MENTAL HEALTH IN NEW ZEALAND FROM A PUBLIC HEALTH PERSPECTIVE

Edited by

Pete M Ellis
Wellington School of Medicine

Sunny C D Collings
Wellington School of Medicine

Disclaimer

The views expressed in this report are those of the authors and they do not necessarily represent the views of the Ministry of Health.
Anxiety has long been regarded as a central part of many psychiatric disorders. However, the differentiation of discrete clinical syndromes with clearly operationalised criteria which occurred with the 1980 publication of the American Psychiatric Association’s (APA) *Diagnostic and Statistical Manual of Mental Disorders (DSM-III)* changed the way anxiety was considered. Rather than being an amorphous concept that was explicitly or implicitly a cause of most psychiatric disorder, *DSM-III* delineated a series of interrelated but separate anxiety disorders: phobia, panic, obsessive-compulsive disorder, generalised anxiety disorder, and post-traumatic stress disorder (APA 1980). Although the *DSM* diagnostic criteria have continued to be revised and refined, and the World Health Organization has adopted a similar approach to explicit specification of the requirements for determining the existence of disorders, most of the available data on the general population both in New Zealand and overseas were derived at the time *DSM-III* was current. In more recent refinements to the way the *DSM* diagnostic system classifies anxiety disorders, the relationship between panic and agoraphobia is demarcated differently, acute stress disorder has been included, and anxiety disorder secondary to a medical condition or to substance use has been identified separately.

A phobia is an unreasonable and intense fear that leads to avoidance, occurring in response to certain well-defined situations that are not inherently dangerous. *DSM-III* described three types of phobia: agoraphobia, social phobia, and simple or specific phobia. Agoraphobia, literally fear of the marketplace, is somewhat misnamed. It refers to a pattern of high levels of generalised anxiety with multiple phobic symptoms, commonly involving open spaces, closed spaces, crowds, social situations, train or bus travel. Social phobias are a diffuse group of fears of personal interactions in a social setting. The fears often focus on meeting people, blushing, eating, drinking, or behaving oddly in public, and the central theme frequently involves a fear of seeming ridiculous to others. Specific phobias involve monosymptomatic fears of specific situations such as heights, air travel, storms, or darkness.

Panic disorder involves a sudden fearful spell that reaches a crescendo of intensity within five to 10 minutes during which there are a number of accompanying physiological symptoms such as sweating, dizziness, and pounding heart. These attacks must occur recurrently over at least one month and not be triggered by specific situations. The symptom picture for generalised anxiety disorder (GAD) is quite similar, but in generalised anxiety disorder there is more of a slow undulation of anxiety rather than a crescendo of panic. Generalised anxiety disorder also requires at least six months of persistent and excessive anxiety and a range of accompanying symptoms such as sleeplessness, fatigue, restlessness and difficulty concentrating.
Obsessive-compulsive disorder (OCD) is characterised by several types of symptoms. Obsessional acts or rituals, sometimes called compulsions, may consist of activities such as counting, repeating, checking, cleaning, or avoiding things. Obsessional thoughts have several characteristic features: they come into the person’s consciousness against their will but are recognised by the person as their own thoughts; they are usually unpleasant and abhorrent; the subject feels compelled to resist them and cannot accept them as harmless.

Post-traumatic stress disorder (PTSD) involves a pattern of severe anxiety provoked by experiencing or witnessing catastrophic events. Typical features include repeated reliving of the trauma, vivid nightmares, and intrusive memories or flashbacks, occurring against a background of a sense of numbness and emotional blunting. Hyperarousal, hypervigilance, insomnia, anxiety and depression are commonly present, and there is usually marked avoidance of any situation that resembles the environment in which the original trauma occurred.

### PREVALENCE

The lifetime and six-month prevalences of anxiety disorders in New Zealand are summarised in Tables 13.1 and 13.2. These data were obtained in the Christchurch Psychiatric Epidemiology Study (CPES). PTSD was not assessed in this New Zealand study, but has been in community studies in the United States. However, the effects of the Vietnam War are likely to result in higher rates of PTSD there.

