Chapter 1

TREATING ANXIETY: DELVING BENEATH THE TIP OF THE ICEBERG

INTRODUCTION

Anxiety is one of the most common problems in our society yet significant problems exist in the recognition and treatment of the disorder. Given the number of people suffering from it, appropriate treatment, where available, is doing little more than reaching the tip of the iceberg. Thus large numbers of individuals are deprived of help, resulting in long-term suffering for them and their families and significant costs to society. The limited work carried out in the field of prevention ensures that a new generation of anxiety sufferers will inevitably be created, thus adding to the current problems in mental health care provision of demand greatly exceeding supply. In Britain, long waiting lists for National Health Service treatment are the rule rather than the exception. In countries with other health care models, treatment may be limited to those well insured or wealthy enough to afford expensive therapy.

This chapter, by presenting evidence from a number of related fields—prevalence; comorbidity; anxiety at the primary care level; and social factors—will argue that only a radical rethink in how we provide mental health care can hope to alleviate the considerable suffering caused by these disorders.

PREVALENCE

Diagnostic criteria

Any disorder

The US National Comorbidity Survey (NCS), using DSM-III-R (American Psychiatric Association, 1987) criteria, reported that 29% of the large sample met criteria for at least one DSM-III-R disorder in the 12 months before

interview; 48% met criteria at some stage in their lives (Kessler *et al.*, 1994). Half of all these lifetime disorders in the general population occur to people with a previous history of some other mental health disorder (Kessler, 1997).

Anxiety disorders: general

Anxiety disorders are the most prevalent psychological disorders (Brown and Barlow, 1992; Karno *et al.*, 1987). The Epidemiologic Catchment Area (ECA) Survey reported that 15% of the US population will suffer from an (DSM-III, American Psychiatric Association, 1980) anxiety disorder at some stage of their lives (Robins and Regier, 1991). NCS reported that 17% of the large community sample met criteria for an anxiety disorder in the previous 12 months. This compared to those who met criteria for substance use disorders (11%) or affective disorders (11%) (Kessler *et al.*, 1994).

Anxiety disorders: specific

While differing sampling methods used in ECA and NCS inevitably lead to differing outcomes, findings from both studies clearly show how common these conditions are. Table 1.1 shows the lifetime prevalence of some of the core DSM-III-R anxiety disorders reported in the NCS (Kessler, 1997).

Table 1.1. Lifetime prevalence of anxiety disorders in the National Comorbidity Survey

Anxiety disorders	Lifetime prevalence	
	%	SE
Generalised anxiety disorder	5.2	0.4
Panic disorder	3.6	0.3
Social phobia	13.3	0.7
Simple (specific) phobia	11.3	0.6
Agoraphobia	6.8	0.3
Post-traumatic stress disorder	7.6	0.5
Any anxiety disorder	28.7	1.0

The British Psychiatric Morbidity Survey

In an attempt to improve information and understanding about mental health, the Department of Health recently reported that one in six adults between 16 and 64 had suffered from some type of neurotic disorder[1] (ICD-10 criteria, World Health Organization, 1992) in the week before

[1] Neurotic disorders defined as: mixed anxiety and depressive disorder; generalised anxiety disorder; depressive episode; phobias; obsessive-compulsive disorder; and panic disorder.

interview (Jenkins *et al.*, 1998). Mixed anxiety and depressive disorder made up almost 50% of this figure, generalised anxiety disorder (GAD) about 20% and depressive episode 13%. The four most common neurotic symptoms were fatigue (27%), sleep problems (25%), irritability (22%) and worry (20%). Alcohol dependence in the previous year was found in 5% of the sample while 2.5% had a drug dependency. Thirty-two per cent of those meeting criteria for a neurotic condition reported difficulties in activities of daily living. Prevalence of neuroses in a homeless sample was, predictably, higher: 38% in those living in hostels, 60% in night shelter residents and 57% among those sleeping rough.

The authors concluded that 'the very high prevalence of neurosis, some of which is very severe and associated with suicidal risk, means proper attention must be given to the education and training of primary care teams about mental health [and] to the primary/secondary care interface' (p. 7). They also noted the importance of early detection and development of preventative interventions (see Jenkins and Ustun, 1998). This is given greater impetus by the finding in the ECA survey that over half of all panic disorder sufferers had pre-existing symptoms of generalised anxiety for a median duration of between 8 and 10 years prior to the onset of panic disorder (Eaton *et al.*, 1998).

