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Interaction of pharmacological and psychological treatments of anxiety

M. H. LADER and A. J. BOND

Background Pharmacological and psychological treatments for anxiety are often combined in clinical practice but there is little research from which to predict the effects.

Method The theoretical outcomes of combining treatments and methods of investigating these as well as methodological difficulties are described. Studies which have been completed in anxiety disorders are reviewed. A double-blind trial, using a factorial design, evaluated buspirone *v.* placebo and anxiety management training *v.* non-directive therapy in 60 patients with generalised anxiety disorder (GAD).

Results Relatively few germane studies have been carried out in the anxiety disorders except for panic disorder with agoraphobia. There is some evidence that short-term, combined treatment does confer additional benefits which are evident both in speed of onset and lasting remission. All four treatment combinations proved effective in the short-term treatment of GAD.

Conclusions More studies examining combined treatment are needed. Although differences may not be apparent at the end of the treatment period, psychological treatment appears to confer advantages at follow-up.

Various ideological approaches can be identified within psychiatry (Klerman, 1984) and six main models can be distinguished – the biological, the psychodynamic, the social or interpersonal, the behavioural, the cognitive and the humanistic. Each tends to be associated with a particular type of treatment (Table 1), although overlaps do occur. In anxiety disorders, pharmacological and behavioural treatments have received most attention although the psychodynamic approach has a long provenance and cognitive therapy is increasing in use. Both pharmacological and psychological treatments have advantages and disadvantages. Medication is readily available, cheap and easy to deliver, and acts relatively quickly. It also has unwanted effects and works only during continuing administration or until natural remission supervenes. Psychological therapy involves a separate trained practitioner, commitment to treatment and practice by the patient, and it usually takes longer to work. However, its effects do not cease on termination of therapy and there are no side-effects. Unfortunately, as these therapies are mainly given by people with different theoretical biases and training, professional relationships have become involved, even in some countries to the point of demarcation disputes.

There is evidence from many sources that in psychiatric/psychological disorders, biological and psychosocial factors interact in a complex way in causation and maintenance of symptoms and behavioural abnormalities. It is therefore important to remain open and flexible: no technique will help all patients and we need to know which patients respond best to which treatment and whether some patients require a combination of treatments. The purpose of this paper is to review this topic with reference to anxiety disorders.

TREATMENT COMBINATIONS

Three outcomes are possible on combining treatments: positive effects, negative effects and no effects (Table 2) (Klerman, 1986). These will be outlined in turn.

Possible positive effects

Drugs may enhance compliance with psychological treatments. Patients seek a 'quick-fix', treatments which relieve distress promptly and effectively, and with the minimum of time and effort on their part. Many anxious patients present for treatment at a point in time when they feel their symptoms are out of control (Bandura *et al*, 1980). Some anxiolytic drugs, in particular

Table 1 The relationship of theory to treatment

Model of psychiatric disorder	Treatment examples
Biological	Drugs
	Electroconvulsive therapy
Psychodynamic	Analytic psychotherapy
Social/interpersonal	Interpersonal therapy
	Family therapy
	Group therapy
	Marital therapy
Behavioural	Graded exposure
	Systematic desensitisation
	Applied relaxation
Cognitive	Cognitive therapy
Humanistic	Client-centred therapy

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Table 2 Theoretical advantages and disadvantages of the combination of treatments

A.	Positive effects
1.	Drugs increase psychological compliance
2.	Psychological treatments increase drug compliance
3.	Treatments act synergistically on different aspects
B.	Negative effects
1.	Drugs can reduce symptoms so patient loses motivation
2.	Drugs may interfere with psychological treatments
3.	Drugs may distort therapist–client relationship
4.	Giving drugs is a complex act needing psychological exploration
5.	Stopping drugs is a complex act needing psychological help

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benzodiazepines, produce rapid symptomatic improvement and may rekindle the patient's confidence in their coping strategies so that psychological treatments are persisted with, behavioural programmes are adhered to, or the psychodynamic links between past experiences and current thoughts and feelings can be more fruitfully explored.

