beers by Adolf Meyer (5) and enjoyed a quick popularity thanks to the creation in 1909 of the National Commission of Mental Hygiene. From 1919 onwards, the internationalization of activities of this Commission led to the establishment of some national associations concerned with mental hygiene: in France (6) and South Africa (7) in 1920, in Italy (8) and Hungary (9) in 1924. From these national associations the International Committee on Mental Hygiene was created and later superseded by the World Federation of Mental Health.

The mental hygiene movement, in its origins and reflecting Beers' experience in mental hospitals, was primarily and basically concerned with the improvement of the care of people with mental disorders. In Beers' own words:

"When the National Committee was organized, in 1909, its chief concern was to humanize the care of the insane: to eradicate the abuses, brutalities and neglect from which the mentally sick have traditionally suffered." (4).

It was at a later stage that the Committee enlarged its program to include the "milder forms of mental disability" and a greater concern with preventive work. The rationale behind this shift was the belief that "mental disorders frequently have their beginnings in childhood and youth and that preventive measures are most effective in early life", and that environmental conditions and modes of living produce mental ill health.

By 1937, the US National Committee for Mental Hygiene stated that it sought to achieve its purposes by: a) promoting early diagnosis and treatment; b) developing adequate hospitalization; c) stimulating research; d) securing public understanding and support of psychiatric and mental hygiene activities; e) instructing individuals and groups in the personal application of mental hygiene principles; and f) cooperating with governmental and private agencies whose work touches at any point the field of mental hygiene.

Thus, the mental hygiene movement had initially a parapsychiatric nature, directing its efforts towards the improvement of psychiatric care. The inclusion of preventive activities among its interests did not distinguish it from psychiatry: the movement aimed at maximizing what was accepted and proposed by the most advanced psychiatrists of the epoch in the USA, most of whom followed a psychoanalytical orientation.

According to the group which launched it, the mental hygiene movement "visualized, not a single patient, but a whole community; and it considered each member of that community as an individual whose mental and emotional status was determined by definite causative factors and whose compelling need was for prevention rather than cure. The Mental Hygiene Movement, then, bears the same relation to psychiatry that the public-health movement, of which it forms a part, bears to medicine in general. It is an organized community response to a recognized community need." (4). On the other hand, it was also stated that: "At the present time both psychiatrists and mental hygienists are more than ever conscious that their objectives are in fact identical and that each group needs the other for the fulfilment of their common task." (4).

The World Health Organization

From its very beginning, the WHO has always had an administrative section specially dedicated to mental health, as an answer to requests from its Member States. The first Report of the WHO's Director General (10), in its English version, refers to an administrative section called "Mental *Health*". However, the French version of the same report calls it "*Hygiène* Mentale". Well until the 1960s we find *hygiène* as the French translation of *health* in some WHO publications and in some instances we find also *mental hygiene* used interchangeably with *mental health* in the English version of some documents. The volume no. 9 of the WHO's series *Public Health Papers* was published in 1961 in English with the title *Teaching of Psychiatry and Mental Health* (11), in 1962 in French with the title *L'enseignement de la Psychiatrie et de l'Hygiène Mentale* (12) and in 1963 in Spanish with the title *Enseñanza de la Psiquiatria y de la Salud Mental* (13).

In the preamble to the WHO Constitutions, it was stated that "health is a *state* of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity" (14), a now widely quoted definition. This definition is clearly a holistic one, intended to overcome the old dichotomies of body vs. mind and physical vs. psychic. It is also a pragmatic one, insofar as it incorporates into medicine a social dimension, gradually developed in Europe during the 19th century.

It should be noted that *mental*, in WHO's definition of health (as well as *physical* and *social*) refers to dimensions of a *state* and not to a specific domain or discipline. Therefore, according to this concept, it is incongruous to refer to physical health, mental health or social health. Should one wish to specify a particular dimension, the most appropriate noun to designate it should be *wellbeing* and not *health* (e.g., mental wellbeing or social wellbeing). This negligent use of the word *health* seems to have been also in operation when *mental hygiene* (a social movement, or a domain of activity) was replaced by *mental health* (originally intended to designate a state and later transformed in a particular domain or field of activity).

The International Congress of Mental Health

The First International Congress of Mental Health was organized in London by the British National Association for Mental Hygiene from 16 to 21 August, 1948. Starting as an International Conference on Mental *Hygiene*, it ended with a series of recommendations on mental *health*. Throughout the proceedings of the conference, *hygiene* and *health*, qualifying *mental*, are used interchangeably, sometimes in the same paragraph, without any clear conceptual distinction. However, in the 17 pages of the recommendations of the conference, *hygiene* is very sparingly used. At the end of the congress, the International Committee on Mental *Hygiene* was superseded by the World Federation for Mental *Health*.

In addition to the wording employed in the proceedings of that congress, gradually replacing *hygiene* by *health*, some of its recommendations were also influential at other levels. An example is recommendation 6 to the WHO that "as soon as practicable, an advisory expert committee be established, composed of professional personnel in the field of mental health and human relations".

The conference had been convened under the theme "Mental Health and World Citizenship". From a conceptual point of view, nevertheless, and perhaps reflecting an immediately post-war situation, discussions over world citizenship prevailed over those on mental health. Only one concept of mental health was put forward, by J.C. Flugel, Chairman of the Conference's Programme Committee: "Mental health is regarded as a condition which permits the optimal development, physical, intellectual and emotional, of the individual, so far as this is compatible with that of other individuals." (15). Echoing concerns about the absence, or rather limited number of, participants from places such as Far East, South America and the Soviet Union, the hope was expressed that "mental health as understood in Western countries [is not] necessarily at variance with the sense in which it is understood in other countries" (15).

In a more detailed way, some delegates elaborated on what was summarized as the "four levels of mental health work: custodial, therapeutic, preventive and positive" (15). It is not difficult to see a considerable overlapping between this proposal and the one already implemented by the mental hygiene movement.

At the closing session, O.L. Forel, Lecturer in Psychiatry at the University of Geneva, answering to criticisms that mental hygiene, as understood in that conference, went beyond the medical and scientific framework, made a clearly political (in Plato's sense) statement by saying that: "I dare hope to be your interpreter in expressing our pride that so many scientists came here not at all to develop their respective sciences, but to have them at men's service" (15).

Reading through the proceedings of this congress gives one a feeling of the tensions between a pragmatic approach, developed by the mental hygiene movement (basically defended by delegates from the USA), and a more politically-oriented approach, proposed by other participants, perhaps translating the experiences of some delegates from European countries, which had severely suffered from the war. In the end this latter approach prevailed, with the transformation of the mental hygiene movement into the mental health movement. Perhaps as a reflection of this basically political movement, in 1949 the National Institute of Mental Health started its activities in the USA.

RECENT DEVELOPMENTS

After half a century of the mental health, and almost a century of the mental hygiene movements, some developments can be perceived. On a more general level, the WHO's very concept of health has been recently questioned; formulated half a century ago, it is no longer felt by some as much appropriate to the current situation (16,17).

On the whole, *mental health* continues to be used both to designate a *state*, a *dimension* of health – an essential element in the definition of health – and to refer to the *movement* derived from the mental hygiene movement, corresponding to the application of psychiatry to groups, communities and societies, rather than on an individual basis, as is the case with clinical psychiatry. However, mental health is, quite unfortunately, still viewed by many as a discipline, either as a synonym of psychiatry, or as one of its complementary fields.

A recent trend has been the addition of the qualifier *public* to either mental health or to psychiatry, as it can be seen in a WHO document entitled *Public mental health* (18), or in a journal named *Psiquiatría Pública*, published in Spain since 1989. This is very much in line with the concept of mental health as a movement rather than a discipline.

