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EDITORIAL

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FORUM – *THE ROLE OF FUNCTIONAL IMPAIRMENT IN THE DIAGNOSIS OF MENTAL DISORDERS: TOWARDS ICD-11 AND DSM-V*

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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 134, spanning 112 different countries and representing more than 200,000 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).

Further information on the WPA can be found on the website www.wpanet.org.

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World Psychiatry

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Research Reports containing unpublished data are welcome for submission to the journal. They should be subdivided into four sections (Introduction, Methods, Results, Discussion). References should be numbered consecutively in the text and listed at the end according to the following style:

1. Bathe KJ, Wilson EL. Solution methods for eigenvalue problems in structural mechanics. Int J Num Math Engng 1973;6:213-26.
2. McRae TW. The impact of computers on accounting. London: Wiley, 1964.
3. Fraeijs de Veubeke B. Displacement and equilibrium models in the finite element method. In: Zienkiewicz OC, Hollister GS (eds). Stress analysis. London: Wiley, 1965:145-97.

All submissions should be sent to the office of the Editor.

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The WPA Action Plan is in progress

MARIO MAJ

President, World Psychiatric Association

During the past few months, the WPA has started the implementation of all the items of its Action Plan 2008-2011. This report summarizes some of the activities which have been initiated.

Choosing psychiatry as a career: a WPA international call for research proposals

One of the institutional goals of the Association during the triennium is to enhance the image of psychiatry worldwide among the general public, health professionals and policy makers, counteracting some negative messages – often biased by ideological prejudice – which are affecting the motivation of persons with mental disorders and their families to seek for psychiatric advice and help and to adhere to psychiatric interventions, as well as the motivation of medical students to choose psychiatry as a career. As one of the activities pursuing this institutional goal, the WPA has issued a call for research projects aimed to explore the factors facilitating and those hampering the choice of psychiatry as a career by medical students, and to suggest strategies to encourage this choice. The deadline for submissions is June 30, 2009. The call is available on the WPA website (www.wpanet.org).

Production of WPA press releases

The WPA appointed a press agent who is producing press releases on topics relevant to mental health. A press release dealing with the Iraq Mental Health Survey, which appears in this issue of *World Psychiatry*, has resulted in a wide media coverage, including articles in the *Herald Tribune*, the *New York Times* and the *Washington Post.* Press releases focusing on presentations delivered at the Florence WPA Congress have resulted in articles published in several newspapers, including the *Guardian* and the *Daily Telegraph*.

The WPA series of guidelines

The WPA is producing a series of guidelines on issues of great practical relevance, which will be published in *World Psychiatry*, translated in several languages and posted on the WPA website. The guidelines will deal with: a) protection and promotion of mental health in children of persons with severe mental disorders; b) steps, obstacles and mistakes to avoid in the implementation of community mental health care; c) how to combat stigmatization of psychiatry and psychiatrists; d) mental health and mental health care in migrants. Four task forces have been appointed, under the leadership, respectively, of I. Brockington, G. Thornicroft, N. Sartorius and D. Bhugra.

The WHO-WPA Work Plan

The WPA has finalized with the World Health Organization (WHO) a work plan for the triennium, including the following items: a) revision of the ICD-10 chapter on mental and behavioural disorders; b) collaboration in the Mental Health Gap Action Programme (mhGAP); c) partnership on mental health care in emergencies; d) collaboration in the area of substance abuse; e) partnership on involvement of users and carers. The text of the work plan is available on the WPA website. Within the frame of this work plan, the WHO and the WPA will organize in Geneva, from 27 to 31 July 2009, a training workshop on prevention and management of mental health consequences of disasters and conflicts. The call for applications is available on the WPA website.

The WPA programme of fellowships in collaboration with centers of excellence

The WPA has launched a programme of research fellowships for early-career psychiatrists from low- and lower-middle income countries, in collaboration with internationally recognized centers of excellence in psychiatry. These centers include at the moment: the Western Psychiatric Institute, University of Pittsburgh, USA (coordinator: D. Kupfer); the Institute of Psychiatry, London, UK (coordinators: S. Kapur, M. Prince); the University of Maryland School of Medicine, Baltimore, USA (coordinator: A. Bellack); the Mood Disorders Program, Case Western Reserve University, Cleveland, USA (coordinator: J. Calabrese); the University of Melbourne, Australia (coordinator: P. McGorry). Three calls for applications are already available on the WPA website.

The WPA/Lancet Initiative on Continuum of Care for Mental Disorders

The WPA Zonal Representatives and Member Societies are participating in a survey on the availability, feasibility and acceptability of evidence-based interventions for various mental disorders in the different regions of the world. The results will be included in a paper for the *Lancet*.

The WPA train-the-trainers programme for low-income countries

The WPA is developing a train-the-trainers programme on integration of mental health into primary care, targeting nurses and clinical officers working in dispensaries and health centers in selected low-income countries. A first workshop took place in Ibadan, Nigeria, on January 26-30, 2009. A report is available on the WPA website.

The WPA programme on depression in persons with physical diseases

The WPA has started a programme aiming to raise the awareness of the prevalence and prognostic implications of depression in persons with physical diseases. Three books are being produced, dealing respectively with depression and diabetes, depression and cardiovascular disease, and depression and cancer. Three corresponding sets of slides will be developed, which will be translated in several languages and posted on the WPA website.

The series of reports on exemplary experiences in the mental health field

The WPA is collecting reports on exemplary experiences in the mental health field from the various regions of the world. A first series of reports is already available on the WPA website.

The call for research projects to be conducted by WPA Sections

The WPA has issued a call for research projects to be conducted by its Scientific Sections. The deadline for submissions is June 30, 2009. The call is available on the Association's website.

The WPA series of itinerant educational workshops

The WPA is developing a programme of high-quality itinerant educational workshops, to be replicated in its four regions. The first workshops of this programme are scheduled in Abuja, Nigeria (October 2009), Sao Paulo, Brazil (November 2009), and Dhaka, Bangladesh (January 2010).

The new editions of World Psychiatry

The WPA has recently launched the Russian edition of *World Psychiatry*, in addition to the English, Spanish and Chinese editions, already available for many years. Selected articles from the journal are being translated in further languages (e.g., Polish, Romanian and Bosnian) and posted on the WPA website and/or those of relevant Member Societies.

The series of workshops on leadership and professional development of young psychiatrists

The WPA is supporting a series of workshops on leadership and professional development of young psychiatrists, led by N. Sartorius. A workshop was held in Singapore on February 24-28, 2009. The next one will take place in Abuja, Nigeria, in October 2009.

The organization of the Florence Congress

The WPA International Congress "Treatments in Psychiatry: A New Update" took place in Florence on April 1-4, 2009, with the participation of more than 9,000 delegates from 125 countries. The scientific programme included presentations by many of the most prominent international experts in the various treatment areas, including the scientists who attracted the highest total citations of their papers in indexed journals of psychiatry and psychology over the past 10 years, according to the Essential Science Indicators.

SPECIAL ARTICLE

Grief and bereavement: what psychiatrists need to know

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This review covers four areas of clinical importance to practicing psychiatrists: a) symptoms and course of uncomplicated (normal) grief; b) differential diagnosis, clinical characteristics and treatment of complicated grief; c) differential diagnosis, clinical characteristics and treatment of grief-related major depression; and d) psychiatrists' reactions to patient suicides. Psychiatrists often are ill prepared to identify complicated grief and grief-related major depression, and may not always be trained to identify or provide the most appropriate course of treatment. Both conditions overlap with symptoms found in ordinary, uncomplicated grief, and often are written off as "normal" with the faulty assumption that time, strength of character and the natural support system will heal. While uncomplicated grief may be extremely painful, disruptive and consuming, it is usually tolerable and self-limited and does not require formal treatment. However, both complicated grief and grief-related major depression can be persistent and gravely disabling, can dramatically interfere with function and quality of life, and may even be life threatening in the absence of treatment; and both usually respond to targeted psychiatric interventions. In addition, patient suicide has been reported as one of the most frequent and stressful crises experienced by health providers, and psychiatrists are not immune to complicated grief or grief-related depression when they, themselves, become survivors. Thus, it is essential for psychiatrists to recognize their own vulnerabilities to the personal assaults that often accompany such losses, not only for their own mental health and well-being, but also to provide the most sensitive and enlightened care to their patients.

Key words: Bereavement, grief, uncomplicated grief, major depression, suicide

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Unfortunately, grief is not a topic of in-depth discussion at most medical schools or general medical or psychiatry residency training programs. Thus, myth and innuendo substitute for evidence-based wisdom when it comes to understanding and dealing with this universal, sometimes debilitating human experience.

When Engel (1) raised the question "Is grief a disease?" as the title of his now classic article on the subject, he argued convincingly that grief shares many characteristics of physical diseases, such as a known etiology (in this case, death of a loved one), distress, a relatively predictable symptomatology and course and functional impairment. And while healing usually occurs, it is not always complete. In some bereaved individuals with preexisting vulnerabilities, for example, the intense pain and distress festers, can go on interminably (as "complicated grief"), and the loss may provoke psychiatric complications, such as major depression.

Engel's work, followed by several empirical studies on the phenomenology and course of grief, and its complication and treatment, has legitimized the study of grief for mental health practitioners. Yet, to this day, the bulk of what is known about grief and its biomedical complications has not been widely disseminated to clinicians. This review is meant to help fill that gap.

In order to appreciate how grief can go awry and transition from a normal response to a disabling condition warranting medical attention, the clinician must first know the characteristics of normal grief and how to differentiate normal grief from complicated grief and/or grief-related major depression. Consequently, this review begins with a section on "normal" grief, followed by sections on the phenomenology, differential diagnosis, course and treatment of "complicated" grief, and grief-related major depression. Since psychiatrists themselves are not immune to the potential ravages of grief, a final section focuses on the personal and emotional consequences of one of our most disturbing occupational hazards, a patient's suicide.

WHAT IS UNCOMPLICATED (NORMAL) GRIEF?

Some investigators have attempted to define discrete stages of grief, such as an initial period of numbness leading to depression and finally to reorganization and recovery. However, most modern grief specialists recognize the variations and fluidity of grief experiences, that differ considerably in intensity and length among cultural groups and from person to person (2,3). To date, no grief stage theory has been able to account for how people cope with loss, why they experience varying degrees and types of distress at different times, and how or when they adjust to a life without their loved one over time.

The terms *bereavement* and *grief* are used inconsistently in the literature to refer to either the state of having lost someone to death, or the response to such a loss. Researchers have suggested that the term bereavement be used to refer to the fact of the loss; the term grief should then be used to describe the emotional, cognitive, functional and behavioral responses to the death. Also, grief is often used more broadly to refer to the response to other kinds of loss; people grieve the loss of their youth, of opportunities, and of functional abilities. Mourning is also sometimes used interchangeably with bereavement and grief, usually referring more specifically to the behavioral manifestations of grief, which are influenced by social and cultural rituals, such as funerals, visitations, or other customs. *Complicated grief,* sometimes referred to as unresolved or traumatic grief, is the current designation for a syndrome of prolonged and intense grief that is associated with substantial impairment in work, health, and social functioning.

What constitutes "normal" grief? There is no simple answer. Grief is different for every person and every loss, and it can be damaging to judge or label a person's grief, especially during early bereavement. However, a clinician needs to make a judgment about whether a person's grief is progressing adaptively in order to make categorical decisions about whether or not to intervene. A clinician who does not understand the range of grief symptoms is at risk for intervening in a normal process and possibly derailing it. At the same time, knowledge about the boundaries of uncomplicated, adaptive grief can guard against failure to recognize complicated grief and/or depression occurring in the wake of a loved one's death. If complicated grief or major depression is mistakenly judged as "normal", bereaved individuals may be at risk for inattention to, or ineffective treatment of, clinically important problems. For pragmatic reasons, we favor the term "uncomplicated" over "normal" grief, as it is easier to categorize complications of grief, such as the syndrome of complicated grief or bereavement-related depression, than to resolve the endless debate of what is, and is not, normal.

How long does grief last? The intensity and duration of grief is highly variable, not only in the same individual over time or after different losses, but also in different people dealing with ostensibly similar losses. The intensity and duration is determined by multiple forces, including, among others: the individual's preexisting personality, attachment style, genetic makeup and unique vulnerabilities; age and health; spirituality and cultural identity; supports and resources; the number of losses; the nature of the relationship (e.g., interdependent vs. distant, loving vs. ambivalent); the relation (parent vs. child vs. spouse vs. sibling vs. friend, etc.); type of loss (sudden and unanticipated vs. gradual and anticipated, or natural causes vs. suicide, accident or homicide) (4). Certainly, many of these factors also contribute to the proclivity for complicated grief, major depression, and other adverse consequences. Nonetheless, there are general guidelines to help the clinician determine the expected phenomenology, course, and duration of uncomplicated grief.

First, grief is not a state, but rather a process. Second, the grief process typically proceeds in fits and starts, with attention oscillating to and from the painful reality of the death. Third, the spectrum of emotional, cognitive, social and behavioral disruptions of grief is broad, ranging from barely noticeable alterations to profound anguish and dysfunction. Sometimes, clinicians mistakenly label the lack of observable grief or mourning as pathological, suggesting vulnerability to delayed intense grief or medical complications. However, there is little empirical validation of this assumption and significant data to refute it (5,6). On the other side of the spectrum, bereavement can be one of the most gut-wrenching and painful experiences an individual ever faces. Shock, anguish, loss, anger, guilt, regret, anxiety, fear, loneliness, unhappiness, depression, intrusive images, depersonalization, and the feeling of being overwhelmed are but a few of the sentient states grieving individuals often describe. At first, these acute feelings of anguish and despair may seem omnipresent, but soon they evolve into waves or bursts, initially unprovoked, and later brought on by specific reminders of the deceased. Healthy, generally adaptive people likely have not experienced such an emotional roller coaster, and typically find the intense, uncontrollable emotionality of acute grief disconcerting or even shameful or frightening. If these reactions are prominent, a person may attempt to avoid reminders or over-control stimuli which can interfere with the normal grief progression.

Yet, grief is not only about pain. In an uncomplicated grief process, painful experiences are intermingled with positive feelings, such as relief, joy, peace, and happiness that emerge after the loss of an important person. Frequently, these positive feelings elicit negative emotions of disloyalty and guilt in the bereaved. Of note, at least one investigator has found that positive feelings at 6 months following a death are a sign of resilience and associated with good long-term outcomes (7).

Fourth, for most people grief is never fully completed. However, there are two easily distinguishable forms of grief (8). First, the *acute grief* that occurs in the early aftermath of a death can be intensely painful and is often characterized by behaviors and emotions that would be considered unusual in normal everyday life. These include intense sadness and crying, other unfamiliar dysphoric emotions, preoccupation with thoughts and memories of the deceased person, disturbed neurovegetative functions, difficulty concentrating, and relative disinterest in other people and in activities of daily life (apart from their role in mourning the deceased). This form of grief is distinguished from a later form of grief, *integrated or abiding grief*, in which the deceased is easily called to mind, often with associated sadness and longing. During the transition from acute to integrated grief, usually beginning within the first few months of the death, the wounds begin to heal, and the bereaved person finds his or her way back to a fulfilling life. The reality and meaning of the death are assimilated and the bereaved are able to engage once again in pleasurable and satisfying relationships and activities. Even though the grief has been integrated, they do not forget the people they lost, relinquish their sadness nor do they stop missing their loved ones. The loss becomes integrated into autobiographical memory and the thoughts and memories of the deceased are no longer preoccupying or disabling. Unlike acute grief, integrated grief does not persistently preoccupy the mind or disrupt other activities. However, there may be periods when the acute grief reawakens. This can occur around the time of significant events, such as holidays, birthdays, anniversaries, another loss, or a particularly stressful time.

Fifth, grief is not only about separation from the person who died, but about finding new and meaningful ways of continuing the relationship with the deceased (9,10). Faced with the dilemma of balancing inner and outer realities, the bereaved gradually learn to accept the loved one back into their lives as deceased. What occurs for survivors is the transformation of a relationship that had heretofore operated on several levels of actual, symbolic, internalized, and imagined relatedness to one in which the actual (living and breathing) relationship has been lost. However, other forms of the relationship remain, and continue to evolve and change. Thus, it is not unusual for bereaved individuals to dream of their deceased loved ones, to half look for them in crowds, to sense their presence, feel them watching out for or protecting them, to rehearse discussions or "speak" to them. Auditory or visual hallucinations of the deceased person are often seen during acute grief. Sometimes people maintain a sense of connection through objects such as clothing, writings, favorite possessions, and rings, which may be kept indefinitely. Some people continue a relationship with the deceased through living legacies, such as identification phenomena, carrying out the deceased's mission, memorial donations, or seeing them live on in others through genetic endowments. For others, periodically visiting the grave or lighting candles may help keep memories alive. Bereaved individuals may take some comfort in learning that the relationship does not need to be totally severed, but that it is perfectly acceptable and even normal for the relationship to endure indefinitely.

There is no evidence that uncomplicated grief requires formal treatment or professional intervention (11). For most bereaved individuals, the arduous journey through grief will ultimately culminate in an acceptable level of adjustment to a life without their loved one. Thus, most bereaved individuals do fine without treatment. Certainly, if someone struggling with grief seeks help, they should have access to empathic support and information that validates that their response is typical after a loss. When support, reassurance, and information generally provided by family, friends, and, sometimes, clergy is not available or sufficient, mutual support groups may help fill the gap. Support groups can be particularly helpful after traumatic losses, such as the death of a child, a death after suicide (12) or deaths from other "unnatural" causes (13).

COMPLICATED GRIEF

Complicated grief, a syndrome that occurs in about 10% of bereaved people, results from the failure to transition from acute to integrated grief. As a result, acute grief is prolonged, perhaps indefinitely. Symptoms include separation distress (recurrent pangs of painful emotions, with intense yearning and longing for the deceased, and preoccupation with thoughts of the loved one) and traumatic distress (sense of disbelief regarding the death, anger and bitterness, distressing, intrusive thoughts related to the death, and pronounced avoidance of reminders of the painful loss) (10). Characteristically, individuals experiencing complicated grief have difficulty accepting the death, and the intense separation and traumatic distress may last well beyond six months (1,4). Bereaved individuals with complicated grief find themselves in a repetitive loop of intense yearning and longing that becomes the major focus of their lives, albeit accompanied by inevitable sadness, frustration, and anxiety. Complicated grievers may perceive their grief as frightening, shameful, and strange. They may believe that their life is over and that the intense pain they constantly endure will never cease. Alternatively, there are grievers who do not want the grief to end, as they feel it is all that is left of the relationship with their loved one. Sometimes, people think that, by enjoying their life, they are betraying their lost loved one. Maladaptive behaviors consist of over-involvement in activities related to the deceased, on the one hand, and excessive avoidance on the other. Preoccupation with the deceased may include daydreaming, sitting at the cemetery, or rearranging belongings. At the same time, the bereaved person may avoid activities and situations that remind them that the loved one is gone, or of the good times they spent with the deceased. Frequently, people with complicated grief feel estranged from others, including people that used to be close.

Risk factors for complicated grief have not been well studied. However, individuals who have a history of difficult early relationships and lose a person with whom they had a deeply satisfying relationship seem to be at risk. Additionally, those with a history of mood or anxiety disorders, those who have experienced multiple important losses, have a history of adverse life events and whose poor health, lack of social supports, or concurrent life stresses have overwhelmed their capacity to cope, may be at risk for complicated grief (8,10). An interesting unanswered question is why one person develops complicated grief, while another suffers from major depression or post-traumatic stress disorder in the wake of a loss.

Complicated grief can be reliably identified using the Inventory of Complicated Grief (ICG, 14). It is indicated by a score ≥ 30 on the ICG at least six months after the death. It is associated with significant distress, impairment, and negative health consequences (14,15). Studies have documented chronic sleep disturbance (16,17) and disruption in daily routine (18). People with complicated grief have been found to be at increased risk for cancer, cardiac disease, hypertension, substance abuse, and suicidality (19). Among bereaved spouses over the age of 50, 57% of those with complicated grief had suicidal ideation compared to the remaining 24% who did not endorse. Among adolescent friends of adolescent suicides, young adults with complicated grief were 4.12 times more likely to endorse suicidal thoughts, controlling for syndromal depression, than subjects who did not have syndromal level complicated grief (20). In studies of clinical populations, complicated grief was associated with a high rate of suicidal ideation, a history of suicide attempts and indirect suicidal behavior, not explained by co-occurring major depression (19), and with elevated rates of lifetime suicide attempts in bipolar patients (21). Once established, complicated grief tends to be chronic and unremitting. Clearly, complicated grief must be taken seriously and treated appropriately.

Psychotropic medications and standard grief-focused supportive psychotherapies appear to have little impact on this syndrome. By contrast, a targeted intervention, complicated grief treatment (CGT), has demonstrated significantly better outcomes than standard psychotherapy in treating this syndrome (21). CGT combines cognitive behavioral techniques with aspects of interpersonal psychotherapy and motivational interviewing. The treatment includes a dual focus on coming to terms with the loss and on finding a pathway to restoration. It includes a structured exercise focused on repeatedly revisiting the time of the death as well as gradual re-engagement in activities and situations that have been avoided. Personal goals are addressed and discussed. A randomized controlled trial comparing CGT to standard interpersonal psychotherapy showed that the former performed better (22). Participants were permitted to enter the trial on medication that had been prescribed for more than 3 months if they still met criteria for complicated grief. Compared to those not already taking medication, previously treated individuals appeared to derive modest benefits from the addition of psychotherapy and proved to be more likely to complete a full course of CGT. Given these findings and the frequent occurrence of lifetime mood and anxiety disorders in individuals with complicated grief, it appears likely that combination treatment, including antidepressant medication and targeted psychotherapy, may be the most effective treatment approach (23). Prospective randomized controlled trials examining the role of pharmacotherapy for the treatment of complicated grief with and without concomitant psychotherapy are indicated.

GRIEF-RELATED MAJOR DEPRESSION

There have been numerous longitudinal follow-up studies of the newly bereaved. The majority of studies have focused on the widowed, although there are excellent studies of children who have lost a parent and of parents who have lost a child. Most studies have found roughly similar results, demonstrating a high frequency of depressive symptoms that diminish in frequency and intensity over time, but that may continue to occur at greater frequency than in non-bereaved controls for years after the death (24). In Clayton's classic studies (25-27), a large majority of the sample experienced depressed mood; anorexia and beginning weight loss; initial, middle, and terminal insomnia; marked crying; some fatigue and loss of interest in their surroundings (but not necessarily the people around them); restlessness; and guilt. Irritability was common, while overt anger was uncommon. Suicidal thoughts and ideas were rare and hallucinations were not uncommon. When asked, most widows and widowers reported that they had felt or had been touched by their dead spouse, had heard their voice, seen them, or smelled their presence. The misidentification of their dead spouses in a crowd was common. By the end of the first year, the somatic symptoms of depression had remarkably improved, although low mood (usually associated with specific events or holidays), restlessness and poor sleep continued. The studies demonstrate that symptoms were consistent amongst the following variables: men and women, a sudden versus anticipated death, good and bad marriages, and religious and non-religious subjects. By one year, most bereaved subjects were able to discuss the dead person with equanimity. These findings were largely replicated in Grimby's (28) longitudinal study with an older population. He discovered that low mood, loneliness, and crying were the cardinal symptoms of bereavement, with loneliness persisting the longest.

In Clayton's studies described above, 42% met symptomatic criteria for major depression at one month and 16% met criteria after one year. Forty-seven percent had major depression at some point during the year compared to 8% of controls and 11% for the entire year (25). These findings are remarkably similar to those reported by Zisook and Shuchter (29-32), who found that 24% of their samples were depressed at two months, 23% at seven months, 16% at 13 months and 14% at 25 months. Seven percent were chronically depressed. In all of these studies, the best predictor of major depression at 13 months was depression at one or two months. According to the Zisook and Shuchter studies, a past history of major depression also predicted major depression at one year. In addition, bereaved persons are not only at high risk for major depression, but they are also at risk for lingering subsyndromal depressive symptoms. Such symptoms, even in the absence of full depressive disorders, may be associated with prolonged personal suffering, role dysfunction, and disability (32).

Many clinicians are confused by the relationship between grief and depression and find clinical depression difficult to diagnosis in the context of bereavement. Bereavement is a major stressor and has been found to precipitate episodes of major depression, resulting in a diagnostic quandary that may have profound clinical implications (24,33). Although there are overlapping symptoms, grief can be distinguished from a full depressive episode. Most bereaved individuals experience intense sadness, but only a minority meets DSM-IV-TR criteria for major depression. The principal source of confusion is the common occurrence of low mood, sadness, and social withdrawal in both bereavement and major depression. However, there are also clear differences between the two states. Grief is a complex experience in which positive emotions are experienced alongside negative ones. As time passes, the intense, sad emotions that typically come in waves are spread further apart. Typically, these waves of grief are stimulus bound, correlated to internal and external reminders of the deceased. Furthermore, grief is a fluctuating state with individual variability, in which cognitive and behavioral adjustments are progressively made until the bereaved can hold the deceased in a comfortable place in his or her memory and a satisfying life can be resumed. In contrast, major depression tends to be more pervasive and is characterized by significant difficulty in experiencing self-validating and positive feelings. Major depression is composed of a recognizable and stable cluster of debilitating symptoms, accompanied by a protracted, enduring low mood. It tends to be persistent and associated with poor work and social functioning, pathological immunological function, and other neurobiological changes, unless treated. This is as true of major depression after the death of a loved one as in non-bereaved individuals with major depression (34-38). Moreover, untreated major depression after bereavement carries the extra burden of prolonging the pain and suffering associated with grief.

The consequences, clinical characteristics and course of bereavement related major depression are similar to those of other, non-bereavement related major depression. Documented adverse consequences of bereavement related major depression include: impaired psychosocial functioning; comorbidity with a number of anxiety disorders; and symptoms of worthlessness, psychomotor changes and suicidality (31,34-36,39). Symptoms of bereavement related major depression are usually severe and long lasting (30,31,40). In addition, bereavement related major depression also has biological characteristics that reflect similarities with other depressions, such as increased adrenocortical activity, impaired immune function and disrupted sleep architecture (39).

Most information about bereavement related major depression is focused on death of a spouse, considered one of the most disruptive and distressing events of ordinary life (41). Compared to married individuals, there is an increase in general medical consultation by depressed widows in the first year (42) after the loss. In addition, there is an increased use of counseling, especially pastoral counseling (25) and significantly increased use of tranquilizers, hypnotics and alcohol (43). Finally, it is likely that unrecognized and untreated major depression accounts for at least a portion of the increased mortality seen in bereaved populations (44). The causes of deaths have varied in different studies, but almost always include suicide and accidents (45).