### LIFETIME AND SIX-MONTH PREVALENCES

Generalised anxiety disorder affects almost one-third of the adult population during their lifetime. The lifetime experience of GAD was slightly more common among women and slightly less common among younger people. Phobia was the next most common disorder, affecting one in 10 adults during their lifetime. The disorder was twice as common in women as in men. Agoraphobia and/or simple phobia accounted for most of the phobic disorders. Panic disorder was experienced by about one person in 50 in the general population during their lifetime. Three women had been affected by this disorder for every male who had the disorder. Obsessive-compulsive disorder was equally as common as panic disorder, with a similar sex distribution.

**Table 13.1: Percentage of adults aged 18–64 years in New Zealand with an anxiety disorder during their lifetime**

<table>
<thead>
<tr>
<th>Anxiety disorder</th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% (SE)</td>
<td>% (SE)</td>
<td>% (SE)</td>
</tr>
<tr>
<td>Any phobia</td>
<td>6.8 (1.3)</td>
<td>14.6 (1.3)</td>
<td>10.7 (0.9)</td>
</tr>
<tr>
<td>Social phobia</td>
<td>4.3 (1.1)</td>
<td>3.5 (0.7)</td>
<td>3.0 (0.6)</td>
</tr>
<tr>
<td>Agoraphobia/simple phobia</td>
<td>3.4 (1.0)</td>
<td>12.8 (1.2)</td>
<td>8.1 (0.8)</td>
</tr>
<tr>
<td>Panic disorder</td>
<td>0.9 (0.6)</td>
<td>3.4 (0.7)</td>
<td>2.2 (0.4)</td>
</tr>
<tr>
<td>Obsessive-compulsive disorder</td>
<td>1.0 (0.7)</td>
<td>3.4 (0.7)</td>
<td>2.2 (0.4)</td>
</tr>
<tr>
<td>Generalised anxiety disorder</td>
<td>27.1 (2.1)</td>
<td>35.1 (1.7)</td>
<td>31.1 (1.3)</td>
</tr>
</tbody>
</table>

*Source: Wells et al 1989*
Within the previous six months, one person in 10 (9.6 percent of adults) had met criteria for generalised anxiety disorder, and one person in 12 had had a phobic disorder. Simple phobia was twice as common as both social phobia and agoraphobia. Obsessive-compulsive disorder and panic disorder each affected about one person in a hundred in the general population.

Table 13.2: Percentage of adults aged 18–64 years in New Zealand with an anxiety disorder in the last six months

<table>
<thead>
<tr>
<th>Anxiety disorder</th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any phobia</td>
<td>4.4 (1.1)</td>
<td>10.4 (1.1)</td>
<td>7.5 (0.7)</td>
</tr>
<tr>
<td>Agoraphobia</td>
<td>1.0 (0.7)</td>
<td>4.3 (0.7)</td>
<td>2.7 (0.5)</td>
</tr>
<tr>
<td>Social phobia</td>
<td>2.8 (0.9)</td>
<td>2.4 (0.6)</td>
<td>2.6 (0.5)</td>
</tr>
<tr>
<td>Simple phobia</td>
<td>1.7 (0.8)</td>
<td>6.9 (0.9)</td>
<td>4.3 (0.6)</td>
</tr>
<tr>
<td>Panic disorder</td>
<td>0.5 (0.6)</td>
<td>1.7 (0.5)</td>
<td>1.1 (0.3)</td>
</tr>
<tr>
<td>Obsessive-compulsive disorder</td>
<td>0.6 (0.6)</td>
<td>1.4 (0.5)</td>
<td>1.0 (0.3)</td>
</tr>
<tr>
<td>Generalised anxiety disorder</td>
<td>7.7 (1.4)</td>
<td>11.6 (1.1)</td>
<td>9.6 (0.8)</td>
</tr>
</tbody>
</table>

Source: Oakley-Browne, Joyce et al 1989

These data are generally consistent with those from similar studies overseas. Except for two locations, the findings from the five-site Epidemiologic Catchment Area (ECA) study in the US, and a similar study in Edmonton, Canada, showed that between 6.5 percent and 7.9 percent of the population had an anxiety disorder (excluding GAD and PTSD).