In 2001, the WHO dedicated its annual report (*The World Health Report - Mental health: new knowledge, new hope*) to mental health (19). In that same year, the theme of the World Health Day was *Stop Exclusion – Dare to Care*, a quite clear political statement, that I am sure would have immensely pleased Clifford Beers.

In the message from the WHO Director-General that opens that report, Gro H. Brundtland summarizes the three main knowledge areas covered by the document: a) effectiveness of prevention and treatment, b) service planning and provision, and c) policies to break down stigma and discrimination and adequate funds for prevention and treatment. If one allows for the semantic variations between the beginnings of the 20th and the 21st centuries, the same concerns of the origins of the *mental hygiene* movement, discussed earlier on, can be found in the *mental health* content of the World Health Report. Perhaps the biggest difference between these two political platforms is the emphasis on the improvement of hospital care in the former (the only form of treatment available by then), and the contemporary emphasis on distancing mental health from psychiatric hospitals and placing it in the community.

However, one must admit that, unfortunately, what was high in Beers' agenda in 1909, namely, an improvement in the standards of mental health care and an eradication of the abuses to which people with mental disorders are usually subject, is still a major concern of the most progressive and advanced agenda of people interested in the promotion of mental health around the world.

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References

1. Lewis ND. American psychiatry from the beginning to World War II. In: Arieti S (ed). American handbook of psychiatry, 2nd ed. New York: Basic Books, 1974:28-43.
2. Rosen G. The history of public health. Baltimore: Johns Hopkins University Press, 1993.
3. World Health Organization. Mental health: report on the second session of the Expert Committee. Geneva: World Health Organization, 1951.

4. Beers CW. A mind that found itself. New York: Doubleday, Draw & Co, 1937.
5. Schneck JM. United States of America. In: Howells JG (ed). World history of psychiatry. New York: Brunner/Mazel, 1975:432-75.
6. Pélicier Y. Histoire de la psychiatrie. Paris: Presses Universitaires de France, 1971.
7. Hurst LH, Lucas MB. South Africa. In: Howells JG (ed). World history of psychiatry. New York: Brunner/Mazel, 1975:600-23.
8. Mora G. Italy. In: Howells JG (ed). World history of psychiatry. New York: Brunner/Mazel, 1975:39-89.
9. Horánszky N. Hungary. In: Howells JG (ed). World history of psychiatry. New York: Brunner/Mazel, 1975:281-307.
10. World Health Organization. Annual Report of the Director-General to the World Health Organization and to the United Nations. Geneva: World Health Organization, 1951.
11. World Health Organization. Teaching of psychiatry and mental health. Geneva: World Health Organization, 1961.
12. Organization Mondiale de la Santé. L'enseignement de la psychiatrie et de l'hygiène mentale. Genève: Organization Mondiale de la Santé, 1962.
13. Organización Mundial de la Salud. Ensenanza de la psiquiatria y de la salud mental. Ginebra: Organización Mundial de la Salud, 1963.
14. World Health Organization. Basic documents, 39th ed. Geneva: World Health Organization, 1994.
15. International Committee on Mental Hygiene. International Congress on Mental Health. London/New York: Lewis/Columbia University Press, 1948.
16. Saracci R. The World Health Organization needs to reconsider its definition of health. BMJ 1997;314:1409-10.
17. Frenk J, Sepulveda J, Gomez-Dantes O et al. The future of world health: the new world order and international health. BMJ 1997; 314:1404-7.
18. World Health Organization. Public mental health: guidelines for the elaboration and management of national mental health programmes. Geneva: World Health Organization, 1996.
19. World Health Organization. The World Health Report 2001 - Mental health: new understanding, new hope. Geneva: World Health Organization, 2001.

Psychiatric training in the UK: the next steps

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Postgraduate education and training in the UK is undergoing tremendous change. In this paper the changes affecting psychiatry are described, with an account of the drivers. Patients, their carers and politicians all expect psychiatric service providers to have certain characteristics. Psychiatric training is becoming more competency focused and it is right that assessments of competencies also occur at the place that trainees work. There are key competencies that trainees need to take into account while learning and working. These are described along with the way forward.

Key words: Psychiatric training, postgraduate education, assessments, capabilities of psychiatrists, competencies

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Psychiatry is one of the key medical specialties, which has close relationships with non-medical mental health disciplines, biology and primary care medicine. In order for psychiatry to succeed as a profession, it has to demonstrate its effectiveness in dealing with mental illness and distress and must rise above the "psycho babble" of pop psychology. The role of the psychiatrist must include educating the public, other physicians and legislators as well as employers, and has changed dramatically in the last fifty years or so, as services have evolved and changed.

Twenty years ago, it was pointed out that being a good psychiatrist requires understanding of the patient's and one's own subjective responses; objective approach to behaviour; ability to make contact with psychiatric patients; understanding of signs, symptoms and syndromes; ability to conduct and organize investigations and treatment methods using physical, psychological and social approaches, and an understanding of the self (1). Since then, little has changed and these characteristics remain important for the ideal psychiatrist. However, several other competencies have recently emerged as essential and are listed in Table 1.

The recent growth of subspecialties, the changes in undergraduate education, the arrival of increasing numbers of international medical graduates in the UK and the structural changes within the National Health Service and medical profession all indicate that the time is ripe to look at the training needs and change our delivery of training accordingly. Any training relies on resources, both human and financial. The roles of the trainers and scheme organizers as well as directors of medical education and programme directors cannot be carried out unless clear resources are identified and the time provided for training and supervision is recompensed adequately. The educational and clinical supervisors need time for these activities, which have to be enshrined in their job plans. At the same time these activities must also be evaluated.

Table 1 Core attributes of a good psychiatrist

1. Clinical competence
2. Being a good communicator and listener
3. Being sensitive to gender, ethnicity and culture
4. Commitment to equality and working with diversity
5. Having a basic understanding of group dynamics
6. Being able to facilitate an atmosphere within a team
7. Ability to be decisive
8. Ability to appraise staff
9. Basic understanding of operational management
10. Understanding and acknowledging the role and status of vulnerable patients
11. Bringing empathy, encouragement and hope to patients and carers
12. Critical self awareness of emotional responses to clinical situations
13. Being aware of potentially destructive influences in power relationship
14. Acknowledging situations where there is potential for bullying

THE PSYCHIATRIST OF THE FUTURE

The psychiatrist of the future will need a range of competencies in clinical, management, teaching, research and other areas. The impact of documents such as "The Ten Essential Shared Capabilities" (2) cannot be overestimated. These are as follows:

1. *Working in partnership*. Developing and maintaining constructive working relationships with service users, carers, families, colleagues, lay people and wider community, working positively with any revisions created by conflicts of interests or aspirations that may arise between the partners in care.
2. *Respecting diversity*. Working in partnership with service users, carers, families and colleagues to provide care and interventions that not only make a positive difference, but also do so in ways that respect and value diversity including age, sex, race, culture, disability, spirituality and sexuality.
3. *Practising ethically*. Recognizing the rights and aspirations of service users and their families, acknowledging power differentials and minimizing them whenever possible. Providing treatment and care that is accountable to service users and carers within the boundaries prescribed by national (professional), legal and local codes of ethical practice.
4. *Challenging inequality*. Addressing the causes and consequences of stigma, discrimination, social inequality

and exclusion on service users, carers and mental health services. Creating, developing or maintaining valued social roles for people in the communities they come from.