Primary health care settings

International data

The DSM-IV Field Trial for Mixed Anxiety–Depression (Zinbarg *et al.*, 1994; American Psychiatric Association, 1994), looking at the distribution of specific mental health problems in the USA, Australia and France, found 11.9% and 13% of the 666 sample had GAD and social phobia, respectively, as their principal diagnosis in primary care settings. In addition, 8% were diagnosed as having an anxiety disorder, not otherwise specified (NOS). This study looked at the number of people presenting, in primary care, with severe impairment caused by anxiety and depression but not necessarily meeting definitional thresholds for Axis I anxiety or mood disorders. It found these problems to be at least as common as patients with definable Axis I disorders, suggesting the need for this new diagnostic category. An international multi-centre[2] World Health Organization collaborative study in primary care (Ustun and Sartorius, 1995) showed that 24% of patients in general health care had a current well-defined mental disorder while 9% had subthreshold but clinically significant disorders. Depressive conditions were found to be the most frequent (12.5%), followed by anxiety disorders (12%), of which by far the most common was GAD (7.9%).

[2] Turkey, Greece, India, Germany, Holland, Nigeria, Britain, Japan, France, Brazil, Chile, USA, China, Italy.

US data

Individuals suffering from anxiety form one of the largest groups using US medical and mental health services (Marsland *et al.*, 1976; Boyd, 1986). Shear *et al.*, (1994a) found 10% and 11% of a US primary care sample met criteria for GAD and panic disorder (PD) respectively. Olfson *et al.* (1996) reported that more than one quarter of their primary care sample in California reported subthreshold psychiatric symptoms that, although not meeting DSM-IV criteria, still resulted in significant impairment in work, family and social function. Regier *et al.* (1993) reported that anxiety sufferers use primary care medical facilities as often as they use mental health services, while Fifer *et al.* (1994) found 33% of over 6000 primary care patients showed heightened symptoms or disorders of anxiety.

British data

Approximately one-quarter to one-third of all general practitioner (GP) consultations are for mental health problems (Sharp and Morell, 1989; Shah, 1992). Looking at conspicuous morbidity alone, mental health problems (primarily anxiety and depression) are the second most common reason for consulting a GP. These individuals also have increased rates of consultation to medical and surgical outpatient departments and general hospital admissions over many years (Jenkins, 1998). Screening routine primary care patients using the Hospital Anxiety and Depression scale (Zigmond and Snaith, 1983) resulted in 51% being 'probable cases' and 28% as 'cases' of psychiatric disorder (Dowell and Biran, 1990), with anxiety and depression being by far the most common (Lloyd and Jenkins, 1995). This ties in well with self-report data where, in the previous year, 56% of the sample described themselves as suffering a 'moderate' or 'large' amount of stress (Bridgewood *et al.*, 1996).

Clinical psychologists based in primary care settings consistently report anxiety problems to be the most common difficulty referred to them by GPs. Jerrom *et al.* (1986) recorded 69% of their sample (n = 236) as suffering 'anxiety and stress'. Espie and White (1986a) reported that, of 1085 patients seen in a primary care psychology service, 70% could also be similarly classified. McPherson *et al.* (1996) noted that 51% of patients referred for help with 'emotional disorders' had an anxiety disorder while 10.6% had depression and 10.3 mixed anxiety–depression. Within these broad categories, the most commonly diagnosed problem was 'generalised anxiety'. Turvey (1997) classified 30% of 13,057 patients as such while 21% of Espie and White's (1986a) sample complained of generalised anxiety. Similar results emerged from US primary care studies (Barlow *et al.*, 1996).

A similar picture is emerging with counsellors. Harvey *et al.* (1998) reported that 40% of patients referred to person-centred counselling in primary care complained of an anxiety disorder. Friedli and King (1996) point to anxiety as being one of the most common problems dealt with, although

Friedli *et al.* (1997) in their controlled study reported that patients with depression constituted around 50% of all referrals to the counsellor, with only 20% of the sample being referred for help with anxiety. This possibly reflects local health care factors such as the skills and interests of particular therapists and GPs.

COMORBIDITY

Comorbidity refers to the co-occurence of at least two different disorders in the same individual. Removal of the hierarchical exclusion criteria that obtained in DSM-III has resulted in greater interest in looking at patterns of comorbidity and the possible influence on response to treatment. Indeed, Kendall and Clarkin (1992) saw the study of comorbidity as 'the premier challenge' facing mental health professionals in the 1990s, while Brown and Barlow (1992) believed that the conceptual advances that may result from comorbidity research would profoundly affect the clinical science. Comorbidity directly challenges the concept of homogeneity within individual diagnostic categories. It may also weaken the foundations of categorical systems that assume discontinuity and qualitative differences between disorders. High levels of comorbidity would suggest poor discriminant validity among the disorders. As Blashfield (1990) noted, high levels of comorbidity may indicate that current diagnostic systems may be artifactually distinguishing phenomena that would be more parsimonious if combined. The ECA study found that 54% of respondents with a lifetime history of at least one DSM-III disorder were found to have a second diagnosis as well (Robins and Regier, 1991). Similar findings (56%) were found in the NCS (Kessler, 1997).