When a major depressive syndrome occurs soon after the death of a loved one, according to the ICD-10, it should be classified as major depression. The same episode, however, is not major depression according to the DSM-IV, but rather it is labeled with the V-code (no mental illness) of "bereavement". Which is correct? Is the syndrome an illness, likely requiring treatment, or is it a normal phenomenon, requiring, at most, watchful waiting? The DSM-IV states that, under most circumstances, bereavement within two months of the death precludes the diagnosis of major depression, but that major depression should be strongly considered when there is guilt about things unrelated to actions at the time of the death, pronounced psychomotor retardation, morbid feelings of worthlessness, sustained suicidal ideation, or prolonged and marked functional impairment. However, these features are also likely to be present in bereavement related major depression as in any other instances of major depression (36,38), and several studies have found that bereavement related major depression is more similar to, than different from, other forms of major depression (35), and that it responds to treatment in much the same way as other, non-bereavement related major depression. Thus, we feel the DSM-IV convention of excluding the diagnosis of major depression within two months of bereavement no longer fits the best evidence and may have the undesirable consequence of preventing people with potentially life threatening illness, such as major depression, from obtaining the appropriate treatment.

The key to successful treatment is the recognition that bereavement related major depression is similar to other, non-bereavement related major depression. However, clinicians remain uncertain regarding how to intervene with bereavement related major depression and sometimes question whether to intervene at all. Medical professionals, as well as the public, tend to misattribute and normalize bereavement symptoms, leaving vulnerable grieving individuals exposed to the burden of untreated depression and the stressful demands of coping with their recent loss. Thus, we recommend treating bereavement related major depression as seriously and aggressively as when treating depression related to other life events, or unknown psychosocial precipitants.

As with other, non-bereavement related major depression, key factors used to determine whether to treat are past history and the intensity, duration, and pervasiveness of the depressive syndrome. Under certain circumstances, such as when there is a history of previous, severe major depression, prophylactic treatment to prevent the emergence of a new episode in the face of this predictably difficult period should be considered. On the contrary, if there is no past or family history of major depression and the syndrome is relatively mild in terms of severity, reactivity, and impairment, treatment may be delayed for at least the first two months, if not longer, but the patient should be monitored regularly. The clinician may then initiate treatment with educational-supportive psychotherapy, using the same general guidelines as one would for non-bereavement major depression. If the depression does not fully respond to this kind of support, antidepressant medications should be used (46).

At present, there are no psychotherapy studies focusing specifically on bereavement related major depression which demonstrate efficacy, although there are no compelling reasons to believe that psychotherapy would not be as effective in bereavement related major depression as in non-bereavement related major depression. While further research in needed to determine the potential effectiveness of psychotherapy for depression in the context of grief, we advocate for an integrated treatment method that includes individualized psychotherapy.

Currently, there are six published studies on bereavement related depression demonstrating the efficacy and safety of a variety of antidepressant medications (47-52). In each of these studies, grief intensity diminished along with amelioration of depressive symptoms, although improvement in grief was not as robust as relief of depression. No single antidepressant medication is currently designated the "best" treatment for bereavement-related depression. Inquiring about patient preferences and past personal successes or failures with various antidepressant trials can help guide a rational choice in medication. If the depressive episode is relatively mild and not associated with suicidal risk or melancholic features, support and watchful waiting might be an appropriate initial choice. On the other hand, the more autonomous and severe the symptoms, the more antidepressant medications should enter the treatment equations. For severe or highly comorbid episodes, or where medication has been unsuccessful, combination treatment with multiple medications in addition to targeted psychotherapy may be needed. One notable comorbid condition, unique to bereavement, complicated grief (8), may require a very specific form of psychotherapy (22). In all cases, treatment should be personalized, addressing the individual's specific needs and resources, as well as the availability of various treatment modalities, in deciding the best approach. A treatment model that includes education, a supportive and individualized form of psychotherapy, and medication management maximizes the probability of a positive outcome (46).

WHEN A PATIENT SUICIDES

Mental illness is one of the most robust risk factors for suicide, occurring in >90% of all suicides. Patient suicide is an occupational hazard for psychiatrists, since psychiatrists treat the most chronically and severely ill patients, utilizing treatments that are not perfect. Studies have found that >50% of psychiatrists have lost at least one patient to suicide, and many have lost more than one (53). Thus, it is no surprise that patient suicide has been reported as one of the most frequent and stressful crises experienced by health providers around the world (54-57).

When a patient suicides, psychiatrists should consider the advantages and potential problems in providing care for the family of the deceased. Many survivors will welcome contact with the treating clinician as they seek to make sense of the death and process their own grief (58). Generally, clinicians should proactively offer to meet with family members after a suicide, unless there are clear reasons to not do so. The psychiatrist can provide support, help to normalize the reactions of family members, provide referrals to community resources and, within the bounds of confidentiality, offer a perspective on the suicide that may assist family members in reducing their confusion, guilt, or anger about the death. Attendance at funerals and memorials are an individual matter, but often both the psychiatrist and the family find this restorative. Even when the psychiatrist does not personally know the close family survivors, condolence cards, expressing caring and sympathy, are usually received positively.

When a psychiatrist loses a patient to suicide, personal reactions are as varied as in other survivors. Low mood, poor sleep and irritability, for example, have been described (59). Many studies have found high rates of problematic grief experiences in survivors, such as intense guilt or feelings of responsibility for the death, a ruminative need to explain or make sense of the death, strong feelings of rejection, abandonment and anger at the deceased, trauma symptoms, complicated grief, and shame about the manner of death (6-10). Psychiatrists are not immune to these reactions when they, themselves, become survivors (59). In addition, fear of litigation and retribution from the psychiatric community can complicate the psychiatrist's response (54).

Postvention should be multifaceted and ideally should involve support from family, friends, and colleagues. For some individuals and in certain cultures, healing may be facilitated by prayer and doing merit (57). Psychiatrists who lose a patient to suicide should consider consultation from a trusted and experienced colleague who can serve as a sounding board and source of emotional support, while also consulting on the most helpful response to the survivors impacted by the death.

CONCLUSIONS

After completing their education and formal training, psychiatrists may not be fully prepared to handle some of the most common clinical challenges they will face in practice. Diagnosing and treating complicated grief and bereavement related major depression will undoubtedly rank high on the list of such challenges. Both conditions overlap with symptoms found in ordinary, uncomplicated grief, and often are written off as "normal" with the assumption that time, strength of character and the natural support system will heal.

It is important to realize that, while each individual grief process is unique, there is a form of grief that is disabling, interfering with function and quality of life. This prolonged, complicated grief response tends to be chronic and persistent in the absence of targeted interventions, and may be life threatening. Complicated grief usually responds well to a specific psychotherapy, perhaps best when administered in combination with antidepressant medication. In addition, with patient suicides being a commonplace occupational risk for psychiatrists, it is essential for them to recognize their own vulnerabilities to the personal assaults that often accompany such losses, not only for their own mental health and well-being, but also to provide the most sensitive and enlightened care to their patients.

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Self-stigma and the "why try" effect: impact on life goals and evidence-based practices

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Many individuals with mental illnesses are troubled by self-stigma and the subsequent processes that accompany this stigma: low self-esteem and self-efficacy. "Why try" is the overarching phenomenon of interest here, encompassing self-stigma, mediating processes, and their effect on goal-related behavior. In this paper, the literature that explains "why try" is reviewed, with special focus on social psychological models. Self-stigma comprises three steps: awareness of the stereotype, agreement with it, and applying it to one's self. As a result of these processes, people suffer reduced self-esteem and self-efficacy. People are dissuaded from pursuing the kind of opportunities that are fundamental to achieving life goals because of diminished self-esteem and self-efficacy. People may also avoid accessing and using evidence-based practices that help achieve these goals. The effects of self-stigma and the "why try" effect can be diminished by services that promote consumer empowerment.

Key words: Self-stigma, mental illness, public stigma, self-esteem, self-efficacy, empowerment

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Social inclusion, recovery, and community reintegration have been interchangeably touted as the main principles of the mental health system in the new millennium (1-4). Common to these ideas is accomplishing self-determined goals that enhance one's sense of well being. These kinds of goals are defined in the here and now, and are framed in terms of real interests of all adults, those with as well as without disabilities. Relevant domains include: vocation, housing, education, health and wellness, relationships and recreation, and faith-based aspirations. Functional limitations due to one's disability negatively impact the ability to fully achieve goals in these domains. Participation in evidence-based practices supports the achievement of life goals. Stigma seems to perniciously affect goal attainment and undermines positive effects of evidence-based practices.

How does stigma affect personal life goals? Stigma and its effects are distinguished into two forms, public and self-stigma. Consistent with a social psychological model, public stigma has been described in terms of stereotypes, prejudice, and discrimination. Social psychologists view *stereotypes* as knowledge structures that are learned by most members of one social group about people in different groups (5). Stereotypes about mental illness include blame, dangerousness, and incompetence (6). The fact that most people have knowledge of a set of stereotypes does not imply that they agree with them (5,7). People who are *prejudiced* endorse these pejorative stereotypes ("That's right; all persons with mental illness are violent!") and generate negative emotional reactions as a result ("They all scare me!") (8,9). Prejudice leads to *discrimination*, the behavioral reaction (10). Discrimination that comes from public stigma emerges in three ways: loss of opportunities (e.g., not being hired or leased an apartment), coercion (an authority makes decisions because the person is believed to be unable to do so), and segregation (what was previously moving people to state hospitals has now manifested itself as mental illness ghettos, especially pronounced in many urban settings) (11). This chain of stereotypes, prejudice, and discrimination is public stigma, the way in which the general public conceives of and reacts to people with serious mental illness. This is to be distinguished from self-stigma and the "why try" effect which is at the heart of this paper.

THE "WHY TRY" MODEL

The "why try" effect includes three components: self-stigma that results from stereotypes; mediators such as self-esteem and self-efficacy; and life goal achievement, or lack thereof. An important program of research has framed self-stigma and parts of the "why try" effect as modified labeling theory (12,13). People who internalize stereotypes about mental illness experience a loss of self-esteem and self-efficacy (12,14-18). People labeled with mental illness who live in a culture with prevailing stereotypes about mental illness may anticipate and internalize attitudes that reflect devaluation and discrimination. Devaluation is described as awareness that the public does not accept the person with mental illness. A subsequent body of research has sought to expand modified labeling theory (19-21). Self-devaluation is more fully described by what are called the "three A's" of self-stigma: *awareness*, *agreement*, and *application*.

To experience self-stigma, the person must be aware of the stereotypes that describe a stigmatized group (e.g., people with mental illness are to blame for their disorder) and agree with them (that's right, people with mental illness are actually to blame for their disorder). These two factors are not sufficient to represent self-stigma, however. The third A is *application*. The person must apply stereotypes to one's self (I am mentally ill so I must be to blame for my disorder) (21). This perspective represents self-stigma as a hierarchical relationship; a person with mental illness must first be aware

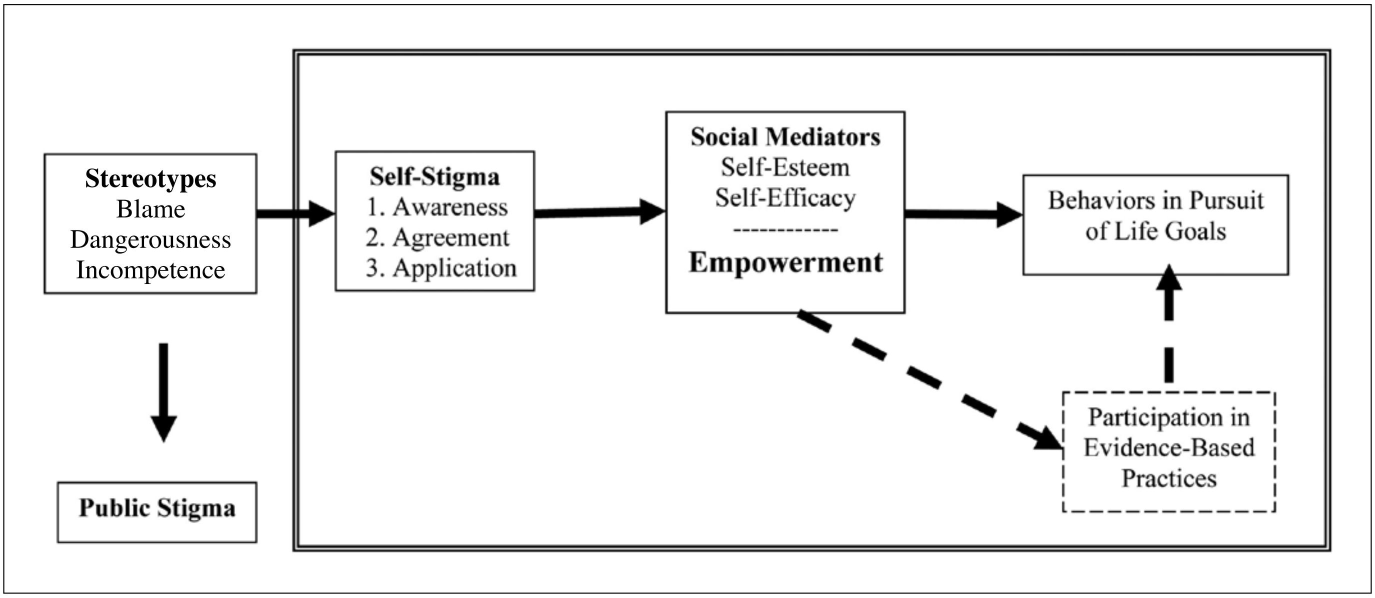

Figure 1 The "why try" effect

of corresponding stereotypes before agreeing with them and applying self-stigma to one's self. Note that the definition of self-stigma presented in Figure 1 is limited to perceptual-cognitive processes. As Goffman (22) argued, stigma is fundamentally a cue that elicits subsequent prejudice and discrimination.

SELF-ESTEEM AND SELF-EFFICACY

Consistent with modified labeling theory, the demoralization that results from self-stigma leads to reduced self-esteem. In turn, the mediating role of self-esteem on several proxies of goal attainment has been tested and confirmed in four studies (23-26); goal attainment proxies include symptom reduction and quality of life. Measures of contingent self-worth were positively associated with financial and academic problems (25). Rosenfield and Neese-Todd (25) also showed that specific domains of quality of life – satisfaction with work, housing, health, and finance – were associated with self-stigma as well as self-esteem. Self-stigma and self-esteem have also been associated with actual help-seeking behavior, an important focus of research because of its implications (26).

The "why try" effect further develops modified labeling theory by including another important mediator, which is self-efficacy. Self-efficacy is a cognitive construct that represents a person's confidence in successfully acting on specific situations (27). Low self-efficacy has been shown to be associated with the failure to pursue work or independent living opportunities at which people with mental illness might otherwise succeed (12,13,18,20,25,28,29). Consider findings from two studies as examples. In the first, Carpinello et al (30) showed that people with mental illness with low degrees of confidence in managing various circumstances related to their mental illness were found to be unsuccessful in discrete attempts to realize corresponding goals. Second, a path between stigma, efficacy, and goal attainment was implied in a study of people with serious psychiatric disabilities (29). Results showed that a measure of self-stigma was associated with self-efficacy, which then corresponded with low quality of life, the goal proxy.

Modified labeling theory outlines the behavioral consequence of devaluation; namely the person may avoid situations where he/she is going to feel publicly disrespected because of self-stigma and low self-esteem. Behavioral consequences in the "why try" model exceed notions such as social avoidance. People who agree with stigma and apply it to themselves may feel unworthy or unable to tackle the exigencies of specific life goals. One might think that beliefs like these arise because the person indeed lacks basic social and instrumental skills to accomplish a specific aspiration. Alternatively, lack of confidence may reflect doubts thrown up by agreeing with specific stereotypes and defining one's self in terms of those stereotypes. "Why should I even try to get a job? Someone like me – someone who is incompetent because of mental illness – could not successfully accomplish work demands".

Self-stigma effects on one's sense of self-esteem also yield "why try" responses. A person who has internalized stereotypes like "the mentally ill have no worth because they have nothing to offer and are only drains on society" will struggle to maintain a positive self-concept. Self-worth here is more than the kind of negative self-statements that are observed in people with depressive symptoms. It is directly linked to applying a derogatory stereotype to one's self. "Why should I even try to live independently? Someone like me is just not worth the investment to be successful".

Unclear is whether these constructs – self-esteem and self-efficacy – overlap considerably as evaluative components of self-stigma or are independent in their effects. Findings from one study supported the latter, namely that self-esteem and self-efficacy were independently associated with satisfaction in financial goals (15). It is conceivable that a person can feel efficacious in a particular situation that has no effect on self-esteem. A person may be confident in getting to work each day but feel this is not an especially important part of work; as a result these efficacy effects will have little impact on self-esteem (27).

EMPOWERMENT

To this point, the model of self-stigma and social psychological constructs describes *negative* processes that arise from self-stigma. Personal empowerment is a parallel *positive* phenomenon conceived as a mediator between self-stigma and behaviors related to goal attainment. Results of an exploratory factor analysis of 261 responses yielded five factors that describe the construct (31-33). Four of these factors delineate the content of the idea: power and powerlessness; community activism; righteous anger about discrimination; and optimism and control over the future. A fifth factor – good self-esteem and self-efficacy – shows empowerment to anchor one end of a self-stigma continuum, with self-esteem and self-efficacy at the other. This evinces a fundamental paradox that explains the two ends of the continuum (34). Some people internalize the stigmatized message and suffer diminished self-esteem and lowered self-efficacy. Others seem to be energized by the same stereotypes and become empowered in reaction to them (31,35). People with this sense of power are more confident about the pursuit of individual goals. They also play a more active role in treatment, crafting interventions that meet their perceptions of strengths, weaknesses, and needs.

What evidence is there that empowerment is the obverse of self-stigma? Several studies have examined correlations between empowerment and other psychosocial measures including self-esteem, self-efficacy, and measures of hope and recovery. Rogers et al (31) found empowerment to be associated with high self-esteem, quality of life, social support and satisfaction with mutual-help programs. Another study (35) found a link between self- and community orientations to empowerment and intact self-esteem. Self-orientation was in addition related to social support and quality of life. In a Swedish study, empowerment was associated with quality of life, intact social networks and high social functioning (36). Empowerment was further related to most aspects of recovery from serious mental illness (37,38) and inversely correlated with self-esteem decrement due to self-stigma and social withdrawal after controlling for depression (20).

Two factors seem to explain why some people respond to stigma with low self-esteem while others react with righteous indignation (34). People who view the stereotype that corresponds with self-stigma as *legitimate* suffer greater harm to self-esteem and self-efficacy. Those who do not agree with stereotypes are likely to be indifferent or righteously angry in place of self-stigma. *Group identity* also affects reactions to stigma. One might think that persons who identify with or otherwise belong to stigmatized groups may internalize the negativity aimed at that group and hence have worse effects to self-stigma. Research shows, however, that persons who develop a positive identity by interacting with members of their ingroup can develop more positive self-perceptions (39,40). They are less likely to experience diminished self-esteem and self-efficacy as a result.

GOAL ATTAINMENT AND EVIDENCE-BASED PRACTICES

Up to now, Figure 1 frames goal attainment rather simplistically as a direct outcome of either diminished self-esteem and self-efficacy, or enhanced empowerment. Absent from this model has been the concomitant impact of services that, based on sufficient research, are expected to facilitate many goals. Self-stigma, however, is also likely to impact evidence-based practices. Research from a variety of mental health disciplines have defined evidence-based priorities, including psychiatry (41,42), social work (43), and psychology (44). Interventions for adults with mental illness that have survived rigorous reviews include medication use, assertive community treatment (which helps people with psychiatric disabilities live independently) (45), supported employment and education (provide the person with basic resources and support so he or she might obtain/retain work or achieve educational goals) (46), and family psychoeducation and support (help family members develop methods that diminish stressful interactions among relatives) (47). Evidence-based practices also include integrated treatment for dual diagnosis of mental illness and substance abuse (48,49).

How might stigma mediate with the ideas laid out in Figure 1? "Why try" once again elaborates on modified labeling theory by outlining the effects of low self-esteem and self-efficacy on service participation (26). "Why should I try vocational rehabilitation? I am unable to participate in this kind of service". "Why should I pursue education? Someone like me is not worthy of such a goal". Similarly, empowerment enhances service utilization and goal attainment. People who determine their own goals and self-select from life opportunities as a result are likely to be more energized and hopeful about their treatment and personal aspirations. Collaborative and self-directed services support empowerment and advance goal attainment (50).

ADDRESSING THE "WHY TRY" EFFECT BY CHALLENGING SELF-STIGMA

Advocates have long recognized the pernicious effects of stigma and have begun to develop strategies meant to counter them. Researchers have then partnered with advocates to evaluate the impact of specific strategies. The "why try" model outlined herein may also be a useful heuristic for identifying and subsequently evaluating self-stigma modification approaches.

Empowerment is an especially relevant and important mechanism for change, because it prescribes what "might be done" to influence goals, rather than "what should not be done" to achieve these goals. This kind of affirmative approach to behavior change is typically more successful than a dysfunction-focus to change (27). The goal here is not to take away stigma, but instead to foster empowerment which enhances the pursuit of life goals and the participation in evidence-based practices related to these goals. Research has begun to examine strategies and interventions that facilitate empowerment in this fashion (51,52). Some examples are discussed here.

Consumer operated services

Empowerment is endorsed as central to consumer operated services, with its relationship to these services being complex and recursive. Two ingredients of consumer operated services have obvious relevance to empowerment and the "why try" effect. The *peer principle* represents relationships among members without any sense of hierarchy. As peers, no one is viewed as subordinate and all are encouraged to participate in the consumer operated service in ways that best meet their needs and interests. Related to this perspective is the *helper principle*. Individuals as helpers are aides, sharing with peers the strategies and resources that they have found useful in addressing life goals blocked by the mental illness. These kinds of experiences enhance the person's self-efficacy; the person is reminded that he or she is competent in many important social situations because of life experience. The helper principle also augments self-esteem; the person has successful experiences which enhance his or her sense of worth in the community.

Consumer operated services typically assume one of three forms (53). The first is *drop-in centers* (54,55). These kinds of programs offer venues where people with mental illness can come and go without the threats and demands of more traditional outpatient services. A second type of consumer operated services is *peer support and mentoring services* (56,57). One such example is GROW, which has developed a 12-step written program that guides members through various "stages on the way to recovery". The third type of consumer operated services is *educational programs* which seek to teach participants the basic social and coping skills needed for personal success (58). These kinds of programs often have a special focus on advocacy, the skills people need to affect their individual services plan as well as the profile of services in their community (59). Overall, research has shown that the frequency of different kinds of consumer operated services across the US has exploded, with one recent national survey identifying 7467 individual examples (60).

Group identity

As suggested earlier in the paper, another way to influence self-stigma and the "why try" effect is through group identity. People engage in activities that directly implicate their group identity in everyday life, e.g. participate in treatment, mutual-help groups, or mental health advocacy activities. A recent study (21) found a positive correlation between group identification and self-efficacy in people with mental illness. The same study failed to show such a correlation with self-esteem. These are complex relationships, however. In another study (61), group identification did not predict self-esteem or empowerment after controlling for depression, but group identification was negatively related to self-esteem.

Data from other social psychological research support the idea that group identification can be a two-edged sword, in this case, for members of stigmatized ethnic minorities (62). In one study (63), women who received negative feedback on a speech from a male evaluator were subsequently told that the evaluator was either sexist or non-sexist. Women with low gender-identification showed higher self-esteem in the sexist condition, because they could attribute negative feedback to the sexism of their evaluator. However, this did not help highly gender-identified women who showed low self-esteem in both conditions. Therefore, when social identity is a core aspect of one's self-concept, individuals seem to become more vulnerable to stigmatizing threats related to this group identity. In a second study (63), Latin American students were randomly exposed to a text describing pervasive prejudice against their ingroup, or to a control article. In the control group, baseline ethnic group identification was positively related to self-esteem. However, in the group experiencing the stigmatizing threat, group identification was associated with depressed affect and low self-esteem.

Different reasons could explain these apparent contradictions. If people identify with their ingroup and at the same time hold it in high regard, group identification is likely to be associated with high self-esteem. If, on the contrary, an individual holds a negative view of his/her ingroup, strong group identification may lead to lower self-esteem. These positive and negative views may reflect perceived legitimacy (61). In terms of reducing self-stigma and empowerment among persons with mental illness, it is therefore important to acknowledge the risks of identifying with a negatively evaluated ingroup. Instead, the goal should be to build a positive group identity. Only the latter is likely to help individuals overcome self-stigma.

Coming out

Many people with serious psychiatric disorders opt to avoid self-stigma, thereby diminishing the "why try" effect, by keeping their experience with mental illness and corresponding treatment a secret. Choosing to participate in consumer operated services presumes a personal decision about coming out into the public with one's mental illness (64). This may be a narrow decision only letting the handful of people in the consumer operated service know of one's background. Conversely, it may be one small step in being totally out, where the person with serious mental illness broadcasts his/her experiences. Note that coming out may not only include disclosure about one's personal experiences with mental illness, but also about encounters with the treatment system. Knowing that someone takes a "pill for mental illness" can be as stigmatizing as awareness that the person is occasionally depressed.

The costs and benefits of coming out vary based on personal goals and decisions. Hence, only persons faced by these decisions are able to consider the costs, benefits, and implications. Prominent disadvantages to coming out include disapproval from co-workers, neighbors, fellow church goers, and others when they become aware of the person's psychiatric background. In turn, this disapproval leads to social avoidance. Benefits include the sense of well-being that occurs when the person no longer feels he or she must stay in the closet. This is not meant to be an exhaustive list; people are likely to identify additional consequences when individually considering the costs and benefits.

Coming out is not a black or white decision based on the assumption that the person is either out or not. Actually, coming out decisions can be addressed by an array of options. In an ethnographic study of 146 people with mental illness, Herman (64) identified several specific ways in which people might disclose. Based on other qualitative research with mental health advocates (65,66), her work summarized four levels of disclosure.

At the most extreme level, people may stay in the closet through *social avoidance*. This means keeping away from situations where people may find out about one's mental illness. Instead, they only associate with other persons who have mental illness. A second group may choose not to avoid social situations but instead to keep their experiences a secret from key agents. When using *selective disclosure*, people differentiate a group of others with whom private information is disclosed versus a group from whom this information is kept secret. People with mental illness may tell peers at work of their disabilities but choose to not make disclosures like these to neighbors.

While there may be benefits of selective disclosure such as an increase in supportive peers, it is still a secret that could represent a source of shame (20). People who choose *indiscriminant disclosure* abandon the secrecy altogether. They choose to disregard any of the negative consequences of people finding out about their mental illness. Hence, they make no active efforts to try to conceal their mental health history and experiences. *Broadcasting* one's experience means purposefully and strategically educating people about mental illness. The goal here is to seek out people to share past history and current experiences with mental illness. Broadcasting has additional benefits compared to indiscriminant disclosure. Namely, it fosters a sense of power over the experience of mental illness and stigma.

CONCLUSIONS

"Why try" is a complex construct which has been defined here in terms of four interacting processes. It begins as the personal reaction to the stereotypes of mental illness; people who in some way internalize these attitudes. The depth of self-stigma depends on whether people are aware of and agree with these attitudes and then apply the stereotypes to themselves. Such personal applications undermine the person's sense of self-esteem and self-efficacy. These kinds of decrements fail to promote the person's pursuits of behaviors related to life goals. As a result, people with mental illness decide not to engage in opportunities that would hasten work, housing, and other personal aspirations. "Why try" is also useful for understanding how unwillingness to obtain mental health services affects life opportunities.