5. *Promoting recovery.* Working in partnership to provide care and treatment that enables service users and carers to tackle mental health problems with hope and optimism and to work towards a valued lifestyle within and beyond the limits of any mental health problems.
6. *Identifying people's needs and strengths.* Working in partnership to gather information on health and social care needs in the context of the preferred lifestyle and aspirations of service users, their families, carers and friends.
7. *Providing patient centred care.* Negotiating achievable and meaningful goals, primarily from the perspective of the service users and their families, influencing and seeking the means to achieve these goals and clarifying the responsibilities of the people who will provide any help that is needed, including systematically evaluating outcomes and achievements.
8. *Making a difference.* Facilitating access to and delivering the best quality, evidence-based, values-based health and social care interventions to meet the needs and aspirations of service users and their families and carers.
9. *Promoting safety and positive risk taking.* Empowering the person to decide the level of risk they are prepared to take with their health and safety. This includes working with the tension between promoting safety and positive risk taking, including assessing and dealing with possible risks for service users, their families and the wider public.
10. *Personal development and learning.* Keeping up-to-date with changes in practice and participating in lifelong learning, personal and professional development for one's self and colleagues through supervision, appraisal and reflective practice.

The training to produce good psychiatrists has to incorporate these characteristics, which are not attained sequentially, but as building blocks where more than one capability can be reached at any given time.

A NEW FOCUS IN TRAINING

The focus in training in the UK shifted to self-directed learning where the trainees take on the responsibility for their training and optimizing the limited contact between trainers and trainees. In examining, the trainee log book will become an important component of overall assessment. The teaching will have three components: patient-based (ward rounds, topic-based bedside teaching, outpatient-based teaching, case conferences, psychotherapy, audit and clinical governance); classroom-based teaching (web-based learning, didactic teaching, journal clubs), and learner-based learning (educational supervision directly or indirectly using web-based methods, formal and informal study).

Patient-based learning activity will be systematic, with emphasis on patient problem based learning. The learning will not necessarily be by apprenticeship, and formal documentation such as log book or portfolio of competencies achieved will be the core of the future assessments. Individual patient assessments, be they based on the wards or in outpatient departments, will be assessed using direct observation and video links with reflective analysis as well as problem-based learning.

Learner-based training will be self-directed and the trainees will keep their log books along with web-based learning. They may choose to record details of supervision, papers read, journals and book reports, distance learning, etc.

Educational supervision will follow the FY2 (second Foundation Year) principles, where one educational supervisor is responsible for a number of trainees and a distinction is made between clinical and educational supervisors. In addition, the educational supervisors will have dedicated programmed activity in their job plan agreed to by the employers. It is expected that each educational supervisor will have between 8-10 trainees who are not necessarily supervised at the same time, but facilitate and provide supervision for a longer period. The clinical supervisor will continue to provide supervision in clinical settings. Educational supervision may occur through electronic means using e-mail, webcam, video conferencing, etc.

Clinical experiences in sub-specialty training such as psychotherapy will have to be planned well in advance, and the trainees will have to demonstrate in workplace-based assessment that they have acquired competencies as required and at the right stage during their training.

CONCLUSIONS

Psychiatric training is becoming more competency focused and it is right that assessments of competencies also occur at the place that trainees work. There are key competencies that trainees need to take into account while learning and working. Skills such as understanding the patient's world and taking full cognisance of biological, psychological, physical and spiritual factors in the aetiology as well as management of the distress have to be developed. Cultural sensitivity and communication with patients and their carers are important and some of these skills are innate whereas others can be learnt. The educational principles must focus on outcome with defined competencies, otherwise the shift to competency based learning and assessment will fail.

References

1. Walton HJ. Postgraduate education in psychiatry. Oxford: Oxford University Press, 1986.
2. Skills for health. Essential shared capabilities. www.skillsforhealth.org.uk/mentalhealth/esc.php.

A synopsis of the WPA Educational Program on Personality Disorders

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This article describes the headlines of the Educational Program on Personality Disorders produced by the WPA Section on Personality Disorders and the International Society on the Study of Personality Disorders. Lifelong personality traits serve as a substrate and a context for understanding more florid and distinct forms of psychopathology. Personality disorders affect at least 10% of the population, and the direct and indirect social costs associated with crime, substance abuse, increased need for medical care, family disruption, delayed recovery from clinical syndromes and medical diseases is substantial. Numerous theories, models and methods have been proposed to describe and to understand personality and its disorders: descriptive, statistical, psychoanalytic, evolutionary, neurobiologic. Classification has either taken a prototypical or a polythetic approach, but in recent years dimensional formats for classifying personalities have gained more interest. Personality pathology has a complex and variable character of interwoven developmental bio-psycho-social influences. A number of reliable instruments for assessment of personality and its disorders have emerged during the last three decades and a wide range of tailored psychotherapeutic techniques are now available. Personality disorders are treatable and remission is more likely than treatment resistance. Education is needed for all health professionals in psychiatric services. The full WPA program is available to be downloaded for free from WPA's website www.wpanet.org.

Key words: Personality disorders, education, classification, diagnosis, treatment

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The WPA Section on Personality Disorders, in collaboration with the International Society on the Study of Personality Disorders (ISSPD), has developed an Educational Program on Personality Disorders (1). This article provides a synopsis of that program, outlining briefly the scope of the problem of personality disorders (PDs) in society, the definitions and history of the concept, issues of classification, and aspects of pathogenesis, diagnosis and therapy.

SCOPE OF THE PROBLEM

Research on the DSM and ICD disorders is making it increasingly clear that: a) psychosis, anxiety, depression, eating disorders, substance abuse, sexual disorders, and other DSM Axis I clinical syndromes occur more often in the context of PDs (2); b) patients with multiple clinical syndrome diagnoses most often have PDs (3); and c) even those patients who lack personality disturbances severe enough to warrant a DSM or ICD personality diagnosis often have *clinically significant* pathology, such as difficulties with intimacy, management of aggression or self-assertion, rejection sensitivity (4).

There is little question that inclusion of a PD axis in the DSM and ICD, and its refinement through two decades of research, has been a crucial step in the evolution of more clinically and empirically useful diagnostic manuals. Knowing that a patient has major depression is certainly important, but adding the "qualifier" that the patient also has borderline PD is equally important, because it has significant implications for prognosis and treatment.

PDs have historically been in a tangential position among diagnostic syndromes, never having achieved a significant measure of recognition in the literature of either clinical psychiatry or abnormal psychology. Prior to the DSM-III and ICD-8, they were categorized in the official nomenclature with a mélange of other miscellaneous and essentially secondary syndromes. Today, PDs occupy a place of diagnostic prominence, having been accorded a contextual role in the multiaxial schema of the DSM. Clinicians must not only assess the patient's current symptomatology, indicated on Axis I, but also evaluate those pervasive features which characterize the patient's enduring personality pattern, recorded on Axis II. Actually, the revised American multiaxial format requires that symptom states no longer be assessed as clinical entities isolated from the broader context of the patient's lifelong style of relating, coping, behaving, thinking, and feeling – that is, his or her personality. In fact, there are clinical theorists who assert that it is the patient's personality that should be evaluated first; only secondarily should the patient's clinical state be considered. Lifelong personality traits appear to serve as a substrate, as well as a context for understanding more florid and distinct forms of psychopathology.

SOCIAL COSTS

PDs have been estimated to affect at least 10% of the population, and constitute a large percentage of the patients seen by psychiatrists. Yet, unlike other diagnoses, PDs may or may not be associated with subjective symptoms. While some categories show high comorbidity with symptomatic diagnoses such as anxiety and depression, some PDs produce distress in other people rather than in the patient. But, in either case, the overall functioning of patients with PDs is often marginally social, comparable in many cases to levels seen in patients with chronic conditions such as schizophrenia.

Numerous studies suggest that PDs are underappreciated causes of social cost, morbidity, and mortality. PDs are associated with crime, substance abuse, disability, increased need for medical care, suicide attempts, self-injurious behaviour, assaults, delayed recovery from Axis I and medical illness, institutionalization, underachievement, underemployment, family disruption, child abuse and neglect, homelessness, illegitimacy, poverty, sexually transmitted diseases, misdiagnosis and mistreatment of medical and psychiatric disorders, malpractice suits, medical and judicial recidivism, disruption of psychiatric treatment settings, and dependency on public support. The amount of social cost and disruption caused by PDs is disproportionate to the amount of attention they get in the public consciousness, in government research funding, in medical school education or even in psychiatric residency training. And no less important than dealing with the social costs of personality disorders is the potential value inherent in preventive programs designed to enhance personality resilience and adaptive capacities.