Post-traumatic stress disorder has been identified in a cross-sectional survey of the general population in Piedmont, North Carolina. Lifetime prevalence was 1.3 percent and six-month prevalence was 0.4 percent (Davidson et al 1991). However, among survivors of natural (and man-made) disasters the prevalence of PTSD is high. For example, among Falklands War veterans five years after the conflict, half experienced some symptoms of PTSD, and 22 percent had the full syndrome (O’Brien and Hughes 1991).

**CULTURE**

There are few data about the effect of culture on rates of anxiety disorders, and none specific to New Zealand. Community studies determining the prevalence of disorder in New Zealand have been carried out in Christchurch and Dunedin, where the proportion of Māori and Pacific people is low, and these studies fail to cast any light on this issue.
**COMORBIDITY**

While the *DSM-III* diagnostic system made the diagnosis of anxiety disorders more reliable, the categories of disorder imply a difference in phenomenology, perhaps even aetiology, and ultimately response to treatment. There is widespread disagreement about the extent to which some of the *DSM-III* disorders are really separate entities in view of their overlap with one another and with other mental disorders, especially depression. For example, the distinction drawn between panic disorder with and without agoraphobia, and agoraphobia without panic has been criticised on the grounds that panic disorder or agoraphobia frequently arise in individuals with a history of generalised anxiety or phobic anxiety, and disentangling the relationships is often difficult in practice. Furthermore, there is an overlap with depression. Panic symptoms within depression do not appear to be independent of the depression, and generally remit with successful treatment of the depression. Between half and three-quarters of those with panic disorder may concurrently develop depression (Montgomery 1993). The proportion of patients (especially in community or general practice settings) who experience mixtures of anxiety, depressive, hypochondriacal and obsessional symptoms, without any one dominant cluster, has led to advocacy for retaining the concept of neurosis to describe this group of disorders (Freeman 1993). See also Chapters 6, 22 and 23.

**INCIDENCE AND AGE OF ONSET**

A one-year follow-up of subjects recruited in the ECA study has attempted to determine the rate of onset of disorders. Although the methodology of this study had a number of limitations, it followed between 11000 and 14000 subjects. Crude unweighted incidence rates per 1000 population per year were five for panic disorder, 22 for agoraphobia, and seven for social phobia. The incidence rates were much higher in women for all three disorders than in men. Panic disorder had a peak period of onset during young adulthood, and declined thereafter. New cases of agoraphobia occurred throughout the life-span. The incidence of social phobia changed little with age for men, but increased for women (Eaton et al 1989; Eaton 1995).

A 30-month follow-up of a random community sample of New Zealand women found that 6.9 percent of the 215 women became new ‘cases’, although this includes all non-psychotic disorders, not just anxiety disorders (Romans et al 1993).

**IMPACT OF ILLNESS**

There are few data that link the presence of specific anxiety disorders to degree of disability resulting from that illness. However Clayer and colleagues (1991) have described disability levels of 55 percent to 65 percent in terms of daily living functions among those with generalised panic and phobic disorders. A considered analysis has been provided by Andrews (1995). Relying on US data, he estimated that 12.6 percent of the adult population had an anxiety disorder in a 12-month period. Andrews then used information relating disorder to degree of disability in order to group anxiety and other disorders into three levels of severity. About three-quarters of anxiety disorders could be considered ‘mild and transient disorder’ (9.2 percent of the general population); 17 percent of all anxiety disorders were described as ‘chronic mental disorder’ (2.2 percent of the general population); and 20 percent of panic disorder and OCD, together with 10 percent of social phobia, were counted as ‘serious mental disorder’ (1.2 percent of the general population).
Oakley-Browne, in his analysis of chronicity of disorders identified in the CPES, found that only 13.3 percent of those with a lifetime phobia, panic or obsessive-compulsive disorder had been symptom free during the year prior to interview (Oakley-Browne, Frampton et al 1989), which emphasises the chronic nature of these conditions.