Alternatively, reactions to stigma may evoke personal empowerment, the self-assurance that these stereotypes are not going to prevent the pursuit of individually-defined goals. Generally, these models of self-stigma are fruitful for understanding change strategies meant to decrease stigma's impact. More specifically, principles of empowerment suggest changes to the person and the mental health system which attack self-stigma and promote goal attainment. These include consumer operated services that encourage the development of personal identity with peers with mental illness. They also include explicit decisions about coming out.

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What is "functional impairment"? Disentangling disability from clinical significance

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The formulation of disability (or "functional impairment") is currently not operationalized in either the ICD or the DSM. In the DSM system, making a diagnosis depends on a conjoint assessment of symptoms and functioning, whereas the ICD keeps the disability construct separate from the diagnosis of mental disorders. We need an internationally agreed conceptualization between ICD and DSM in terms of better operationalization of disease and disability components. No functioning or disability should appear as part of the threshold of the diagnosis in either system.

Key words: Disability, functional impairment, severity, diagnosis, ICD, DSM, ICF

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When "disability" was added to public health measures, which had traditionally focused on mortality, it had a "Cinderella effect" on mental disorders. These disorders had never been put on public health priority lists. However, when "disability" was entered into the equation, as was the case with the disability adjusted life years (DALYs), mental disorders ranked as high as cardiovascular and respiratory diseases, surpassing all malignancies combined, or HIV (1). Using DALYs, the Global Burden of Disease study thus revealed the true magnitude of the long underestimated impact of mental health problems, due to the disability they produce (2).

Disability in mental disorders is a well-known fact for many clinicians, policy makers and researchers, as well as caregivers and persons with mental illness. Yet the form, frequency and outcome of disabilities in mental disorders are not well-defined or studied scientifically. Moreover, their use in formulating diagnoses of mental disorders is both unclear and inconsistent. The World Health Organization (WHO) and the American Psychiatric Association (APA) use the construct of disability very differently in their classification systems. Without focused attention on functioning and disabilities, the current revisions of WHO's International Classification of Diseases (ICD) (3) and APA's Diagnostic and Statistical Manual of Mental Disorders (DSM) (4) will perpetuate divergence in diagnosing mental disorders. This would have the potential to confound international research and clinical care.

In this paper, we propose to define disability operationally and separate it from the disease process in the diagnosis of mental disorders in both ICD and DSM systems.

DIFFERENT FORMULATION OF DISABILITY IN ICD AND DSM

Compatibility of the ICD and the DSM was already a stated goal of the DSM-II in 1968. Since then, the two diagnostic classifications have been developed in parallel. In 1980, the DSM-III was a revolutionary development in operationalizing the diagnostic criteria for mental disorders, a quest which had been made by Stengel already in 1959 (5) and was then adopted in the production of the DSM-IV and the ICD-10. While the phenomenology of mental disorders was operationally defined in line with expert consensus, the formulation of disability (or "functional impairment" in DSM parlance) was not. It was included into the "clinical significance" criterion of the DSM, leaving it open to judgment by clinicians.

As shown in Table 1, the DSM, contrary to the ICD system, makes "clinical significance" an explicit part of the criteria for establishing a diagnosis. Clinical significance has two main components: distress and "functional impairment". Distress is expressed by the subject or his/her significant others in terms of worry, concern, suffering about the condition. Sometimes it may not be expressed or may be explicitly denied. Functional impairment refers to limitations due to the illness, as people with a disease may not carry out certain functions in their daily lives. We operationally equate the "functional impairment" concept with "disability" in the WHO's International Classification of Functioning, Disability and Health (ICF) (6).

Table 1 Operationalization of diagnosis in ICD and DSM

ICD	DSM
Specific phenomenology	Specific phenomenology
Signs and symptoms	Signs and symptoms
No clinical significance required (disability operationally defined in ICF)	*Clinical significance (disability and distress)*
Exclusion rules	Exclusion rules

TERMINOLOGICAL DIFFERENCES AROUND THE SAME CONCEPT

The DSM term "functional impairment" is not specifically defined. It is used to mean limitations in the *social* and *occupational* spheres of life. The DSM-IV-TR also refers to "*other important areas of functioning*", but does not identify them.

The ICF does not use the term "functional impairment". In this classification, the term "functioning" is a neutral one, encompassing all body functions, activities and involvement in life situations. The term "disability" means the decrements to these functions, which are known at the body level as impairments, at the person level as activity limitations, and at the societal level as participation restriction.

The DSM's use of "functional impairment" can be taken to mean ICF's "disability" largely, or activity limitations, narrowly. The DSM's social functioning would include ICF's interpersonal interactions and relationships, but may also include some of the items concerning participation in community, social and civic life. The DSM's occupational functioning would include the activities listed under the ICF's categories of work and employment.

To avoid a confusion, it is useful to note that the impairment of mental functions in the ICF generally corresponds to what is known as signs and symptoms of mental disorders (e.g., consciousness, orientation, energy, sleep, attention, memory, emotions).

THE DIFFERENT ASPECTS OF FUNCTIONING IN THE DSM

There are three major ways in which decrements in functioning are used in the DSM-IV-TR. The first is called "functional impairment", which is described as dysfunction in social and occupational spheres of life, as noted above. Functional impairment is used as a criterion which must be fulfilled in order to render a diagnosis. Although never stated directly, the functional criterion in the DSM implies that a mental disorder must be associated with either distress or disability. As such, it helps establish the "threshold for the diagnosis of a disorder" (4). No guidance is given as to determining the level of disability that would constitute the contribution to the threshold for a diagnosis. It is left open to the clinical judgment of the user, which defies the basic operational approach of the DSM.

The second way functions are used is to determine the level of severity of the diagnosed disorder. The three levels of severity (mild, moderate and severe) include both symptoms and "impairments in social and occupational functioning". Determining the level of severity is a clinical judgment. For example, the DSM-IV-TR's guidance for the "mild" and "severe" includes either "few" or "many" symptoms above the required number and either "minor" or "marked" impairments in social or occupational functioning. "Moderate" is in between. The criteria for mood disorders are somewhat more explicit. Anchors are indicated for mild and severe disability in major depressive episode. Mild disability is addressed as "mild disability or the capacity to function normally but with substantial and unusual effort" (4). Severe disability is characterized as "clear-cut, observable disability (e.g., inability to work or care for children)" (4). The criteria for other mood disorders note different areas of disability, such as social activities and need for supervision, where the amount of supervision provides an anchor for severity (4).

The third way functions are used is to plan treatment, track clinical progress and predict treatment outcome. The Global Assessment of Functioning (GAF) is a 100-point scale used to rate both symptoms (i.e., part of the disease construct) and psychological, social or occupational functioning (i.e., part of the disability construct). Thus, in the construction of the GAF, the constructs of disease and disability are confounded in each other. This entanglement does not allow a separate operational measurement of disability.

In summary, in the DSM system, making a diagnosis (and determining its level of severity) depends on a conjoint assessment of symptoms and functioning. These constructs are never assessed separately.

FUNCTIONING IN THE ICD

The ICD chapter V keeps the disability construct separate from the diagnosis of mental disorders. Disability is a discrete phenomenon that is evaluated separately in a different classification scheme, the ICF, as a complementing member of the WHO family of classifications. The ICF's information on functioning and disability enriches the diagnostic information in the ICD, providing a broader, more meaningful picture of the patient's health, which can be used for better management decisions. This separate assessment also allows studying the association between the disorder and disability by scientific methods.

Nevertheless, difficulties in a person's functioning are occasionally included in the ICD classification of mental disorders. For example, decrements in functioning, such as poor self-care and social performance, are included as part of the description of negative symptoms in residual schizophrenia (F20.5). In this context, it is useful to note that ICD revision efforts will specifically review the diagnostic criteria to cleanly separate disease and disability constructs.

HOW TO DIFFERENTIATE DISABILITY AND SEVERITY?

The issue of disability is confounded by the definition of severity in mental disorders. Usually there is a positive correlation between the severity of an illness and the consequent disability; hence it is easy to fall in this trap. Unless one takes conceptual safeguards to differentiate severity of a mental disorder from the functional limitations that may result, it is not possible to study the interaction between the two. Theoretically, the severity of an illness is dependent on its development, spread, or the depth of dysfunction it causes in body systems. Disability is an outcome of the underlying disease in a given environment, concerning what people can do in terms of activities. For example, the severity of tuberculosis depends on factors such as the virulence of the bacteria, or the spread of the disease in the body, whereas disability depends on whether the patient with tuberculosis can work, go to school or carry out other daily activities.

The severity of a mental disorder is not always clearly and operationally defined in DSM, and is unfortunately confounded with a combination of the symptomatic constellation of the disorder and the limitations in social or occupational functioning. For example, the DSM-IV-TR explicitly states that the level of severity of a major depressive disorder or bipolar I disorder should be coded in the fifth digit. The three levels of severity defined in the DSM-IV-TR, as noted above, are: mild (few, if any, symptoms in excess of those required to make the diagnosis are present, and *symptoms result in no more than minor impairment in social or occupational functioning*); moderate (symptoms *or functional impairment* between "mild" and "severe" are present); severe (many symptoms in excess of those required to make the diagnosis, or several symptoms that are particularly severe, are present, or *the symptoms result in marked impairment in social or occupational functioning*) (4).

If one aims to apply a similar disease construct to both mental and physical diseases, other ways of formulating the severity of mental disorder should be explored. For example, the severity of a physical disease or disorder can be conceived in different ways: a) various thresholds on an indicator (such as mild, moderate or severe hypertension in terms of blood pressure levels); b) staging of the progress or dissemination of a disease (e.g., stage 1, 2, 3 of syphilis; classification of tumors according to the stage of their development); c) degree of complications (such as in latent, manifest and complicated diabetes mellitus).

There may be other or mixed models of severity of a disease. However, functional consequences in terms of what a patient has difficulty to do is a different construct from the severity of the disease, and has to be evaluated separately. Severe forms of diseases usually cause more disability; however, disability emerges from an interaction between the person and the environment. Depending on the context, there may be no disability in a severe disease or some disability in very mild forms of mental disorders. To address this confounding relationship, distinct constructs of disorder/disease and disability have to be operationalized (7-9).

TOWARDS A PROPOSAL FOR A HARMONIZED DISABILITY FORMULATION IN ICD AND DSM

Currently two basic problems exist that require a solution: a) severity of symptoms (to assess the severity of many symptoms, the DSM calls for rating of functioning in a combined fashion; the ICD system, instead, does not call for ratings of functioning or disability to assess symptomatic severity); b) clinical significance of syndromes (the DSM calls for associated disability – functional impairment – as a requirement for the diagnosis of mental disorder; the ICD does not have this criterion and leaves this area to the ICF, which describes how functioning can be rated using qualifiers that connote the degree of the problem).

The DSM-V and the ICD-11 can be made compatible by allowing a separate operational assessment of disability through the DSM's GAF scale and the ICF-linked assessment instruments, such as the WHO Disability Assessment Schedule (WHODAS, 10).

The key question is how to operationalize the ICF constructs in a succinct and clinically relevant way. Several assessment tools based on this classification system may help in identifying key areas of functioning. For example, the ICF Checklist provides the basis for a clinical assessment tool, covering the areas of cognition, communication, mobility, self-care, interpersonal relations, domestic and occupational life activities, and community, social and civic life. When these areas are coded as "present", decrements can either be rated as mild, moderate, severe, or the total number of items can be summed, but the scale does not necessarily yield a cardinal measure of disability. Standardized metric information is needed, and can be gleaned from research conducted with the WHODAS on the population of individuals with mental disorders. A review of clinical experience and research using the ICF Checklist can support a revised set of items and assessment methodology.

As evident in Table 2, the ICF Checklist includes all domains of function/disability of the GAF scale. In the ICF Checklist, the nominal code is 0 for no difficulty, 1 for mild difficulty, 2 for moderate, 3 for severe, and 4 for complete. On a scale of 0 to 100, 0 to 4 percent is interpreted as no problem, 5 to 24 percent

Table 2 Domains of functioning and disability in APA and WHO assessment tools

DSM –IV GAF Scale	ICF Checklist of Activities	WHODAS domains
		Understanding and communicating with the world (cognition)
	Learning and applying knowledge	
	General tasks and demands	
	Communication	
	Mobility	Moving and getting around
	Self care	Self care
Social functioning	Interpersonal interactions and relationships	Getting along with people
	Domestic life	Life activities: Domestic responsibilities, work, leisure
School functioning	Major life areas:	
Occupational functioning	Education	
	Employment	
	Community, social and civic life	Participation in society

is a mild problem, 25 to 49 percent is a moderate problem, 50 to 95 percent is severe, and 95 to 100 is total or complete problem. The scale is calibrated in the opposite direction of the GAF scale, in which 91 to 100 is superior functioning. The GAF scale decile system is not translated into levels of severity such as mild, moderate or severe. The only WHODAS domain that is not consistent with the activities section of ICF Checklist queries about cognition. The items within this WHODAS domain would be assessed by the clinician as part of identifying symptoms of the disorders.

CONCLUSIONS

We need an internationally agreed conceptualization between ICD and DSM in terms of better operationalization of disease and disability components. This can be achieved by starting to use ICF domains in an operational way. In this way, thresholds for each domain of functioning could be better defined.

No functioning or disability should appear as part of the threshold of the diagnosis in either system. A separate rating of the disorder severity (i.e., mild, moderate, or severe), after a diagnosis has been made, would rely on an assessment of the development of the disease, its spread, continuity or any measure independent of disability parameters, so as to avoid co-linearity.

To put mental health in parity with the rest of health care, and integrate mental health to general health information systems, the classifications in mental health cannot afford to continue separate lines of development and should include common models and elements, including common terminology and ontology about signs, symptoms, functioning and other entities. This will create better scientific research which will lead to better assessment of outcomes and comparisons of effectiveness of health interventions.

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Disability and mental illness are different entities and should be assessed separately

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The acceptance of the conceptual position presented by Üstün and Kennedy is of great importance for psychiatry and for medicine as a whole. Disability – whether defined as a functional impairment in terms of the DSM-IV or as a limitation of an individual's activities as is done in the International Classification of Functioning, Disability and Health (ICF) (1) – must be assessed separately and not as a part of the individual's mental illness. It would be wrong to make the diagnosis dependent on the presence or absence of disability. Disability is produced by mental disorder, but it also depends on simultaneously present comorbid diseases or impairments. The latter is becoming a consideration of growing importance. A significant proportion of people with mental illness also suffer from physical illnesses and it is therefore difficult if not impossible to assess to what an extent the disability is caused by the mental disorder and to what extent it is produced by the comorbid conditions.

Disability must refer to the person who suffers from a disease (or diseases), lives in a particular setting, receives a particular treatment and has personality traits that define the way in which he or she will live with a disease. Assets that a person with a disease might have – be it an artistic gift or access to wealth – will also affect the occurrence and severity of disability. The realization that the disability is linked to the person and not to the disease is of significance in developing rehabilitation services, in assessing the levels of support that society will offer to the disabled person and in determining what treatment can be offered if a disease occurs.

Psychopathological findings define diagnosis but must be complemented by other assessments if they are to help in the estimation of "caseness" relevant to the provision of services or the estimation of needs for them. "Caseness" will be defined taking into account the psychopathological findings, the disability and the distress that the individual presents and relates to his or her medical/psychiatric condition. Persons with a particular psychiatric diagnosis can become "cases" for the mental health services when their disability is more pronounced (e.g., because of changes of the environment) or when their distress is enhanced (e.g., by learning about the prognosis of their condition).

In clinical work and for research purposes, the assessment of the presence of a *disorder*, of *disability* and of *distress* must be accompanied by an estimate of their *severity*. The severity of the disease is usually assessed with reference to the numbers and the frequency of occurrence of symptoms, the severity of disability by the type and number of activities in which the individual cannot take part, and the severity of distress on the basis of analogy with states that the distressed individual and the diagnostician both know and have experienced. Severity can be measured as a dimension or as a feature that divides into several operationally defined categories. The same is true for disability and for distress, but not for the psychopathological symptoms, which must have features that make them recognizable as being qualitatively different from normal functioning.

Severity of distress and severity of disability are usually correlated with the severity of the clinical syndrome, but this is not always the case. Distress might be linked to the vision of the future rather than to the level of disability or the severity of the clinical condition. The possibility that a black wart might be a melanoma will cause great distress although there are no limitations of activity and no certainty that the wart contains cells that are malignant or that it will be growing rapidly. The severity of disability might be linked to the severity of the clinical picture, but this is also not so for most of the time a person has a disease – with the exception of the most severe states of the disorder, for example in profound dementia or in a coma. People with a variety of psychopathological symptoms are often living in their community, with little or no limitation of their activity.

The usefulness of the framework presented above for research purposes depends on the possibility of measuring syndromes, disability, distress and their severity in reliable and valid ways. The development of instruments that will help researchers to do this is clearly a major challenge for the ICD and the DSM committees. The usefulness of the same framework for clinical practice will depend on making the need for these measurements explicit and on training practitioners in making the necessary assessments.

Practitioners have used the four dimensions mentioned above in dealing with people who came to ask for their help ever since medicine has been invented. A study of the way in which clinicians are operating may give precious information about their methods of assessment, which, when combined with results of research using valid and reliable assessment instruments, might allow the creation of training programmes that will make the classification of diseases accepted and used as a basis for research and for practice.

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Disability and diagnosis: should role impairment be eliminated from DSM/ICD diagnostic criteria?

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Üstün and Kennedy propose that "no functioning or disability should appear as part of the threshold of the diagnosis" of any disorder. They note that disentangling disability/impairment from disorder would bring the DSM into greater conformity with the ICD. However, the real issue is conceptual: can disability criteria – understood, as in DSM clinical significance criteria, as impairment of social role functioning (not to be confused with psychological dysfunction appearing as symptoms) – be entirely disentangled from diagnostic criteria at this point in psychiatry's history?

In a related vein, Robert Spitzer and I (1-4) have argued that DSM "clinical significance" criteria using impairment generally are not very useful for distinguishing disorder from non-disordered problems in living, because non-disordered problems often entail role impairment. Recent studies tend to support the redundancy of broad DSM-like impairment criteria in both clinical and epidemiologic contexts (5-7).

Despite ICD's explicit goal to avoid using family, occupational and other social role functioning as diagnostic criteria, because they vary cross-culturally, social disability enters into many ICD criteria sets. For example, conduct disorder requires "major violations of age-appropriate social expectations"; reading disorder must "significantly interfere with academic achievement or activities of daily living that require reading skills"; and neurasthenia involves "decrease in occupational performance or coping efficiency in daily tasks". Üstün and Kennedy fail to explain why ICD criteria still contain so many references to disability. They offer no systematic argument that disability and disorder can be fully disentangled.

The absurdity of using disability itself as a sufficient indicator of disorder is readily apparent; how can pathological disability then be distinguished from normal inability? (8). Consider the disability from sleep (one-third of life spent paralyzed and hallucinating), pregnancy, fatigue after exertion, and other normal human limitations; normal variation in traits like intelligence, shyness, and height that disadvantage some; and differences in knowledge, skill, and talent that yield variations in ability to perform social roles. It is not disability but how it is caused that makes it pathological.

Given this absurdity, the logic of DSM regarding potential use of impairment for diagnosis is more troubling than one might suspect and goes well beyond specific "clinical significance" criteria. The DSM's introductory section on the impairment criterion explains: "This criterion helps establish the threshold for the diagnosis of a disorder in those situations in which the symptomatic presentation by itself (particularly in its milder forms) is not inherently pathological and may be encountered in individuals for whom a diagnosis of 'mental disorder' would be inappropriate". Thus, impairment is allowed to change the status of a condition from non-disorder to disorder. Moreover, the DSM explains that one situation in which a condition can be diagnosed under a "not otherwise specified" category is when "the presentation conforms to a symptom pattern that has not been included in the DSM-IV classification but that causes clinically significant distress or impairment". Such symptom patterns include subthreshold conditions with fewer than the usually required symptoms. In sum, the DSM implicitly allows the diagnosis of problematic conditions with few symptoms as disorders based simply on role impairment, contrary to the DSM's own definition of disorder requiring that impairment be caused by internal dysfunction. A corrective of the sort suggested by Üstün and Kennedy is plainly needed.

But the fact that disability does not imply disorder does not mean that disability has no role whatever in diagnosis. According to both the DSM definition of mental disorder and my "harmful dysfunction analysis" (HDA) of the concept of disorder (8,9), a disorder is an internal dysfunction (meaning a failure of a biologically designed function) that causes harm (as socially evaluated). Thus, the HDA proposes that diagnosis has two dimensions: dysfunction and harm.

Consequently, disability can legitimately appear in diagnostic considerations for two reasons. First, it can constitute harm. Generally, the direct symptoms of dysfunction will be harmful enough, but there are instances of disorder in which role impairment is the only type of harm and must be cited to establish that there is a disorder.

This points to a basic fallacy: Üstün and Kennedy appear to assume that a disorder is equivalent to the underlying dysfunction. However, even an internal dysfunction that is biologically pathological is not a medical disorder unless it causes harm. For example, benign angiomas are genuine dysfunctions, yet not medical disorders because there is no harm. All individuals have many such biological flaws that are not medical disorders due to lack of harm. Thus, role impairment sometimes is needed to determine whether a dysfunction is harmful and thus to distinguish disorder from non-disorder.

Second, sometimes there is no independent way to establish that there is a dysfunction versus a non-disordered problem of living other than by social impairment. One such situation is when a role capacity is itself biologically shaped, so failure of the social function implies biological dysfunction. For example, when social phobia occurs when interacting with family members, such basic functions as parenting and sexual interaction are compromised. This is simultaneously role impairment and biological dysfunction.

Another such situation is when role failure, though itself not a biological dysfunction, is the only way to infer that there is an underlying dysfunction. For example, reading is an invention, and its failure is a failure of a social function nonexistent in preliterate societies. Nor is inability to read – illiteracy – considered a disorder. But often it is only from the failure to learn to read despite opportunity that we infer that the inability is due to underlying dysfunction. Because that unknown dysfunction has no other harmful effects, we must cite the social impairment of failure to learn to read as a key to diagnosis.

In sum, there are reasons to support Üstün and Kennedy's general thrust to attempt *to the degree possible* to separate role impairment from diagnostic criteria. But Üstün and Kennedy fail to consider adequately the multifaceted conceptual relations between diagnosis and disability, which are illuminated, I have maintained, by the harmful dysfunction analysis's two-dimensional account of disorder in terms of dysfunction and harm. I conclude that Üstün and Kennedy's proposal to totally disengage impairment from diagnosis is unrealistic at this stage in psychiatry's development as a science. In terms of validity of criteria, a category-by-category conceptual analysis would be preferable to their blanket approach.

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DSM-V perspectives on disentangling disability from clinical significance

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Üstün and Kennedy provide a cogent argument for the DSM to reflect a clearer conceptualization of mental disorders and associated impairments, activity limitations, and participation restrictions.

Setting thresholds for caseness has long been important to researchers and policy makers who have interests in distinguishing people with mental disorders from those who are suffering transient symptoms and expectable reactions to the stresses of everyday life. The ubiquity of the latter conditions makes this distinction of crucial importance for the identification of homogeneous research samples and for the allocation of scarce resources for mental health services. Clinicians, particularly those in primary care settings, are also frequently confronted with routine emotional and behavioral complaints that raise the question "treat or don't treat?". The importance of accounting for distress and impaired functioning in daily activities when determining caseness has always been an underlying concern for clinical and health policy decisions, although not one clearly articulated.

The DSM definition of "mental disorder" has contained the concepts of distress and limitations in activities since the release of DSM-III. DSM-III also implicitly dictated that careful specification of symptom criteria for each disorder would suffice in establishing a disorder threshold; that is, the combinations of symptoms specified for each disorder would be inherently distressing or disabling. However, higher than expected rates of people with disorders were found in community studies, leading to concerns about a "false positive" problem with the symptom criteria (1).

The solution arrived at by the developers of DSM-IV was to add a "clinical significance criterion" to many DSM mental disorder criterion sets. This criterion specified that the person with a mental disorder had to display clinically significant distress or impairment in social, occupational, or other important spheres of daily functioning. As noted by Üstün and Kennedy, this path was not taken by the developers of the mental disorders chapter of ICD-10, who produced the International Classification of Functioning, Disability and Health (ICF, 2) to classify disabilities, with the intention of keeping the symptom syndrome and the associated activity limitations separate.

Subsequent research did show that clinical significance-like specifiers reduced the community rates of DSM mental disorders and identified persons more likely to be using mental health services or having more severe symptoms (3). However, the problems with the DSM's handling of disabilities, including the clinical significance criterion and the Global Assessment of Functioning (GAF), were many. These problems are well stated by Üstün and Kennedy. First, the concept of "clinically significant distress or impairment in functioning" is not defined and the terminology is not consistent with the World Health Organization (WHO) standard. The GAF is not a "clean" scale, mixing as it does symptom severity, social functioning, and assessments of dangerousness. The DSM symptom criteria themselves are confounded with activity limitations, apart from the clinical significance criterion. Finally, the operationalization of syndrome severity is inadequate. These limitations have substantial consequences for research and clinical assessment of mental disorders.

In our own criticisms of DSM-IV, we are in substantial agreement with Üstün and Kennedy. We are also in agreement that the problems need to be fixed, and the DSM-V Work Groups are taking steps to do so. A study group has been formed to address the problems and to identify possibilities for restructuring the forthcoming DSM-V to create greater consistency with ICD-11 and the ICF. We are moving to standardize our terminology and better define and operationalize the concepts of severity, disability, distress, and so forth. This could require a significant re-orienting of clinicians – American clinicians, specifically – to a different way of thinking about mental disorders.

Although the ICF is an official WHO classification, its usage in the United States is limited, and it has not been adopted as an official code set. Apart from the widespread unfamiliarity with ICF terminology, the complexity of the classification system may prove daunting. Specification of key domains of activity limitations for persons with mental disorders, with a corresponding global assessment tool, as suggested by the authors, would go a long way in promoting acceptance of disability assessment in the DSM.

We are also taking steps to separate activity limitations from symptom descriptions. Consistent with the authors' suggested solutions, the incorporation of dimensional measures of symptoms into the diagnostic assessment process will help differentiate symptom/syndrome severity from disability by focusing specifically on symptom ratings of frequency, intensity, and/or duration. The Patient Health Questionnaire (PHQ-9) (4) for depression, for example, is a brief empirically-validated, DSM-IV-derived measure that has demonstrated good acceptability in primary care and psychiatric settings for assessing diagnostic threshold, planning treatment, and tracking outcomes (5). Similar measures have been developed for anxiety and somatic complaints. Planned development of DSM-V clinical diagnostic interviews and lay interviews for epidemiologic surveys will also need to attend to improving assessments of symptom severity and disability.