DEFINITIONS

What is the concept of personality today? The question is simple to pose, but difficult to answer, despite the fact that, as an idea, personality is many thousands of years old. Historically, the word personality derives from the Greek term persona, originally representing the theatrical mask used by dramatic players. In time, the term persona lost its connotation of pretense and illusion, and began to represent, not the mask, but the real person, his/her apparent, explicit, and manifest features. The third and most recent meaning that the term personality has acquired delves "beneath" surface impression and turns the spotlight on the inner, less revealed, and hidden psychological qualities of the individual. It is this third meaning that comes closest to contemporary use. Personality is seen today as a complex pattern of deeply embedded psychological characteristics that are largely non-conscious and not easily altered, expressing themselves automatically in almost every facet of functioning. Intrinsic and pervasive, these traits emerge from a complicated matrix of biological dispositions and experiential learnings, and ultimately comprise the individual's distinctive pattern of perceiving, feeling, thinking, coping, and behaving. PDs are not disorders in the usual medical disease sense. Rather, they are theoretical constructs employed to represent varied styles or patterns in which the personality system functions maladaptively in relation to its environment. When the alternative strategies employed to achieve goals, relate to others, and cope with stress are few in number and rigidly practiced (*adaptive inflexibility*); when habitual perceptions, needs, and behaviours perpetuate and intensify pre-existing difficulties (*vicious circles*); and when the person tends to lack resilience under conditions of stress (*tenuous stability*), we speak of a clinically maladaptive personality pattern, that is, a PD.

Normality and pathology must be viewed as relative concepts; they represent arbitrary points on a continuum or gradient – no sharp line divides normal from pathological behaviour. Among diverse and ostensibly content- and culture-free criteria used to signify normality are a capacity to function autonomously and competently, a tendency to adjust to one's social milieu effectively and efficiently, a subjective sense of contentment and satisfaction, and the ability to self-actualize or to fulfil one's potentials throughout the life span into one's later years. PDs are noted either by deficits among the preceding or by the presence of characteristics that actively undermine these capacities. Perhaps these criteria are too westernized to be universal. In some Asian cultures, for example, where the individual is expected to subordinate individual ambitions to group consensus, the capacity to function autonomously might be praiseworthy, but the desire to do so is not.

PERSONALITY PATHOLOGY DESCRIPTION IN HISTORICAL PERSPECTIVE

The prime psychiatric nosologist in modern time, Emil Kraepelin (5), in his efforts to trace the early course of dementia praecox and manic-depressive insanity, "uncovered" two premorbid types: the "cyclothymic disposition", exhibited in four variants, each inclined to manic-depressive insanity; and the "autistic temperament", notably disposed to dementia praecox. In addition, Kraepelin wrote on a number of so-called morbid personalities, those whom he judged as tending toward criminality and other dissolute activities.

The best-known European classification of disordered personalities was proposed by Kurt Schneider (6). Schneider differed from many of his contemporaries, most notably Kretschmer, in that he did not view personality pathology to be a precursor to other mental disorders, but conceived it as a separate group of entities that covaried with them. Ernst Kretschmer was the prime modern constitutionalist, suggesting a series of inventive propositions that he sought to support empirically. In his early research, Kretschmer categorized individuals in accord with their physical build and attempted to relate morphological differences to schizophrenia and manic-depressive psychosis (7). As his work progressed, he extended the presumed relationship of physique not only to severe pathology but also to premorbid personality and to "normal" temperament.

The best-known and perhaps most fully conceptualized views of PDs are those formulated by psychoanalytic theorists. It was Sigmund Freud and his early associates who laid the foundation of the psychoanalytic character typology. Although numerous analytic theorists have continued to contribute to the study of character, the contemporary work of Otto Kernberg deserves special note (8). Taking steps to develop a new psychoanalytic characterology, Kernberg constructed a framework for organizing personality types in terms of their level of severity. Breaking away from a rigid adherence to Freud's psychosexual model, Kernberg proposed the dimension of structural organization. Coordinating character types in accord with severity and structural organization led Kernberg to speak of "higher, intermediate and lower levels" of character pathology. Both intermediate and lower levels are referred to as "borderline" personality organizations.

Note should be made of another productive personologist who utilized a mathematical/factorial approach to construct personality dimensions: Raymond Cattell (9). His research led him to identify 16 primary factors, or source traits, which he then arranged in sets of bipolar dimensions that would undergird personality types. Contemporary quantitative contributions include the 18 dimensions subsumed within four higher-order dimensions (emotional dysregulations, dissocial behaviour, inhibitedness and compulsivity) derived empirically by W. John Livesley (10) and the lexical approach leading to the five factor model by Costa and McGrae (11).

Another biosocial model, using three pairs of evolutionary polarities as a basis, was developed by Theodore Millon (12). He derived a PD taxonomy that subsumed the dependent, independent, ambivalent, and detached coping styles with an activity-passivity dimension. This produced theoretically-derived personality types of an innovative character: e.g., avoidant, narcissistic, borderline. Despite their correspondence to the official DSM PDs, these PDs were considered to be conceptual and prototypal, seen essentially to represent *styles of maladaptive functioning* that stem from different deficiencies, imbalances, or conflicts in the human species' capacity to relate to the environments it faces.

In a model which seeks to draw on genetic and neurobiologic substrates, Robert Cloninger has proposed a complex theory based on the interrelationship of several trait dispositions (13). Central to his formula are a series of heritable characteristics or dimensions: novelty seeking, harm avoidance, and reward dependence. Each of these is associated with different neurobiologic systems, respectively dopaminergic, serotonergic, and noradrenergic. The interaction of these heritable traits shapes the development of personality by influencing learning experiences, processing information, mood reactions, and general adaptation.

CLASSIFICATION

PDs are given important weight in both DSM-IV-TR (14) and ICD-10 (15). The former classification places them in its separate Axis II. PDs are grouped into three clusters, based essentially on empirical descriptive similarities. This cluster grouping has not been satisfactorily validated, but its widespread use indicates a frequent wish to reduce the number of categories. Cluster A includes paranoid, schizoid and schizotypal PDs (the so-called odd or eccentric individuals); Cluster B comprises antisocial, borderline, histrionic and narcissistic PDs (the ostensible dramatic, emotional or erratic individuals); and Cluster C includes avoidant, dependent and obsessive-compulsive PDs (anxious/fearful individuals). A last category, "PD not otherwise specified", comprises disorders of personality that do not fulfil the specific criteria for any of the above individual PDs.

The ICD-10 classification includes a single section covering all personality abnormalities and persistent behavioural disturbances. This is separated into specific PDs, mixed and other PDs, and enduring personality changes. The individual PDs are paranoid, schizoid, dissocial, emotionally unstable (impulsive and borderline types), histrionic, anxious (avoidant), anankastic and dependent ones. Two more categories are "other specific PDs" and "PD, unspecified". The ICD classification is similar to that of DSM-IV, although differences are noteworthy. For example, the borderline PD of the DSM-IV is subsumed as one of the two emotionally unstable disorders in ICD-10, the obsessive-compulsive adjective in DSM-IV is retained as "anankastic" in ICD-10, and avoidant PD is only a partial equivalent of the ICD-10 anxious PD. Two more disorders included in the DSM-IV are excluded from the ICD-10: schizotypal disorder is a variant within the schizophrenia spectrum in ICD-10, and narcissistic PD is only mentioned in the section on "other specific PDs" in ICD-10, without any specific criteria noted for this diagnosis. The ICD-10 contains other general categories that refer to PDs that have no counterpart in the DSM-IV, such as "mixed disorders" and "other disorders of adult personality and behaviour".