Comorbidity within the anxiety disorders

Sanderson *et al.* (1990) investigated patterns of comorbidity in 130 patients with DSM-III-R anxiety disorder patients. Seventy per cent of the total sample received at least one additional Axis I diagnosis. Broken down by principal diagnosis, 91% of GAD, 83% of obsessive-compulsive disorder (OCD), 69% of panic disorder with agoraphobia (PDA), 58% of social phobia and 53% of simple (specific) phobia patients were given at least one additional diagnosis. For the sample as a whole, the most common additional anxiety disorder diagnoses were social (29%) and simple phobia (32%). However, at the clinically significant level, GAD was the most frequently assigned additional diagnosis. The authors concluded 'that there is a strong tendency for anxiety disorders to cluster together, and that there are consistent patterns of co-occurrence' (p. 310). They also noted that key features of various anxiety disorders such as panic attacks, intrusive thoughts, social fears and excessive worry seem to exist, to varying degrees, in most patients

presenting with a principal diagnosis of almost any of the anxiety disorders. They concluded that 'the typical practice of describing patients with one principal diagnosis is inadequate to convey the overall pattern of psychopathology in the majority of patients. A more useful classification system may well ascertain the presence of a trait or negative affect or an anxious personality and then rate the presence of a variety of anxious or depressive features . . . resulting in a diagnostic pattern that would have substantial implications for treatment and course' (p. 312).

Moras and Barlow (1992) found 50% of a large sample of carefully diagnosed anxiety disorder patients had at least one additional anxiety or depressive disorder. GAD was the most commonly assigned additional diagnosis (23%). When degree of severity was taken into account, comorbidity rates rose to 79%. GAD and PDA were associated with the highest comorbidity rates, simple phobia with the lowest. GAD was strongly associated with social phobia, panic disorder (with or without agoraphobia) and mood disorders; PDA, particularly at severe levels, with social and simple phobia, GAD and, most of all, a mood disorder.

Borkovec *et al.* (1995), studying 55 DSM-III-R GAD patients, found 78% received at least one additional diagnosis. Thirty-one per cent received more than one. Social and simple phobia were most commonly assigned. The results are limited as the sample (for a treatment outcome trial) excluded patients meeting criteria for panic, major depression or substance abuse disorders.

These reports may help explain the relatively poorer diagnostic reliability found with GAD as, in addition to the lack of specific behavioural markers, GAD is rarely found without comorbid disorders. The presence of other disorders has been shown to complicate the process of diagnosis (Chorpita *et al.*, 1998).

The US NCS (Kessler *et al.*, 1994), reported that 79% of individuals diagnosed as having a DSM-III-R anxiety disorder at some stage of their lives had at least one additional comorbid disorder. They noted that the vast majority (89%) of those with severe 12-month disorders occurred in the 14% of the sample with a lifetime history of three or more disorders. They concluded that while mental health problems are common in the USA, the significant burden of mental health problems are to be found in a highly comorbid group comprising about one-sixth of the population.

Anxiety and depression comorbidity

Depressive disorders are more likely to co-occur with anxiety disorders than with any other disorder, with nearly half the cases of depression and anxiety comorbid at the same time in the same primary care patient (Sartorius *et al.*, 1996). Sanderson *et al.* (1990) found that 33% of their anxiety disorder sample noted above met criteria for a mood disorder (either major depression or, more commonly, dysthymia). Kessler *et al.* (1996), reporting on the US NCS,

found that 68% of a primary anxiety disorder group had a secondary major depressive disorder, while 84% of those with a lifetime GAD diagnosis also had a lifetime mood disorder (Judd *et al.*, 1998). Andrade *et al.* (1994) reported the lifetime comorbidity of PD/PDA and major depression to be 11 times higher than expected by chance. Borkovec *et al.* (1995) reported that 49% of a GAD sample met criteria for past depressive episode. Similar results emerged from a multinational study (Merikangas *et al.*, 1996) that showed panic disorder and social phobia particularly strongly related to comorbid depression.