**RISK FACTORS**

**GENETIC FACTORS**

The fact that anxiety disorders generally affect women twice as frequently as men has raised the issue of a biological vulnerability to developing these disorders. The extent of familial predisposition to anxiety disorder appears to be different for different anxiety disorders. Although the relatives of people with panic disorder were found to be at increased risk of developing panic disorder themselves, the risk for relatives of those with agoraphobia was increased for other phobias and panic disorder as well as agoraphobia (Harris et al 1983). It has also been found that the relatives of patients with panic disorder were more likely to have panic disorder than the relatives of patients suffering generalised anxiety disorder (Noyes et al 1987).

There have been a number of studies of twins that have also explored the role of a genetic component in the development of anxiety disorders. While evidence for a genetic factor contributing to the development of panic disorder and agoraphobia has been found (Torgersen 1983), there was less evidence for a genetic component to generalised anxiety disorder. Andrews and colleagues (1990) found evidence for a genetic contribution to a trait predisposing to the development of anxiety disorder that was not specific to any one anxiety disorder. Kendler and colleagues (1995) explored the relative contribution of genetic and environmental risk factors in the development of six common psychiatric disorders in women, on the basis of a large study of twins. They suggest that while liability to major depression and generalised anxiety is influenced by the same genetic factors, whether a woman develops depressive or anxiety disorder is a result of environmental experiences. It has also been established that first-degree relatives of patients with either obsessive-compulsive disorder or simple phobia have higher rates of these disorders themselves (Lenane et al 1990; Riddle et al 1990; Fyer et al 1990). There is evidence that the children of anxiety-disordered parents are at increased risk of developing these disorders themselves. The potential for intervention with this high-risk group of children will be discussed below.

**PARENTING**

The Otago Women’s Health Survey found that factors that preceded the onset of psychiatric disorder were being separated or divorced, coming from a large family, having poor social networks, living alone, having few social role responsibilities such as paid employment or motherhood, and having poor physical health. An additional cross-sectional association at follow-up was poor financial security. Good social networks were closely linked with the number of a woman’s social roles and appeared to protect her against the onset of psychiatric disorder. Consistent with the initial cross-sectional study, the follow-up data provide no support for marriage and child care being risk factors for female psychiatric disorder. This differs from findings in other parts of the world, and may be because in New Zealand, these factors indicate social integration and are associated with superior mental health (Romans et al 1993).
Parental mental disorder has been shown to have an effect on increasing the risk of psychological problems, including anxiety disorders in children. This has been found for both depression and panic disorder (Weissman et al 1984; Fendrich et al 1990; Politano et al 1992). The parental bonding instrument (Parker et al 1979) has been used to explore the effect of parenting on later psychological problems. Low parental care in combination with overprotection has been found to be associated with higher levels of anxiety (Parker 1986) and anxious out-patients were four times as likely as matched controls to regard at least one parent as having delivered ‘affectionless control’ (Parker 1981). This pattern of disturbed parenting has also been reported by patients with agoraphobia (Arrindell et al 1989) and generalised anxiety disorder (Silove et al 1991), but those with panic disorder were more likely to report overprotective but affectionate maternal care.

The inconsistent findings across different disorders may indicate that there is some difference in risk factors for different types of disorder. However, caution is necessary in the interpretation of findings from studies of clinical samples that have not used appropriate controls as a comparison group, since the operation of Berkson’s Bias militates against the generalisability of results of clinical studies: those who are in treatment are likely to have more wrong with them than those who are not, and the factors predicting access to treatment may not be the same as those predicting development of disorder (Bushnell et al 1996).

**PERSONALITY**

The idea that the existence of particular stable patterns of cognitive, emotional and behavioural response may render some individuals more prone to anxiety has been extensively investigated, although conceptual and methodological difficulties limit the extent to which definitive conclusions can be reached. For example, people with phobias and obsessive-compulsive disorder score highly on the neurosis and introversion dimensions of Eysenck’s personality questionnaire (Eysenck 1976). This has led to the suggestion that neurotic introverts are more likely to notice stimuli that they see as threatening, and to subsequently recall them (Gray 1987). However appealing this explanation, this research fails to address the problem that the assessment of personality constructs at the time a person has a disorder is likely to be coloured by the nature of that disorder. Although conceptually one is a disorder, and the other a dimension of personality, there is a substantial overlap between what defines neurosis and the definition of anxiety disorder, and findings such as these may identify correlates, not risk factors.