Another major controversy in the field is the categorical/dimensional/prototypical controversy. A further issue is the polythetic criterion lists used in current classification systems, which produce considerable intra-group variability, such that two people with the same diagnosed PD may display very different features because they score for different sections. Finally, as already mentioned, PDs are tied to cultural variables to a much greater extent than the clinical disorders in Axis I, creating difficulties in the diagnosis across different cultures.

Given the need for a clear official classificatory system and the dissatisfaction with the current two systems, there are likely to be important changes in the classification of PDs in DSM-V and ICD-11, both of which are planned to be published around 2012. Perhaps the most important question is how we can improve the clinical utility of the classification of PDs so that it is recognized to be helpful in decision-making at all levels. In addition to asking about the content of personality and how a taxonomy may be established and investigated, we need to know how personality data should be organized. What units of analysis are best for grouping and differentiating clinical personalities? Though a number of formulations are possible, the answer to this question has traditionally turned on whether one believes that the person should be embedded in the diagnostic system, or whether the diagnostic system should be embedded in the person – the perennial controversy between categories, dimensions and prototypes. Each has advantages and disadvantages (16-18).

DEVELOPMENTAL PATHOGENESIS

Almost all etiologic theses concerning PDs are today, at best, perceptive conjectures that ultimately rest on tenuous empirical grounds. These speculative notions should be conceived as questions that deserve empirical evaluation, rather than be promulgated as the gospel of confirmed fact.

Interaction and continuity should be major considerations in understanding personality pathogenesis. Interaction of influences persists over time. The course of later characteristics is related intrinsically to earlier events; an individual's personal history is itself a constraint on future development (19). Specific behaviours, affect and emotions appropriate at one age may reflect immaturity or psychopathology at subsequent stages. PD development must be viewed, therefore, as a process in which organismic and environmental forces display not only mutuality and circularity of influence, but also an orderly and sequential continuity throughout the full life of the individual.

The role of biogenic influences

That characteristics of brain morphology, psychophysiology, and neurochemistry would not be instrumental in shaping the development of personality is inconceivable. Biological scientists know that the central nervous system cannot be viewed as a simple and faithful follower of what is fed into it from the environment; not only does it maintain a rhythmic activity of its own, it also plays an active role in regulating sensitivity and controlling the amplitude of what is picked up by peripheral organs. Unlike a machine, which passively responds to external stimulation, the brain has a directing function that determines substantially what, when, and how events will be experienced.

It must be carefully noted that, although biogenic dysfunctions or defects may produce the basic break from normality, psychological and social determinants are likely to shape the *form* of its expression. Acceptance of the role of biogenic influences, therefore, does not negate the role of social experience and learning.

The research in psychobiology has advanced much during the last two decades. The neurobiology of temperament has been studied in various ways, including those that involve behavioural genetics, neuropharmacology and molecular genetics, physiology of the neurotransmitters and neuroimaging. Cognitive impairment and structural brain abnormalities in schizoptypal PD have shown that some PDs may be seen as examples of milder variants of more severe disturbances, like schizophrenia (20). Studies have also suggested an association of serotonin dysfunction and impulsive aggression (21).

The role of psychosocial influences

Personality traits are also strongly shaped by psychological factors. Interactions between temperament and life experience lead to the formation of personality profiles. By age 18, traits tend to be stable and are likely to remain so throughout most of adult life, even into later years. Psychological factors, particularly adverse events, may also be crucial in influencing whether traits cross the so-called normal threshold into clinical disorders.

Attitudes and behaviours may be learned as a consequence of instruction or indoctrination on the part of parents, but much of what is learned accrues from a haphazard series of casual and incidental events to which the child is exposed. Not only is the administration of rewards and punishments meted out most often in a spontaneous and erratic fashion, but the everyday and ordinary activities of parents provide the child with "unintended" models to imitate. Thus, the particulars and the coloration of many pathological patterns have their beginnings in the offhand behaviours and attitudes to which the child is incidentally exposed.

Children are exposed to and frequently learn different and contrasting sets of perceptions, feelings, attitudes, behaviours, and so on, as well as a mixed set of assumptions about themselves and others. In a manner similar to *genetic recombination*, where the child's heredity-based dispositions reflect the contribution of both parents, so too do the child's experiences and learning reflect the input and interweaving of what he has been subjected to by both parents.

Some research has supported the hypothesis that maladaptive parenting and childhood abuse and neglect may have an adverse effect on socializing processes (22). Some studies, although using quite limited methodologies, have hypothesized that insecure attachments styles in childhood, with difficulties in managing anxiety and distress, later on lead to emotional instability, extreme rage and suicidal behaviour aimed to achieving one's interpersonal needs, as seen in borderline PD (23,24).

DIAGNOSTIC ASSESSMENT

When choosing an instrument to assess PDs, it is useful to ask yourself several questions: Do I want to screen for personality disturbance or make a full assessment? Should I seek to identify only problematic PDs, or also identify adaptive personality traits that may be helpful in treatment? Is my reason for wanting to make an assessment a clinical or a research one? How long have I got to make the assessment? Am I interested in the type of PD, its severity, or both?

Information is the basis of all measurement and, therefore, the basis of all clinical assessment. Four broad sources of information are available to help describe the clinical problem, and each has its own advantages and limitations. The first comprises observations and clinical interviews: the clinician observes and asks the questions and the subject responds verbally, often in a free-form style. The clinician is free to follow any particular line of questioning desired and usually mixes standard questions with those specific to the current problem. The second comprises formal rating scales and checklists: a person familiar with the subject completes those forms in order to provide an objective perspective. The third source is the self-report inventory: subjects literally report on themselves by completing a standard list of items. The fourth source of information is projective techniques, an attempt to access unconscious structures and processes that would not ordinarily be available to the subject at the level of verbal report. The use of intimates of the subject, perhaps a spouse, teacher, parent, or good friend, someone who can provide perspective on the problem, might also be considered another source of information.

Several standardized instruments have been developed during the last three decades. The reasons for choosing one instrument over another depend on the circumstances and the person being evaluated (25).

THERAPEUTIC MANAGEMENT

The history of psychotherapy in clinical psychiatry is fraught with dogmatism. The behavioural school, for example, denied the existence of mind and asserted that therapy should proceed through classical and operant principles of reinforcement. In contrast, the psychodynamic school held that behaviour reflects only the surface expression of deeply repressed or transformed motivations. A psychodynamically trained therapist would administer psychodynamic therapy. A behaviourally trained therapist would administer behavioural therapy. Rather than fit therapy to the patient, clinicians fit the patient to their own preconceived dogma. While such loyalties reigned, psychotherapists were condemned to treat only a part of the whole person.

In the past few decades, however, dissatisfaction with school-oriented therapy, together with a new emphasis on efficacy motivated treatment care, has led to the development of coordinated and more scientific approaches. Two major "psychological therapies" remain dominant approaches in practice worldwide. These will be presented briefly in the following paragraphs.

Psychodynamic therapies

Psychodynamic therapy has long been regarded as a highly effective treatment for PDs, and recent review articles of research in this area have confirmed this impression by citing a series of studies with impressive outcomes (26). Dynamic therapy approaches the patient as someone who will repeat in action, in the here-and-now behaviour with the therapist, unconscious aspects of the personality that cannot be remembered and verbalized. Hence, the patient's characterological pattern of internal object relations and conflicts about those relationships will unfold in front of the therapist without necessarily digging into childhood traumas to unlock hidden secrets. As a patient repeats the long-standing patterns of relatedness during the sessions, therapists will be drawn into a "dance". Patients attempt to transform the therapist into someone from the patient's past. The therapist maintains a free-floating responsiveness to what is being evoked by the patient and uses this recreative "dance" as a way of understanding the patient's way of relating to others outside the treatment situation.