Kendler (1996), taking a genetic epidemiological approach to comorbidity, studied a cohort of female twins, and suggested that the same or highly similar non-specific genetic factors contribute to the predisposition to both GAD and major depression ('same genes, (partly) different environments'). These may be associated with environmental risk factors such as, in the case of GAD, stressful life events based on danger and, in the case of major depression, life events based on loss. In terms of the temporal sequence of comorbid anxiety and depression, anxiety disorders are often found to precede depression (Rohde *et al.*, 1991; Wittchen and Essau, 1989), although Coryell *et al.* (1992) found the opposite. Kessler *et al.* (1999c) found an elevated risk of mood disorders emerging for many years after the onset of social phobia. Angst *et al.* (1990) found that those patients diagnosed with pure anxiety tended to develop additional depression, while those with pure depression tended to retain that single diagnosis over the years. Comorbidity of these disorders is associated with greater severity (Scheibe and Albus, 1994), with an exacerbation of primary disorders often accompanying the onset of secondary disorders (Kessler and Price, 1993). Wittchen and Essau (1989) found that patients with a mixed anxiety/depression were more severely impaired in psychosocial functioning than those with a pure depression, while the Kessler *et al.* study found that socially phobic depressives had twice as many impairments and two-thirds more episodes as depressives without social phobia.

Anxiety and alcohol abuse comorbidity

The NCS reported that anxiety, depression and alcohol disorders are the most common syndromes (Kessler, 1997). The high co-occurrence represents a significant health care issue. A range of studies suggests a high degree of comorbidity with between 25% and 45% of alcohol-dependent patients also meeting criteria for an anxiety disorder—often PDA or social phobia (e.g. Bowen *et al.*, 1984; Chambless *et al.*, 1987). When a lower threshold for anxiety is used, the rate approaches 60% (e.g. Smail *et al.*, 1984). Anxiety disorder patients have current or past comorbid alcohol abuse or dependence rates of between 15% and 25% (Bibb and Chambless, 1986; Thyer *et al.*, 1986). The NCS found that those with addictive disorders had the greatest delay between onset of the disorder and entry into treatment, thus providing fertile ground for other problems to grow (Olfson *et al.*, 1998).

Although no clear temporal relationship was reported for GAD, panic and mood disorders, the emergence of phobic disorders (social, specific and agoraphobia) appeared to precede the onset of alcohol problems in a multinational study, thus providing some evidence for a self-medicating hypothesis (Swendsen *et al.*, 1998). Although some evidence suggests that anxiety may be a consequence rather than a cause of alcohol abuse (Allan, 1995), recent NCS data suggest that alcohol use disorders are usually temporally second. Earlier anxiety and mood disorders are stronger predictors of alcohol dependence than alcohol abuse among women than men (Kessler *et al.*, 1997c). However, the specific mechanisms of these associations remain unclear and complex.

Anxiety and personality disorder comorbidity

Oldham *et al.* (1995), looking at comorbidity of Axis I and Axis II (personality) disorders, found a strong relationship between anxiety disorders and (cluster B) borderline and (cluster C) avoidant and dependent personality disorders. Mauri *et al.* (1992) found that 50%, 41% and 34% of panic disorder, generalised anxiety disorder and recurrent depressive disorder patients respectively met criteria for an Axis II personality disorder. Panic patients had a greater variety of personality disorders but, again, cluster C diagnoses—especially avoidant and dependent—predominated. Mavissakalian *et al.* (1995), reporting on a DSM-III GAD sample, found an Axis II comorbidity rate of 37%—with avoidant disorder being most commonly assigned. Sanderson *et al.* (1994) found 50% of a DSM-III-R GAD sample to have a personality (mainly avoidant and dependent) disorder.

Scott *et al.* (1995), treating DSM-III-R GAD, PD and major depression patients, found that half of the sample met criteria for an Axis II personality disorder—typically cluster C avoidant and dependent personality disorders. Chambliss *et al.* (1992) found agoraphobics to have a 92% comorbid rate with mainly cluster C disorders. Klass *et al.* (1989), comparing DSM-III-R anxiety disorder patients with (AnxPD) and without (Anx) an additional personality disorder diagnosis, found that AnxPD patients received significantly more diagnoses of current dysthymia and past major depression, were more likely to receive diagnoses of low-frequency disorders and had significantly lower rating of current adaptive functioning.

Data from 'Stress Control' patients

Seventy-one patients with a principal diagnosis of GAD (DSM-IV criteria) were assessed with both the Anxiety Disorder Interview Schedule IV (Brown *et al.*, 1994) and the Structured Clinical Interview—Personality Disorders section (Spitzer *et al.*, 1990, DSM-III-R criteria) prior to taking part in 'Stress Control' courses. Fifty-two per cent met criteria for an Axis II personality disorder—mainly fairly evenly spread across the cluster C

disorders. These two groups—GADs with (GAD/PDs) and without (GADs) Axis II diagnoses—were then compared on a range of measures as well as response to treatment. All GAD/PDs and 88% of GADs had at least one additional Axis I diagnosis. GADs had, on average, 2.4 Axis I diagnoses, GAD/PDs had 2.7. GADs were more likely to have social or specific phobia comorbid disorders, while GAD/PDs were much more likely to have a mood disorder. GAD/PDs had a longer duration of the problem (7.2 v. 4.8 years), although determining a specific onset for both groups was difficult (White, 1997b).

