British Journal of Psychiatry (1987), **151**, 535–542

Anxiety Management for Persistent Generalised Anxiety

G. BUTLER, A. CULLINGTON, G. HIBBERT, I. KLIMES and M. GELDER

A preliminary controlled investigation of the effectiveness of Anxiety Management as a treatment for generalised anxiety disorder (GAD) is described. Patients with a primary diagnosis of GAD, in which the current episode had lasted for at least 6 months but not more than 2 years, were included. Anxiety Management, a self-help treatment including procedures for managing somatic and cognitive symptoms, and for dealing with avoidance and low self-confidence, was given either immediately or after a 12-week waiting period. The average length of treatment was 8.7 sessions. Highly significant changes in anxiety, depression, and problem ratings were shown after treatment. These changes were replicated when the waiting list group had also received treatment, and gains were maintained by both groups for 6 months. Similar degrees of improvement and maintenance of change were shown in subgroups with and without minor depressive disorder or recurrent panic attacks.

It is now generally agreed that anxiety disorders should not be treated for long periods with anxiolytic drugs because of their doubtful efficacy and because tolerance to and dependency on the drugs may develop (e.g. Tyrer & Owen, 1984; Catalan & Gath, 1985). Although about two-thirds of general-practice patients with minor affective disorders, mostly anxiety states, recover within 6 months, the remaining third remain unwell for some time (Catalan *et al*, 1984). There is a need therefore for a simple effective psychological treatment for cases which do not recover rapidly. This treatment should be of a kind that can be provided within the resources of the National Health Service. Relaxation is widely taught, but although the procedure has been shown to have a significant short-term anxiolytic effect (Mathews & Gelder, 1969), it has not been shown to have substantial long-term effects in anxiety disorders; indeed the clinical impression is that long-term effects are not impressive. This may be because patients do not practise persistently (Hoelsher *et al*, 1984), or because relaxation training fails to deal with two components of the anxiety syndrome which appear to be of particular importance: cognitions and avoidance behaviour.

Beck *et al* (1974) showed that patients with anxiety disorders have characteristic cognitions concerning personal danger. In generalised anxiety neurosis these thoughts most frequently concern loss of self-control, inability to cope, illness and social embarassment (Hibbert, 1984). Such fears are usually recognised by the patient to be exaggerated or irrational (Rapee, 1985). Two kinds of treatment have been devised to deal with these cognitions: Anxiety Management Training (Suinn & Richardson, 1971) focuses on patients' fears of being unable to cope; Beck's cognitive therapy (Beck *et al*, 1985) makes a more ambitious attempt to alter patients' ways of thinking.

In Anxiety Management Training, fears of being unable to cope are allayed by teaching ways of coping with symptoms of anxiety. This method combines relaxation, reassuring 'self talk', and practice in the use of anxiety-provoking imagery to induce anxiety, which is then brought under control by the use of reassuring imagery ('image switching'). A clinical trial of this method for patients with persistent anxiety neurosis (Jannoun *et al*, 1982) demonstrated a moderately large therapeutic effect, which persisted during 3 months' follow-up. A small number of studies has been reported of other methods of changing cognitions, although all but one was uncontrolled (Barlow *et al*, 1984; Clark, 1986; Ost, 1985; Waddell *et al*, 1984; Woodward & Jones, 1980). The results were similar to those obtained with Anxiety Management Training.

Patients in the study of Jannoun *et al* (1982) reported that image switching was difficult to carry out. Moreover further (unpublished) work of our own showed that although patients with generalised anxiety disorders do not have the 'focused' pattern of avoidance seen in phobic states, they often show partial avoidance of a large number of different situations. We therefore removed image switching from the treatment and added exposure, to deal with the avoidance behaviour. At the same time we modified the cognitive component of the treatment to place more emphasis on the identification of and response to each person's specific thoughts, rather

https://doi.org/10.1192/bjp.151.4.535 Published online by Cambridge University Press

than drawing on a common set of thoughts, or single strategy, for all patients. We called the new treatment Anxiety Management. It was presented to patients with a rationale designed to mobilise their existing resources for coping with anxiety. Information was included about the nature of anxiety and about each of the component techniques, namely those for controlling symptoms, bringing about exposure and building confidence. An earlier version of this treatment has already been shown to be a useful addition to exposure in the treatment of social phobia (Butler *et al*, 1984). The main aim of the study reported here was to carry out a controlled evaluation of Anxiety Management.