A key component of technique is for the therapist to clarify the nature of these unconscious relational patterns, acknowledging that countertransference enactments may contribute to what is being observed. The therapist then relates these themes to narrative accounts of the patient's life in the present and in the past. As recurrent themes emerge, they begin to make unconscious patterns more available to the patient's conscious awareness. At the same time, the therapist is observing characteristic defence mechanisms that try to ward off unpleasant feelings (27). When patterns of defences emerge with sufficient clarity and predictability but both patient and therapist have ample data in support of their existence, the therapist then tries to help the patient understand how the defences operate.

The psychodynamic models can be complemented with other models such as the evolutionary, cognitive and interpersonal models (28).

Cognitive therapies

Each PD is characterized by a specific set of dysfunctional beliefs and compensatory strategies. Dependent PD patients hold beliefs that they are incapable. They see others as strong and competent. They develop the belief "If I try to manage on my own, I'll fail, but if I can rely on others, I'll be okay". Therefore, they maladaptively depend on others. Obsessive-compulsive PD patients believe that they are vulnerable to having their worlds fall apart. They see others as irresponsible and negligent. Therefore, they try to rigidly control themselves and others. Avoidant PD patients believe that they are defective and other people are critical and rejecting. They avoid intimacy, because they are sure that they will be rejected if others see who they really are.

A major part of cognitive therapy for PDs involves helping patients to evaluate and modify their global, rigid, negative beliefs about themselves, others, and their worlds, and to develop more realistic, adaptive ideas (29,30). Therapists often use an information processing model to help patients understand why their beliefs are so strong. Therapists hypothesize that patients have structures, or schemas, in their minds that contain their core beliefs. Whenever patients perceive a relevant negative event, they automatically process the event as supportive of their core belief. When they perceive potentially relevant positive events, however, they either discount the information or fail to register it at all. Having educated patients about their core beliefs, therapists use a variety of cognitive, behavioural, emotional, interpersonal, supportive, problem-solving, and environmental techniques to help them modify their rigid maladaptive ideas. Therapists aim to address belief change both at an intellectual and at an "emotional" level. Exploration and modification of the meaning of significant childhood experiences is often necessary. Experiential techniques are particularly valuable in helping patients understand emotionally what they may have already grasped intellectually.

Biological treatments

Despite the lack of a comprehensive theoretical framework, empirical trials of pharmacotherapy have produced evidence of efficacy in PDs against specific symptom domains (31). In the cognitive-perceptual symptom domain, targets for pharmacotherapy include referential thinking, paranoid ideation, illusions, derealization, and depersonalization. Pharmacotherapy trials have shown efficacy of antipsychotic drugs in low doses against these symptoms in borderline and schizotypal patients. The symptom domain of affective dysregulation is manifested by lability of mood, rejection sensitivity, inappropriate intense anger, and temper outbursts. The angry and depressive components of these symptoms appear responsive to antidepressants, such as monoamine oxidase inhibitors and selective serotonin reuptake inhibitors (SSRIs), while the instability itself may respond to anticonvulsants, such as carbamazepine, or to lithium. Dysregulation of impulse is manifested in absence of reflective delay, sensation seeking, assaultiveness, binge behaviours (e.g., alcohol, drugs, food), and parasuicidal behaviours. Anti-impulse efficacy has been demonstrated for a variety of medications, but most specifically for anticonvulsants, SSRIs and lithium.

Medication, like any specific intervention, has the potential to enhance or impair the treatment alliance. Given the central role of the alliance in managing core pathology and ensuring compliance with treatment, the impact of prescribing on the alliance should be carefully monitored and any adverse effects explored immediately before they have the chance to escalate. When monitoring the alliance, it should be noted that it is the patient's perception of the state of the alliance rather than the therapist's that predicts outcome.

The evidence indicates that *combining* psychotherapy *and medication* (32) is effective in treating personality pathology. Although some features of the disorder respond to both treatments, psychotherapeutic interventions appear to have more pervasive effects. Although there are little empirical data evaluating the efficacy of combining psychotherapy and medication, the independent effects of both treatments, rational considerations, and expert opinion suggest that psychotherapy and medications should not be considered alternative treatment options but rather complementary interventions.

CONCLUDING REMARKS

The field of PDs is slowly moving from a stage of general speculations and clinical observations about etiology and therapy to more empirical analyses of basic questions on concept, etiology, classification and outcome. New treatment paradigms have led to more tailored integrated therapies designed to address specific personality problems like impulsivity, disconnected insecure attachment, self-harm, aggression and mood swings. The good message is that recent well-designed trials have underlined that these treatment programs work for most patients with PDs. The challenge in the future will be to develop a classification system of higher clinical utility. Research on alternative models and/or dimensionalizing the existing categorical system may pave the way for a new understanding of etiology, promote better assessment, better coverage of personality personology and more effective guidelines for treatment. Longitudinal studies are needed not only to get a better understanding of the interaction between gene and environment, but also to determine the long-term effects of treatment.

The issue of PDs has been summarized in this article. Brief notations of the concept, definitions and history have been recorded, as well as information on classification, diagnosis and treatment. More extensive discussions of these topics, including detailed summaries of the various PDs with associated case presentations, may be found in the full WPA program, available via the internet (www.wpanet.org) to all practicing mental health clinicians throughout the world.

References

1. Tasman A. The new WPA Educational Program on Personality Disorders. World Psychiatry 2007;6:127-8.
2. Shea MT, Widiger TA, Klein MH. Comorbidity of personality disorders and depression: implications for treatment. J Consult Clin Psychol 1992;60:857-68.
3. Newman DL, Moffitt TE, Caspi A et al. Comorbid mental disorders: implications for treatment and sample selection. J Abnorm Psychol 1998;107:305-11.
4. Skodol A. Problems in differential diagnosis: from DSM-III to DSM-III-R in clinical practice. Washington: American Psychiatric Press, 1989.