Psychological treatments may improve drug compliance. Support, encouragement and explanation can imbue confidence in the patient concerning the efficacy of the prescribed medication. Psychoeducation techniques can be used to improve the understanding of how medication works. Unwanted effects can be dealt with and fears concerning possible addiction assuaged. A range of simple techniques such as charting improvement in symptoms and activities is helpful as well as more complex techniques such as cognitive restructuring.

Various treatments can act synergistically on different aspects of the disorder. A patient with panic attacks and agoraphobia may have their panics suppressed by medication whereas behaviour therapy may be used to modify the maladaptive behaviour.

Possible negative effects

The anxiolytic drug may reduce symptoms to the point where the patient can no longer bother to persist with the psychological treatment. Benzodiazepines may produce an immediate anxiolytic effect, together with a mild euphoric effect; this may induce symptomatic comfort and reluctance to pursue other treatments such as psychotherapy.

Learning, memory and concentration may be impaired by the anxiolytic to the point where psychological treatments, which rely on these processes, are no longer effective. In the most extreme form, state-dependent learning may occur. New learning would not generalise from the drug to the non-drug state so psychological improvement would be lost on drug discontinuation.

Drugs may distort the therapist–client relationship. A drug may have a negative placebo effect by increasing dependency on the therapist. The patient assumes a passive role in therapy in the expectation that the doctor will cure them and they need not take any responsibility for their own involvement.

Giving drugs is itself a complex behavioural act needing psychological exploration. If drug effects are the focus of any patient–therapist interaction, the therapeutic process may develop into a search for the 'right medication' irrespective of other factors such as relationships, psychosocial circumstances or life events. The patient may feel their self-efficacy and capacity to control those factors to be further reduced. The outcome is failure to persist with any psychological goals and for any improvement to be wholly attributed to the medication as an external and uncontrollable influence.

Discontinuing medication should be by tapering off because of concern over rebound if not dependence (Petursson & Lader, 1984). Stopping benzodiazepines may involve the mobilisation of intensive and occasionally prolonged non-drug therapies. Psychological reliance may ensue after any drug which has produced symptomatic improvement, even placebo.

No interactions

Carefully controlled studies try to refute the null hypothesis that two or more therapies simply add up their effects without either interacting positively with potentiation or negatively with inhibition or subtraction (Table 3).

In practice, two fully effective treatments may produce little or no additional benefit when combined than when each is given alone. A ceiling effect can occur in which each therapy fully exploits the patients' recovery potential to the full. However, the range of functions assessed by the measurement instruments must be comprehensive because although potentiation may not be evident on say, clinician's global ratings or anxiety symptom ratings, additional improvements may be present in self-efficacy, attitudes or lifestyle. Furthermore, long-term follow-up may uncover benefits not apparent in the short term.

METHODS OF INVESTIGATION

Before briefly reviewing the scant literature on combined treatments in anxiety disorders, some methodological issues need brief discussion (Kendall & Lipman, 1991). The 'gold standard' is a fully-balanced factorial design (2×2) in which each patient receives two treatments, active or placebo, drug and non-drug (Fig. 1). The design is quite powerful, providing the placebos are well-chosen. To improve the design two more groups are necessary, active drug alone and active non-drug treatment alone; this controls for the administration of the other

Table 3 Combination treatments

		Type of interaction
1.	Potentiate	X+Y→f (X+Y)
2.	Neutral	X+Y→X+Y
3.	Alternate	X+Y→X or Y
4.	Subtract	X+Y→ −f (X+Y)

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		Drug: Active	Drug: Placebo
Psychological treatment	Active	Both active	Psychological
	Control	Drug	Both inactive

Fig. 1 Design of rigorous study investigating treatment interaction.

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Table 4 Important methodological considerations

Placebo controls
Therapist expertise
Subject selection
Previous treatment
Length of treatment
Outcome measures
Independent assessor
Times of evaluation

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'treatment'. Finally, the design can be elaborated to unrealistic proportions by giving two or more doses of drug and of psychological treatment.