However, this exercise is somewhat dependent on the extent to which the symptom criteria themselves are already liberated from elements that are better seen as activity limitations. Contrary to Üstün and Kennedy's assertion, this is not a minor issue limited to occasional disorders such as residual schizophrenia. The DSM-IV and the ICD-10 criteria for research both have many examples of activity limitations serving as symptoms. In the ICD-10, personality disorders, substance dependence, hyperkinetic disorders, and conduct disorder all have substantial components of activity limitations in their symptom criteria. It is unclear at this point whether symptom criteria for these disorders can be fully "cleansed" of their activity limitations components. Ideally, more specific assessments would target the impaired mental processes that underlie these activity limitations. The development and implementation of such assessments will depend largely on the state of the existing science and technology as well as the practical limitations of implemention in routine clinical settings.

The views of Üstün and Kennedy are neither radical nor revolutionary, but reasonable. They reflect the progress in our field and continued efforts to unify psychiatry in the United States with all of medicine and with the rest of the world. We look forward to further cooperation with WHO as the next steps in the development process are taken.

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Disentangle diagnosis and disability

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Üstün and Kennedy argue that the DSM system should be made more compatible with the ICD system, specifically that the "functional impairment" criterion for DSM diagnoses should be removed. They make a compelling argument and raise at least two important issues. First, should "functional impairment" and "disability" be included among diagnostic criteria for mental disorders as they are in the DSM, but not in the ICD? Second, how can we make the DSM and ICD compatible on this issue so that there is international consistency for the classification of mental disorders as there is for other medical disorders? Their essay focuses on some of the technical aspects of defining and measuring "functional impairment", "disability" and "severity", and the option of aligning the Global Assessment of Functioning (GAF) from the DSM with the International Classification of Functioning, Disability and Health (ICF) associated with the ICD.

Why have we felt the need to confound diagnosis and functional impairment in the DSM in the first place? This reflects our struggles, at least on one side of the Atlantic, with the state of differentiating mental illness from normal variations in human mental processes and behaviors. When are hallucinations, sad mood or obsessive thoughts pathologic? Presumably this has occurred in the DSM because of anxiety that without the requirement of "clinical significance" the door could be opened to substantial unnecessary mental health care utilization for subsyndromal disorders that do not reach clinical significance.

Of course, it is essential to ensure that valuable health care resources are utilized in an efficient and essential manner for conditions that indeed affect the health of individuals. However, the DSM solution may be worse that the problem. While there is undoubtedly unnecessary mental health care utilization, we know that by far the greater problem is underutilization. Over half of persons who meet criteria for a mental disorder receive no care (1). The inclusion of "clinical significance", and more specifically "functional impairment", in the diagnosis creates an illusion of greater diagnostic certainty than is needed in order to "eliminate" those who have sub-clinical syndromes from accessing care. Most such persons are *de facto* eliminated by personal choice or by lack of access to services.

This approach has major problems. It severely restricts our capacity to intervene in a preventative manner with those who are experiencing early signs of, or are at risk for, impending mental illness. As Üstün and Kennedy point out, this approach is contrary to that in other areas of medicine. The current DSM system is analogous to not intervening to treat hyperlipidemia, borderline high blood pressure, or borderline hyperglycemia until the sequelae of these risk factors become apparent as overt, symptomatic, or disabling cardiovascular and renal disease.

The issue of risk factors raises a second point. The ultimate goal of health care is to reduce avoidable morbidity and mortality. There is an inherent circularity to inclusion of morbidity (i.e., functional impairment) as a diagnostic criterion since it means that some morbidity already has to occur to make the diagnosis. Hence we are left with the option of reducing existing morbidity rather than preventing it in the first place. This is akin to treating hyperlipidemia only after the onset of angina or a heart attack. It blocks the way to prevention and treatment for prodromal states. It also impedes research into risk factors for development of disorders as well as disability.

In order to move to a diagnostic system that enables us to study as well as intervene with risk factors and subsyndromal conditions, we need to make the changes that Üstün and Kennedy propose.

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Clarifying the relationship between symptoms and disability: a challenge with practical implications

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Conceptually separating symptoms from disability, as proposed by Üstün and Kennedy, is not an issue confined to the rarified atmosphere of psychiatric nosology. The confusion that arises from the blurring of these concepts has practical implications. I discuss here two examples, one in service delivery and the other in population health.

In service delivery there has been, and continues to be, a major debate around the delivery of treatment and care for those individuals with severe mental illness living in the community. We understand the key elements of a comprehensive community service (1), but the failure to deliver these in an integrated, accessible way leads to poor patient outcomes and service failure. This then runs the risk of governments explicitly or implicitly moving to re-institutionalize patients (2), arguably in the belief that treatment and care can be better delivered in institutions. Community mental health services are often provided by agencies with different practice philosophies and professional languages. In many countries, government and private health care providers deliver the clinical treatment services, while different government and non-governmental agencies deliver the disability support and rehabilitation services. The lack of clarity between symptom reduction (arguably the aim of treatment services) and services to help individuals overcome the impairment arising from symptoms (arguably the aim of the disability services) leads to service delivery dysfunction. Where there is clarity about the focus of each service element, there can be better integration and consumer outcomes (3,4). In my experience, a key issue in achieving this is for professionals and agencies to better understand the interface and interdependence of treatment and rehabilitation/support services. This understanding would be greatly helped if the clarity proposed by Üstün and Kennedy existed in our classificatory systems.

In population health, a major challenge is to determine priorities for health funding. Until the mid 1990s, priorities were often determined by mortality rates and the effectiveness of disease advocacy groups (5). Apart from mortality, it was hard to find objective measures that allowed the magnitude of different diseases to be compared. The prevalence of the disease did not allow this: how can you objectively determine if the impact of one hundred people having diabetes is more or less than the impact on fifty people from depression? As Üstün and Kennedy point out, the Global Burden of Disease (GBD) Study (6) estimates disease burden by combining the years of life lost through premature mortality (YLL) and the years lived with disability, weighted by the severity of the disability (YLD), into a disability-adjusted life year (DALY). Burden of disease estimates have been particularly influential in priority setting of governments, the World Bank and the World Health Organization. Mental disorders and drug use disorders have benefited from this, having been shown to be major contributors to disease burden (7).

To determine the YLD component of the DALY, it is necessary to estimate parameters such as incidence, prevalence and duration. Once we know how long a person spends with the disorder, it is necessary to determine the extent to which the disorder disables the person. In GBD, this is done through specific health state descriptions, which are then assigned a disability weight on a scale from 1 (equivalent to death) to 0 (equivalent to perfect health). The value choices that underpin disability weights have been the subject of some criticism (8).

The new Global Burden of Disease study currently underway (9) includes work to revise the methodology used to determine disability weights. While it is beyond the scope of this paper to comment on the challenges of turning health state descriptions into disability weights, one problem that we are working to overcome in the GDB study is that symptom severity has been seen as equivalent to disability (8). As Üstün and Kennedy point out, there is a positive correlation between severity and consequent disability, but they are not the same thing. The call by Üstün and Kennedy for better conceptual clarity between symptom severity and disability in our classificatory systems is welcome.

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Is distress a symptom of mental disorders, a marker of impairment, both or neither?

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In discussing the virtues of disentangling assessments of functional impairment from the diagnostic criteria for mental disorders, Üstün and Kennedy have not considered "distress" – a concept without any clear definitional boundaries that is, nevertheless, used widely in the DSM system and, to a lesser extent, in the ICD system.

In the majority of cases, distress is matched with functional impairment: DSM-IV criteria for most depressive disorders, anxiety disorders, personality disorders, sleep disorders, somatoform disorders and some other disorders require the presence of either functional impairment or "clinically significant distress" (in some diagnoses labeled as "marked distress"), and ICD-10 criteria for several diagnoses (e.g., obsessive-compulsive disorder (OCD), hypochondriasis, sleep disorders, personality disorders) also require either functional impairment or distress. Assuming it will be possible to convince clinicians and researchers to carve out functional impairment from diagnostic criteria – a process that will be more traumatic for some disorders than others – a subsequent problem will be to decide what to do with "distress" in the proposed integrated DSM-ICD diagnostic schemata. The options include jettisoning the concept entirely, making distress a required stand-alone symptom for these disorders, or integrating distress into the assessment of functional impairment.

Some writers (1,2) argue that distress is a transient phenomenon related to specific stressors that subsides when the stressor disappears or as the individual adapts to the stressor. However, if the experience of distress is far in excess of what is culturally appropriate or persists well after the termination of the primary (or secondary) stressor, then it is considered part of a pathological psychological process and should be seen as a marker of a mental disorder (1). These authors argue that failure to discriminate these two situations leads to medicalization of normal responses to stress (2,3). However, reliably making this distinction between "normal" and maladaptive distress can often be quite difficult, because it requires detailed information about the stressors affecting the individual and about "appropriate" responses to such stressors for persons of the same age, gender and educational level in the individual's sociocultural environment.

The DSM-IV attempts to eschew social causation of symptoms (with a few notable exceptions, such as post-traumatic stress disorder and adjustment disorder), so there are no criteria for determining when distress becomes "clinically significant". In practice, this usually hinges on an assessment of the degree of impairment produced by the distress, not on the "inappropriateness" of the distress. Based on this conceptualization of distress, the danger of medicalization of normal responses, the difficulty of discriminating normal and maladaptive distress, and the probable substantial overlap between functional impairment and "clinically significant distress" as operationalized in the DSM, suggest that little would be lost if the term "distress" was completely removed from the diagnostic criteria.

Other authors (4) argue that distress is an underlying component of anxiety and depression that is not transient and not normal, an interpretation that is more consonant with the usage of distress in the DSM and ICD systems. But there are substantial differences in the treatment of distress between the two diagnostic systems, and inconsistencies in the use of distress between different diagnoses within each system. In DSM-IV distress is an important indicator of the severity of depressive disorders (co-equal with functional impairment), but in ICD-10 distress is not considered in the diagnosis of depressive disorders (other than as one of the "non-diagnostic symptoms" for other depressive episodes). In the DSM-IV criteria for phobias and OCD, distress is both a marker of severity (co-equal with impairment) *and* given equal status with anxiety as a cardinal characteristic of the core symptoms (e.g., the recurrent thoughts of OCD must cause "marked anxiety or distress"); in ICD-10 "emotional distress" is a required, stand-alone symptom for phobias (*not* matched with impairment) and a marker of severity of OCD (co-equal with impairment), but is not mentioned as a characteristic of the core symptoms of either phobias or OCD. In the ICD-10 criteria for somatoform disorder, "persistent distress" leads to repeated care-seeking but this is not mentioned in the DSM-IV criteria. Separation anxiety disorder must include "recurrent excessive distress" (DSM-IV) or "excessive, recurrent distress" (ICD-10) about separation.

These examples show that both diagnostic systems use distress as a stand-alone symptom, as a qualifier of other symptoms and as a general measure of severity; but neither the DSM-IV nor the ICD-10 provides a definition of the term, so there can be a wide range of interpretations of the corresponding diagnostic criteria. The frequent use of various qualifiers for distress in the diagnostic criteria ("clinically significant", "marked", "excessive", etc.) suggests that distress is construed as a dimensional construct that is being truncated to be employed as a categorical diagnostic criterion, but the diagnostic systems do not assess the degree of distress and do not provide further clarification about the cut-off between distress that is and is not diagnostically important.

The potential removal of functional impairment from the diagnostic criteria brings the non-specific and inconsistent usage of distress in DSM-IV and ICD-10 into a much clearer focus, because the most common current usage of distress is as a co-equal measure of severity with functional impairment. There have been a wide range of definitions of distress in the literature (4), but there is still no general consensus and it is unlikely that one will emerge in the foreseeable future. Thus, if DSM-V and ICD-11 intend to maintain the term, an unambiguous operational definition that clearly distinguishes distress from depression and anxiety needs to be included in the glossary, and a method for rating the severity of distress must be developed.

If it is not possible to develop a unique, non-overlapping operational definition of distress, I would recommend dropping distress entirely from the diagnostic criteria and from the assessment of functional impairment. If it is possible to develop such a definition, I would recommend using distress as one of the dimensional components of the functional impairment assessment for all disorders (i.e., not part of the diagnostic criteria) and, perhaps, as a required or optional symptom for some specific diagnoses.

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The incorporation of the disability construct as an independent axis in the DSM-V and ICD-11 diagnostic systems

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Üstün and Kennedy's paper comprehensively discusses the relevance of including functioning or disability in mental health diagnostic and evaluation processes, as well as examining the different formulations of this construct and its evaluation in ICD and DSM. The authors reach the conclusion that, whereas no functioning or disability should appear as part of the threshold of diagnosis in the planned revision of either system, an international consensus between ICD and DSM is needed regarding the construct and its assessment.

Several key issues arise here. The first is whether the concept of disability should be considered important to mental health; the second is whether relevant indicators of disability ("functional impairment", in DSM terminology) should be included in ICD and DSM as independent criteria for the diagnosis of psychiatric disorders; and finally, whether we have reliable and cross-culturally valid assessment instruments for evaluating this construct.

It is generally accepted that disability represents a construct relevant to mental health, with important implications for the categorization of the clinical course and outcome of mental disorders (1). Moreover, there is sufficient evidence to argue that this construct should be taken into account in the planning of interventions (2), and in the evaluation of treatment response and outcome (3). Thus, it appears that functional impairment should be built into the configuration of an appropriate diagnostic and classification system of mental disorders.

The authors describe the differences in how disability has been incorporated into the ICD and DSM systems. To address these discrepancies, several key decisions have to be made in the ICD and DSM revision process: a common, cross-culturally valid conceptual model of disability has to be developed; it has to be decided whether the construct of disability has to be integrated as a criterion for the diagnosis of mental disorders or as a dimension to be used for the description of relevant clinical issues; and compatible and cross-culturally valid instruments for the assessment of the construct have to be selected.

Fortunately, the new model of disability adopted in the International Classification of Functioning, Disability and Health (ICF) has proven to be valid and cross-culturally applicable (4). Thus, this model is ready for inclusion as a conceptual framework of disability in the ICD-11 and DSM-V. The ICF could be used as a guide for the incorporation of functional impairment in the new classificatory systems, and subsequently for the development of appropriate assessment instruments.

Having agreed on the disability model to be included in the revised versions of ICD and DSM, the issue is how the construct should be integrated into these diagnostic systems. We have to consider that the potential inclusion of a clinical feature within the diagnostic criteria is dependent on its property of enriching the diagnostic concept of the disorder, and of contributing towards a more precise delimitation between normality and pathology, and amongst different disorders. Thus, the key issue is the feature's ability to reduce diagnostic overlaps, and to achieve both a better differential diagnosis and a more powerful prognostic differentiation.

In the case of disability, we see that it does not have clear specific features for the different psychiatric disorders. Furthermore, it is doubtful whether functional impairment is sensitive and specific when comparing healthy controls with mentally ill patients, and especially when comparing patients with different mental disorders. An additional reason for not incorporating disability as a diagnostic criterion is the lack of precise correlation between the severity of psychiatric symptoms and the intensity of functional impairment, and the fact that functional impairment often appears as one of the first manifestations of the illness, and persists after the symptoms have resolved. Thus, we agree with the authors' opinion of not including functioning and disability as diagnostic criteria in either system.

The proposed alternative of relying for the evaluation of disability on an independent specific system such as ICF has many operational limitations. Our view is that the construct of disability should be included in the two systems as an independent axis. We think, in this respect, that by including a complementary specific disability axis we would provide a focal point for the attention of clinicians and stakeholders. This would hasten the implementation of treatments targeting these impairments, and would also help to increase our knowledge of these impairments, to develop more refined assessment instruments, and to increase our knowledge regarding the risk factors and aetiology of disability.

An additional critical point raised by Ustün and Kennedy is the need to incorporate into the revised diagnostic systems a cross-culturally valid evaluation strategy. The DSM disability scale lacks a clear conceptual model; its psychometric properties have not been sufficiently verified in cross-cultural studies; and it combines in a single dimension the evaluation of symptoms severity and of functional impairment (3,5). On the other hand, the evaluation instruments included in the ICF and the WHO-DAS-II (6), although addressing most of the problems identified for the DSM disability assessment instrument, still have the inconvenience of not having been specifically designed for satisfying all the requirements of day-to-day clinical mental health practice.

Thus, our view is that the revised versions of both DSM and ICD should incorporate a new compatible assessment instrument for the evaluation of disability. This instrument should ideally be able to adequately assess the key dimensions of the construct in different cultures and clinical settings, and also for the various degrees of illness severity. Furthermore, it should be sensitive to small changes in behaviour that may produce significant shifts in social functioning.

In summary, from the perspective of functional impairment and disability, the ICD and DSM revision process should ideally consider the feasibility of: a) including a common model for the definition and description of disability; for this purpose, the one established in the ICF appears the most suitable; b) reviewing the different diagnostic criteria to separate the disability components from the disease and severity indicators; c) defining a disability axis, independent of clinical symptoms and severity and with the relevant dimensions defined in ICF; d) adapting, and if needed developing, valid and trans-culturally applicable assessment instruments capable of assessing the dimensions defined on the disability axis, in the different mental disturbances, levels of severity, and clinical settings.

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Functional impairment can have different meanings

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Bedirhan Üstün and the World Health Organization (WHO) group have done the most sophisticated research on the assessment of disability as an integral part of psychiatric classification. As they note, the concept of disability adjusted life years (DALYs) changed the view of psychiatric disorders. Mental illness as compared to serious medical illnesses appeared high on the list of DALYs because mental disorders begin early in life and do not result in early mortality, so that the number of years lived with the disorder is often quite long, resulting in many more DALYs. The high rate of DALYs for psychiatric disorders, demonstrated across the world, has had a profound effect on thinking about psychiatric illness and has made the assessment of functional impairment and disability important in any psychiatric classification system.

In this paper, the WHO group proposes to unify the measurement and collection of data on disability between the DSM and the WHO's International Classification of Functioning, Disability and Health (ICF). I agree with the importance of unifying these systems and also with developing operational criteria for making the assessments.

The authors state that the concept of functioning is a neutral one, encompassing all decrements to body functions, activities, involvement in life situations which are known at the body level as impairment, at the personal level as activity limitation and at society level as participation restrictions. The authors point out that there is similarity between ICD and DSM in the operationalization of diagnosis. The notable exception is that ICD does not require clinical significance to make a diagnosis but requires the ICF operational criteria of disability as a separate domain.

The DSM-IV Global Assessment of Functioning (GAF), the ICF checklist and the WHO Disability Assessment Scheduled (DAS) all include measures of social functioning which are comparable, such as interpersonal interactions, getting along with people, and occupational or school functioning. These areas can easily be translated across domains and also have relevance cross-culturally.

I would question using items like learning and applying knowledge or communication, which are absent from the GAF, as part of functioning and disability criteria. These items are related to education, income and IQ. Their inclusion in an assessment of disability may confound functioning with education.

Bedirhan Üstün suggests that the ICF domains need to be operationalized and I would strongly agree, as similar domains may still have different interpretations. Several years ago, we were asked to compare three functioning scales in a primary care study (1). All three of these scales (the Medical Outcome Study, 36-item Short Form Health Survey, SF-36; the Social Adjustment Self-Report, SAS-SR; and the Social Adaptation Self Evaluation Scale, SDSS) measure work functioning. All scales, when applied to patients in a primary care study, were able to differentiate between psychiatrically ill and well people. However, the correlations between the scales were modest even in the areas covering similar domains. A comparison of the questions included in the scales showed how the approaches to work assessment differed. The SAS-SR assesses the actual number of days lost, the effective performance and interpersonal relationships on the job, whereas the SDSS emphasizes interest and motivation, and the SF-36 asks about problems with work. While each of these scales covered the area of assessment of work, their approaches to work functioning were quite different. We recommended that investigators selecting a functional status assessment instrument carefully review the content of each scale and, if a broad range assessment is very critical, use more than one scale.

In conclusion, I would agree fully with Bedirhan Üstün and the WHO's recommendation that functional impairment be assessed separately from symptoms. It will be useful to have this assessment similar across the different diagnostic systems. Considerable attention needs to be paid to the comparability of the questions in each of the domains.

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Factors that influence functional impairment and outcome of mental illness

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Üstün and Kennedy's article raises a number of issues that frequently occupy the mind of the practicing psychiatrist.

There are many instances in which mild disorders cause severe disability, while at other times severe disorders do not seem to cause much functional disability. A common occurrence in clinical practice is when a patient with what seems like schizophrenia that is not severe gradually deteriorates in his ability to manage his affairs without any discernible worsening of the clinical symptoms. In this case, there is a marked disconnect between the severity of the disorder and that of the attendant social and functional disability.

In seeking to get a greater understanding of these two concepts, other complicating but relevant and important factors quickly come into play. Cultural and social environment give an example of how a mild condition with severe disabling consequences in one environment can have minimal disabling consequences in another environment. In the typical rural, nomadic lifestyles of the semiarid pastoral communities of Eastern Africa, powerful systems of social support exist, that enable persons with moderate to severe disease to exist within the community without much evident disability (1). In contrast, the same severity of mental disorder would have devastating consequences and manifest as severe disability in urban and periurban slums in big African cities, where social support systems do not exist, and where urban poverty, crime, and poor infrastructure conspire to ensure that survival is only for the fittest. African urban life would thus make disability more evident in such cases.

Treatment or lack of it has a similar though not the same effect. Severe but treated mental illness can end up with minimal disability, while mild but untreated disorder could have the opposite effect. Access to available medical care is a complex subject and is not simply a function of the availability of service. Stigma, education and distance from the service are but a few of the many factors that come into play (2).

In many cultures, mental illness remains the subject of great stigma and shame (3). In places where patients with the mildest of disorders are hidden from sight to avoid the shame of such conditions, the disability would seem to be out of proportion with the severity.

Another factor that often makes mild disorders have features of great disability is lack of care or treatment. Persons without social or family support drift to the fringes of society without necessarily being severely ill, but become disabled in the sense of being unable to cope with the demands of family living.

Attention-deficit/hyperactivity disorder (ADHD) is a common mental disorder (4) that in clinical practice displays the great contrast between severity of disorders and the magnitude of disability. Procrastination is a common symptom of ADHD. In some cases it assumes great prominence as it interferes with role performance, including, in young people, educational achievement, professional qualifications, and involvement in relationships that could lead to marital unions. Such individuals appear superficially well, but over a period of adult life become severely disabled and incapable of independent life, and in need of care and protection.

In the process of conceptualizing disability in relation to clinical severity, there are instances where severe mental disorder does not (as in the above example) lead to significant functional impairment. Morbid jealousy (5) is a ready example of a disorder of great severity but in some cases with unimpaired social and occupational function. The sufferer is completely disabled in one sphere (marriage), but functions completely well in others such as work. Clinicians describe instances where a man will set up very elaborate spying networks to catch a cheating wife, will spend much money and energy to catch her in the delusional belief of infidelity. Many such men, at least in the early stages of the disorder, do not display any form of functional impairment, in spite of suffering a highly significant clinical disorder which, if untreated, could lead to loss or the murder of a spouse.

Anorexia nervosa remains a very controversial subject in Africa (6). The available evidence seems to suggest that it is a rare disorder among indigenous African populations. Genetic, environmental, and cultural explanations have been put forward to explain this observation (7). The situation in Europe and America is the opposite, with great disability visiting millions of young women, who in the view of the Africans "simply refuse to eat food". Viewed from this perspective, one begins to understand how a disabling condition in one continent can have little or no significance in another.

The efforts to define disability operationally and separate it from the disease process faces other challenges. In the 21st century, millions of people work and live in countries other than where they were born. Some migrate for political, economic or security reasons. The case of the Somali people is a good example of a people without a home in the ordinary sense, and who are now geographically spread across the world, in East Africa, Europe and America.

The demands placed on such immigrants by a new language, technology, weather and the simple fact of being "alien" generate further mental health challenges in those with mild or even severe mental illness. Being a new immigrant in itself places an additional burden on an individual, making what would be mild disability at home become severe disability in the adopted home. Compilations of data on disability among immigrant communities must remain cognizant of this reality.

Clinicians come across severely functionally disabled men and women who in their countries of origin functioned as professionals in law, medicine, engineering and other fields. In these cases, severe disability is as much a function of the disease process as it is a function of all those factors that created the refugee status.

Any future systems of classification must attempt to address all these issues, and state clearly the limitations posed by the many variables at play in any clinical or research situation.

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The prevalence and correlates of DSM-IV disorders in the Iraq Mental Health Survey (IMHS)

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Data on the prevalence and correlates of anxiety, mood, behavioral, and substance disorders are presented from a 2007-8 national survey of the Iraq population, the Iraq Mental Health Survey (IMHS). The IMHS was carried out by the Iraq Ministry of Health in collaboration with the Iraq Ministry of Planning and the World Health Organization (WHO) World Mental Health (WMH) Survey Initiative. Interviews were administered to a probability sample of Iraqi household residents by trained lay interviewers. The WHO Composite International Diagnostic interview (CIDI) was used to assess DSM-IV disorders. The response rate was 95.2%. The estimated lifetime prevalence of any disorder was 18.8%. Cohort analysis documented significantly increasing lifetime prevalence of most disorders across generations. This was most pronounced for panic disorder and post-traumatic stress disorder, with lifetime-to-date prevalence 5.4-5.3 times as high at comparable ages in the youngest (ages 18-34) as oldest (ages 65+) cohorts. Anxiety disorders were the most common class of disorders (13.8%) and major depressive disorder (MDD) the most common disorder (7.2%). Twelve-month prevalence of any disorder was 13.6%, with 42.1% of cases classified mild, 36.0% moderate, and 21.9% serious. The disorders most often classified serious were bipolar disorder (76.9%) and substance-related disorders (54.9%). Socio-demographic correlates were generally consistent with international epidemiological surveys, with the two exceptions of no significant gender differences in mood disorders and positive correlations of anxiety and mood disorders with education. Only 2.2% of IMHS respondents reported receiving treatment for emotional problems in the 12 months before interview, including 23.7% of those with serious, 9.2% with moderate, and 5.3% with mild disorders and 0.9% of other respondents. Most healthcare treatment, which was roughly equally distributed between the general medical and specialty sectors, was of low intensity. Further analyses of barriers to seeking treatment are needed to inform government efforts to expand the detection and treatment of mental disorders.

Key words: Mental illness, epidemiology, Iraq, World Mental Health Surveys

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There is an extensive literature on the mental health consequences of deployment in Iraq for US and UK armed forces (1,2) and their families (3,4). Yet, virtually nothing is known about the mental health of the Iraqi population, with the exception of some research documenting high rates of psychopathology among Iraqi children (5) and asylum seekers (6). Good reasons exist to believe that mental disorders are common in the Iraqi population. First, torture was common in Iraq for at least three decades before the March 2003 invasion, with surveys suggesting that up to 50% of households in some areas had a relative who was tortured (7). Epidemiological research shows clearly that torture victims have high rates of mental illness (8). Second, the mortality rate in Iraq increased substantially since the March 2003 invasion, although estimates of the magnitude of this increase vary widely (9-11). Epidemiological research shows clearly that exposure to mass violence and death is associated with high rates of mental illness (12). Third, Refugees International estimates that more than 1.5 million of the roughly 25 million pre-invasion citizens of Iraq are now internally displaced by the war and another 2.5 million living as refugees in neighboring countries (13). Epidemiological evidence shows clearly that this kind of mass displacement is associated with high rates of mental illness (14). Fourth, many Iraqis continue to live in a climate of fear of violence and associated disruptions to daily activities that could have adverse effects on their mental health.