More convincing is the evidence from longitudinal research which has shown that in comparison with healthy controls, those who later developed agoraphobia were more tentative, timid, and shy in social situations when they were children (Chess and Thomas 1984).

**COGNITIVE STYLE**

The experience of anxiety and ‘stress’ has been argued to result from evaluation of threatening stimuli and one’s own capacity to cope with the degree of threat perceived (Lazarus 1981; Beck et al 1985). Hypervigilance to potentially threatening stimuli may develop through a biological predisposition to strong reactions to threat, compounded by learning through adverse experience in childhood, especially in combination with self-perceptions of poor self-efficacy and limited ability to cope (Bandura 1986).
INTERVENTION

Studies of strategies that have targeted reduction of the prevalence of risk factors for anxiety disorders, or targeted modulation of the effects of these factors, are few and far between. Stress inoculation programmes aimed at helping adolescents with problems to cope have been shown to have some positive effects, at least in the short term (Hain 1992). Reviewers considering this issue have made recommendations for extensive programmes in schools using a variety of strategies such as exposure (and presumably habituation) to anxiogenic stimuli, and the adoption of anxiety management training programmes (McLoughlin et al 1995). However, before such radical intervention is advocated, evidence of its effectiveness would be desirable. It is likely that attempting to teach anxiety management strategies to adolescents who are not currently anxious will lead to it being seen as irrelevant by many, and perhaps the majority, of those taking part. Furthermore, the cognitive-behavioural psychotherapeutic treatment approach on which this intervention is based involves tailoring the principles to the specifics of the individual’s unique beliefs, behaviour and background experience. If reduced to what could be imparted by a classroom teacher working from a manual, the potential usefulness of this approach may be undermined rather than enhanced.

A broad-ranging review by Raphael (1993) has identified a number of areas where there is the potential for preventive programmes to be developed, even though there is little positive evidence of the outcome of such endeavours. The primary prevention strategies she identifies include those aimed at young children:

- enhancing detection of anxious and depressed mothers during pregnancy by education of obstetricians, midwives, general practitioners and nursing staff
- the introduction of programmes to assist parents by addressing parental discord, parental psychiatric disorder, and poor parenting skills
- the development of psychosocial programmes to assist children to deal with major life stressors, especially those involving threat or separation.

Raphael (1993) also delineates an array of potential avenues for prevention with adolescents:

- the development of programmes for adolescents targeted at competence and self-concept building, anxiety and stress management, and education for anxiety-generating life stages such as leaving school
- debriefing programmes after stressful events such as suicide or accidental death of friends
- education about personal relationships and the management of conflict
- education about anxiety and its relation to other problems including substance abuse.

Implementation of strategies such as these within a New Zealand context would require some adaptation, and research to remedy the lack of information about the extent of these problems in New Zealand would assist immeasurably in this process. There is a dearth of data about the influence of culture on the presence or type of anxiety disorder. However, any intervention programme would need to be tailored to the culture within which it was to be applied. In view of the lack of evidence of effectiveness, the introduction of carefully evaluated pilot programmes on a manageable scale may permit a gradual increase in the extent of knowledge of what makes a difference to the rate of onset of these disorders, and the degree of disability caused by them. In optimal circumstances, implementation of preventive strategies would involve the use of media (from television programmes such as Shortland Street, a contemporary drama series, to magazines popular with adolescents) in order to raise awareness and foster attitudinal change among young people.
In view of the fact that a high proportion of people with anxiety disorder (up to 80 percent) (Hornblow et al 1990) will be in contact with their general practitioner (although not presenting for help with their anxiety), there is scope for better early recognition and secondary prevention strategies to be implemented in a primary care context.

REFERENCES