Method

Patients

Forty-five patients with generalised anxiety disorder (GAD) as defined by the Research Diagnostic Criteria (Spitzer *et al*, 1978) entered the study. Patients meeting the criteria for panic disorder as well as GAD were included provided that GAD was the primary disorder. In addition, patients were included only if the anxiety reached 7 or more on the Leeds Anxiety Scale (Snaith *et al*, 1976), and if the current episode had persisted for at least 6 months.

Patients were excluded from the study if their symptoms met Research Diagnostic Criteria for phobic, obsessive–compulsive or major depressive disorder, or if the disorder was so chronic that there had been no period of one month in the last 2 years during which they were free from symptoms. Patients who reported recurrent but discrete episodes of GAD were included. The inter-rater reliability of the diagnostic and inclusion criteria was checked by a second psychiatrist, who rated a consecutive series of ten patients on the same occasion as the assessor; the two assessors agreed about the application of these criteria in all but one case. Successive referrals were accepted until 45 suitable patients had entered the study. They were randomly allocated to one of two groups and to one of three therapists. Three patients were replaced because they had attended only two treatment sessions after one month.

Therapists

Three clinical psychologists, each with extensive experience in the psychological treatment of anxiety disorders, treated equal numbers of patients. Before the trial the therapists completed a training period, using an instruction manual, during which they developed a consistent approach to therapy. During the trial each therapist tape-recorded a sample of therapy sessions. Regular meetings were held, to discuss issues arising during treatment, and to help maintain a consistent approach to therapy throughout the study.

Procedure

Patients were referred to the study either directly by their general practitioners or from psychiatric out-patient clinics. An independent assessor interviewed the patients, made the diagnosis and assessed the patients' progress. The assessor did not know which therapist was treating each patient or whether the patient was in active treatment or on the waiting list. Suitable patients were randomly allocated to immediate treatment with Anxiety Management (AM), or to a waiting list (WL). Patients in the WL group entered treatment after 3 months. Treatment was given individually, and consisted of between four and twelve sessions, according to the patient's need (see below), each session lasting not more than one hour. Booster sessions were given 2 weeks and 6 weeks after the end of treatment. A post-treatment assessment was carried out 3 months after the start of treatment, and follow-up assessments were conducted 3 months and 6 months later. The first and last of these assessments were carried out by the independent assessor, and the 3-month follow-up assessment was completed by the therapist. Some patients were seen at the hospital, some in health centres.

Treatment

Treatment was described in a booklet which was given to patients shortly before their first therapy session. The treatment was presented as a form of self-help designed to mobilise the patient's own resources for managing symptoms of anxiety. The booklet starts with information about the nature of anxiety and its common manifestations, and contains questions which require the patient to apply the ideas in the booklet to his or her own difficulties. The account emphasises that it is normal to feel anxious at times, and that anxiety becomes a problem only when it does not subside appropriately. The booklet goes on to suggest that patients should seek out maintaining factors and try to eliminate them. Maintaining factors include anticipatory anxiety, fear of fear, avoidance, and loss of self-confidence. Specific techniques are then described to counteract each of these maintaining factors. Anticipatory anxiety and fear of fear are counteracted by learning to control symptoms with relaxation, distraction, and the control of upsetting thoughts. The latter involves identifying thoughts and images that provoke, maintain, or exacerbate anxiety, examining them to find out how realistic they are and whether there are more helpful or more realistic ways of thinking, and devising practice tasks to test the thoughts. Avoidance is reduced by using graded practice. Self-confidence is increased by identifying the person's strong points, by engaging in rewarding and pleasurable activities, and by paying attention to aspects of life in which the person is functioning relatively well. Copies of the booklet are available from the first author.

Throughout treatment, patients were encouraged to play an active role by setting their own goals, deciding which techniques would be appropriate for them, planning homework assignments and monitoring anxiety. Tape-recorded instructions for progressive muscular relaxation were provided at the first session. The exercises were practised with the therapist as well as at home if either the patient or the therapist thought this would be helpful. Techniques for controlling symptoms were introduced one at a time, and practised both separately and while graded

https://doi.org/10.1192/bjp.151.4.535 Published online by Cambridge University Press

practice and activities to increase confidence were being carried out. All patients were encouraged to reduce their consumption of anxiolytic medication.

Patients could stop treatment after a minimum of four sessions provided that they were no longer distressed by symptoms of anxiety, their anxiety ratings had been stable for at least 2 weeks, and the therapist shared the patient's confidence that he or she could control symptoms. During the booster sessions, strategies for managing anxiety were reviewed and the patient was prepared for dealing with future fluctuations in anxiety, or other setbacks.