The main problem with the 2 × 2 design is devising suitable placebo psychological treatment (Table 4) (Elkin *et al*, 1988*a*,*b*). Even fairly simple procedures such as self-help manuals, non-directive counselling or educational material can be as effective as more structured approaches such as cognitive therapy (Borkovec & Mathews, 1988; Shear *et al*, 1994). Some studies have merely evaluated drug plus psychological treatment *v.* drug plus standard care or management but standard management may be quite effective in some primary care settings because of the expertise and compassion of the practitioner, producing a 'ceiling' effect. The same therapist should administer both active and control treatments according to a strict protocol. Allocation to treatment may need to be stratified within therapist, to control for differences in therapists' competence, enthusiasm and attitudes to various treatments.

Patients must be matched on initial severity and not screened or excluded because of either current psychopathology or past failure to respond to one or other treatment. Previous treatment should be carefully and assiduously sought (Power & Sharp, 1995) and any current medication tapered off. Then the patient is carefully re-assessed to establish the absence of any persistent withdrawal symptoms which might respond to the re-institution of a benzodiazepine-like substance.

The attitude of the patient to various forms of therapy should be evaluated systematically. Many patients equate 'drugs' with 'addiction' so may refuse to enter the study, or drop-out early, or comply poorly with medication. Others regard their illness as physical and are reluctant to cooperate in a 'talking therapy'.

The attitudes of the investigators and the therapists may also influence the study, which may degenerate into a therapeutic conflict with misunderstandings and ultimately subtle sabotage of the 'enemy's' therapeutic efforts (Chiles *et al*, 1984). This is very quickly sensed by the patients who lose confidence, forebearance and cooperability. Also, the assessor should be independent, not involved in treatment, and neutral and disinterested as to trial outcome.

The duration of the study and the times of evaluation are important. Many drug trials last 4–6 weeks which is often inadequate to assess the effectiveness of a psychological treatment. Outcome measures should include those relevant to both drug and psychological therapies as often results on different outcome measures favour different treatment modalities, for example self-esteem improving with cognitive therapy, relationships with interpersonal therapy and sleep and appetite with drug treatment. These evaluations should be at intervals which are close enough to detect more rapid onset of action and sufficiently long-term to detect any prolongation of remission or even prevention of new episodes.

Finally, therapists should be trained properly, and supervised if junior. Their 'efficacy' should have been established prior to the trial, and this is germane to both psychological and drug treatments. Too often, treatments are found to be efficacious in the hands of strong advocates only, who ensure their followers are properly trained in those techniques but dismiss others peremptorily (Weissman, 1979).

BRIEF REVIEW OF SOME RELEVANT STUDIES

Generalised anxiety disorder

New drugs have been and are being developed for anxiety (Dubovsky, 1990). These include the benzodiazepines and their analogues, partial agonists such as abercarnil; buspirone and other drugs acting on the serotonin system; and a variety of compounds influencing various central nervous system neurotransmitters. More recently there is a growing tendency to use antidepressants, not only for panic disorder and obsessive–compulsive disorder (OCD) but also for generalised anxiety disorder (GAD). The relative efficacy of drugs used to treat anxiety is shown in Table 5.

The literature on the combining of drug and non-drug treatments in the anxiety disorders has concentrated on agoraphobia and panic or both in combination (Swinson

Table 5 Comparison of the efficacy of various types of drugs in the treatment of anxiety disorders

Disorder	Benzodiazepines	Buspirone	TCA	SSRI	Comments
Obsessive–compulsive disorder	0	0	+++ (clomipramine)	++	
Panic disorder	high dose ++	0	++	+++	
Agoraphobia	++	0	++	++	
Generalised anxiety disorder	++	++	+	+	
Specific phobias	+	0	0	0	More data needed
Social phobias	+	0	0	+	More data needed
Hypochondriacal disorders	0	0	+	+	More data needed
Post-traumatic stress disorder	0	0	+	+	More data needed

0, no evidence of clinical efficacy; +, preliminary evidence of efficacy; ++, clear evidence of clinical efficacy; +++, convincing evidence of clinical efficacy.
TCA, tricyclic antidepressant; SSRI, selective serotonin reuptake inhibitor.