ANXIETY AT THE PRIMARY CARE LEVEL

Consultation rates

Hassall and Stilwell (1977) suggested that, due to longer consultation times, 30% of all consultation time is taken up by patients complaining of common emotional problems—more than patients suffering from severe mental illness (Corney *et al.*, 1996). National morbidity statistics show that, with the exception of those suffering from respiratory disorders and cardiovascular problems, this group makes most demands on GPs' time (Corney, 1997). Jenkins *et al.* (1998) showed that individuals with a 'neurotic' complaint were twice as likely as those without to have consulted their GP in the two weeks prior to interview.

General practitioner perceptions

Over a 20-year period, three-quarters of women and half of all men had consulted their GPs about a mental health problem (Shepherd, 1991). GPs, in general, do not feel equipped to deal with this population either in terms of training or in the amount of time they have at their disposal (McLeod, 1992). Salmon *et al.* (1988) reported that problems with a large psychological component led to dissatisfaction in the GP. Bennett *et al.* (1978) reported that GPs cite termination of consultation to be a particular source of difficulty with such patients. Yet GPs are highly likely to be the sole health provider to the vast majority of these patients (between 90% and 95%—Espie and White, 1986b; Goldberg and Huxley, 1992).

Characteristics of the 'neurotic' group

Defining 'high attendance' in women as more than 10 GP consultations per year, Corney and Murray (1988) found it to be significantly associated with psychiatric morbidity, young age, lower socio-economic group, concomitant physical symptoms and psychotropic medication use within the previous 12 months. These women also used other agencies to a greater degree.

Reviewing a sample of neurotic primary care patients first reported 11 years earlier by Mann *et al.* (1981), Lloyd *et al.* (1996) found that initial General Health Questionnaire (GHQ) (Goldberg and Williams, 1988) score was strongly associated with high GHQ score at 11 years, chronic course of psychiatric illness and high consultation rates. Almost half the sample had a chronic course over the 11 years with over half meeting 'caseness' at the assessment point. There was also evidence that death from natural causes was significantly higher than would be expected. Social and personality factors were not related to clinical outcome or course over the 11 years. The authors concluded by stating that the findings highlight the need for early identification and more efficient systems for managing these patients. Jenkins *et al.* (1998) also noted that around 50% of their neurotic sample suffered from long-standing physical complaints compared to 30% of the non-neurotic group. This may reflect the effect of secondary problems associated with anxiety and depression, i.e. drinking or smoking more.

Problems identifying or diagnosing anxiety and depression in primary care

Approximately half of all patients presenting with a mental disorder in primary care settings are not appropriately diagnosed (Fifer *et al.*, 1994; Shear and Schulberg, 1995). Sartorius *et al.* (1996) found less than half of their international sample was recognised as having a mental health diagnosis by the primary care team. In Britain, the annual rate of *conspicuous* psychiatric morbidity, i.e. that identified by the GP in primary care, has been reported as 101 per 1000 population. When combined with the *hidden* morbidity (e.g. identified through the use of screening instruments), this figure rises to 230 per 1000 (Royal College of General Practitioners, 1986).

Fifer found that, of the 33% of US primary care patients who met criteria for anxiety symptoms and possible anxiety disorders, less than half (44%) had been identified by the primary care physician. Of this sample, 48% had more than one anxiety disorder with panic (with or without agoraphobia) and post-traumatic stress disorder (PTSD) the most common problems. Katon (1984) reported that 89% of panic disorder patients initially presented to their doctor with somatic complaints that were misdiagnosed as a physical condition. Castro (1993) estimated that only 20% of those with a diagnosable mental health disorder gets into treatment, while Regier *et al.* (1993), reporting on the ECA study, found that only one-third of those meeting criteria for an anxiety disorder were involved in any form of psychological or pharmacological treatment. Goisman *et al.* (1993) found that of the 38% of anxiety disorder patients receiving treatment, 93% of these were receiving medication as the primary approach. This was often prescribed inappropriately (Shear and Schulberg, 1995). As Barlow *et al.* (1996) noted, many individuals with anxiety disorders are being inadequately treated in primary care settings.