Measures

Mood ratings

The assessor rated both anxiety and depression with the Hamilton Scales (Hamilton, 1959, 1967) and with the 9-point rating scale developed by Watson & Marks (1971). Patients rated anxiety and depression with the Leeds Scales (Snaith *et al*, 1976) and the 9-point rating scale. They also completed the State–Trait Anxiety Inventory (STAI; Spielberger *et al*, 1970).

Expectations

Expectations about the outcome of treatment were rated by patients on a 0–8 scale after reading the booklet, and again 4 weeks later. Patients also rated the suitability of treatment on a 0–8 scale before and after treatment.

Background and descriptive data

The assessor completed the Present State Examination (PSE; Wing *et al*, 1974) at the first assessment and at 6-month follow-up. Patients completed the General Health Questionnaire (GHQ; Goldberg & Hillier, 1979) at each assessment, and also rated the severity and degree of interference with their lives of the three problems that they found most troubling. These were identified with the help of the assessor, and rated on a 0–3 scale.

At the first interview the assessor completed a structured interview designed to collect information about situational anxiety, avoidance, anticipatory anxiety, and the presence of anxiety-related thoughts. He also completed the Life Events Checklist (Paykel *et al*, 1969) and the Index of Social Support (Surtees, 1980). Findings related to these measures are presented in Butler & Gelder (1987).

Within-treatment measures

Patients rated anxiety (0–8) at every therapy session, and completed the Leeds Scales at the fourth session. At each session, therapists recorded the amount of medication taken since the last session, the number of reported panic attacks, the length of the session, techniques discussed and homework set.

Statistical analysis

Initial differences between the groups and change within-groups were analysed with *t* tests. Between-group differences were tested with analysis of covariance, taking the score on the first occasion of assessment as the covariate. Repeated-measures analysis of variance was used to analyse changes within the WL group over the first three assessments: assessment one, pre-treatment and post-treatment. Multivariate analysis of variance was used to evaluate the response to treatment of different subgroups.

Results

Patients

There were 144 patients referred to the study. Of these, 81 failed to meet the inclusion criteria: 28 had anxiety which was too mild, or too short a history; 12 had too long a history; 21 were phobics (14 of whom were agoraphobic); 10 met the criteria of major depressive disorder; and 10 had various other disorders. Of the remaining 63, 18 did not or could not attend, or preferred other treatment. Thus 45 patients (29 females and 16 males) entered the study. The average age was 37.4 years (range 20–57). The average school-leaving age was 16.3 years (range 15–19). Thirty-six patients were married, five single and four divorced or separated. Of all the patients, 82% were rated as cases according to the PSE at the time when they were accepted into the study. Using the PSE definition of panic attacks, 13 patients fulfilled the criteria for panic disorder.

There were 22 patients in the AM group, and 23 in the WL group. About half the patients were treated at health centres, and the rest at out-patient clinics. Three patients in the WL group did not receive treatment after the waiting period. Of these, two had to be withdrawn because they became significantly more depressed during the waiting period, and a third refused treatment because he had improved; a fourth patient finished treatment but declined to complete any further assessments. Therefore post-treatment ratings are available from only 19 patients in the WL group. At the end of the follow-up period one patient could not be traced and a further two, one in each group, had to be excluded because they had received antidepressant medication during the interval since treatment had ended. Thus at 6-month follow-up the total sample consisted of 38 patients, 20 in the AM group and 18 in the WL group.

There was no significant difference between the ages of the two groups (Table I). There were 14 women and 8 men in the AM group, and 15 women and 8 men in the WL group. Before treatment (Table I) there were no differences between the groups on any of the main measures, including the Leeds and Hamilton scales, the 0–8 ratings of both anxiety and depression, the STAI ratings of state and trait anxiety, and the GHQ ($P>0.10$ in every case).