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et al, 1991). Relatively few studies have used GAD or OCD patients and almost none social phobia or post-traumatic stress disorder patients. We shall concentrate on the GAD indication but will refer to the wider literature to illustrate some points.

To emphasise that the efficacy of combined pharmacotherapy and psychotherapy has long been an issue, reference is made to the paper of that title by Uhlenhuth *et al* (1969) reviewing controlled studies since 1950. Most of the studies involved people with schizophrenia. Under the heading 'psychoneurotic', two studies found combined treatment to be no more efficacious than drug therapy alone, whereas of eight comparing combined therapy with psychotherapy, three showed no difference but five claimed superiority for the drug treatment. The authors conclude with constructive suggestions for estimating the efficacy of the therapists, particularly the psychotherapists who showed up rather poorly in this study.

A recent detailed review concluded: "there have been no studies directly comparing drug and behaviour therapy or their combination in GAD" (Fineberg & Drummond, 1995). The limited data they found led them to suggest that psychological treatments may be preferable in milder illnesses of more recent onset, whereas antidepressants or buspirone may be indicated in more severe disorders, or with comorbid depression. Across all the anxiety disorders, their conclusions are set out in Table 6, from which it can be seen that combined treatment may be helpful in OCD, panic disorder and agoraphobia. This review, however, concentrated on behavioural treatments (entitled behavioural–cognitive psychotherapy) to the exclusion of cognitive (behavioural) therapy and therefore neglected potential differences between the two methods as well as certain studies. In fact the efficacy of short-term benzodiazepine treatment has been compared to and combined with psychological therapy in a few studies.

Lorazepam was compared with cognitive–behavioural therapy, anxiety management (eight sessions) or a waiting list control over a period of 30 days (Lindsay *et al*, 1987). Lorazepam proved more effective initially. However, the dose was progressively tapered as the trial continued so that drug withdrawal rather than treatment was being evaluated. Consequently, improvements were minimal at the end of therapy. By contrast, the psychological treatments were slower in onset but maintained their effectiveness. Similar results were obtained when six weeks' treatment with diazepam was compared with cognitive–behvioural therapy (CBT) or placebo (Power *et al*, 1989). CBT was more effective both at the end of the study and at 12 months' follow-up. In this study, diazepam was abruptly withdrawn under placebo substitution at the end of the study and 70% of this group required some form of further treatment during the follow-up period.

The importance of timing of evaluation is pointed up by a study using a large but mixed group of patients (GAD, panic disorder, dysthymic disorder) treated for six weeks with diazepam, dothiepin, placebo, CBT or a self-help programme (Tyrer *et al*, 1988). No combined treatments were used. Diazepam was relatively ineffective at six weeks and showed up particularly poorly by 10 weeks despite gradual withdrawal. The other treatments were differentially effective on various outcome parameters.

One six-week double-blind study which attempted to examine combined treatment involved 224 anxious out-patients (Shapiro *et al*, 1983). They were randomly assigned to treatment with diazepam in flexible dosage or placebo plus weekly brief psychotherapy administered by experienced psychiatrists. A statistically significant but clinically small effect of diazepam was found at the first week assessment but not thereafter. However, on more detailed breakdown some efficacy was found in patients with moderate or severe anxiety but not in those with low anxiety. Thus, it appeared that drug treatment should be reserved for the more anxious patients.

A more recent study in a general practice setting compared 10 weeks' treatment with CBT, diazepam and placebo, both alone and in combination (Power *et al*, 1990). All forms of administration of CBT were superior to either diazepam or placebo alone but the rater was neither independent nor blind to psychological treatment. The diazepam and CBT combined group both showed improvement early in treatment and had the largest percentage of patients showing 'clinically significant change' at the end of the study. At six-month follow-up, patients who had received CBT both with and without diazepam had maintained initial treatment gains whereas patients in other groups were more likely to have received additional treatment. This favourable result challenges any preconceived ideas of benzodiazepines interfering with therapy. The combination led to initial gains and did not impede psychological treatment nor lead to relapse at follow-up; its effects, if not significantly additive, were beneficial. However, the use of diazepam was limited to six weeks with a graded withdrawal over a further three weeks. It gives a pointer to future treatment options but does not tell us whether patients already on long-term benzodiazepine treatment will benefit from the addition of psychological therapy.