In an effort to obtain basic descriptive data on the prevalence and correlates of mental disorders in the Iraqi household population for treatment planning purposes, the Iraq Ministry of Health, in collaboration with the Iraq Ministry of Planning and the World Health Organization (WHO), carried out a national mental health needs assessment survey in conjunction with the Iraq Family Health Survey (9). This Iraq Mental Health Survey (IMHS) was implemented as part of the WHO World Mental Health (WMH) Survey Initiative, a series of nationally representative mental health needs assessment surveys in 28 countries that use consistent measurement and field procedures to generate valid cross-national comparative data (15). The current report presents the first results from the IMHS.

METHODS

Sample

The IMHS is a nationally representative survey of 4,332 adults (18 years +) carried out simultaneously with the Iraq Family Health Survey (IFHS). Both surveys were completed in 2006-7 under the direction of the Iraq Ministry of Health, the Iraq Central Organization for Statistics and Information Technology (COSIT), the Ministry of Health of the Kurdistan region (MoHK), and the Kurdistan Regional Statistics Office (KRSO). Both the IFHS and IMHS were administered face-to-face in a nationally representative sample of the Iraqi household population. The IMHS was administered in the central and southern governorates during August and September, 2006, in Anbar during October and November, 2006, and in the Kurdistan region during February and March, 2007. The IMHS response rate was 95.2%.

The sample for the IMHS was a subset of the block-level sample segments used in the IFHS. Iraq was divided into 56 different strata for purposes of selecting this initial sample. These strata were made up of three in each of the 17 governorates outside of Baghdad (metropolitan, representing the governorate capital; other urban area outside the capital; and rural area) and five in Baghdad (three parts of the city representing Sadar City, Rusafah side, and Al-Karkh side; all other urban areas in the city; and all rural areas outside the city in the metropolitan area). Each stratum was divided into block-level sample segments that were paired for purposes of sample selection. Eighteen such segments (9 pairs) were selected with probabilities proportional to size in each of the 56 population strata. Five households were then selected randomly within each segment, and one adult (ages 18+) was selected using Kish tables for interview within each household. Some segments in the Al-Karkh stratum in Baghdad and in the Anbar and Nineveh governorates were replaced due to security problems. These replacement segments were over-sampled in anticipation of low response rates.

As the sampling frame was based on administrative data, a new household listing was carried out before selecting households in each segment. The measures of segment size were modified based on this new enumeration and the data weighted to adjust for discrepancies between expected and observed numbers of households. An additional weight was used to adjust for differential probability of household selection across strata and for differential probability of within-household selection as a function of number of household adults. Finally, a post-stratification weight was applied to the data to match the joint distribution of the sample on age, gender, and geography to the population distribution.

Diagnostic assessment

As noted above, the IMHS was carried out as part of the WMH Survey Initiative (16). Diagnoses in the IMHS, as in all other WMH surveys (17), are based on Version 3.0 of the WHO Composite International Diagnostic Interview (CIDI) (16), a fully-structured lay-administered interview that generates diagnoses according to the definitions and criteria of both the ICD-10 and DSM-IV diagnostic systems. DSM-IV criteria are used here. The disorders assessed include mood disorders (major depressive disorder, MDD; dysthymic disorder, bipolar I and II disorder, sub-threshold bipolar disorder), anxiety disorders (panic disorder, agoraphobia without a history of panic disorder, generalized anxiety disorder, GAD; specific phobia, social phobia, post-traumatic stress disorder, PTSD; obsessive-compulsive disorder, OCD), behavioral disorders (intermittent explosive disorder, attention-deficit/hyperactivity disorder), and substance-related disorders (alcohol abuse, alcohol dependence with abuse, drug abuse, drug dependence with abuse). Diagnostic hierarchy rules and organic exclusion rules were used in making all diagnoses.

As detailed elsewhere (18), blinded clinical reappraisal interviews with a probability sub-sample of CIDI respondents in a number of other WMH surveys found generally good concordance between diagnoses based on the CIDI and those based on the Structured Clinical Interview for DSM-IV (SCID) (19). Logistical complexities made it impossible to carry out a clinical reappraisal study in the IMHS.

The CIDI assesses lifetime disorders and then obtains retrospective information about age-of-onset (AOO) and disorder recency. We focus in the current report on lifetime and 12-month prevalence. Based on evidence that retrospective AOO reports are often erroneous (20), a special question sequence was used to improve accuracy of AOO reporting. This series began with questions designed to emphasize the importance of accurate response: “Can you remember your exact age the *very first time* (emphasis in original) when you (had the symptom/syndrome)?”. Respondents who answered “no” were probed for a bound of uncertainty by moving up the age range incrementally (e.g., “Was it before you went to school?”; “Was it before age 13?”, etc.). Onset was set at the upper end of the bound of uncertainty (e.g., age 12 years for respondents who reported that onset was before the beginning of their teens). Experimental research has shown that this question sequence yields more plausible responses than standard age-of-onset questions (21).

Twelve-month cases were classified in terms of a three-category scheme of serious, moderate, or mild, based on additional information collected in the interviews. Cases were classified *serious* if they had any of the following: a 12-month suicide attempt with serious lethality intent; substantial work limitations due to a mental or substance-related disorder; bipolar I disorder, substance dependence with a physiological dependence syndrome, a behavioral disorder associated with repeated serious violence, or any disorder that resulted in 30 or more days out of role in the year before interview.

Cases not classified serious were classified *moderate* if they had any of the following: past year suicide gesture, plan, or ideation; 12-month substance dependence without serious role impairment; at least moderate work limitation due to a mental or substance-related disorder; or any 12-month disorder with at least moderate role impairment in two or more domains of the Sheehan Disability Scales (SDS, 22). The SDS assessed disability in work role performance, household maintenance, social life, and intimate relationships on

0-10 visual analogue scales with verbal descriptors, and associated scale scores, of none (0), mild (1-3), moderate (4-6), severe (7-9), and very severe (10).

All other 12-month cases were classified *mild*. To assess the meaningfulness of these severity ratings, we compared number of days in the past 12 months that respondents reported being totally unable to carry out their normal daily activities because of mental or substance-related problems. The mean (± standard error) of this variable was significantly higher ($F_{2,4,329} = 77.2, p < 0.001$) among respondents classified serious (59.9±14.6) than moderate (9.3±1.7) or mild (7.0±3.1).

Treatment

All IMHS respondents were asked if they ever received treatment for "problems with your emotions or nerves or your use of alcohol or drugs". Separate assessments were made for different types of professionals. Follow-up questions were then asked about age at first and most recent contact with each type of provider as well as number and duration of visits to each provider in the past 12 months. Respondents were also asked about specific medications received in the past 12 months to treat problems with emotions, nerves, or use of alcohol or drugs (name of medication, daily dose, and duration of treatment). Treatment was classified into the following categories for purposes of the current report: mental health specialist (psychiatrist, psychologist, and other non-psychiatrist mental health professionals), general medical (primary care doctor, other general medical doctor, nurse, or any other health professional not in the specialty mental health sector), and human services (religious or spiritual advisor, social worker or counselor in any setting other than a specialty mental health setting). As all the human services treatment was provided by spiritual advisors, we use the term *spiritual advisor* rather than *human services* when we report results. We also asked about complementary-alternative medical (CAM) providers (e.g., spiritualists or native healers), but none of the IMHS respondents reported treatment from CAM providers. Mental health specialty treatment was combined with general medical into a broader category of healthcare treatment.

Based on available evidence-based guidelines (23-29), treatment was classified as *adequate* if the patient received either pharmacotherapy (one month or longer of medication plus at least four visits to any type of professional) or psychotherapy (at least eight visits with any healthcare or human services professional). The decision to require at least four visits for pharmacotherapy was based on published treatment guidelines (23-28). At least eight sessions were required for minimally adequate psychotherapy, based on the fact that clinical trials demonstrating effectiveness have generally included at least eight psychotherapy visits (23-28). Based on the fact that respondents who began treatments shortly before the interview may not have had time to fulfill requirements and the fact that very brief treatments have been developed for certain disorders (30,31), we created a broader definition of *follow-up treatment* that consisted of receiving at least two visits to an appropriate treatment sector (one visit for presumptive evaluation/diagnosis and at least one visit for treatment).

Socio-demographic correlates

The socio-demographic correlates of lifetime disorders considered here include age at interview (18-34, 35-49, 50-64, 65+), sex, and education. Education was grouped into the categories of low (0 years of education), low-average (some education but no secondary education; 1-6 years), high-average (at least some secondary, but no post-secondary education; 7-12 years), and high (at least some post-secondary education; 13+ years). These socio-demographic variables were used as predictors of lifetime onset in a survival framework, which means that each variable was coded as of each year in the life of each respondent. This was done for education by assuming that each respondent with any education began school at age 5 and continued through the completion of their education without interruption.

A broader set of socio-demographic variables was used to study 12-month disorders. In addition to those mentioned above, these include marital status (currently married, previously married, never married) and family income. Family income was divided into four categories. Low income was defined as a ratio of income to number of family members (I/F) less than one half the median in the total sample. Low-average income was defined as any income greater than low up to 1.5 times the median I/F. High-average income was defined as any income higher than low-average up through 3.0 times the median I/F. High income was defined as any income higher than high-average.

Analysis procedures

As noted above, the data were weighted to adjust for differential probabilities of selection and to adjust for residual differences between the sample and the Iraq population on the cross-classification of respondent age, sex, and geographic residence. These weighted data were used to estimate lifetime and 12-month prevalence. Survival analysis was then used to estimate cumulative lifetime probability of disorder over the life course. The actuarial method (32) implemented in SAS V8.2 (33) was used rather than the more familiar Kaplan-Meier method (34) of generating survival curves, because the former has an advantage over the latter in estimating onsets within a year.

Discrete-time survival analysis (35) with person-year as the unit of analysis was used to examine socio-demographic predictors of lifetime disorders. The survival coefficients and their standard errors were exponentiated and are reported as odds ratios (ORs) with 95% confidence intervals. Age at interview was one of the predictors. A significant effect of age at interview can be interpreted as a cohort effect; that is, as a secular change in the prevalence of a disorder at a given age across successive generations. Logistic regression analysis (36) was used to study socio-demographic correlates of 12-month disorders and treatment.

All analyses used design-based methods to adjust for the geographic clustering and weighting of data. Standard errors were estimated using the Taylor series linearization method implemented in SUDAAN (37). Multivariate significance was evaluated with Wald χ^2 tests based on design-based coefficient variance-covariance matrices. Statistical significance was evaluated using two-sided design-based tests and the 0.05 level of significance.

RESULTS

Lifetime prevalence of DSM-IV mental disorders

The estimated lifetime prevalence of any DSM-IV/CIDI disorder is 18.8%. The most prevalent class of disorders is anxiety disorders (13.8%) followed by mood disorders (7.5%), behavioral disorders (1.8%), and substance-related disorders (0.9%). The most prevalent individual lifetime disorders are major depressive disorder (7.2%), OCD (4.6%), specific phobia (4.2%), and GAD (3.7%) (Table 1).

Prevalence estimates vary significantly with age for a number of anxiety and mood disorders, but not behavioral or substance-related disorders. Prevalence estimates increase with age in a generally monotonic fashion for GAD, PTSD, and MDD, but decrease monotonically with age for specific phobia. A significant age difference in OCD is due to a much lower prevalence in the 65+ age group (1.7%) than in younger groups (3.7-5.2%) rather than to a monotonic decrease with age.

Age-of-onset distributions

The distributions of cumulative lifetime risk estimates for fixed percentiles for each disorder show that median AOO (i.e., the 50th percentile on the AOO distribution) is earliest for behavioral disorders (age 17), latest for mood disorders (age 46), and intermediate for anxiety disorders (age 25) (Table 2). The AOO distribution could not be estimated for substance-related disorders because of low prevalence. Within the anxiety disorders, median AOO is earliest for the phobias (ages 7-14) and PTSD (age 16), latest for GAD and OCD (ages 51-54), and intermediate for panic disorder (age 35).

The AOO distributions of individual disorders differ not only in medians but also in ranges. It is useful to examine these differences by focusing on the inter-quartile range (IQR; the number of years between the 25th and 75th percentiles of the AOO distributions) for each disorder. The IQR is a mere 5-8 years for the phobias. This means that the majority of people with phobias have their first onset in a very narrow age range during the childhood or adolescent years. The IQR for PTSD is also quite narrow, 12 years, meaning that the majority of Iraqis who ever develop PTSD do so between early adolescence and their mid-20s (13-25). The IQR for intermittent explosive disorder is wider, 17 years (14-31). The IQRs for the remaining disorders, in comparison, are quite wide, between 26 and 34 years.

Projected lifetime risk

The AOO distributions were used to generate estimates of projected lifetime risk as of age 75. If all sample respondents lived to age 75, the model estimates that 40.8% of them would have a lifetime history of at least one of the disorders considered here. This is more than twice the lifetime prevalence-to-date of 18.8% in the sample. Disorders with the highest lifetime risk-to-prevalence (R/P) ratios are MDD (R/P = 3.9), GAD (3.1), and PTSD (3.6). The lowest R/P ratios, in comparison, are for the phobias (1.0), OCD (1.2), intermittent explosive disorder (1.3), and panic disorder (1.6). These between-disorder differences reflect difference in AOO.

Inter-cohort differences in lifetime risk

We attempted to determine if lifetime risk of mental disorders increased over the generations, possibly as a function of inter-generational variation in exposure to sectarian violence, by using discrete-time survival analysis to predict lifetime risk of mental disorders separately in the age groups 18-34, 35-49, 50-64, and 65+. A generally decreasing pattern of ORs is seen with increasing age, indicating that the lifetime prevalence of mental disorders at a given age has increased in successive cohorts of the Iraqi population over the generations studied here (Table 3). The largest increase from the oldest to the youngest generation in the sample (i.e., respondents in the age range 18-34 vs. 65+ at the age of interview) is for panic disorder (5.4). Consistent with the possibility that these increases might be due to increases in sectarian violence, the second-largest youngest-to-oldest OR is for PTSD, where the odds of lifetime prevalence in the youngest generation is 5.3 times as high as at the same age in the oldest generation. The ORs are also elevated for every one of the disorders considered here, with ORs in the range 1.7-5.3.

The cohort model was also elaborated to determine whether inter-cohort differences decrease significantly with increasing age. Differences were examined separately for early-onset cases (defined as onsets as of the AOO of the first one-third of all lifetime cases), average-onset cases (defined as onsets in the AOO range of the 34th-67th percentiles of cases), and late-onset cases (defined as onsets in the AOO range of the 68th or higher percentiles of cases) separately for anxiety and mood disorders. No more refined disorder-specific analyses were possible because of low statistical power. Results show that cohort effects do, in fact, change with age, but not in a simple monotonic fashion (detailed

Table 1 Lifetime prevalence of DSM-IV/WMH-CIDI disorders in the total sample and in four age groups

			Age group								
	Total		18-34		35-49		50-64		65+		
	%	SE	%	SE	%	SE	%	SE	%	SE	χ^2_3
Anxiety disorders											
Panic disorder	1.4	0.3	1.3	0.4	2.1	0.5	0.6	0.3	1.2	0.7	8.8*
Generalized anxiety disorder	3.7	0.5	2.8	0.4	4.2	0.9	4.2	1.2	8.2	2.7	9.8*
Social phobia	0.8	0.2	0.9	0.3	1.0	0.5	0.3	0.2	0.4	0.4	3.6
Specific phobia	4.2	0.4	4.9	0.7	3.9	0.8	3.6	1.2	1.2	0.6	13.5*
Agoraphobia	0.8	0.2	1.1	0.4	0.4	0.2	0.4	0.2	0.6	0.6	3.7
Post-traumatic stress disorder	2.5	0.2	1.6	0.4	2.9	0.5	3.7	0.8	4.9	1.9	11.8*
Obsessive-compulsive disorder	4.6	0.5	5.1	0.7	3.7	0.6	5.2	1.0	1.7	0.8	11.5*
Any anxiety disorder	13.8	0.8	13.8	1.1	13.2	1.1	14.7	1.8	14.6	2.2	0.7
Mood disorders											
Major depressive disorder	7.2	0.6	4.9	0.6	7.9	1.0	11.7	2.1	13.0	2.1	27.4*
Dysthymic disorder	0.2	0.1	0.2	0.1	0.1	0.0	0.6	0.6	0.0	0.0	8.3
Bipolar disorder	0.2	0.1	0.1	0.0	0.5	0.4	0.4	0.2	0.0	0.0	7.1
Any mood disorder	7.5	0.6	5.0	0.7	8.5	1.0	12.1	2.1	13.0	2.1	27.9*
Behavioral disorders											
Attention-deficit/hyperactivity disorder	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	5.7
Intermittent explosive disorder	1.7	0.2	1.5	0.3	2.9	0.8	1.4	0.7	0.7	0.7	5.8
Any behavioral disorder	1.8	0.2	1.5	0.3	3.0	0.8	1.4	0.7	0.7	0.7	6.4
Substance-related disorders											
Alcohol abuse	0.7	0.2	0.7	0.3	0.9	0.5	0.7	0.4	0.3	0.3	1.1
Alcohol dependence	0.2	0.1	0.3	0.2	0.1	0.1	0.2	0.2	0.0	0.0	4.4
Drug abuse	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	3.7
Drug dependence	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
Any substance-related disorder	0.9	0.3	0.9	0.3	0.9	0.5	0.8	0.4	0.3	0.3	1.9
All disorders											
Any disorder	18.8	0.9	17.6	1.2	18.9	1.4	22.5	2.5	20.3	2.2	5.4
Two or more disorders	6.3	0.7	5.5	0.8	7.3	0.9	6.7	1.4	8.6	2.2	4.2
Three or more disorders	2.3	0.3	1.6	0.4	3.2	0.5	3.5	1.0	2.3	0.9	8.9*
N	4,332		2,148		1,332		589		263		

* Significant association between age and prevalence at the 0.05 level, two-sided test

Table 2 Ages at selected percentiles on the standardized age-of-onset (AOO) distributions of lifetime DSM-IV/CIDI disorders with projected lifetime risk at age 75[a]

	Age-of-onset percentile								Projected lifetime risk at age 75	
	5	10	25	50	75	90	95	99	%	SE
Anxiety disorders										
Panic disorder	11	13	18	35	44	50	55	55	2.3	0.5
Generalized anxiety disorder	14	18	28	51	59	70	70	74	11.5	2.9
Social phobia	7	9	13	14	18	23	36	36	0.8	0.2
Specific phobia	5	5	5	7	13	15	18	41	4.3	0.5
Agoraphobia	5	8	11	13	14	19	21	23	0.8	0.2
Obsessive-compulsive disorder	19	24	32	54	66	66	68	70	8.9	2.3
Post-traumatic stress disorder	9	13	13	16	25	37	41	49	5.5	0.6
Any anxiety disorder	5	6	13	25	49	59	66	74	22.5	1.9
Mood disorders										
Major depressive disorder	14	19	29	46	59	71	71	71	28.0	7.1
Any mood disorder	14	19	29	46	59	71	71	71	28.3	7.0
Behavioral disorders										
Intermittent explosive disorder	13	13	14	19	31	46	46	57	2.2	0.4
Any behavioral disorder	7	13	14	17	31	46	46	57	2.3	0.4
All disorders										
Any disorder	5	8	14	29	54	66	71	74	40.8	6.6

[a] Based on age-onset projections using the actuarial method. Although only disorders with a minimum of 30 cases are included in the analyses of individual disorders, less common disorders are included in the summary categories

Table 3 Inter-cohort differences in lifetime risk of DSM-IV/CIDI disorders[a]

	Age group							
	18-34		35-49		50-64		65+	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	χ^2_3
Anxiety disorders								
Panic disorder	5.4*	1.2-23.2	3.9	0.9-17.5	0.5	0.1-2.9	1.0	20.3*
Generalized anxiety disorder	3.0	0.9-9.7	2.2	0.7-6.8	1.0	0.3-3.0	1.0	7.3
Social phobia	2.3	0.3-16.1	2.2	0.2-24.8	0.7	0.1-8.1	1.0	3.0
Specific phobia	4.1*	1.4-12.3	3.2*	1.1-9.6	2.9	0.8-10.3	1.0	7.2
Agoraphobia	1.7	0.2-17.6	0.6	0.1-5.7	0.6	0.1-6.3	1.0	5.2
Post-traumatic stress disorder	5.3*	2.3-12.2	3.4*	1.6-7.3	1.8	0.7-4.6	1.0	28.2*
Obsessive-compulsive disorder	4.3*	1.6-11.8	2.4	0.9-6.4	3.1*	1.1-8.7	1.0	15.1*
Any anxiety disorder	2.8*	1.7-4.4	1.9*	1.2-3.1	1.5	0.9-2.5	1.0	25.4*
Mood disorders								
Major depressive disorder	2.9*	1.3-6.5	2.0	1.0-4.3	1.6	0.8-3.1	1.0	8.8*
Any mood disorder	2.9*	1.3-6.6	2.1*	1.0-4.5	1.6	0.8-3.2	1.0	7.9*
Behavioral disorders								
Attention-deficit/hyperactivity disorder	.	.	.	.	.	.	.	.
Intermittent explosive disorder	3.6	0.5-26.4	5.3	0.6-45.5	2.0	0.2-17.5	1.0	7.5
Any behavioral disorder	3.5	0.5-26.1	5.5	0.6-47.2	2.1	0.2-18.5	1.0	8.0*
All disorders								
Any disorder	2.8*	1.8-4.4	2.0*	1.3-3.2	1.7*	1.0-2.8	1.0	27.8*

*Significant association of age with risk at the 0.05 level, two-sided test

[a] Based on discrete-time survival models with controls for person-year. Although only disorders with a minimum of 30 cases are included in the analysis of individual disorders, less common disorders are included in the summary categories

results are available on request). For anxiety disorders, the cohort effect is most dramatic for early-onset cases, less dramatic but nonetheless still statistically significant for late-onset cases, and non-significant for average-onset cases. For mood disorders, in comparison, the cohort effect is significant only for average-onset cases.

Socio-demographic correlates of lifetime risk

The associations of sex and education with first onset of any anxiety, any mood, and any behavioral disorder were examined by cohort using discrete-time survival analysis (detailed results are available on request). Women were found to have significantly higher odds of anxiety disorders (OR = 1.8, $\chi^2_1 = 17.4$, $p < 0.001$) and non-significantly higher odds of mood disorders (OR = 1.6, $\chi^2_1 = 3.6$, $p < 0.10$) than men and to have significantly lower odds of behavioral disorders (OR = 0.38, $\chi^2_1 = 5.0$, $p < 0.025$) than men in the total sample. None of these ORs varies significantly across cohorts ($\chi^2_3 = 0.7\text{-}1.7$, $p = 0.64\text{-}0.84$). The educational categories considered here, in comparison, are not meaningfully related to lifetime risk of anxiety disorders ($\chi^2_4 = 2.1$, $p = 0.72$), mood disorders ($\chi^2_4 = 4.9$, $p = 0.29$), or behavioral disorders ($\chi^2_4 = 4.9$, $p = 0.29$).

Prevalence and severity of 12-month disorders

The 12-month prevalence of any DSM-IV/CIDI disorder in the IMHS is 13.6%, with 42.1% of cases classified mild, 36.0% moderate, and 21.9% serious. The disorder by far most likely to be classified serious is bipolar disorder, where 76.9% of 12-month cases are classified serious, followed by substance-related disorders (54.9%), MDD (39.1%), and a number of anxiety disorders (32.3-38.2% for panic disorder, GAD, social phobia, agoraphobia, and PTSD). Considerably smaller proportions of specific phobia (16.4%) and behavioral disorders (21.2%) are classified serious. Of the 3.0% of the sample classified as having a serious 12-month disorder (i.e., 21.9% of 13.6%), the majority (43.6%) have two or more disorders. The most common disorders among those classified serious are MDD (51%), followed by GAD (24.9%), specific phobia (21.1%), OCD (19.2%), PTSD (13.1%), panic disorder (11.5%) and intermittent explosive disorder (10.8%) (Table 4).

Socio-demographic correlates of 12-month disorders

The associations of five socio-demographic variables (sex, age, education, family income, marital status) with 12-month prevalence of broad classes of disorders were examined using logistic regression analysis (Table 5). None of these variables is significantly related to mood disorders. The odds of anxiety disorders, in comparison, are significantly elevated among women compared to men (OR = 1.8, $\chi^2_1 = 14.2$, $p < 0.001$) and among respondents with more than the lowest level of education compared to higher education ($\chi^2_3 = 15.6$, $p = 0.001$). The odds of behavioral disorders, finally, are significantly elevated among respondents in the age ranges 18-34 (OR = 2.0) and 35-49 (OR = 5.0) compared to ages 65+

Table 4 Twelve-month prevalence and severity of DSM-IV/CIDI disorders in the total sample (n = 4,332)

	Distribution of severity[a]									
	Prevalence		Mild		Moderate		Serious		Prevalence among respondents with a serious disorder	
	%	SE	%	SE	%	SE	%	SE	%	SE
Anxiety disorders										
Panic disorder	1.0	0.3	26.2	7.9	38.7	11.7	35.1	10.8	11.5	4.9
Generalized anxiety disorder	2.3	0.3	19.9	5.5	47.8	6.0	32.3	6.0	24.9	4.0
Social phobia	0.7	0.2	5.0	3.2	56.8	13.8	38.2	13.6	8.6	3.9
Specific phobia	3.8	0.4	43.5	6.3	40.1	6.3	16.4	3.7	21.1	3.9
Agoraphobia	0.5	0.2	29.0	16.2	38.7	16.5	32.3	16.1	5.4	3.2
Post-traumatic stress disorder	1.1	0.2	49.6	9.1	16.2	4.8	34.3	8.6	13.1	3.4
Obsessive-compulsive disorder	3.6	0.4	47.6	6.4	36.7	5.6	15.7	4.3	19.2	4.8
Any anxiety disorder	10.4	0.7	41.9	3.8	36.3	2.9	21.8	2.9	76.4	5.6
Mood disorders										
Dysthymic disorder	0.2	0.1	0.0		81.4	12.0	18.6	12.0	1.2	0.6
Major depressive disorder	3.9	0.4	24.8	3.6	36.1	5.5	39.1	5.1	51.0	4.6
Bipolar disorder	0.2	0.1	0.0		23.1	18.1	76.9	18.1	4.6	1.1
Any mood disorder	4.1	0.4	23.4	3.5	36.2	5.3	40.5	5.1	55.9	4.8
Behavioral disorders										
Attention-deficit/hyperactivity disorder	0.0		20.0	19.7	80.0	19.7	0.0		0.0	
Intermittent explosive disorder	1.5	0.2	47.9	6.3	30.5	9.3	21.6	9.1	10.8	4.2
Any behavioral disorder	1.5	0.2	47.8	6.2	31.0	9.2	21.2	9.0	10.8	4.2
Substance-related disorders										
Alcohol abuse	0.1	0.1	13.9	16.5	81.4	19.3	4.7	5.9	0.2	0.2
Alcohol dependence	0.0	0.0	0.0		0.0		100.0		0.4	0.2
Drug abuse	0.1	0.1	0.0		0.0		100.0		4.1	3.2
Drug dependence	0.0	0.0							0.0	
Any substance disorder	0.2	0.1	6.6	7.2	38.5	28.3	54.9	28.0	4.6	3.2
All disorders										
Any disorder	13.6	0.8	42.1	2.9	36.0	2.6	21.9	2.3	100.0	
Exactly one disorder	9.8	0.7	51.3	3.6	34.5	3.1	14.2	2.2	47.0	7.0
Two or more disorders	2.6	0.4	21.5	4.8	35.0	8.4	43.6	7.0	37.5	7.0
Three or more disorders	1.2	0.2	11.1	8.3	50.7	11.7	38.1	8.1	15.5	3.8
Severity of disorders										
Serious	3.0	0.4	0.0		0.0		100.0			
Moderate	4.9	0.4	0.0		100.0		0.0			
Mild	5.7	0.6	100.0		0.0		0.0			

[a] See the text for a definition of the three severity categories. Percentages sum to 100% in each row

(OR = 1.6 in the age range 50-64; $\chi^2_3 = 11.2$, p = 0.011) and among respondents with the highest incomes (OR = 0.32-0.81 for respondents in lower income groups compared to the highest income group; $\chi^2_3 = 13.2$, p = 0.004),

Prevalence and intensity of 12-month treatment

Only 2.2% of IMHS respondents reported receiving treatment for emotional problems at any time in the 12 months before their interview (Table 6). This includes 10.8% of respondents with one or more 12-month DSM-IV/CIDI disorders in addition to 0.9% of respondents who met criteria for none of these disorders. The proportion in treatment is much higher for those with serious (23.7%) than moderate (9.2%) or mild (5.3%) disorders.