Expectations of improvement, rated by both patients and therapists, were moderately high before treatment started (mean = 5.49 on the 0–8 scale), and remained at this level when re-rated at the fourth session. Similarly, initial ratings of treatment suitability were moderately high (mean = 5.47 on the 0–8 scale), and did not change after treatment. Neither of these ratings differed significantly between groups or between occasions. There were no differences in response to treatment according to therapist or sex of patient, and these variables will not therefore be discussed further.

https://doi.org/10.1192/bjp.151.4.535 Published online by Cambridge University Press

TABLE I
Main outcome measures: mean values

	Assessment 1		*After wait*	*After treatment*		*6-month follow-up*	
	AM[1] *(n = 22)*	*WL*[2] *(n = 23)*	*WL (n = 23)*	*AM (n = 22)*	*WL (n = 19)*	*AM (n = 20)*	*WL (n = 18)*
Age	36.5	38.3	38.3	36.5	—	—	—
Anxiety							
0–8 (assessor)	5.5	5.6	5.2	2.6	2.7	1.9	2.4
0–8 (patient)	4.9	5.0	4.5	2.0	2.3	1.6	1.7
Leeds	11.5	12.7	12.4	6.7	6.8	5.0	6.4
Hamilton	16.0	17.4	15.4	6.6	7.6	5.0	8.0
STAI-S	58.0	54.6	57.1	43.9	41.8	38.9	41.5
STAI-T	55.8	54.8	—	—	—	43.7	38.9
Depression							
0–8 (assessor)	2.4	2.7	2.6	0.8	1.1	0.7	0.8
0–8 (patient)	2.7	3.0	2.7	0.9	1.7	0.9	1.2
Leeds	9.1	8.0	8.4	4.6	5.4	3.6	4.2
Hamilton	11.1	12.0	9.6	4.3	4.1	2.9	4.6
Problem ratings							
Severity	2.1	2.0	2.0	1.1	1.1	1.0	1.1
Interference	1.7	1.4	1.5	0.8	0.7	0.7	0.7

1. AM = Anxiety Management.
2. WL = waiting list.

Main between-group comparison

The pattern of changes over the whole period of the study is shown in Fig. 1, and the mean outcome measures for the main occasions of rating are shown in Table I. Data from the first two assessments were used for this analysis. In the interval between these assessments the AM group had completed treatment and the WL group had completed the waiting period.

For all the main measures, the scores of the two groups differed significantly at the second assessment ($P<0.001$ in every case). The AM group changed significantly on every measure ($P<0.001$). The WL group did not change significantly on eight of the nine measures of mood. Only the depression ratings of the Hamilton Rating Scale were significantly less after than before the waiting period, ($t=2.52$, d.f. 22, $P<0.05$).

Changes in the WL group after treatment

Data from the WL group alone were subjected to repeated-measures ANOVA for the first three occasions of assessment (occasion one, pre-treatment and post-treatment). This analysis showed a main effect of occasions on every measure ($P<0.001$). The differences between the mean scores on each occasion were then tested with Tukey tests. For eight of the nine measures, ratings did not differ between the first and second occasion (i.e. the waiting period) but they changed significantly during treatment ($P<0.01$ in every case). Despite a significant overall change in the patients' 0–8 rating of depression, neither the change during the waiting period nor that during treatment reached significance when tested separately.

Differences between groups after the WL group had received treatment

This analysis was designed to find out whether the effects of treatment in the AM group were replicated in the WL group when it subsequently received treatment. Between-group differences were tested with ANCOVA, using data from the first assessment as the covariate for both groups. On eight of the nine measures there were no differences between the groups after both had received treatment. On the ninth measure, the patients' 0–8 rating of depression, the WL group had significantly higher scores than the AM group ($F=5.57$, d.f. 1, 38, $P<0.05$). Patients in the AM group received a mean of 8.9 treatment sessions compared with 8.4 for those in the WL group; this difference was not statistically significant.

Analysis of the problem ratings was conducted in the same way as the analysis of mood ratings (mean scores are included in Table I). During treatment these ratings decreased significantly in both groups.

Maintenance of change

In the AM group, improvement was maintained during follow-up on eight of the nine measures of mood, and on the problem ratings. A significant further improvement was detected in ratings of the Leeds Anxiety Scale ($t=2.11$, d.f. 18, $P<0.05$). In the WL group, improvement was

https://doi.org/10.1192/bjp.151.4.535 Published online by Cambridge University Press