Studies of psychological treatment are often flawed by a failure to control for such concomitant psychotropic medication (Miller, 1986) which may impede or enhance effects. In a study comparing behaviour therapy and cognitive therapy

Table 6 Summary of the efficacy of drugs and behavioural cognitive psychotherapy (BCP) in the treatment of anxiety disorders

Disorder	Drugs	BCP	Comments
Obsessive–compulsive disorder	++	++	Combined treatment may be helpful
Panic disorder	++	+	Combined treatment may be helpful
Agoraphobia	++	++	Combined treatment may be helpful
Generalised anxiety disorder	++	+	Drugs reserved for severe cases only
Specific phobias	0	++	BCP first-line treatment
Social phobias	+	+	More data required
Hypochondriacal disorder	+	+	More data required
Post-traumatic stress disorder	+	+	More data required

0, no evidence of clinical efficacy; +, preliminary data suggest that treatment is effective, however, further controlled studies are required to establish efficacy; ++, there is convincing evidence of clinical efficacy, however, controlled comparator studies and long-term efficacy studies are required.
From Fineberg, N. & Drummond, L. M. (1995) Anxiety disorders. Drug treatment or behavioural cognitive psychotherapy? *CNS Drugs*, **3**, 448–466, with permission.

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for 40 GAD patients (Durham & Turvey, 1987), two-thirds of the patients were already on benzodiazepines and continued them throughout psychological treatment. The authors allowed Wardle (1990) to look at their data, relating therapeutic outcome to benzodiazepine use. These patients did worse than the drug-free patients but presumably were more severe initially, necessitating anxiolytic use. There was a trend for a more deleterious effect of concurrent benzodiazepine use in combination with behaviour therapy than with cognitive therapy both at the end of treatment and at follow-up. One year after treatment termination, only 8% of the behaviour therapy patients who had received benzodiazepines were 'markedly improved' compared with 86% in the drug-free behaviour therapy group. In the cognitive therapy group, half fell into this category irrespective of drug use.

The tentative conclusion to be drawn from these studies is that although benzodiazepines may interfere with behaviour therapy, there is currently no evidence that they do so with cognitive therapy. Interestingly, cognitive techniques have also proved useful in helping patients discontinue benzodiazepine treatment (Otto *et al*, 1993; Spiegel *et al*, 1994). Anxiety management training can help to improve self-efficacy and develop new coping strategies and CBT can help to identify and correct false beliefs. Psychological techniques can also be used directly to encourage patients' adherence to a particular drug regimen and specific techniques have been shown to be more effective than non-directive counselling (Kemp *et al*, 1996) but this has generally only been done when drug treatment is considered the major intervention (Eckman *et al*, 1992). Compliance with any programme of treatment is enhanced by education, understanding and confidence in the clinician (Laksham *et al*, 1995).

Panic disorder

This condition has received much more recent attention than GAD for a variety of reasons: delineation and definition in diagnostic schema (DSM–III, DSM–III–R and DSM–IV; ICD–10); a range of behaviours for which behavioural therapies can be devised and abnormal cognitions for which cognitive therapies can be adapted; and the advent of drug therapies, initially tricyclic antidepressants (TCAs), then benzodiazepines such as alprazolam, and more recently selective serotonin reuptake inhibitors (SSRIs) such as paroxetine; the last has excited the interest of pharmaceutical companies anxious to establish efficacy for their products but understandably less keen to do 'head-to-head' comparisons with non-drug treatments.

The two elements are usually panics and avoidance, although either may exist alone. The optimum strategy would appear to be to suppress the panics with drugs and then to modify the behaviour and cognitions with CBT. Clum (1989) reviewed the studies up until the late 1980s (Table 7). Drop-out rates were higher for TCAs, phenelzine and placebo than behaviour therapies or benzodiazepines. Combining TCAs and psychological treatments did not reduce the drop-out rate. Aggregate success rates showed the inefficiency of placebo, and the limited effectiveness of low-potency benzodiazepines. The behaviour therapies are generally more effective than drugs. Combining treatments seems no more helpful and may reflect a ceiling effect or an inappropriate timing of the combined elements. Some limited relapse data were also available and are interpreted as evidence that behaviour therapies are a buffer against relapse, whereas treatment with TCAs or high-potency benzodiazepines carries a relapse risk.