5. Kraepelin E. Dementia praecox and paraphrenia. Edinburgh: Krieger, 1919.
6. Schneider K. Psychopathic personalities. London: Cassell, 1950.
7. Kretschmer E. Körperbau und Charakter. Berlin: Springer, 1925.
8. Kernberg O. Severe personality disorders. New Haven: Yale University Press, 1984.
9. Cattell RB. Personality and motivation structure and measurement. New York: World, 1957.
10. Livesley WJ, Jackson DN, Schroeder ML. Factorial structure of traits delineating personality disorders in clinical and general population samples. J Abnorm Psychol 1992;101:432-40.
11. Costa PT Jr, McCrae RR. Domains and facets: hierarchical personality assessment using the revised NEO personality inventory. J Pers Assess 1995;64:21-50.
12. Millon T. Modern psychopathology. A biosocial approach to maladaptive learning and functioning. Philadelphia: Saunders, 1969.
13. Cloninger CR. A systematic method for clinical description and classification of personality variants. A proposal. Arch Gen Psychiatry 1987;44:573-88.
14. American Psychiatric Association. Diagnostic and statistical manual of mental disorders, 4th ed – text revised (DSM-IV-TR). Washington: American Psychiatric Association, 2000.
15. World Health Organization. International classification of mental and behavioural disorders - 10th edition (ICD-10). Geneva: World Health Organization, 1992.
16. Millon T, Davis RD. Disorders of personality: DSM-IV and beyond. New York: Wiley, 1996.
17. Widiger TA, Simonsen E. Alternative dimensional models of personality disorder: finding a common ground. J Pers Disord 2005;19:110-30.
18. Widiger TA. Dimensional models of personality disorder. World Psychiatry 2007;6:79-83.
19. Caspi A. Personality development across the life course. In: Damon W, Eisenberg N (eds). Handbook of child psychology, 5th ed. New York: Wiley, 1998:311-88.
20. Siever LJ, Davis KL. The pathophysiology of schizophrenia disorders: perspectives from the spectrum. Am J Psychiatry 2004;161: 398-413.
21. Coccaro EF, Siever LJ, Klar HM et al. Serotonergic studies in patients with affective and personality disorders. Correlates with suicidal and impulsive aggressive behavior. Arch Gen Psychiatry 1989; 46:587-99.
22. Johnson JG, Cohen P, Kasen S et al. Association of maladaptive parental behavior with psychiatric disorder among parents and their offspring. Arch Gen Psychiatry 2001;58:453-60.
23. Bartholomew K, Kwong MJ, Hart SD. Attachment. In: Livesley WJ (ed). Handbook of personality disorders: theory, research, and treatment. New York: Guilford, 2001:196-230.
24. Fonagy P, Target M, Gergely G. Attachment and borderline personality disorder. A theory and some evidence. Psychiatr Clin North Am 2000;23:103-8.
25. McDermut WZM. Assessment instruments and standardized evaluation. In: Oldham JM, Skodol AE, Bender D (eds). Textbook of personality disorders. Washington: American Psychiatric Publishing, 2005:89-102.
26. Leichsenring F, Leibing E. The effectiveness of psychodynamic therapy and cognitive behavior therapy in the treatment of personality disorders: a meta-analysis. Am J Psychiatry 2003;160: 1223-32.
27. Kernberg OF. Severe personality disorders. New York: Yale University Press, 1984.
28. Clarkin JF, Lenzenweger MF (eds). Major theories of personality disorder. New York: Guilford, 1996.
29. Beck AT, Freeman A. Cognitive therapy of personality disorders. New York: Guilford, 1990.
30. Young JE. Therapy of personality disorders. Sarasota: Professional Resources Press, 1999.
31. Soloff P. Somatic treatments. In: Oldham JM, Skodol AE, Bender DS (eds). Textbook of personality disorders. Washington: American Psychiatric Publishing, 2005:387-403.
32. Waldinger RJ, Frank AF. Transference and the vicissitudes of medication use by borderline patients. Psychiatry 1989;52:416-27.

The WPA International Congress "Treatments in Psychiatry: A New Update" (Florence, April 1-4, 2009)

Mario Maj
President of the Congress

The WPA International Congress "Treatments in Psychiatry: A New Update" will take place in Florence, Italy, from 1 to 4 April, 2009. It will be the follow-up to the 2004 WPA International Congress "Treatments in Psychiatry: An Update", which was the second most attended psychiatric congress worldwide in that year, with almost 7,000 participants. This time, more than 8,000 participants are expected.

The Congress aims to provide a high-quality, comprehensive overview of all evidence-based treatments currently available for all mental disorders. Many of the most renowned experts in the various treatment areas will be among the speakers.

A first component of the Congress will be represented by the ESI^{SM} Top-Cited Scientist Lectures, which will be delivered by the scientists who attracted the highest total citations to their papers in indexed journals of psychiatry and psychology over the past 10 years (according to the Essential Science Indicators^{SM}). The list of these lectures is the following:

TL1. *R.C. Kessler* – The treatment gap in psychiatry
TL2. *K.S. Kendler* – Psychiatric genetics: a current perspective
TL3. *M. Rutter* – Environmentally mediated risks for psychopathology: research strategies and findings
TL4. *R.M. Murray* – The causes of schizophrenia: neurodevelopment and other risk factors
TL5. *J. Biederman* – Childhood antecedents of bipolar disorder: recognition and management
TL6. *S.V. Faraone* – Diagnosis and treatment of adult ADHD
TL7. *H.S. Akiskal* – Clinical management of bipolar disorder based on pathophysiologic understanding
TL8. *S.L. McElroy* – Management of binge eating disorder associated with obesity
TL9. *P.E. Keck* – What is a mood stabilizer?
TL10. *M.E. Thase* – Long-term management of depression: the role of pharmacotherapy and psychotherapies.

A second component will consist of a series of Update Lectures, which will provide a comprehensive update on some of the most significant aspects of current treatments in psychiatry. The list of these lectures is the following:

UL1. *R.J. Baldessarini* – Disorders, syndromes, target symptoms: how do we choose medications?
UL2. *P. Fonagy* – Psychotherapies: what works for whom?
UL3. *G. Thornicroft* – Steps, challenges and mistakes to avoid in the development of community mental health care
UL4. *P.D. McGorry* – Early intervention in psychiatry
UL5. *M.F. Green* – Improving cognitive performance and real-world functioning in people with schizophrenia
UL6. *E. Vieta* – Evidence-based comprehensive management of bipolar disorder
UL7. *K. Fulford* – Evidence and values in psychiatric practice
UL8. *S.G. Resnick* – Recovery and positive psychology: an update
UL9. *R. Drake* – Management of patients with substance abuse and severe mental disorder
UL10. *M. Stone* – Comprehensive management of borderline personality disorder in ordinary clinical practice
UL11. *W.W. Fleischhacker* – Comparative efficacy, effectiveness and cost-effectiveness of antipsychotics in the treatment of schizophrenia
UL12. *P.J. Weiden* – The art and science of switching antipsychotic medications
UL13. *G.A. Fava* – Combined and sequential treatment strategies in depression and anxiety disorders
UL14. *K.A. Halmi* – Multimodal management of anorexia and bulimia nervosa.

A further component will be represented by Update Symposia, focusing on specific treatment issues, with an active interaction between speakers and participants. The list of these symposia is the following:

US1. The future of psychotherapies for psychoses (*Chairperson*: *P. Bebbington*)
US2. Brain imaging in psychiatry: recent progress and clinical implications (*Chairperson*: *L. Farde*)
US3. Effectiveness and cost-effectiveness of pharmacological treatments in psychiatry: evidence from pragmatic trials (*Chairperson*: *J. Lieberman*)
US4. Endophenotypes in psychiatry (*Chairperson*: *D. Weinberger*)
US5. Advances in the management of treatment-resistant psychotic disorders (*Chairperson*: *H.-J. Möller*)
US6. Advances in the management of treatment-resistant depression (*Chairperson*: *S. Kasper*)
US7. Advances in the management of treatment-resistant bipolar disorder (*Chairperson*: *G.B. Cassano*)
US8. Patterns of collaboration between primary care and mental health services (*Chairperson*: *V. Patel*)
US9. Genomics and proteomics in psychiatry: an update (*Chairperson*: *N. Craddock*)
US10. Managing comorbidity of mental and physical illness (*Chairperson*: *N. Sartorius*)
US11. The evolving science and practice of psychosocial rehabilitation (*Chairperson: R. Warner*)
US12. ICD-11 and DSM-V: work in progress (*Chairperson*: *M. Maj*)
US13. Violence, trauma and victimization (*Chairperson*: *A. McFarlane*)
US14. Cognitive impairment: should it be part of the diagnostic criteria for

schizophrenia? (*Chairperson*: *R. Keefe*)
US15. Management of medically unexplained somatic symptoms (*Chairperson*: *O. Gureje*)
US16. Partnerships in mental health care (*Chairperson*: *B. Saraceno*)
US17. Outcome in bipolar disorders: new findings and methodological challenges *(Chairperson: M. Tohen)*
US18. Suicide prevention: integration of public health and clinical actions (*Chairperson*: *Z. Rihmer*)
US19. Novel biological targets of pharmacological treatment in mental disorders (*Chairperson*: *G. Racagni*)
US20. Prevention and early intervention strategies in community mental health settings (*Chairperson*: *S. Saxena*)
US21. Anxiety disorders: from dimensions to targeted treatments (*Chairperson*: *J. Zohar*)
US22. Cultural issues in mental health care (*Chairperson*: *P. Ruiz*)
US23. The challenge of bipolar depression *(Chairperson: J. Calabrese)*
US24. Current management of mental disorders in old age (*Chairperson*: *C. Katona*)
US25. Prevention of substance abuse worldwide (*Chairperson*: *M.E. Medina-Mora*)
US26. Treatment advances in child psychiatry (*Chairperson*: *H. Remschmidt*)
US27. Gender-related issues in psychiatric treatments (*Chairperson*: *D. Stewart*)
US28. Mental health care in low-resource countries (*Chairperson*: *P. Deva*).