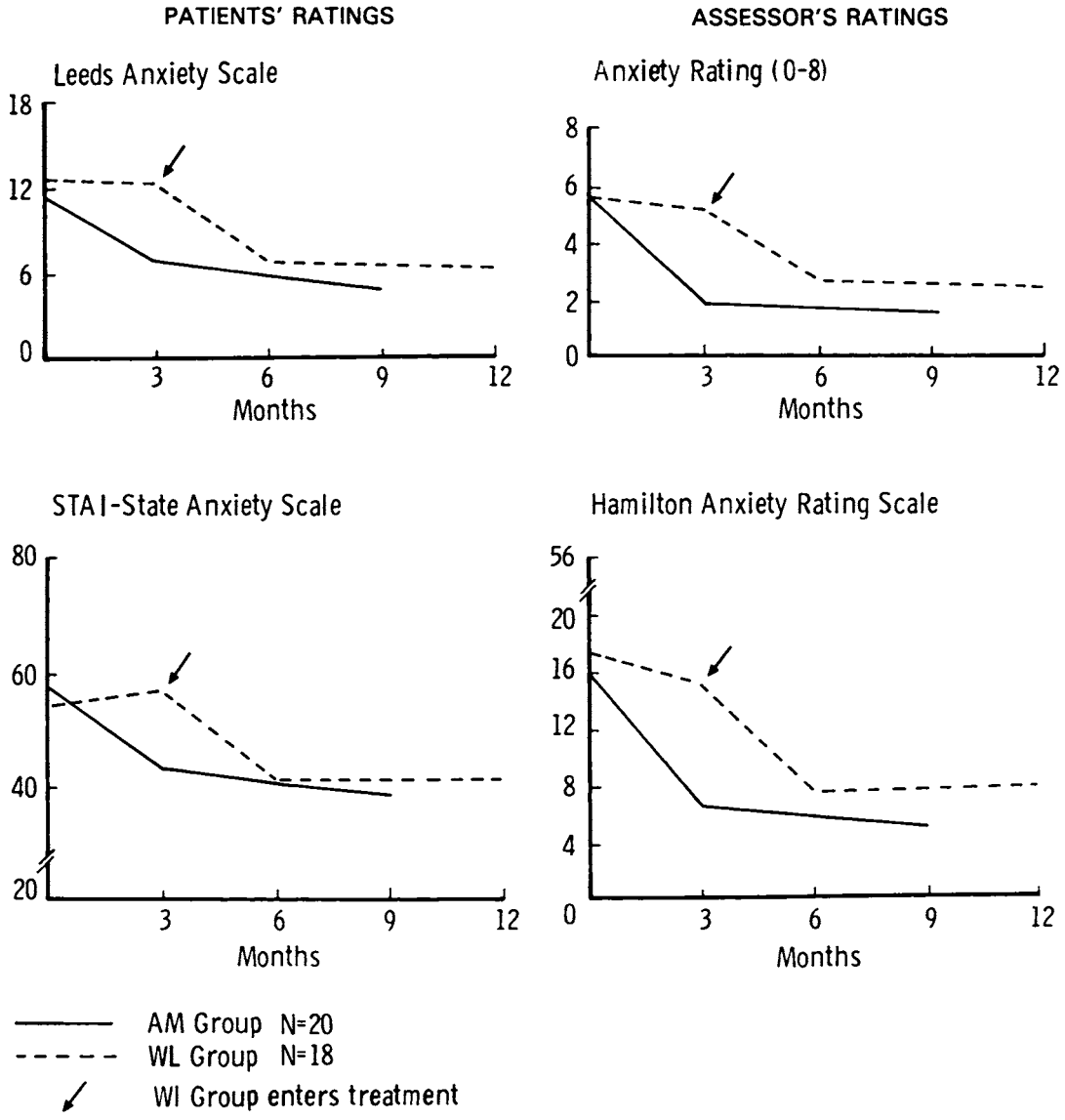


FIG. 1 The pattern of changes in measures of anxiety during the whole period of the study ($n = 38$).

maintained on every measure during follow-up. At the 6-month follow-up the groups did not differ significantly on any of the measures.

Summary of comparisons and changes

In summary, there were no differences between the groups either at the initial assessments or after the WL group had completed the waiting period. Both groups improved significantly with treatment. The groups did not differ significantly after treatment or at follow-up on any of the measures of anxiety. For this reason, in subsequent analyses data from both groups were combined wherever appropriate.

Other indices of improvement

By the end of treatment the scores of 21 patients (51%) fell below the cut-off between patient and non-patient populations on the Leeds Scales. By the end of follow-up 24 patients met this criterion, and at this time only 8 patients were still diagnosed as cases according to the PSE (mean

https://doi.org/10.1192/bjp.151.4.535 Published online by Cambridge University Press

total scores were 16.2 at the start of the study and 4.9 at the end). Mean scores on the GHQ for the whole group were 25.7 before treatment, 7.6 after treatment and 7.6 at 6-month follow-up. Initial scores on the STAI-trait anxiety scale at assessment one and 6-month follow-up are shown in Table I; on neither occasion was the difference between the groups significant.