Failure to attend primary care

An additional problem relates to the fact that many patients do not present for help to primary care facilities in the first place. In the USA, only 32% of anxiety disorder sufferers seek treatment and half of these go directly to secondary care facilities (Barlow *et al.*, 1996). This highlights the fact that most US states operate a different primary care system from Britain, where the vast majority of secondary care patients are directly referred for specialist help by their GP. Katerndahl and Realini (1995) found that only 59% of individuals experiencing panic attacks had sought help for the problem, while Katon *et al.* (1987) suggested that 30% of primary care patients had experienced at least one panic attack in the previous year. The British Psychiatric Morbidity Survey (Jenkins *et al.*, 1998) found that one-quarter of those diagnosed as having a neurotic disorder had not sought help from their GP (or other professional) as they felt no one would or could help.

SOCIAL FACTORS

Economic costs

Based on ECA mental health data, Dupont *et al.* (1993) reported that, in 1990, direct (health care) and indirect (lost productivity) costs amounted to $46 billion, representing 32% of the total mental health cost. The figure also represents a 38% increase over 1985 figures, suggesting a rapid increase in costs. Similarly, Greenberg *et al.* (1999), using data from the NCS, reported an annual economic burden of anxiety disorders in the United States to be approximately $63.1 billion in 1998. Kessler and Frank (1997) looked at days lost from work or 'cut-back' days, i.e. when the individual was unable to do as much work as usual owing to the mental health disorder. They found that the presence of comorbidity involving at least two of the three categories of anxiety, affective and substance use disorders resulted in the highest number of days lost (49 per month per 100 workers) and cut-back days (346 per month per 100 workers). These findings suggest that over 15 million days and over 110 million work cut-back days are lost annually in the USA. The authors suggest that, humane reasons aside, there are very good economic reasons to make appropriate treatments widely available.

British data on 'neurotic' disorders in UK general practice in 1985, reported conservatively, a cost of £373 million, equivalent to 9% of the annual total spent on GP services. In addition, £219 million was spent on these problems in hospital treatment (Croft-Jeffreys and Wilkinson, 1989). These disorders accounted for one-third of days lost from work due to ill-health (Jenkins, 1985). More recent data from the Institute of Management suggest that 270,000 people take time off every day because of work-related stress. In terms of sick pay, lost productivity and National Health Service (NHS) costs, this represents a cumulative annual cost of around £7 billion (Charlesworth, 1996).

Turner *et al.* (1995) reported that costs for individuals receiving mainly cognitive–behavioural therapy approaches, for GAD (average 23 hours therapy), PD (27 hours) and Social Phobia (29 hours) were $2181, $2599 and $2695 respectively—large sums especially if not covered by appropriate health insurance. These figures may be underestimates as it is not clear if they include the numerous booster sessions (14–24). The impact of managed care in health care delivery systems such as health maintenance organisations (HMOs) in the USA is likely to significantly reduce these figures for many sufferers. It is notable that British NHS figures for the same disorders treated in routine clinical work are significantly smaller; e.g. Turvey (1997) reported the majority of anxiety disorder patients being treated in seven or fewer appointments, representing the implicit attempt to marry clinical effectiveness and time economy.

Social costs

The common mental disorders—principally anxiety and depression—are possibly the most costly to society (Weich, 1997). There is a wealth of evidence pointing to a higher prevalence for anxiety and depression (among other problems) among manual workers (Kessler and Frank, 1997) and in inner city areas where social deprivation is greatest.[3] Brown (1992) found an annual prevalence of clinical (i.e. severe) depression of 10–15% among women in Camberwell, a working class area in London, with half of these cases persisting for at least one year. NCS and ECA data from the USA, consistent with previous research, suggests that rates of almost all psychiatric disorders, particularly anxiety disorders, increases as socio-economic status decreases (Kessler *et al.*, 1994; Robins and Regier, 1991). Yet roughly 16% of the US population have no health insurance (Frank and McGuire, 1994) and many others have limited mental health care cover. The public health care system is unable to provide sufficient help to those members of society with the highest rates of disorders. However, in comparing the USA and Ontario, Olfson *et al.* (1998) report that those most socially disadvantaged do not receive treatment more quickly in the Canadian Province health care system that, in theory, provides easier access to care for the poor.

A recent report on deprivation and health (Information and Statistics Division, National Health Service in Scotland, 1998) showed not only a significant relationship between social deprivation and incidence of cancer, coronary heart disease and stroke, but also a significantly greater incidence (and GP contact rates) of both anxiety and depression among the poorest sections of society than among those in most affluent areas—roughly three times higher in the case of anxiety in women. Similar results were found in the NCS (e.g. Wittchen *et al.*, 1994). These physical and mental health

[3] Social deprivation includes low income and financial hardship, unemployment, poor housing and lack of education.

problems may often be linked, producing low physical and mental health quality of life persisting over time (Sherbourne *et al.*, 1996). Women, in general, are twice as likely to experience common mental disorders such as anxiety and depression than men (Paykel, 1991; Wittchen *et al.*, 1994). Working-class women are more at risk of depression than middle-class women (Brown and Harris, 1978), with environmental rather than biological factors more likely to be responsible (Paykel, 1991).