Moreover, the scientific programme will include Advanced Courses, Regular Symposia, Section and Zonal Symposia, Workshops, New Research Sessions, Poster Sessions, Satellite Symposia and other Sponsored Events.

For further information, please contact the Scientific Secretariat (secretariat@wpa2009florence.org) or visit the website of the Congress (www.wpa2009florence.org).

A survey and a report of activities of WPA Scientific Sections

Miguel R. Jorge
WPA Secretary for Sections

The purpose of WPA Scientific Sections is the collection, analysis, presentation and dissemination of information concerning services, research and training in the various fields of psychiatry and mental health, and the advancement of scientific knowledge in these fields. According to the WPA By-Laws, the Sections will achieve this purpose by establishing working relations with national and international organizations, organizing scientific meetings and symposia at the World Congress of Psychiatry and other WPA meetings, developing educational programs, guidelines and publications as well as consensus and position statements, and international collaborative research.

The WPA currently has 65 Scientific Sections, representing different areas of interest to the specialty, such as *specific disorders* (addiction psychiatry, affective disorders, anxiety and obsessive compulsive disorders, attention-deficit/hyperactivity disorder, eating disorders, impulsivity and impulse control disorders, intellectual disability, pain, personality disorders, schizophrenia, human sexuality, sleep disorders); *basic and related sciences* (art, biological psychiatry, clinical psychopathology, ecology, economics, epidemiology, genetics, history, informatics and telecommunications, immunology, interdisciplinary collaboration, law and ethics, literature, philosophy and humanities, psychoneurobiology, psychoneuroendocrinology, psychopathology, psychophysiology, religion, transcultural psychiatry); *diagnosis and intervention* (classification, diagnostic assessment and nomenclature, education, measurement instruments, neuroimaging, pharmacopsychiatry, preventive psychiatry, rehabilitation, psychoanalysis, psychotherapy); *special populations and settings* (child and adolescent, conflict management, developing countries, disaster, emergency, exercise and sports, family research and intervention, forensic psychiatry, medicine and primary care, military psychiatry, occupational psychiatry, old age, perinatal and infant mental health, private practice, psycho-oncology, rural mental health, stigma, suicidology, torture and persecution, urban mental health, women); and *other applications* (mass media, public policy, quality assurance, research methods).

Every three years, the WPA Secretary for Sections must conduct a process of Sections' reinstatement on behalf of the Executive Committee and according to rules specified in the Association's By-Laws. Sections must have at least 20 members; have held in the last 3 years an election for the Section Committee; have presented in the last 3 years at least one symposium at a World Congress and at least one symposium or course at a Regional Meeting or Congress, and/or have prepared educational material authorized to carry the WPA logo by the Executive Committee; and have carried out activities described in their triennial plan of work or presented reasons for not having done so.

The WPA Sections' Chairs received in early 2007 a questionnaire, where information needed for Sections' reinstatement was requested. Only one Section did not send back the questionnaire. Of the remaining Sections, 22 (34%) did not provide enough information or did not meet criteria to be reinstated. All of them have received a specific report from the Secretary for Sections and were requested to take the necessary steps to correct their situation before the Prague Congress.

Most Sections have demonstrated a very good profile in their activities and contributions to their specific field of interest. The organization of scientific sessions within WPA Meetings is the activity most frequently implemented by Sections, followed by working relations with other organizations. About 60% of Sections have developed activities with WPA Member Societies and with other Sections, produced educational programs, guidelines or publications, collected and disseminated scientific information, and organized scientific meetings. Thirteen Sections have produced consensus or position statements, which usually are valuable materials for Member Societies and psychiatrists around the world.

The number of members (and their geographical distribution in different world regions) is considered a good indicator of a Section vitality and potential to produce and disseminate knowledge from different perspectives: 35 WPA Sections have 20-50 members, 10 Sections have 51-100 members and 8 Sections have more than 100 members.

Besides the yearly publication of hundreds of papers in many different journals around the world, Sections' productions are frequently present in *World Psychiatry*, the official journal of WPA. Twelve Sections have been publishing their own journal or collaborating in the publication of a journal in their specific area of interest. Some other journals are currently being considered to be included in the WPA publications roster.

During this triennium, six research projects proposed by WPA Sections were supported by some institutional funding (1).

Besides providing the required information for their reinstatement, WPA Sections were also asked to report about their main needs and expectations. The main need – mentioned by 24 Sections – was funding for various activities. Other major needs mentioned were to enlarge membership and make it more representative of the various regions of the world, and a greater visibility of Sections in the WPA website.

Sections also emphasized the need for a more active communication among themselves and with WPA Member Societies and other components of the Association (such as Zonal Representatives). Sections also expressed their wish to be more actively involved in WPA meetings, publications, and task forces, and in congresses organized by Member Societies.

All WPA Sections are expected to be present at the World Congress of Psychiatry in Prague. Besides developing scientific activities, they will have a business meeting where elections of new officers will take place.

Psychiatrists from all over the world are invited to join WPA Scientific Sections according to their areas of interest. No fee is required.

Reference

1. Jorge MR. Advancement of scientific knowledge through international collaborative research. World Psychiatry 2006;5: 190-2.

The First Psychiatric Congress of Eastern Europe

GEORGE CHRISTODOULOU
President, Psychiatric Association for Eastern Europe and the Balkans

When the WPA-affiliated Psychiatric Association for Eastern Europe and the Balkans (www.paeeb.com) took the decision to organize the First Psychiatric Congress of the region, the outcome was uncertain. Yet, the decision was made and the outcome was excellent. The Congress was held in Thessaloniki, Greece, from 21 to 23 September 2007. More than 700 psychiatrists from practically all Eastern European countries participated and the scientific presentations have drawn great interest. The main topics of the Congress were: a) psychiatric reform, urgently needed in the area and b) suicide, in view of the fact that the top nine countries in number of deaths from suicide in Europe are Eastern European ones. There were panel discussions on achievements, problems and perspectives, to which all representatives of National Associations participated, panels organized by families and relatives, courses by the European Division of the Royal College of Psychiatrists, presentations by the European Federation of Psychiatric Trainees and young psychiatrists, a panel discussion on violence in the Middle East, with the participation of the Iraqi, Israeli and Palestinian psychiatric society presidents, and many other topics that stimulated vigorous discussions.

During the General Assembly, in which representatives from 13 countries participated, the Declaration of Thessaloniki was voted upon. The Declaration draws attention to the serious economic difficulties of the countries of the region, to the severe stress that has followed war conflicts, to the great number of refugees and to the psychosocial consequences of calamities that have occurred in the region, to the limitations in communication of psychiatrists of the area with their colleagues elsewhere, to the need for the upgrading of scientific knowledge and the return of scientific input from Eastern Europe to its previous level of excellence. The Declaration urges the international scientific community and the political leadership to contribute to the reconstruction and advancement of the countries of the region and to the upgrading of the productivity of their psychiatric communities for the benefit of the patients, their relatives and society as a whole.

The Second East European Congress of Psychiatry will be held in Moscow, Russia in 2009 under the leadership of Prof. Valery Krasnov, with the collaboration of Prof. Yuri Savenko.

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