A very similar analysis by Michelson & Marchione (1991) concluded that "the treatment of choice for panic disorder with no or mild phobic avoidance is cognitive–behaviour therapy aimed at panic cessation". Drug therapy is reserved for patients who decline, drop out of, or do not fully respond to psychological treatments, or are severely depressed.

When drug and psychological treatments are combined in the treatment of panic disorder, concern has arisen concerning relapse on stopping the drug; quite high rates have been reported after stopping alprazolam (Fyer *et al*, 1987). However, Nagy *et al* (1989) claimed relapse rates after patient-initiated discontinuation (30% of total) to be quite low. This does not address the status of the 70% of patients who stayed on medication. This topic remains contentious. Our impression is that outside the USA, benzodiazepines are used only sparingly in the management of panic disorder.

The advent of the SSRI antidepressants has led to several studies attempting to extend the use of these drugs. Routine studies to establish drug *v.* placebo efficacy have been conducted and paroxetine is now licensed for panic disorder in several countries. In a recent, more complex Danish study, paroxetine in high doses plus cognitive therapy was significantly more effective than placebo plus cognitive therapy in the treatment of panic disorder (Oehrberg *et al*, 1995). Discontinuation of even high doses (40 and 60 mg) was uneventful.

Other anxiety disorders

These have been reviewed by Marks & O'Sullivan (1988) and Fineberg & Drummond (1995). The evidence generally indicates that both drug treatment and behaviour therapy are effective in reducing the symptoms of OCD (Table 5). Treatment with TCAs (clomipramine), SSRIs and exposure therapy is equally effective during the period of treatment and there is some evidence that the combination of fluvoxamine and exposure is superior to exposure

Table 7 Per cent drop-out, success and relapse with various treatments. Data from Clum (1989)

Treatment	% drop-out	% success[1]	% relapse[2]
Behaviour therapies	15	71	12
Low-potency BZs	21	45	10
High-potency BZs	15	68	28
TCAs	28	63	55
Placebo	43	40	–
TCA+BT	32	65	23
TCA+Supportive	24	65	40
Placebo+BT	22	28	13

1. Absence or 50% reduction in frequency of panic attacks.
2. Recurrence reducing improvement to less than 50% fewer attacks or requiring treatment reinstatement.
TCA, tricyclic antidepressant; BZ, benzodiazepine.

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alone (Cottraux *et al*, 1990). However, an 18-month follow-up revealed that the effects of exposure were more enduring whether fluvoxamine had been taken or not (Cottraux *et al*, 1993).

Depressive disorders

The attention of the reader is drawn to the extensive literature on combining treatments in depression. Many of the issues discussed earlier are to be found in this literature but with a larger database from which to draw conclusions. Key reviews include Conte *et al* (1986), Hollon *et al* (1991; 1993) and Karasu (1993).

Combined treatment in GAD

As will now be apparent, very few studies have compared the efficacy of psychological and drug treatments, let alone their combination, in anxiety disorders. This is particularly true of GAD, the treatment of which benzodiazepines have dominated. However, since problems such as dependence and withdrawal have been recognised with benzodiazepines, it is important to evaluate alternative treatments. Although psychological treatments have been proved to be effective, few studies have excluded concomitant medication. We therefore designed a study to evaluate a psychological treatment, a drug treatment and the two combined as described below.