Two-thirds (65.6%) of patients were treated in the healthcare system, with roughly equal proportions in the general medical (41.3% of all people who received treatment) and specialty mental health (33.4%) sectors. A meaningful proportion of treatment was also provided, though, outside of the healthcare system by spiritual advisors (34.8%). Proportional treatment in the different treatment sectors does not vary significantly as a function of disorder severity, but caution is needed in interpreting this result, due to the very small numbers of people in the sample who received treatment and the resulting instability of the pattern.

Treatment intensity was generally low, as indicated by the fact that the mean number of visits was only 4.5, and only 21.2% of treated patients received treatment that we classified as at least minimally adequate (Table 7). However, both the mean number of visits (6.9 vs. 2.6, t = 1.3, p = 0.20) and the proportion of cases that received treatment classified as at least minimally adequate (36.5% vs. 15.6%, t = 1.2, p = 0.23) were higher for patients treated in the specialty than general medical sectors, although we cannot be sure that these differences are reliable, because of the small number of patients treated. It is also noteworthy that the small number of patients

Table 5 Socio-demographic correlates of 12-month DSM-IV/CIDI disorders in the total sample (n = 4,332)[a]

	Any mood disorder		**Any anxiety disorder**		**Any behavioral disorder**	
	OR	**95% CI**	**OR**	**95% CI**	**OR**	**95% CI**
Sex						
Male	1.0		1.0		1.0	
Female	1.4	0.8-2.3	1.8*	1.3-2.5	0.5	0.2-1.2
χ^2_1	1.4		14.2*		2.6	
Age						
18-34	0.6	0.2-1.7	0.8	0.4-1.5	2.0	0.2-16.1
35-49	1.1	0.5-2.3	0.8	0.4-1.6	5.0	0.6-46.3
50-64	0.9	0.4-1.9	0.8	0.4-1.4	1.6	0.1-22.8
65+	1.0		1.0		1.0	
χ^2_2	5.0		0.9		11.2*	
Income						
Low	1.1	0.6-2.0	1.1	0.8-1.6	0.8	0.4-1.7
Low-average	1.1	0.6-2.3	0.9	0.6-1.5	0.3	0.1-0.7
High-average	0.7	0.3-1.7	1.2	0.7-2.1	0.6	0.2-2.5
High	1.0		1.0		1.0	
χ^2_3	1.3		1.6		13.2*	
Marital Status						
Married/Cohabiting	1.0		1.0		1.0	
Previously married	2.2	1.0-5.1	1.4	0.8-2.4	2.4	0.6-9.0
Never married	1.0	0.6-1.9	1.4*	1.0-2.1	1.7	0.8-3.3
χ^2_3	3.7		6.0*		4.4	
Education						
Low	0.9	0.4-2.5	0.7	0.4-1.3	1.4	0.2-9.2
Low-average	1.0	0.5-2.2	1.1	0.6-2.0	1.4	0.4-4.9
High-average	0.7	0.3-1.6	1.3	0.8-2.1	1.4	0.2-8.0
High	1.0		1.0		1.0	
χ^2_3	1.4		15.6*		0.3	
Overall						
χ^2_{12}	1093.9*		1756.3*		1745.9*	

*Statistically significant at the 0.05 level, two-sided test

[a] Based on multivariate logistic regression models

Table 6 Overall and proportional treatment of emotional problems in the 12 months before interview in the total sample and in sub-samples defined by severity of 12-month DSM-IV/CIDI disorders

	Total		**None**		**Mild**		**Moderate**		**Serious**		
	%	**SE**	**%**	**SE**	**%**	**SE**	**%**	**SE**	**%**	**SE**	χ^2_3
Overall treatment[a]											
Healthcare treatment											
General medical	0.9	0.3	0.4	0.2	0.2	0.2	2.4	1.1	13.6	5.3	7.0
Mental health specialty	0.7	0.2	0.4	0.1	2.5	1.7	1.2	0.9	7.1	4.3	4.5
Any healthcare treatment	1.5	0.3	0.7	0.2	2.7	1.7	3.6	1.5	17.4	5.9	9.0*
Non-healthcare treatment	0.8	0.2	0.2	0.1	2.6	1.9	5.6	2.8	6.6	3.2	9.0*
Any treatment	2.2	0.4	0.9	0.2	5.3	2.5	9.2	3.2	23.7	6.2	18.7*
N	4,332		3,743		224		219		146		
Proportional treatment[a]											
Healthcare treatment											
General medical	41.3	8.3	50.4	9.1	3.9	4.7	25.9	12.2	57.4	15.5	6.8
Mental health specialty	33.4	7.4	43.5	11.2	46.5	23.0	13.1	9.6	29.8	15.1	5.8
Any healthcare treatment	65.6	7.7	80.0	6.5	50.5	24.1	39.0	15.1	73.5	13.0	5.1
Non-healthcare treatment	34.8	7.7	20.0	6.5	49.5	24.1	61.0	5.1	27.6	13.0	5.1
N	103		45		12		19		27		

*Significant association between severity and treatment at the 0.05 level, two-sided test

[a] The term *overall treatment* is used to describe the proportion of all respondents who received treatment, whereas the term *proportional treatment* is used to describe the proportion of patients (i.e., of those who received treatment) who were treated in each of the service sectors considered here. For example, 0.9% of all respondents received general medical treatment for their emotional problems in the 12 months before interview. These patients who received general medical treatment represent 41.3% of all respondents who received any form of treatment

Table 7 The associations of severity of 12-month DSM-IV/CIDI disorders with treatment intensity (number of visits) and treatment adequacy among respondents who received 12-month treatment

	Total		Severity									
			None		Mild		Moderate		Serious		χ^2_3 [1]	χ^2_1 [1]
Specialty treatment												
Number of visits (mean, SE)	6.9	3.1	3.7	1.1	1.2	0.2	3.4	0.6	16.6	7.6	18.6*	2.6
Adequate treatment[2] (%, SE)	36.5	14.3	12.3	9.6	0.0	0.0	68.8	30.4	89.4	9.5	5.1	4.7*
Follow-up treatment[2] (%, SE)	82.0	11.5	93.9	2.2	19.9	16.7	100.0	0.0	100.0	0.0	2.2	2.1
N	34		19		7		3		5			
General medical treatment												
Number of visits (mean, SE)	2.6	0.6	2.2	0.3	2.0	0.0	2.6	0.5	3.1	1.2	3.2	0.0
Adequate treatment[2] (%, SE)	15.6	9.5	2.6	2.7	0.0	0.0	30.8	24.0	23.8	9.5	2.4	1.8
Follow-up treatment[2] (%, SE)	85.5	9.8	98.1	2.0	100.0	0.0	92.1	8.1	71.4	19.7	1.7	1.7
N	39		18		1		6		14			
Any healthcare treatment												
Number of visits (mean, SE)	4.5	1.7	2.9	0.6	1.3	0.2	2.9	0.8	7.7	4.5	23.5*	1.4
Adequate treatment[2] (%, SE)	21.2	7.9	6.7	5.3	0.0	0.0	43.6	20.8	36.7	19.1	5.1	3.8
Follow-up treatment[2] (%, SE)	81.7	8.2	95.5	1.6	26.2	19.2	94.8	5.4	77.7	16.2	2.9	0.0
N	69		35		8		9		17			

*Significant association between severity and intensity/adequacy of treatment among respondents who received 12-month treatment at the 0.05 level, two-sided test

[1] χ^2 tests were used to evaluate differences in mean numbers of visits and in proportions of patients who received treated judged to be at least minimally adequate and who received follow-up treatment. The 3 degree of freedom tests were used to evaluate differences across all four sub-samples, while the 1 degree of freedom tests were used to evaluate differences between the severe-moderate and the mild-none sub-samples

[2] See the text for definitions of adequate treatment and follow-up treatment

in specialty treatment who were classified serious received significantly more intensive treatment than other specialty care patients (an average of 16.6 visits compared to 1.2-3.7 for other specialty patients; $\chi^2_3 = 18.6$, $p < 0.001$), indicating rationality in the allocation of treatment resources. Other evidence of this type of rationality is found in the fact that higher proportions of patients classified serious-moderate than mild-none received treatment classified as at least minimally adequate in the specialty sector (89.4-68.8% vs. 0.0-12.3%, $\chi^2_1 = 4.7$, $p = 0.03$), the general medical sector (23.8-30.8% vs. 0.0-2.6%, $\chi^2_1 = 1.8$, $p = 0.18$), and the overall healthcare system (36.7-43.6% vs. 0.0-6.7%, $\chi^2_1 = 3.8$, $p = 0.05$).

DISCUSSION

The above results should be interpreted with the following three limitations in mind. First, the IMHS excluded people who were homeless or institutionalized, who migrated out of the country, were too ill to be interviewed, or were residents of areas deemed too dangerous to be included in the survey. Most of these exclusions apply only to a small proportion of the population, the exceptions being internally displaced persons (IDPs) and those who migrated out of the country in response to the war. As noted in the introduction, some 1.5 million Iraqi are estimated to be internally displaced and another 2.5 million living in neighboring countries as per the United Nations High Commission for Refugees (UNHCR). Anecdotal evidence suggests that this 15% of the pre-invasion Iraqi population carries a high burden of mental illness (38,39).

Second, systematic survey non-response (i.e., people with mental disorders having a higher survey refusal rate than those without disorders) or systematic non-reporting (i.e., recall failure, conscious non-reporting, or error in diagnostic evaluations) could lead to bias in the estimates of disorder prevalence. From what we know about non-response and non-reporting bias in other surveys (40-42), it is likely that disorder prevalence was underestimated at least to some extent because of these biases.

Third, the CIDI is a lay-administered interview, which means that it is less capable than a clinician-administered diagnostic interview to make a comprehensive assessment of any mental disorder that the respondent might have. As noted above in the section on measures, a clinical reappraisal study that used blinded gold-standard clinical interviews (19) to make independent evaluations of disorder in a sub-sample of cases in some WMH surveys, found generally good individual-level concordance between diagnoses based on the CIDI and those based on clinical assessments (18). However, the CIDI only assessed DSM-IV disorders thought to be common. Therefore, the estimates of overall disorder prevalence are likely to estimate true prevalence to at least some degree.

Perhaps the most obvious omission of disorders concerns schizophrenia and the other non-affective psychoses (NAP). NAP were not assessed in the WMH surveys, based on evidence in a number of previous community epidemiological surveys that lay-administered psychiatric diagnostic interviews are incapable of generating accurate estimates of NAP (43-45), due to a very high rate of false positives. However, these same studies find that the vast majority of people with NAP in community epidemiological surveys are captured, because they meet criteria for one or more of the more common disorders assessed in those surveys.

The above limitations would be expected to make the prevalence estimates reported here conservative, which means that the 13.6% overall 12-month prevalence estimate and the 18.8% overall lifetime prevalence estimate are likely to be lower bounds on the true population prevalence. We have no previous community epidemiological surveys of mental disorders in Iraq to use as a point of comparison. The only published studies focus on children who were exposed to war-related trauma (46-48), among whom the prevalence of mental disorders was, understandably, estimated to be quite high.

We are aware of only two other comparable large-scale epidemiological studies of adult mental disorders in the Arab world. One was carried out using a two-stage screening approach in separate samples of the urban, rural, and village populations of Iran (49). Prevalence estimates in the urban (16.6%) and rural (14.9%) samples were quite similar to the 13.6% 12-month IMHS prevalence estimate, although prevalence in the tribal sample was dramatically lower (2.1%). The other comparable survey was the WMH survey in Lebanon (50,51), where lifetime and 12-month prevalence estimates of any disorder (25.8% and 17.0%) were somewhat higher than in the IMHS. The Lebanon survey was carried out during a time of relative peace, whereas the IMHS was carried out during a time of extreme sectarian violence and military occupation by foreign powers.

In addition to the overall IMHS prevalence estimates being similar to other Arab surveys, the relative prevalence estimates of individual disorders are comparable to other epidemiological surveys. In particular, the findings that anxiety disorders are by far the most common class of mental disorders in Iraq and that MDD is the most common individual disorder are both consistent with other WMH surveys (52,53) as well as with the larger world literature (54). The only exception is the IMHS finding that OCD is one of the most common anxiety disorders. OCD is usually found to be a comparatively uncommon disorder (55,56). The finding that a low proportion of IMHS respondents with 12-month OCD were classified as seriously impaired is also inconsistent with the finding in other surveys that OCD is usually seriously impairing. We suspect, based on these findings, that OCD is overdiagnosed in the IMHS, although there is no way to confirm this suspicion in the absence of a clinical reappraisal survey.

The IMHS results regarding comparative age-of-onset distributions and severity distributions of individual mental disorders are quite consistent with those in the world literature. Regarding AOO, the IMHS data are consistent with previous studies in finding that phobias and behavioral disorders typically have onsets in childhood or adolescence and that other anxiety and mood disorders typically have later onsets as well as much wider inter-quartile ranges of their AOO distributions (53,57). Regarding severity, the IMHS data are consistent with the world literature in finding that bipolar disorder is the most seriously impairing of the common mental disorders and that specific phobia is the least impairing (58,59).

The results regarding cohort effects strongly suggest that lifetime risk of mental disorders increased over the generations of Iraqis included in the survey, possibly as a function of inter-generational increases in sectarian violence. Consistent with this interpretation, the largest increase from the oldest to the youngest generation was for PTSD. An alternative explanation for this apparent cohort effect is that lifetime risk is actually constant across cohorts but appears to vary with cohort because onsets occur earlier in more recent than later cohorts, as might happen if there were secular changes in environmental triggers or to age-related differences in AOO recall accuracy. Another explanation might be that mortality has an increasing impact on sample selection bias as age increases. To study these possibilities, the cohort model was elaborated to determine whether inter-cohort differences decrease significantly with increasing age. Results show that cohort effects did, in fact, change with age, but not in a simple monotonic fashion. Non-monotonic patterns of this sort are most plausibly interpreted as due to historical events that led to inter-generational differences in disorder prevalence rather than to any simple age-related methodological (e.g., recall failure) or substantive (e.g., differential mortality) processes.

In terms of socio-demographic correlates, the IMHS data are similar to epidemiological surveys in other countries in finding elevated prevalence of anxiety disorders among women and of behavioral disorders among men (60-62), but quite different from other surveys in failing to find that women have a significantly higher prevalence of depression than men (63). The IMHS data are also different from other epidemiological survey data in failing to find an inverse relationship between socio-economic status (SES) and prevalence of mental disorders (58,64). Indeed, the IMHS data find *elevated* risk of lifetime mood disorders among people with high education and of 12-month anxiety disorders among people with all but the lowest level of education. At the same time, the IMHS data are consistent with other epidemiological data in finding an inverse relationship between SES and risk of behavioral disorders.

It is difficult to make sense of the two major discrepancies in the socio-demographic patterns in the IMHS compared to the world literature, the absence of a gender difference in depression and positive associations of education with anxiety and depression, without carrying out more detailed analyses than those reported here. We do know that these associations are consistent across the age range. We do not know, though, if the absence of gender differences in depression is due to some special features of gender roles in Iraq that remain to be investigated in more in-depth analyses of the data. Nor do we know if the elevated anxiety-depression rates among the well-educated is due to some special stresses experienced by the intelligentsia. Intriguing though these speculations are, their investigation must await more detailed analyses that have not yet been carried out.

The IMHS findings regarding treatment are similar to those in other low and lower-middle income WMH countries: only a minority of people with mental disorders received any treatment (65,66). The IMHS contains information about barriers to seeking treatment for mental disorders, but those data have not yet been analyzed. It is possible that these data will provide insights that can be used to help develop healthcare policies that will increase the proportion of people with mental disorders who seek treatment.

The IMHS results show that another important problem is that only a minority of the patients who seek treatment for mental disorders in Iraq receive treatment that meets even the most minimal standards of adequacy. However, there are several encouraging signs of rationality in the allocation of treatment resources: a) treatment intensity in the specialty mental health sector is significantly higher for patients with serious disorders than other disorders; b) the proportion of specialty sector patients whose treatment is judged to be at least minimally adequate is significantly higher for patients with serious-moderate disorders than mild-none; c) the proportion of general medical sector patients whose treatment is judged to be at least minimally adequate is higher, although not significantly so, for patients with serious-moderate disorders than mild-none.

We know from preliminary data analyses not reported here that the high rates of inadequate treatment are due mostly to patients dropping out before they receive a full course of treatment. However, we do not know the reasons for this premature termination. The IMHS includes questions about reasons for treatment dropout that have not yet been analyzed. These data might provide clues about ways to modify current treatment practices that could help increase patient retention. An initiative to formulate improved procedures for detection and treatment of mental disorders in primary care in Iraq is currently underway that could use such insights, although these efforts are being hindered by the disruption of normal service delivery systems caused by the violence that has gripped the country.

Further analyses of disorder prevalence and treatment barriers in the IMHS data need to focus on these disruptions to investigate the implications of war-related experiences on prevalence of mental disorders and on barriers to receiving adequate treatment of these disorders. These issues are the focus of ongoing analyses that will be the subject of future reports.

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The psychotic spectrum: a community-based study

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Over the last years, there has been an increasing awareness and knowledge about bipolar spectrum disorders. However, descriptive data on bipolar I disorder with psychotic features (BPI-p) in comparison with schizophrenia (SCH) and schizoaffective disorder (SA) in mental health community services are scanty in the literature. We conducted a study with the aim of assessing the prevalence, clinical characteristics and levels of functioning of SCH, SA and BPI-p in a random sample of patients with psychotic symptoms recruited in nine departments of mental health. Patients with a psychotic disorder according to their treating clinicians were assessed using the SCID and a series of questionnaires to evaluate their psychopathology and level of functioning. Patients who received a DSM-IV diagnosis of SA (N=55), SCH (N=82), or BPI-p (N=60) represented the final sample. The three diagnostic groups showed similar demographic characteristics. Independently from the diagnosis, all patients had a long duration of illness and a persistent course. Univariate group comparisons showed that, as compared to SCH patients, BPI-p and SA patients did better in several measures of functioning and differed in frequency of psychotic symptoms. However, a multinomial logistic regression model in which only significantly different variables were entered showed similar levels of functioning in the three groups of patients. The three groups' scores did not significantly differ on instruments that assessed dimensionally psychotic and affective symptoms during the previous month.

Key words: Schizoaffective disorder, schizophrenia, psychotic bipolar I disorder, psychopathology, level of functioning, mental health services

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Over the last years, there has been an increasing awareness and knowledge about bipolar spectrum from different perspectives. However, descriptive data from community services on those conditions which lie at one extreme of such a spectrum, namely bipolar I disorder with psychotic features (BPI-p), are scanty in the literature. Recent studies carried out in community services found that 29 to 61% of psychotic patients had a diagnosis of schizophrenia (SCH) and 34 to 41% had a mood disorder (1,2). Studies on patients in residential facilities reported a prevalence ranging from 61 to 68% for SCH and from 4 to 20% for mood disorders (3-5). However, most studies on severe bipolar disorders in the community did not distinguish patients with psychotic features from those without psychotic features.

Based on the hypothesis that psychotic bipolar disorder is more common than currently believed among patients with psychotic symptoms attending community mental health services, the aim of this study was to assess the prevalence, clinical characteristics and levels of functioning of SCH, schizoaffective disorder (SA) and BPI-p in a randomly selected sample of patients with psychotic symptoms recruited in nine Italian departments of mental health.

METHODS

The study was conducted from September 2003 through March 2005. Participating sites were nine departments of mental health (located in Empoli, Grosseto, Massa, Montecatini, Lucca, Pisa, Pistoia, Pontedera, and Viareggio), which are responsible for delivery of mental health care in the Italian North-West and in part of southern Tuscany. Enrolled patients were required to meet the following inclusion criteria: age 18-65 years, in treatment for at least one year, capable of providing written informed consent, and presence of psychotic symptoms (cross-sectional or lifetime). Exclusion criteria were: diagnosis of any psychotic disorder due to a general medical condition or organic mental disorder, and substance dependence over the previous six months.

Initially, each department of mental health provided a list of all patients with psychotic symptoms aged 18-65 years and with a duration of service contact of at least one year. On the basis of a randomization list (which was generated by the software Windows Excel), subjects were selected for assessments in the study period. As a reasonable target in the defined time frame (18 months), we empirically (not through a power analysis) decided to enrol a sample of 260 patients (about 25 for each department).

Participants were interviewed by the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID, 6). Additional information was obtained from the patients' medical records and their treating clinicians. The History Schedule (7) was used to collect information on socio-demographic variables, general medical conditions, and illness history, by considering three sources: patients, health workers, and medical records. Participants were also administered the Health of the Nation Outcome Scales-Rome (HoNOS-Rome, 8). Global functioning was assessed with the Global Assessment of Functioning Scale (GAF, 9). Individual's level of functioning during the two weeks preceding the interview was also assessed by specific HoNOS-Rome subscales: social functioning, service burden, psychopathology, behavioral problems, disabilities, environmental conditions/opportunities.

Two self-report questionnaires were used to examine patients' psychopathology during the previous month: the Self-Report version of the Structured Clinical Interview for Mood Spectrum (MOODS-SR, 10) and the Self-Report version of the Structured Clinical Interview for the Psychotic Spectrum (PSY-SR, 11).

The MOODS-SR (10) comprises 161 items coded as yes/no for one or more periods of at least 3-5 days during the previous month. The instrument focuses on the presence of manic and depressive symptoms, traits, and lifestyles that make up both fully syndromal and sub-threshold mood disturbances. It encompasses four domains: energy, mood, and cognition (which are conceived as covering a set of manic-hypomanic and a set of depressive symptoms) and rhythmicity and vegetative function. This latter domain was included in the instrument's design because mood disorders tend to be characterized by relatively rhythmic changes in the other three domains of mood, energy, and cognition. The instrument was initially developed as a structured interview that proved to have excellent reliability (intraclass correlations from 0.88 to 0.97) and discriminant validity (SCI-MOODS, 12) in patients with mood disorders and normal controls. Then a self-report lifetime version was created that proved to be equivalent to the interview (10).

The PSY-SR (11) comprises 164 items, coded as yes/no responses and organized into five domains: paranoid (covering mild hypervigilance, diffidence, suspiciousness, interpretive attitude, and paranoid self-reference); schizotypy-schizoidism (exploring religiosity, superstition, and magical and odd thoughts); interpersonal sensitivity (describing a tendency to avoid others due to a fear of being misunderstood or criticized); misperceptions (examining dissociative phenomena and borderline manifestations of full-blown hallucinatory and delusional phenomenology); and typical symptoms (typical DSM-IV symptoms of psychosis). The psychometric properties of the instrument proved to be excellent (11). Domains that were identified a priori as characteristic of SCH or SA (schizoid, typical psychotic symptoms and misperception domains) significantly distinguished subjects with these diagnoses from those with psychotic mood disorders and from all the non-psychotic groups. The internal consistency (Kuder-Richardson coefficient) was >0.50 for all the domains and >0.70 for 12 out of 16 domains showing high internal consistency. The correlation between domains ranged between 0.39 and 0.77 ($p<0.01$).

All assessments were conducted by clinicians who had undergone extensive training in administering the SCID and the other research instruments. All interviewers were continuously supervised by the chief training clinician (AB); all written clinical documentation was thoroughly reviewed, and all disagreements were discussed and resolved.

The study protocol was approved by local ethical committees, and all participants signed a written informed consent form.

Statistical analyses were conducted using Intercooled Stata 8.2. Differences on continuous variables among the three clinical groups were analyzed using one-way analyses of variance (ANOVA), followed by post-hoc pairwise comparisons. Pearson's chi-square test (or the two-tailed Fisher's exact test, when appropriate) was used to compare proportions among the study groups. A Bonferroni correction for multiple comparisons was applied to the probability level (0.05/3=0.016). Variables which were univariately associated with the diagnosis were entered into a multinomial logistic analysis using diagnosis as the outcome variable and SCH as the comparison group.

RESULTS

Overall, 260 subjects were selected for assessments in the study period. Of these, 20 refused to participate; 16 were excluded from the analyses because they were enrolled during a hospitalization, and were considered not representative of the population of psychotic patients treated in the community. Twenty-seven patients received a SCID diagnosis that was not suitable for the purposes of the present analyses (7 bipolar II disorder, 10 psychotic depression, 3 delusional disorder, 5 psychotic disorder not otherwise specified, 2 substance-induced psychotic disorder) and were therefore excluded from the study.

The final sample comprises a total of 197 subjects with a SCID diagnosis of SCH (n=82), BPI-p (n=60) or SA (n=55). Sixty-four per cent of the participants (n=126) were men; the mean age was 43.9±10.6 years (range 20-65 years); the mean length of illness was 21.1±10.7 years (range 1.9-45.7 years). Sixty patients were housed in residences (30.5%), and 49 (24.9%) were attending day-facilities. Thirty-three participants (16.8%) required frequent outpatient and home visits, and 55 (27.9%) were outpatients with regularly scheduled appointments. Overall, 180 patients (91%) did not show full remission of psychotic and/or affective symptoms from the last episode of illness. 94.4% of patients were treated with long-term antipsychotics.