The British Psychiatric Morbidity Survey (Jenkins *et al.*, 1998) found unemployment, relationship status (single, divorced, or widowed), and living status—especially single parents—to be associated with higher levels of neurotic disturbance. As an example of this, unemployed people are about twice as likely to suffer a neurotic disorder than those in work (Kessler *et al.*, 1987a). Lack of control over one's life—arguably more common in socially deprived areas—and having fewer social supports also contribute to mental distress (Newton, 1988; Bennett and Murphy, 1997). The association between social deprivation and increased mortality may also be mediated by psychosocial factors (Wilkinson, 1992). Many of these factors may be interactive or bidirectional and may also interact with biological and other predisposing factors—unemployment may lead to a vicious circle where self-esteem drops, anxiety and depression rise, leading to lowered confidence about seeking a new job etc.; single parents, owing to financial pressures or lack of child-minders, may have fewer opportunities to have a social life, thus increasing social isolation and maintaining depression, etc. The survey found that alcohol dependence was nearly twice as common and drug dependence five times as common among those who were unemployed as among those who were working.

Social and psychological interactions

In a series of papers based on data from the NCS, Kessler and colleagues report on the social consequences of mental health problems, particularly those with onset in teenage years, i.e. the time when individuals are making decisions that will often have life-long repercussions. The implication is that the presence of a disorder is more likely to result in individuals making detrimental decisions, negatively affecting their future well-being. While socio-demographic processes strongly influence the areas noted below, there has been, until recently, a dearth of studies looking at psychological factors.

Disorder onset and first treatment contact

Patients generally do not reach secondary care services until their problems have become well entrenched. Comparing first treatment contacts in the USA and Ontario, Olfson *et al.* (1998) found that while panic sufferers had the highest probability of first-year treatment, those with phobia and addictive disorders had the lowest. Importantly, they also found a strong inverse

relationship between age at onset and first treatment contact, with those in their thirties much more likely to seek and obtain treatment quickly. In the case of depression, those with a first onset between 30 and 54 were 14 times more likely to receive treatment within one year of onset compared to those with an onset prior to age 13.

There was no evidence that the Ontario system, based on universal public health insurance cover, provided quicker access to treatment. Kessler *et al.* (1997a) also found that those with lower levels of need but higher perceived need for treatment were more likely to be in treatment than those with greater need. Kessler *et al.* (1999b) reported that nearly half of those in treatment in the year prior to assessment did not qualify for any of the disorders assessed in the NCS. Kessler *et al.* (1999a) found that although, in general, individuals in the USA with GAD, PD and Major Depression do seek and receive help, there is an average delay of between six and 14 years across these disorders.

Individuals taking part in early 'Stress Control' courses had, on average, a current problem duration of six years, thus allowing the build-up of secondary maintaining factors such as demoralisation (White *et al.*, 1992).

Education

Kessler *et al.* (1995) found evidence that the presence of an early-onset mental health disorder (commonly anxiety disorders among females and conduct disorders in males) was a strong predictor of failure to complete high school. Those with such a disorder were twice as likely not to graduate than those without. These figures suggest that 7.2 million people in the USA prematurely terminated their education owing to these factors. Failure to do well at school is likely to have life-long implications for the individual as educational success is an important factor in determining occupational achievement, financial security and lifestyle behaviours that affect well-being and health.

Teenage parenthood

Teenage parents are at higher risk of poor employment opportunities, lower educational attainment and more unstable relationships. Women who have children while in teenage years are more likely to receive welfare and to have difficulty in coming off such benefit. There is substantial evidence that, generally, children are adversely affected by having teenage parents. The NCS data support the conclusion that teenagers with mental health problems (commonly anxiety, affective, addictive and conduct disorders) are three times as likely to become teenage parents as those without a disorder (Kessler *et al.*, 1997b).

Marriage and marital stability

There is strong evidence suggesting that married people have better health, financial security and social support than those not married, while divorce is

associated with future anxiety and depression problems, financial insecurity, physical illness and lower levels of general satisfaction in life (Aseltine and Kessler, 1993). However, compared to those who marry later, teenage marriage is associated with future difficulties including marital instability, poorer economic resources, poorer educational attainment and child care difficulties (Teti *et al.*, 1987).

Kessler *et al.* (1998) reported that those with an early-onset mental disorder (anxiety, affective and substance use disorders) were more likely to marry by the age of 18 than those without. They also found that these teenagers had a greater risk of divorce than others. Those with a teenage-onset anxiety disorder, in particular, are about half as likely to be currently married, at the point of NCS assessment, than those with no early-onset disorder. This study also found that those with early-onset disorders who did not marry by this age were less likely to marry later compared to others.