A controlled trial of buspirone and anxiety management in the treatment of GAD

Anxiety management training (AMT) is an active teaching therapy which has been shown to be effective in the treatment of GAD. It comprises explanation of symptoms, relaxation training, modification of avoidance behaviour and recognising and challenging negative cognitions. In this study, carried out by one of us (A.J.B.) and her associate, Janet Wingrove, 60 patients suffering from GAD according to DSM–III–R criteria were recruited. Random allocation was made to one of four treatment strategies:

(a) Buspirone and anxiety management training (Bus+AMT)

(b) Buspirone and non-directive therapy (Bus+NDT)

(c) Placebo and anxiety management training (P+AMT)

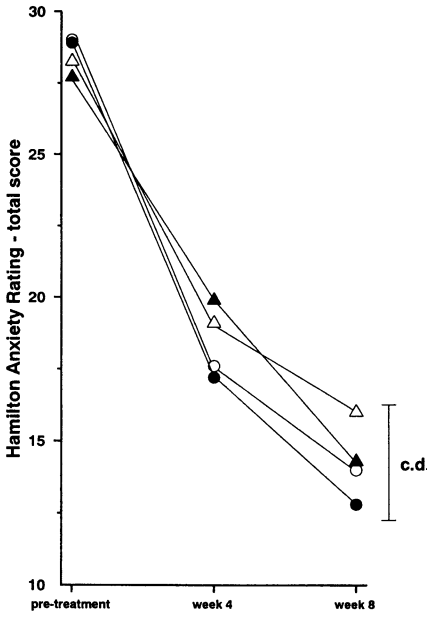

Fig. 2 Hamilton Anxiety Rating Scores in patients treated with buspirone and AMT (●), buspirone and NDT (○), placebo and AMT (▲) and placebo and NDT (△) pre- and four and eight weeks post-treatment.

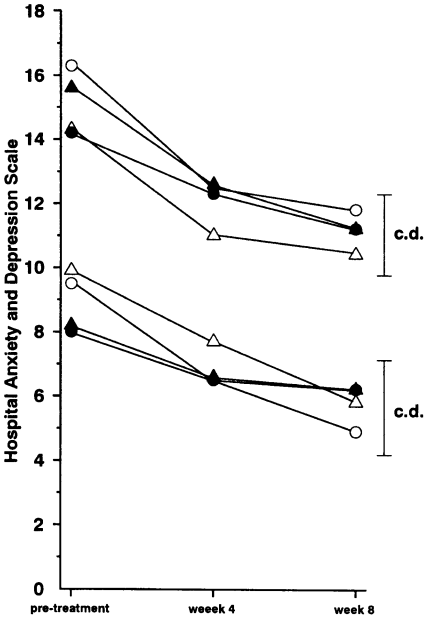

Fig. 3 Self-rated anxiety (top) and depression (bottom) on the Hospital Anxiety and Depression Scale pre- and four and eight weeks post-treatment. Buspirone and AMT, (●); buspirone and NDT, (○); placebo and AMT, (▲); placebo and NDT (△).

(d) Placebo and non-directive therapy (P+NDT).

Thus, a 2 × 2 design was used. Non-directive therapy allowed clients to talk about any topics they wished. The psychological treatments comprised seven sessions of 45 minutes each. Buspirone and placebo were given in flexible dosage up to six capsules/day (30 mg buspirone). Ratings comprised double-blind Hamilton Ratings for Anxiety (Hamilton, 1959) and self-ratings with the Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1983).

Sixteen patients dropped out during treatment, 12 who were assigned to treatment with buspirone. In the remaining patients, improvement was significant after both four and eight weeks on all the scales. Self-rated depression also improved. However, there were no differences among the groups (Figs 2 and 3).

These patients had an average age in the early 30s and had been ill for several years with little respite. The initial Hamilton scores averaged 28.3, which is quite severe. Despite this, patients in all groups improved substantially, the completers ending up below usual severity criteria for inclusion in an anxiolytic trial. The placebo response was apparent at four weeks but increased to eight weeks (Fig. 2). NDT also proved surprisingly effective so that AMT conferred no additional benefit. Patients who could tolerate buspirone (60%) did well. Our data do seem to indicate, however, that taking placebo capsules and being allowed to talk freely about problems for 45 minutes a week for seven weeks is an effective short-term treatment for even quite ill GAD patients. Full details of this study are to be submitted.

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MALCOLM H. LADER, FRCPsych; ALYSON J. BOND, PhD, Institute of Psychiatry, University of London

Correspondence: Dr Alyson J. Bond, Institute of Psychiatry, De Crespigny Park, London SE5 8AF, UK

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