Table 1 shows the sociodemographic and historical characteristics of the three diagnostic groups. Married participants were significantly more represented in the SA and BPI-p than in the SCH group. A significantly higher percentage of patients with SA and BPI-p had been employed. No significant difference was found in the three groups as regard family history for mood or psychotic disorders and rates of lifetime anxiety disorder comorbidity.

Several significant inter-group differences were found in psychotic symptom patterns (Table 2). Patients with SCH reported catatonic and negative symptoms more frequently than patients with either SA or BPI-p. Moreover, a significantly higher percentage of patients with SCH reported hallucinations than BPI-p patients. Patients with at least one first-rank symptom as ascertained by the SCID (e.g., voices arguing or commenting, somatic delusions, delusions of thought withdrawal, insertion, and broadcasting) were represented in SA with intermediate frequency between SCH and BPI-p groups. Data regarding type of psychotic symptoms

Table 1 Sociodemographic and historical characteristics of the three diagnostic groups

	SCH (N=82)	SA (N=55)	BPI-p (N=60)
Age (mean±SD)	43.4 ± 9.9	46.6 ± 10.8	42.2 ± 11.0
Gender (% males)	69.5	58.2	61.7
Married (%)*	18.8	45.5	41.4
Ever employed (%)**	64.5	88.7	84.8
Disability pension (%)	38.8	50.0	27.3
Age at onset (years, mean±SD)	21.4 ± 7.1	23.2 ± 7.0	23.3 ± 7.5
Length of illness (years, mean±SD)	21.9 ± 9.6	22.7 ± 10.8	18.7 ± 11.6
No. previous acute episodes (mean±SD)	6.9 ± 5.8	2.0 ± 1.0	6.8 ± 4.4
No. hospitalizations (mean±SD)	3.9 ± 4.0	4.3 ± 4.5	3.2 ± 3.4
No. suicide attempts (mean±SD)	2.8 ± 1.7	3.1 ± 2.0	3.1 ± 1.6
Patients with suicide attempts (%)	31.1	32.6	26.3
Patients in residential facilities (%)***	41.5	18.2	26.7
Family history			
Mood disorders (%)	24.4	36.4	40.0
Psychotic disorders (%)	13.4	12.7	15.0
Lifetime anxiety disorders (%)	31.0	33.3	35.7

SCH – schizophrenia; SA – schizoaffective disorder; BPI-p – psychotic bipolar I disorder

*SCH<SA: χ^2 = 11.14, p<0.001; SCH<BPI-p: χ^2 = 8.49, p<0.01

**SCH<SA: χ^2 = 9.61, p<0.01, SCH<BPI-p: χ^2 = 6.98, p<0.01

*** SCH>SA: χ^2 = 8.18, p<0.01

Table 2 Psychotic symptoms in schizophrenia, schizoaffective disorder and psychotic bipolar I disorder

	SCH (N=74)	SA (N=50)	BPI-p (N=55)
Hallucinations (%)*	48.1	28.2	23.7
Mood congruent delusions (%)	-	51.0	67.3
Catatonic symptoms (%)**	45.1	20.0	20.8
Negative symptoms (%)***	87.8	58.0	41.5
First-rank symptoms (%)****	94.6	78.0	54.5

SCH – schizophrenia; SA – schizoaffective disorder; BPI-p – psychotic bipolar I disorder

*SCH>BPI-p: p<0.001

**SCH>SA, SCH>BPI-p: p<0.01

*** SCH>SA, SCH>BPI-p: p<0.001

****SCH>SA, SA>BPI-p: p<0.01; SCH> BPI-p: p<0.001

were not available for 18 patients, who were similar to the sample as a whole except that they had a significantly higher age at onset (26.0±8.2 vs. 22.2±7.03; t=-2.12, p<0.05).

The mean total and single domains scores of MOODS-SR and PSY-SR were obtained in a subgroup of patients (51.8%). These subjects had similar demographic and clinical features but better levels of functioning (HoNOS-Rome total score: 40.2±10.6 vs. 35.4±9.2; t=3.31, p<0.001; GAF score: 46.0±16.6 vs. 51.0±14.1; t=-2.16, p<0.05) compared to those who did not complete the questionnaires. No significant differences were found for total spectrum self-report scores nor for any of the spectrum domains explored, with the exception of a trend for BPI-p patients to have higher scores than SCH patients in the rhythmicity domain (Bonferroni test, p=0.042).

Patients with SCH showed a lower level of social functioning, as measured by the HoNOS-Rome total score and scores on the social functioning and disabilities subscales, than participants in the BPI-p group (F=7.05, F=7.10, and F=5.26, p<0.01, respectively) (Table 3). The score on the service burden subscale was higher in the SCH group than in the SA and BPI-p groups (F=12.70, p<0.0001). Other subscale scores (psychopathology, behavioral problems, disabilities, environmental conditions/opportunities) did not differ significantly in the three groups.

The GAF mean score was higher in BPI-p and SA participants than in SCH patients. The difference was statistically significant only for the BPI-p vs. SCH group comparison (Bonferroni test, p<0.001).

The pattern of drug prescription is showed in Table 4. Second generation antipsychotics were prescribed more frequently in the SCH than in the BPI-p group (χ^2=6.84, p<0.01). In particular, clozapine was more frequently used in SCH than in SA and BPI-p patients (χ^2=11.46, p<0.001, and χ^2=14.44, p<0.0001, respectively). On the contrary, anticonvulsants were prescribed more frequently in the BPI-p group than in either the SCH (χ^2=14.44, p<0.0001) and the SA (χ^2=7.52, p< 0.01) groups.

We performed a multinomial logistic analysis entering the variables that significantly differed across the three diagnos-

Table 3 Psychosocial functioning in schizophrenia, schizoaffective disorder and psychotic bipolar I disorder

	SCH (N=82)	SA (N=55)	BPI-p (N=60)
HoNOS-Rome social functioning subscale (mean±SD)*	11.7 ± 3.7	10.0 ± 3.6	9.4 ± 3.7
HoNOS-Rome behavioral problems subscale (mean±SD)	3.9 ± 1.2	3.9 ± 1.1	3.8 ± 1.2
HoNOS-Rome disabilities subscale (mean±SD)**	3.6 ± 1.3	3.1 ± 0.9	3.0 ± 1.0
HoNOS-Rome psychopathology subscale (mean±SD)	6.1 ± 2.3	6.1 ± 2.6	5.1 ± 2.6
HoNOS-Rome environmental conditions/opportunities subscale (mean±SD)	5.7 ± 2.2	5.3 ± 2.4	5.4 ± 2.3
HoNOS-Rome service burden subscale (mean±SD)***	8.2 ± 2.3	7.0 ± 2.3	6.2 ± 2.2
HoNOS-Rome total score (mean±SD)*	39.3 ± 9.2	35.6 ± 9.2	33.4 ± 9.0
GAF total score (mean±SD)*	43.9 ± 15.0	49.6 ± 14.4	54.8 ± 15.0

SCH – schizophrenia; SA – schizoaffective disorder; BPI-p – psychotic bipolar I disorder; HoNOS-Rome – Health of the Nation Outcome Scales-Rome; GAF – Global Assessment of Functioning

*SCH vs. BPI-p: p<0.001

**SCH vs. BPI-p: p<0.016

***SCH vs. SA: p<0.016; SCH vs. BPI-p: p<0.001

Table 4 Pattern of drug prescription in schizophrenia, schizoaffective disorder and psychotic bipolar I disorder

	SCH (N=77)	SA (N=49)	BPI-p (N=57)
All SGAs (%)*	85.7	73.5	66.7
Olanzapine (%)	31.2	26.5	36.8
Risperidone (%)	13.0	24.5	17.5
Quetiapine (%)	6.5	12.2	8.8
Clozapine (%)**	37.7	10.2	8.8
All FGAs (%)	50.6	59.2	43.9
Anticonvulsants (%)***	28.6	34.7	61.4
Antidepressants (%)	31.2	30.6	50.9
Lithium (%)	-	10.2	19.3

SCH – schizophrenia; SA – schizoaffective disorder; BPI-p – psychotic bipolar I disorder; SGAs – second generation antipsychotics; FGAs – first generation antipsychotics
*SCH vs. BPI-p: $p<0.01$
**SCH vs. BPI-p: $p<0.001$; SCH vs. SA: $p<0.01$
***SA vs. BPI-p: $p<0.01$; SCH vs. BPI-p: $p<0.001$

tic groups as independent variables. The outcome variable was the diagnosis and the base category was SCH. The model was statistically significant ($p<0.001$; LR χ^2 (22)=90.49; log likelihood=-100.30; pseudo R2=0.31). The multivariate analysis showed that, as compared to SCH, the diagnosis of SA was positively associated to being married (OR 3.77; $p<0.05$) and to the presence of mood-congruent psychotic symptoms (OR 1.66; $p<0.01$), and negatively associately to the presence of negative symptoms (OR 0.16; $p<0.01$). BPI-p was positively associated to the married status (OR 5.71; $p<0.01$) and to the presence of mood congruent delusions (OR 2.06; $p<0.001$); on the contrary, BPI-p was negatively associated to negative symptoms (OR 0.10; $p<0.001$) and to first-rank symptoms (OR 0.04; $p<0.01$).

DISCUSSION

Our study was aimed at characterizing patients with psychotic spectrum disorders treated in Italian departments of mental health. The integration of different interventions (such as medication, family support, and social work) with case management and welfare provision are key aspects of these community mental health services, which are mostly centered on "real" population of patients (13,14).

The assessment performed by trained raters by using a standardized diagnostic process showed that, independently from diagnostic category, psychotic patients interviewed in this specific setting had a long mean duration of illness (approximately 20 years) and had experienced relatively few hospitalizations (median value: 3). Moreover, the majority of patients did not obtain recovery from the last episode of illness and were treated with long-term antipsychotic medications, demonstrating a substantially severe and persistent course of illness.

The frequency of BPI-p diagnosis (60 patients, 27% of the entire sample) was intermediate with respect to that of SCH (82 patients, 37% of the sample) and SA (55 patients, 25% of the sample). The high rate of bipolar I diagnosis (as assessed by the SCID) among this patient population was striking as compared to studies on similar samples (1-5). Our results confirm that a subpopulation of psychotic bipolar patients has a persistent course of illness and poor outcome, and requires long-term antipsychotic treatment (15,16).

In the univariate analysis, the three diagnostic groups showed no significant differences in terms of sociodemographic features (e.g., mean age, gender distribution, disability pension), certain clinical characteristics (e.g., mean age at onset, duration of illness, number of acute episodes and hospitalizations, rate of suicidality, anxiety disorder comorbidity) and family history of psychotic and mood disorders. In line with previous studies, the frequency of various types of psychotic symptoms, as assessed by the SCID, differed significantly (17-20). First-rank symptoms were more frequent in SCH than in SA or BPI-p, and mood-related delusions were more frequent in the bipolar group than in the SCH group. Such differences have been confirmed by the multinomial logistic regression analysis.

The univariate analysis also showed several differences in level of functioning among the three groups (rates of patients in residences, married patients, and ever-employed patients; general and social functioning and service burden). Although this finding is in agreement with previous studies linking SA with mood disorders in terms of course and outcome (20-23), when variables related to functioning were examined in the multivariate analysis, only marital status remained as a correlate to the diagnosis of SCH, showing substantial overlapping among the three diagnostic groups.

We found that the three diagnostic groups did not significantly differ on either the five PSY-SR domains or the seven MOODS-SR domains. The discrepancy between the clinician rated symptom profile and the psychopathology explored by means of a self-assessment is an interesting finding. It should be kept in mind that the self-report evaluation collected by means of PSY-SR and MOODS-SR referred to the last month before the interview, while psychotic symptoms were assessed on a lifetime basis. However, such a dimensional analysis reveals similar ranges of scores of psychopathology in SCH, SA and BPI-p. This result, together with data about clinical presentation and levels of functioning, supports the idea that there are more similarities than differences among the three psychoses (24).

Some limitations of our study need to be kept in mind. First, the fact that the examined sample was composed by patients with persistent and severe psychotic disorders limits the generalizability of our results to the population of psychotic symptoms as a whole. Moreover, the results are in part based on retrospective reports; therefore, the potentially distorting influence of retrospective recall bias cannot be ruled out. In addition, all patients underwent pharmacological treatment at the time of evaluation, which might have contributed to alter some of their original psychopathological characteristics.

The dimensional assessment cannot be considered representative of the whole population of our psychotic patients, because the questionnaires were filled only by a somehow less impaired subgroup of patients. Furthermore, the psychopathological assessment was based mainly on SCID scores. More in-depth standardized assessments would have possibly revealed subtle, but important clinical inter-group differences. Data regarding family history in our patients may be underestimated, because of difficulties in obtaining reliable information from probands or their medical records. Finally, organizational constraints prevented us from performing neurocognitive assessments, which could have provided valuable information for differentiating among the three diagnostic categories.

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Report of the WPA Task Force on Brain Drain

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The brain drain of health professionals is an issue of continuing interest and debate. The WPA set up a Task Force to examine the phenomenon as it relates specifically to mental health professionals. This report provides a description of the work of the Task Force and its recommendations in regard to how the WPA might act to help address the issue.

Key words: Brain drain, mental health professionals, low- and middle-income countries

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Healthcare workers are unevenly distributed around the globe, with countries carrying the highest burden of diseases having the lowest numbers of health workers while those with relatively low need have the highest numbers. Africa, for example, carries 25% of the world's disease burden, yet has only 3% of the world's health workers and 1% of the world's economic resources to meet the challenge. The World Health Organization (WHO) identified 57 countries with critical shortage of healthcare workers, and 36 of these countries are in Africa (1). Assessment of global shortfall for health workers using the Joint Learning Initiative (2) analysis revealed the greatest shortage in the health workforce to be in South-East Asia, and the largest relative need to be in Sub-Saharan Africa, where an increase of almost 140% is necessary to meet the threshold (1).

Emigration of highly skilled health professionals from less developed to developed countries, a phenomenon popularly known as "brain drain", has been recognised since the 1960s and has attracted frequent commentaries (3-5). The brain drain of skilled healthcare personnel creates imbalances in global health workforce (6) and serious human resource problems to health ministries of the home countries (7). In sub-Saharan Africa, brain drain in the health field severely limits even basic health service infrastructure (8-11). Highly qualified doctors and nurses who would have played important clinical and supervisory roles in their health system emigrate to industrialised countries, causing a weakening of the capacities of such system to provide essential services to those in need. The current situation in Africa is different from that of the 1980s, when skilled professionals emigrated to developed countries to acquire knowledge and skills but then returned home, better equipped to serve their countries (12).

THE WPA TASK FORCE ON BRAIN DRAIN

The Task Force on Brain Drain was formed by the WPA Executive Committee towards the end of 2006. It was mandated to examine issues relating to the brain drain of psychiatrists from low- and middle-income countries and make recommendations to the WPA on possible action to address the problem.

The Task Force conducted its activities through face-to-face meetings, a literature review, e-mails, teleconferences and consultations of special advisors. Discussions were held with senior officers of the WHO Department of Mental Health and Substance Abuse. Small surveys were conducted among two groups of psychiatrists to compile information about patterns of migration, consequences of migration, and reasons for migration. One group was composed of immigrant psychiatrists working in the UK and the other group was made of home-based psychiatrists working in Nigeria, Kenya, and Tanzania.

The survey questionnaire for migrant psychiatrists covered the experience of migration, the reasons for migrating, and the likelihood of the psychiatrists being prepared to provide clinical or academic assistance to their home countries and the modalities that might make this possible. The survey questionnaire to home-based psychiatrists covered the basis for the decision to stay at home, whether there had been a consideration of emigrating, and the experience of working in their home countries. Questionnaires were posted to convenience samples of 65 immigrant psychiatrists in the UK, 30 home based psychiatrists in Nigeria, 8 in Kenya, and 4 in Tanzania. Migrant psychiatrists in the UK were approached through their national associations in the UK with the help of Sheila Hollins (President of the Royal College of Psychiatrists at the time). Twenty-one (32%) of the immigrant psychiatrists and 28 (67%) of the home-based psychiatrists returned completed questionnaires.

RESULTS OF THE LITERATURE REVIEW AND THE SURVEYS

The literature review showed that the US, the UK, Canada and Australia are known to be the main recipients of immigrant physicians over the past half century (13,14). However, movement is not only to those countries. Asians move to North America, Egyptians move to oil exporting countries, and Eastern Europeans to an expanding European Union (15). Even in Africa, doctors from neighbouring African countries migrate to South Africa, while South Africa exports doctors to developed countries. Trained doctors from sub-Saharan Africa represent almost one quarter (23%) of the current doctor workforce in Organisation for Economic Cooperation and Development (OECD) countries, while nurses and midwives trained in sub-Saharan Africa constitute about 5% of the current nurse workforce (1).

The literature review also indicated that the earnings of health workers affect healthcare and health systems. It affects motivation, performance, morale and the ability of employers to attract and retain staff (16). The tendency when pay is low is for health workers to look for various ways to supplement their incomes (17). Working conditions emerge as the single most important predisposing factor for health professional emigration (18).

However, emigration can occur at different times in the careers of health professionals and, on the basis of this fact, migrating health professionals can be classified into three categories: those who go overseas for training and fail to return after completing their studies; those who go overseas for advanced training, return to work for some time after their studies and then emigrate; and those who train locally and emigrate after the completion of their programmes or after working for a period of time (19).

Movement of health professionals from low-income countries results from a combination of "push" factors from the source countries and "pull" factors from the recipient countries. Push forces include: lack of research funding, poor research facilities, limited career structure, poor intellectual stimulation, threats of violence and social turmoil, lack of good education for children, low remunerations, poor living conditions, insecurities at work place, lack of clear career development paths, and lack of professional development opportunities (20-23). Other reasons include lack of recognition of research findings in national health policy and planning and lack of evidence-based decision making culture (19). Factors that pull these professionals to developed countries are the opposites of what exist in their own countries: these include targeted recruitment to fill vacancies in richer countries, better remunerations and working conditions, secure and conducive living conditions, available employment opportunities, and opportunities for intellectual growth (24).

The review further suggested that emigration of physicians to wealthier countries is a growing hindrance to global health and that less developed countries lose health capacities as a result of the loss of physicians (5). Brain drain has a direct negative impact on population's health status and associated consequences on the productivity and welfare of the population. Migration from certain Asian countries, especially China, has grown significantly, with 30% of Chinese doctors migrating to Australia in 1995-1996 (25). Reports from the Afro-Arab Conference in Addis Ababa in 2003 showed that 54% of doctors from low-income countries (Arab and African Universities) work in Europe or North America. The United Nations Development Program report indicates that over 15,000 Arab doctors emigrated to industrialised countries between 1998 and 2000, and 25% of the 30,000 graduates from Arab universities practice abroad.

Compared to information on the migration of physicians in general, there is paucity of data on migration of psychiatrists. In general, the US, the UK and Canada have recruited specialists widely from developing countries. No doubt the demand for labour of skilled health professionals is great in industrialised countries. The UK has the highest proportion of doctors from low-income countries (5), with psychiatrists accounting for a large proportion of those employed (26). Among UK consultant psychiatrists, 26.4% in general psychiatry, 32.2% in old age psychiatry, and 58.9% in learning disability were trained overseas (27). Australia has about 2,200 psychiatrists to a population of just under 20 million people. Of these, it is estimated that about 15% are foreign trained doctors, many of them from developing countries of South-East Asia.

The striking difference between the gaining and losing countries is exemplified by the UK, which has about 40 psychiatrists per million population, compared to much of sub-Saharan Africa which has less than one and India with about four per million (28). Yet, India and some sub-Saharan African countries are the most important contributors to the mental health workforce in the UK. Ghana, for example, has 13 psychiatrists (with 8 of them retired) to a population of 20 million, and it has been estimated that there are more Ghanaian psychiatrists practicing in the city of Toronto, Canada than there are in Ghana. The return home of Nigerian psychiatrists working in the UK would change the ratio of psychiatrists to the population from from 0.09 to 0.26 per 100,000.

The UK National Health Service (NHS) International Fellowship Scheme targeted senior consultant psychiatrists, often those working in medical schools, simultaneously undermining clinical resources and the training capacity for the next generation of specialists (29). Inevitably, there are now reports of unfilled vacancies in public mental health services in developing countries (30).

It can be assumed that the effect of emigration on mental health service will be dramatic in some countries. This is because in many developing countries the specialty of psychiatry is still very unattractive for medical graduates for many reasons, including perceived stigmatization and low professional status in the public and within medical colleagues.

The same factors that lead to emigration of other health professionals as discussed above probably account for the brain drain of mental health professionals, including psychiatrists. However, other issues peculiar to the practice of psychiatry in low- and middle-income countries may also be important. The Task Force survey of migrant psychiatrists in the UK conducted in 2007/8 showed that issues such as professional isolation and search for better training opportunities were among the reasons mentioned for emigrating. Some of those who had gone overseas for higher training were subsequently unable to return because their overseas qualifications were not recognized at home, a situation that may be peculiar to their local psychiatry accreditation process. Some found a stark difference in the way psychiatry is practiced in their home countries compared to what it is in the UK and no longer wished to return home. Some of these differences include inadequate multidisciplinary approach (probably reflecting a paucity of other mental health professionals) and poor treatment conditions for patients, including inadequate attention to their human rights.

In the second survey by the Task Force, 75% (21 of 28) of home-based psychiatrists in Nigeria, Kenya and Tanzania had considered emigrating. Of these, 6 were still hoping to emigrate, while 15 seemed to have given up the idea (11 because of family considerations and 4 because they perceived positive changes in their countries). While poor remuneration, dissatisfaction with job and social conditions and wish for better education for children were the most common reasons for wanting to emigrate, professional isolation was also mentioned.

Lack of local training opportunities or inadequate training programmes are important reasons for emigrating. The profile of the surveyed UK psychiatrists, showing most had originally trained as doctors in their home countries but emigrated for specialist training, as well as the response of the psychiatrists surveyed in Africa, clearly show that provision of local training opportunities may help reduce the urge to emigrate.

The view has often been canvassed about turning brain drain to "brain circulation" by getting immigrant health professionals to occasionally return back to their home countries to provide assistance in clinical service and training. The respondents of the UK survey were asked about their willingness to do this. Everyone, to varying degrees of enthusiasm, reported their readiness to return home to assist in training of other professionals, collaborate in research and, to a lesser extent, provide clinical support. However, 81% of the respondents saw one hindrance or the other in doing this. The commonly identified barriers were those relating to restrictions in their current job contracts in the UK and administrative or bureaucratic procedures in their home countries. So, even though the idea of returning home sounded appealing, the reality of their present circumstances made most immigrant doctors sceptical about the feasibility of the arrangement.

RECOMMENDATIONS

The results of the work of the Task Force show that the scale and magnitude of the problem of brain drain is difficult to grasp, because of inadequate data on the movement of health workers, especially the movement of psychiatrists and other mental health workers. A small range of proposals put forward by Scott et al (31) on national strategies and international cooperative strategies addressing the ethics of "skills migration" from sources such as World Bank, WHO and World Medical Association and from migrant and "stay at home" health professionals is helpful, but much more needs to be done. The results further show that brain drain is a crucial phenomenon damaging mental health care in low- and middle-income countries and that there are particular reasons for migration which can be examined and addressed.

The Task Force recommends that the WPA must take the lead in focussing attention on the peculiar effect of brain drain on the provision of mental health service in low- and middle-income countries. The recent Lancet series provides a compelling picture of this peculiarity (32). The WPA should work with major stakeholders to bring pressure on countries that have benefitted most from brain drain, such as the US, the UK, Australia and Canada, to make specific commitments to provide assistance to low- and middle-income countries for the development of their mental health service, including substantial increase in resource allocation for specific mental health training and service delivery programmes. It should work with the WHO to ensure that the problem of brain drain is listed for discussion at a future WHO Ministerial (or Council) Meeting and with the Global Mental Health Movement to encourage the latter to give prominence to the issue of brain drain in its planned advocacy activities.

The WPA should enlist the active support of member societies in the UK, the US, Australia and Canada to bring necessary pressures to bear on their governments to develop ethical recruitment practices. This should include a commitment not to recruit from the most disadvantaged countries. The WPA should explore ways in which specialist training programmes can be developed in regions of the world where none exists or where training resources are currently grossly inadequate. The WPA should develop partnership with member societies, such as the Royal College of Psychiatrists in the UK, which are interested in supporting such initiatives or are already implementing them through their volunteer programmes.

The WPA should have a programme for supporting psychiatrists working in relative isolation in low- and middle-income countries. Such psychiatrists should be helped to develop networks with colleagues in their region and beyond. One important way of doing this is to offer targeted opportunities for such psychiatrists to attend WPA meetings and conferences. As indicated in the responses from our two surveys, professional isolation was a factor for emigration and respondents recommended, among steps to stem brain drain, opportunities for international networking. The WPA can do a number of specific things for these professionals: a) advocate for major member societies, such as those of the UK, the US, Canada and Australia, to consider providing these psychiatrists with free supplies of their society journals; b) develop a special fellowship for them to support attendance at meetings; and c) encourage the development of a dedicated website for these professionals for the purpose of networking among themselves and with other colleagues within the WPA.

The WPA can help immigrant psychiatrists put something back to their countries of origin. Our survey of UK-based psychiatrists shows that, while most were willing to do this, they also identified a number of barriers that might make it impossible. The main barriers relate to how their current jobs might allow such time away and problems with recognition of diplomas obtained overseas. The WPA should explore with member societies ways in which such barriers can be removed. An initiative developed by Ghanaian psychiatrists in the diaspora in the last few years has proved valuable in helping to provide training for trainee mental health professionals in Ghana by the immigrant psychiatrists. Other groups can be encouraged to start such a programme.

The brain drain of mental health professionals is a critical issue for low- and middle-income countries. The WPA, in setting up the Task Force to examine the issue, has recognized the importance of the phenomenon and shown its readiness to take up a leading role in addressing it. The Task Force has identified specific roles for the WPA as well as a number of practical steps which can be taken forward and developed over a sustained initiative.

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What makes a good psychiatrist? A survey of clinical tutors responsible for psychiatric training in the UK and Eire

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The characteristics of a good psychiatrist practising in the UK health services have been described in policy but not in practice. We set out to determine what key characteristics are required for an individual to be identified as a good psychiatrist to become a member of the Royal College of Psychiatrists. A postal survey of all clinical tutors responsible for psychiatric training in the UK and Eire was carried out. These tutors are approved by the Royal College of Psychiatrists. 113 tutors responded (out of 163, 69.3% return). The most important identified characteristic was overall competency in diagnosis, management and investigations (98%) and the least desirable was ability to appraise staff (13%). With recent changes in training and assessment in the UK, further surveys of this kind are indicated to understand the trainers' views, and should be extended also to trainees.