It seems plausible that those with mental health problems benefit from stable marital relationships and suffer when these relationships are disrupted. It is possible that the direct effects of the mental health problems can create interpersonal difficulties, thus increasing the risk of divorce (Kessler and Forthofer, 1999).

Socio-economic status

Looking at male employment, Jayakody *et al.* (1998) reported that men who experienced an early-onset anxiety disorder are about three times more likely to be unemployed than those with no early-onset disorder. This negative effect is mediated by the fact, as noted above, that early-onset mental health disorders also diminish the likelihood of being married and having good educational attainment. This study also found that, in the absence of an early-onset disorder, the probability of men having a recent mental health disorder was 8%. If they had experienced an early-onset anxiety disorder, it was 21%. Even for those in employment, Kessler (1999) noted that, in every year of their working lives, they will earn on average $2500 less than those who had no early onset.

These findings call for the greater integration of psychological, economic and sociological factors in developing more robust models of psychological and social interactions. Taking into account the lowered probability of early-onset sufferers getting into appropriate treatment quickly compared to those with later life onset (Olfson *et al.*, 1998), it is imperative that more work should be carried out in this area to improve detection of problems and availability of help.

Treatment considerations

Many research centre studies do not take social and economic factors into account and, indeed, may exclude possible subjects specifically because of

social circumstances, thus decreasing the representativeness of their samples. In routine clinical practice in health care systems based on insurance and private practice, it may be that those with greatest social disadvantages are least likely to enter treatment. This may lead health care workers to neglect social variables in planning health care needs. As a psychologist working in one of the most socially deprived areas in Scotland, much of the literature seems woefully inadequate in describing the daily realities faced by many of my patients who can often report social and financial difficulties that play a large part in explaining why they feel the way they do. Mental health research has, largely, focused on intrapsychic models rather than seeing these within a wider perspective that may also contain such factors as unemployment, poor housing, bad neighbourhoods, poverty, education, articulacy and family issues. As Wilkinson (1996) states, the scale of income differences and the condition of a society's social fabric are crucially important determinants of the real subjective quality of life among modern populations.

In addition, current models often do not take into account important cultural differences that play an important part in determining how the disorder manifests. Thus conditions such as koro or susto cannot be understood without understanding the culture, and treatment rationales must be consistent with this. Even in Western cultures, subcultural factors may play significant roles. Street *et al.* (1997) found that 14% of a Hispanic population in the USA suffered from anxiety and affective disorders that could not be captured by the DSM system. Similarly both cultural and educational factors had to be taken into account in understanding the expression of anxiety in African Americans (Heurtin-Roberts *et al.*, 1997). There is too often a suspicion in, for example, therapy transcripts that, apart from being well motivated and self-starting, the patient's cultural background is very similar to that of the researcher, i.e. articulate, well educated and middle class.

SUMMARY AND CONCLUSIONS

- Anxiety disorders and mixed anxiety–depression are extremely common problems whether using explicit diagnostic criteria or more subjective criteria.
- There appear to be fairly consistent patterns of comorbidity, with GAD least likely to be found in a 'pure' state. At the clinical level, GAD, panic and social phobia are most commonly assigned as comorbid disorders. Mood and Axis II disorders are commonly found with anxiety disorders.
- Those suffering from such conditions often report a chronic course and use primary care services extensively.
- GPs feel themselves poorly equipped to deal with this population.
- Many patients who could benefit from psychological approaches slip through the net in primary care either because they do not attend for assessment and subsequent referral or because they are missed or misdiagnosed by primary care workers.
- Patients are being referred too late—after problems have been allowed to solidify and secondary problems appear.
- A significant number of those suffering from these conditions do not seek out treatment owing to a belief that no appropriate help is available.
- Social and psychological factors can interact with lifelong consequences.
- The numbers greatly outstrip our current ability to meet the demand. Secondary care services are currently only seeing the tip of the iceberg.

ACTION

- More effort should go into the earlier detection of, and help for, these problems in primary care. The 'filter' system suggested by Goldberg and Huxley (1992) offers one possible model.
- GPs should be helped to create appropriate, practical preventative interventions.
- Patients who do not respond to initial primary care help should be quickly referred to mental health professionals.
- Resources, as currently utilised, cannot support significant increases in referrals. Thus more efficient methods of dealing with larger numbers should now be a priority for mental health professionals in primary care. As it is unrealistic to assume that resources will significantly increase, this quest will inevitably focus on more cost-effective approaches and the move away from one-to-one therapies at least for some patient groups.