Key words: Good psychiatrist, psychiatric training, core competencies

(World Psychiatry 2009;8:119-120)

The Royal College of Psychiatrists published Good Psychiatric Practice (1) in 2000, with a revised third edition in 2009. Modelled on Good Medical Practice (2) produced by the General Medical Council, core attributes for good psychiatric practice are listed as clinical competency, being a good communicator and listener, basic understanding of group dynamics, ability to work within a team, ability to be decisive and to appraise staff with a basic understanding of the principles of operational management, understanding the role and status of vulnerable patients, and bringing empathy and encouragement to patients and their carers, with critical awareness of emotional responses to clinical situations.

Within the National Health Service (NHS), training for psychiatrists is organised in training schemes, with clinical tutors (approved by the Royal College of Psychiatrists) as individuals responsible for training, mentoring and supporting a number of trainees. Tutors have to support the application of a candidate to take the membership examination of the Royal College of Psychiatrists leading to the award of MRCPsych, which is a prerequisite for moving up to higher training leading to specialist status in one of six sub-specialities of psychiatry: adult general and community psychiatry, child and adolescent psychiatry, psychiatry of learning disability, forensic psychiatry, psychotherapy, and old age psychiatry. The role of proving training schemes has been taken over by an overarching Postgraduate Medical Education and Training Board (PMETB). However, PMETB has clearly laid out principles of training and assessment.

Although the USA and Canada have had reports of competencies and evolving concepts for clinical practice and training (3-5), these concepts are being focused on in the UK only in recent times. Scheiber and Kramer (6) suggest that competencies can be measured along a sliding scale. Core competencies are the ones central to medical practice and are non-negotiable (4).

Mikhael (7) has produced a list of competencies for speciality physicians. These are similar to the ones acknowledged in Good Psychiatric Practice and also include diagnostic capabilities, communication skills, collaborating, managing being a health advocate and a scholar. These competencies can be mapped on to different assessment methods.

When trainees attain MRCPsych on the basis of examination, they have an obligation to meet standards of training and practice. Till recently, these standards were monitored by the Royal College of Psychiatrists, but since 30 September 2005 PMETB has taken on this responsibility.

The clinical tutors are key individuals responsible for training and are in regular touch with trainees. We decided to approach them to obtain their views on the characteristics of a good psychiatrist.

We used a postal survey, and all the tutors on the Royal College of Psychiatrists database were sent the questionnaire. In view of resource difficulties, no follow-up or reminders were arranged. The accompanying letter made it clear that there was no compulsion for response.

The competencies from Good Psychiatric Practice were consolidated into ten competencies (see Table 1) and the respondents were asked to rate each competency as positive (by saying "yes"), negative (by saying "no") or "did not know". A simple tabular analysis was carried out.

Of 163 clinical tutors who were approached, responses were received from 113 (69.3% response). The findings are illustrated in Table 1.

There was an overwhelming agreement on the importance of overall clinical competency in diagnosis, investigations and management, being a good communicator and ability to make appropriate clinical decisions. The respon-

Table 1 Characteristics of a good psychiatrist according to clinical tutors in the UK and Eire (n=113)

Characteristics	Yes N(%)	No N(%)	Don't know N(%)
Overall clinical competency in diagnosis, investigations and management	111 (98.2)	2 (1.8)	0
Being a good communicator and listener	109 (96.5)	1 (0.9)	3 (2.6)
Having a basic understanding of group dynamics	46 (40.7)	5 (4.4)	62 (54.9)
Being able to work in an atmosphere within a team where individual opinions are valued, and team members have a sense of ownership of decisions	99 (87.6)	2 (1.8)	12 (10.6)
Ability to make appropriate clinical decisions	110 (97.3)	3 (2.6)	0
Ability to appraise staff	15 (13.3)	7 (6.2)	91 (80.5)
Basic understanding of the principles of operational management	37 (32.7)	6 (5.3)	70 (61.9)
Understanding and acknowledgement of the role and status and managing vulnerable patients	94 (83.2)	5 (4.4)	14 (12.4)
Bringing empathy, encouragement and hope to patients and their carers	94 (83.2)	3 (2.6)	16 (14.2)
A critical self-awareness of emotional responses to clinical situations	7 8 (69.0)	3 (2.6)	32 (28.3)

dents were unable to say if ability to appraise staff, basic understanding of the principles of operational management, and having a basic understanding of group dynamics are desirable for this group of trainees.

This brief survey highlights the typical and desirable characteristics of a good psychiatrist. Although it was a postal survey, the response rate was quite respectable. Although those who responded would be expected to be those with strong opinions, it seems unlikely that specific views of responders would be biased in any particular direction.

It is not surprising that the most desirable characteristics are to do with clinical skills and competencies, which is what would be expected from psychiatrists. The surprising finding is that a majority of the respondents were unable to say if a knowledge of group dynamics is essential. This has been one of the requirements of the Royal College of Psychiatrists for training. Low emphasis on group dynamics indicates that there may be a shift away from general psychodynamic principles, as trainees used to be taught these. This may also be a reflection of a shortage of psychoanalytic therapists/trainers. The emphasis on operational management and staff appraisal is understandably low, as trainees will not be expected to participate in these activities although they have started undergoing appraisal. It is also possible that the role of these activities is clearer to organisations and institutions such as the Royal College of Psychiatrists and hospitals but not to trainers or trainees.

With recent changes in training and assessment in the UK, further surveys of this kind are indicated to understand the trainers' views, and should be preferably extended also to trainees.

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PERSPECTIVE

Psychiatric reform revisited

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The trend towards the establishment of community psychiatric services seems to be universal. However, before closing down a mental hospital, it is necessary to establish the appropriate alternative facilities in the community. Every de-institutionalization program should have a diachronic component, and cultural issues should be taken into consideration. Care for each patient has to be decided upon on the basis of the characteristics of that patient. Finally, de-institutionalization is just one aspect of psychiatric reform. Primary psychiatric prevention is equally or even more important.

Key words: Psychiatric reform, de-institutionalization, community psychiatric services, primary prevention

(World Psychiatry 2009;8:121-122)

Provision of psychiatric services has undergone many changes, in keeping with the prevailing scientific ideas, social changes, political decisions, economic considerations and a number of other parameters. What was good a hundred years ago is no longer good and can be very bad indeed. Take for example the asylum. When the asylum was introduced to psychiatry it served a good purpose, and this purpose was the integration of psychiatry into general medicine. This kind of mental health services provision was supported by the scientific community of that time because it was a true liberation of patients from being ridiculed in the streets and from serving as means for the entertainment of the rest of the citizens. The etymology of the word asylum (from the Greek άσυλον) points to this direction. People like Emil Kraepelin were very supportive of this change and, indeed, the system worked for a considerable period of time. However, after some time (mainly for reasons associated with inadequate funding and staff shortages), the asylum started deteriorating in its function, developing negative characteristics and acquiring its present connotation. This inevitably led to the gradual abandonment of the asylum and to an effort at organizing psychiatry along community lines. This trend was reinforced by the understanding that the disintegration of the personality of schizophrenic patients was not so much the consequence of the illness but to a great degree a consequence of the institutional living of the patients. The prevailing humanistic attitudes of the public at that time also contributed a lot.

Establishment of community psychiatric services followed a different pace in Europe and elsewhere, but the trend seems to have been universal in all countries. It is characteristic that even in the statutes of the Psychiatric Association for Eastern Europe and the Balkans, an association composed of psychiatric societies with traditional mental health services, establishment of psychiatric services in the community has been given great prominence and priority, with the agreement of all founding psychiatric associations (www.paeeb.com).

In the last years there have been voices challenging the principles, but especially the practices of community psychiatry. The main points of criticism are the following:

- It is being increasingly recognized that the change from asylum to community cannot be applied to all patients. Some patients have to be accommodated in special units or small psychiatric hospitals, and the care for each patient has to be individualized and decided upon on the basis of the characteristics of each patient.
- The idea is not to close down the hospital and consider this as a great achievement. Hospital closure should not be an aim by itself. “Any fool can close a mental hospital”, remarked a senior UK health official in the 1980s (1). Hospital closure should not obey to political, “non-authoritarian” ideologies or to financial concerns that satisfy the managers. It is the patient’s well-being that counts and nothing else. If the quality of life of the patient is better and if the degree of satisfaction is greater in hospital as compared to the community, we have an ethical obligation to allow our patient to make an informed choice and continue treatment in a setting of his choice. The psychiatric community must have the courage to express an evidence-based opinion on this very important matter. It is true that under the term “psychiatric hospital” some of the ugliest forms of asylum are hiding, but it is also true that under the term “community” often the prison or the street are hiding.
- Before closing down the hospital, it is absolutely necessary to establish the appropriate alternative facilities in the community for residence, rehabilitation and, if possible, employment. Continuous monitoring by an independent authority and readiness (and courage) to modify, drastically change or even reverse the de-institutionalization plan, in keeping with the recommendations of the monitoring authority, is a *sine qua non* necessity.
- Every de-institutionalization program should have a diachronic component. It is unwise to start a rehabilitation program without guaranteeing adequate and continuous flow of resources to support the patients in the community. Careful and responsible planning should precede every decision, and it is important to

realize that, without consistent and diachronic support, re-institutionalization in hospital or, even worse, institutionalization in the community is waiting behind the door.

- Cultural issues should be taken into consideration. What is good for patients in Western societies is not necessarily good for other patients. Parameters like mode, degree and pace of de-institutionalization should be considered in harmony with the cultural setting of each patient.
- It must, additionally, be realized that de-institutionalization is just one aspect of psychiatric reform, belonging to tertiary prevention. Yet, primary psychiatric prevention is equally or even more important (2,3). It is unfortunate that this crucial stage of prevention (*prevention par excellence*) has not been given the priority it deserves. Primary care, genetic counseling, prevention at school, in the family, in the workplace, prenatal and postnatal care, preventive interventions for vulnerable groups like women, aged persons and poor people have unfortunately not developed to the desired extent.

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Early intervention in psychosis in developing countries: evidence and action

In the recent forum on early intervention for psychosis in *World Psychiatry* (1), Ndetei highlights the lack of progress in bringing about early intervention in psychosis in Africa, where more than 50% of the population is under the age of 25 (2). Ndetei also points out that almost all the research about early intervention is conducted in developed countries.

In our recent review of the duration of untreated psychosis (DUP) in low and middle income (LAMI) countries, we employed exhaustive search strategies, but were only able to locate data from 18 of over 150 LAMI and only 3 of over 50 African countries (3). The low priority given to mental health in LAMI countries (4-8) and the widely accepted but controversial notion that schizophrenia carries a better prognosis in developing countries might have hindered the development of services for psychosis.

We found that the average mean DUP in studies from LAMI countries was 125.0 weeks compared with 63.4 weeks in studies from high-income countries (p=0.012). Using the data on gross domestic product (GDP), we demonstrated that within the studies from LAMI countries, mean DUP fell by 6 weeks for every $1000 of GDP purchasing power parity.

In a related paper, we reviewed the studies from LAMI countries that investigated an association between DUP and at least one of the following outcome measures: psychotic symptoms, cognitive function, social disability or mortality. The DUP in LAMI countries was significantly associated with higher ratings of positive symptoms and social disability, a finding similar to that reported in high-income countries (9). In addition, two studies (10,11) suggest a strong association between DUP and subsequent mortality from physical illness. The "good prognosis" hypothesis seems less tenable when the high prevalence of partially and never treated cases of psychosis in developing countries and the long DUP for those who do receive treatment is taken into consideration.

The adverse consequences of long DUP, and the increased morbidity and mortality from infections and malnutrition among those with mental illness, confirm the need for a vigorous approach to early intervention in developing countries. This approach, however, needs to take social and economic realities of developing countries into account. One of the interventions could be to provide antipsychotic treatment free of cost at least for the initial two years, the "critical period" in the course of schizophrenia, as the cost of the drugs appears to be the main barrier to access the treatment. This could be under the supervision of a close relative who is trained to supervise and monitor the patient medication, with the patient's consent (12).

The development of early intervention in psychosis services in LAMI countries faces formidable obstacles. However, the seriously mentally ill in LAMI regions are among the most disadvantaged people on earth. Making treatment available is a moral necessity and providing early treatment is likely to be cost-effective.

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LETTER TO THE EDITOR

Mental health practice in private primary care in rural India: a survey of practitioners

An epidemiological study carried out in a rural population in Tamil Nadu, Southern India, reported that about 75% of people with mental disorders had been sick for more than one year and had not had any treatment (1). India has 162 medical colleges, with 17,000 medical students enrolling to be trained every year. However, there are only about 3000 psychiatrists, who are mainly based in urban centres (2). This means that a vast chunk of the work in dealing with mental illness is done by primary care practitioners, especially in rural India.

However, primary care is not well developed in India, and the lines of communication between the private and government psychiatrists are very poor. A survey of 86 private practitioners revealed that undergraduate education is not geared up to impart sufficient psychiatric training (3). The outcome of mental disorders can be improved by their early detection in primary care, especially if this is followed by evidence based treatment.

We investigated current psychiatric practice among private primary care practitioners in Satyamangalam, a rural town with hamlets of farmers and weavers in the state of Tamil Nadu, Southern India. The town has 40 doctors, including general practitioners and specialists, with no private or government psychiatric services.

We sent to all doctors a questionnaire consisting of 17 items, subdivided into four sections: a) doctor's experience of psychiatric symptoms and disorders in adults, children, adolescents and the elderly, of pharmacological treatment for the above disorders, and of patients' acceptance of a diagnosis of mental illness; b) doctor's knowledge about availability of mental health services and patients' use of native treatments; c) doctor's training in psychiatry; d) information on mental illness in journals read by the doctors, and suggestions to improve doctors' skills and knowledge in psychiatry.

Out of the 40 doctors, 37 responded (92.5%). Eight were general practitioners and 29 were specialist in a discipline other than psychiatry. Eighteen (48.64%) had been practicing for 10-20 years.

Thirty-four doctors (91.9%) reported they had seen patients with symptoms suggestive of mental illness and had diagnosed mental illness. Among symptoms of mental illness, body pain was the most frequently reported (41.8%), followed by depression (25.5%). Depressive disorders were the most frequently reported mental disorders (52.2%), followed by anxiety disorders (20.4%).

Fifty percent of the doctors had seen children and adolescents presenting with behavioural problems and 100% had seen elderly patients presenting with forgetfulness. Eighteen out of 34 (52.9%) had used tricyclics as first line antidepressants, and haloperidol was the only antipsychotic used. Only 18 (48.6%) felt that patients accepted a diagnosis of mental illness.

The doctors confirmed that there was no resident psychiatrist in the locality. The mental health resource largely utilised was referral to a psychiatrist in the nearby city (76.5%). All doctors reported that their patients utilised some form of native treatment.

No doctor had sat through psychiatry as a subject of examination in his undergraduate course. Twenty-six respondents (70.2%) had had a training in psychiatry as house officers.

Twenty out of 37 (54.1%) felt that the medical journals they read had adequate information about mental illness. The suggestions to improve their practice included the organization of continuing medical education on psychiatric topics by the local medical society, an increase in the number of articles on mental illness in medical journals, the production of audiovisual aids, and an improvement of undergraduate medical curriculum with emphasis on psychiatry as a subject for examination. Mass education and assertive outreach to increase the awareness of mental illness among client population were also suggested.

This study confirms that pain is a major manifestation of psychological problems in rural India, as previously reported in the literature (4). Though depression was the commonest diagnosis made by our sample of primary care physicians, the accuracy and the timeliness of such a diagnosis is influenced by the conditions of primary care practice. In view of the reported high prevalence of drug use in both healthy and mentally ill people in the Indian population (5), it is surprising that none of the doctors in our sample had approached drug abuse as an issue within the scope of psychiatry. Also disconcerting is that 8% of the respondents reported to have never identified psychiatric symptoms or disorders in their patients. Old medications clearly continue to be used as first line therapeutic armaments by general practitioners in rural India.

It is obvious that a revision of undergraduate curriculum is needed in India, and that continuing medical education on psychiatric issues for general practitioners represents a priority. Some previous experiences seem to be encouraging in this respect. A training programme for general practitioners based on a year's exposure to psychotherapeutic orientation had been shown to be successful in India (6). Similar initiatives have had a positive outcome in other developing countries (e.g., 7). Moreover, projects to explore alternative strategies to facilitate the identification and management of mental disorders in primary care represent a priority for our country.

Our study is limited by the fact that it was constrained in the geographical area included. Also, we have not endeavoured to seek the patients' views on psychiatric practice. We have hinted broad outlines on therapeutic interventions, but we are not sure about specific uses of pharmacological therapies. Moreover, we have no data on patients' compliance with referral to a psychiatrist, although we have reasons to be sceptical in this respect. As Ayurveda continues to be an important tool to traditional healers, it may prove useful if modified to fit within an Indian context of mental illness. Finally, we believe that doctors' enthusiasm towards assertive outreach is significant and should be capitalised upon.

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Improving organizational identity: latest activities of the WPA Secretariat

Levent Küey
WPA Secretary General

WPA is in the process of improving its organizational identity. The activities of the WPA Secretary General and of the WPA Secretariat have been reorganized during the last six months. This brief article summarizes some of the main latest activities aiming to improve the identity, image and the work of WPA as the international umbrella organization of its Member Societies and of the psychiatrists across the world.

WPA MEDIA CHANNELS

WPA media channels are playing an important role in this process of revitalization. Lately, these channels have improved in this perspective to raise their efficiency, both at inter-organizational and intra-organizational levels. WPA media channels (*WPA News*, the official quarterly newsletter of WPA; *WPA E-Bulletin*, the monthly electronic bulletin of WPA; *WPA Online*, the weekly revised website of WPA) aim to mirror the voice of the WPA Member Societies, WPA Sections and the Affiliated Associations on one hand and of the WPA Executive Committee, the WPA Board, the WPA Council, and the WPA Standing and Operational Committees on the other, in an harmonized manner. Most importantly, all these three media channels are in concert now, as far as their contents and aesthetics are concerned. The Secretary General, as the editor of these media channels, is facilitating this process with a great support of the EC members and of our administrator Anna Engström, deputy administrator Pamela Atiase, and the co-webmaster Kathleen Sauer.

WPA NEWS

Not only being a mere channel for the transfer of information, *WPA News* is also reflecting and motivating the improvements in the association. Its content is fully changed to give a greater space to the voice of all the WPA components in a balanced way. The December 2008 issue consisted of 20 pages and was printed in 700 copies, whereas the March 2009 issue consisted of 32 pages and was printed in 2500 copies. The electronic version is also distributed to the Member Society officers and the personal e-mail addresses of our members. The printed version is produced using re-cycled paper, taking environmental concerns into consideration.

WPA ONLINE

WPA Online has been upgraded and renewed. Detailed revisions, including an “add/drop/leave” procedure are in process weekly, where the collaboration of all of the WPA components is highly appreciated. The website infrastructure is made ready for a project named WPA CME Online, which is being developed in collaboration with the Secretary of Education. Videos and slide sets of prominent scientific lectures and presentations from the WPA Congresses will be uploaded. This project has started with the Florence WPA 2009 Congress.

WPA E-BULLETIN

The monthly *WPA E-Bulletin* conveys the highlights of the developments in world psychiatry and in the WPA directly to the psychiatrists across the world to their personal e-mail addresses. The Bulletin has been revised along with the other WPA media channels. Its distribution has been re-organized. Member Societies and Zonal Representatives are highly appreciated for their cooperation in enhancing its dissemination, so that the Bulletin can reach more individual members, especially working in the underprivileged areas of the world.

WPA BOARD (ZONAL REPRESENTATIVES) AND WPA COUNCIL

The WPA Secretary General and the WPA Secretariat have been in close collaboration with the WPA Board and the WPA Council providing any support needed. All the action plans of Zonal Representatives have been prepared, with three priorities identified within each of them. The highly appreciated work of the Representatives will be enhanced in the yearly meetings of the WPA Board, the first of which took place in Florence on March 31, 2009. The new structure of the WPA Board and Council meetings is giving these components a greater initiative for their inputs.

WPA MEMBER SOCIETIES

Correspondence of the WPA Secretariat with the WPA Member Societies is improved. Besides updating their contact information, they were also motivated to submit news to the WPA media channels regularly, where they have been very responsive and cooperative.

ROUTINE SECRETARIAT ACTIVITIES

Minutes of the WPA General Assembly Prague 2008

The draft of the minutes of the WPA General Assembly held in Prague on September 22, 2008 has been prepared by the Secretary General, on January 28, 2009, taking into consideration the notes of the previous Secretary General and the WPA secretariat, and was circulated by the WPA Secretariat on January 30, 2009. The WPA Member Societies had two months to submit comments to the Secretariat, according to the WPA Statutes and By-Laws. No comments received from the Member Societies were deemed pertinent for inclusion in the final version of the minutes. The minutes have been signed and sent to the Member Society Presidents and posted on the WPA website, hence the legal procedures on the finalization of the WPA General Assembly Prague 2008 minutes, according to the WPA Statutes and By-Laws, are now fulfilled completely.

Meetings of the WPA components

Coordination of the WPA Executive Committee, Board, Council, and the Standing and Operational Committee meetings and preparation of related folders and minutes has been undertaken. The Secretariat has been actively supporting the organization of all these meetings.

WPA Database and Directory

Updating contact information of WPA components, particularly the Board, Member Societies, Affiliated Associations, Scientific Sections, and Standing and Operational Committee members, is in process as an ongoing activity. Accordingly, revised versions of the WPA Informational Leaflet and the WPA Directory are planned to be printed in the middle of this triennium.

WPA archives

During a recent visit of the Secretary General to the Secretariat in Geneva, it was noticed that the WPA archives are in serious need of thorough classification and re-organization. Plans, including the possibility of hiring a professional archivist, are in process in this regard.

Timetable and planning

General work line, job descriptions and timetable for the activities of the WPA Secretariat for this triennium are prepared in close collaboration with the Secretariat staff and in consultation with the WPA Executive Committee members.

WPA booth at WPA Meetings

All the WPA Member Societies and the Affiliated Associations which are organizing scientific activities were invited to bring their announcements to be placed and disseminated at the WPA booth during the Florence WPA 2009 Congress. This activity will be practiced in future major WPA scientific events.

2010: 60 YEARS OF WPA

The WPA Secretary General, in collaboration with the WPA Executive Committee, is preparing plans to celebrate the 60th Anniversary of WPA in 2010. An art exhibition organized by the Section on Psychiatry and Art in collaboration with the Geneva University Hospital, an international photo contest on "improving mental health for a better world", printing some promotional material for WPA as bookmarks and yearly WPA Agenda are among some of the activities in the process of further detailing.

It is our shared opinion that the work of the WPA Secretary General and the WPA Secretariat could be improved further with the suggestions and contributions of all of the WPA Components. A more efficient WPA, aiming at high scientific quality and high ethical standards in psychiatry for the benefit of people with mental disorders, along with a solid professional solidarity across the world, is possible.

Forthcoming WPA publications

Helen Herrman
WPA Secretary for Publications

The WPA publications program aims to promote the goals of the Association and specifically to: a) disseminate information about clinical, service and research developments in the mental health field to the largest possible number of psychiatrists and health professionals across the world; b) promote and give visibility to good quality research carried out in low- and middle- income countries; and c) upgrade the publishing capacity of WPA (1,2).

These goals are pursued through publication of *World Psychiatry* as the official journal of the Association, continuation of successful book series, the publication of books on topics relevant to the ethical and successful practice of modern psychiatry and illustrating partnerships with important groups in doing this, efforts to promote online availability and wider dissemination of published materials, and offering support to psychiatric journals in low- and middle-income countries. This article describes the books that will be produced in the triennium 2009-2011.

The series *Evidence and Experience in Psychiatry* was initiated as part of the effort of the WPA to bridge the gaps within psychiatry and between psychiatry and the rest of medicine. Major issues for psychiatry and mental health are discussed openly by psychiatrists and other experts from many countries and schools of thought. Each volume of the series covers a specific mental disorder, by means of a set of systematic reviews of the research evidence, each followed by commentaries produced by psychiatrists from various countries and representing different schools of thought. Clinicians require an accessible and readable account of contemporary evidence, as clearly summarised in the systematic review chapters. This is complemented by clinical experience in the form of the commentaries. Together, these provide the basis for well-informed clinical decision making as well as research and advocacy. Nine volumes exist, several in second edition and several translated into various languages including Russian, Spanish, Portuguese, Italian and Turkish.

Two new titles will be produced in this triennium. The third edition of the volume on *Depressive Disorders* (eds. Herrman H, Maj M and Sartorius N) will be released in September 2009. A new title is being produced on *Substance*

Abuse Disorders (eds. Ghodse H, Herrman H, Maj M and Sartorius N). This responds to the continuing need to disseminate research findings relevant to clinical practice worldwide in the field of substance abuse. The book will help psychiatrists and other health professionals to understand the evidence relating to substance abuse, and to read the debates concerning this topic in all world regions. The volume will cover the diagnosis and treatment of substance abuse in the three major areas – drugs, alcohol and tobacco. Each section will consist of two chapters, one covering epidemiology (the extent and the nature of the problem) and the other covering treatment, intervention, management and prevention. Each section will be followed by 5-10 short commentaries.

We plan to produce during the triennium three books on important topics to psychiatry: trauma and mental health, addictions and mental health, and self-harm and suicide. A new series of WPA Updates, starting with volumes on schizophrenia, obsessive-compulsive disorder and bipolar disorder, will be produced. We will also publish three books on depression and cardiovascular disease, depression and cancer, and depression and diabetes, designed for practicing psychiatrists, mental health professionals and primary care clinicians.

Books under contract with Wiley-Blackwell are *Religion and Psychiatry* (eds. Verhagen PJ, van Praag HM, López-Ibor JJ, Moussaoui D and Cox J) and *Parenthood and Mental Health: A Bridge between Infant and Adult Psychiatry* (eds. Tyano S, Keren M, Herrman H and Cox J).

The series *Anthologies of International Psychiatric Texts* (Series Director: Moussaoui D) includes classical texts produced by psychiatrists of a given country or group of countries published in English for the first time, accompanied by essays on their authors. In recognition of their value to psychiatrists everywhere, electronic versions of the first three volumes in the series, that is the French, Spanish and Italian volumes, are now published online by Wiley-Blackwell. The electronic versions are available through the WPA website and link to Wiley-Blackwell Interscience. The *German Anthology of Psychiatric Texts* (ed. Sass H) was published in April 2007 and electronic publication by this same means is in progress.

A project to promote research dissemination through support for psychiatric journals from low- and middle-income countries was established in 2006 and a WPA Task Force appointed to lead it in 2008. A report on the first phase of the work, preliminary to appointment of the Task Force, is published in *World Psychiatry* (3). The Task Force met at the 14th World Congress of Psychiatry with invited editors of journals selected after a process developed in consultation with the WPA Board. A report on this meeting is now published (4), and the work continues with a series of connected activities planned and proposed to fulfil the aims of the project.

Wiley-Blackwell books published for WPA are available online (including link through from WPA website). Translation into additional languages (current for *World Psychiatry* and volumes in *Evidence and Experience* series) and appropriate ways to disseminate books and electronic content to colleagues in low- and middle-income countries will be discussed with publishers.

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