Additional information was collected from general-practice records after the trial had ended. The 6-month follow-up period was thus extended by about a year (range 5–22 months). Records were available for 36 patients (95% of those included in the 6-month follow-up); the remaining two were untraceable. Just under two-thirds (22 patients) had had no further contact with their general practitioner because of anxiety. A further five patients had consulted their general practitioner occasionally because of anxiety (mean = 1.8 times). Two of these were reassured after discussion, and three were given anxiolytic medication to help with particular stresses; for example, examinations. The remaining nine patients, a quarter of the sample, had received more extensive treatment for anxiety, including taking regular anxiolytic medication for at least part of the follow-up period. Seven of these had also received antidepressant medication. Despite additional treatment, only two of these nine patients were reported as improved.

Changes in the use of medication

At the start of the study, 46% of the patients were taking regular medication. Of the prescriptions, 73% were for anxiolytics, 14% for hypnotics, and the remainder for antidepressants and combined preparations. During the waiting period three patients started to take regular medication and two ceased to do so. There was no difference between the groups in frequency of drug use. After treatment 16% of the patients were still taking regular medication but had decreased the dose. Six months later this had fallen to 13%. Two patients, 10% of those originally taking regular medication, failed to reduce their medication throughout the study.

Comparison of patients with and without minor depressive disorder

The group was then divided according to whether or not they had fulfilled the criteria for minor depressive disorder at the start of the study. The 18 patients (44%) with minor depressive disorder as well as GAD were compared with the 23 who had GAD alone. These two subgroups did not differ in age, or in the mean number of treatment sessions (depressed 9.0, non-depressed 8.5). Although 81% of the depressed and only 50% of the non-depressed patients were women, this difference was not significant. Multivariate analysis of variance, using data from the main measures at the first assessment showed that the depressed patients had more severe symptoms than the non-depressed patients at the start of the study ($F = 5.79$, d.f. 9, 31, $P < 0.001$). Multivariate analysis with repeated measures showed a highly significant main effect of time ($F = 78.9$, d.f. 2, 35, $P < 0.001$). Both subgroups improved during treatment and maintained this improvement during the follow-up period. There was no main effect of depression, but a significant time × depression interaction ($P < 0.02$) indicated that the depressed patients tended to improve more during treatment, and hence no longer differed from those who were not depressed either immediately after treatment or at 6-month follow-up.

Comparison of patients with and without panic attacks

At the time of the first assessment, 21 (47%) of the 45 patients had recurrent panic attacks (i.e. at least one every 3 months), and 19 (42%) had never had a panic attack. (Panic attacks were defined as in the PSE.) Five patients (11%) had had rare, isolated attacks. In the WL group, 9 patients (39%) reported having recurrent panic attacks at both the first and the second assessment, and there was no significant difference between the estimated weekly frequency of attacks on the two occasions. Twenty of the 41 patients treated had recurrent panics. Their mean attack frequency was 1.76 per week before treatment, 0.23 after treatment and 0.10 at 6-month follow-up; by this time attacks were generally occurring so seldom that it was difficult to estimate their frequency accurately. However, of the 20 patients who had recurrent attacks at the start, 14 (70%) reported that they had had no attacks for a period of at least 3 months. The frequency of panic attacks before treatment and at 6-month follow-up is shown in Table II.

TABLE II
Panic attack frequency before treatment and at 6-month follow-up

	Pre-treatment (%)	*6-month follow-up (%)*
⩾1 a week	65	0
⩾1 a month	25	20
<1 a month	10	10
0 in 3 months	0	70

In order to compare the response to treatment of those with and those without recurrent panic attacks, the AM and WL groups were combined, omitting the five patients who had rare panic attacks. As noted above there were 20 patients in the panic attack group and 16 in the panic-free group when treatment began. At 6-month follow-up the two groups comprised 18 and 15 patients respectively. Comparison of these two groups using multivariate analyses shows that the patients with panic attacks tended to have marginally ($P = 0.07$) more severe symptoms at the start of the study. Treatment effects were highly significant and similar in both groups, and the improvement during treatment was maintained during follow-up. There was no difference between the groups on any subsequent occasion.

Comparison of patients receiving shorter and longer treatment

In order to find out whether the patients who required the shortest period of treatment could be identified at the start

https://doi.org/10.1192/bjp.151.4.535 Published online by Cambridge University Press

of the study, the whole sample was also grouped according to length of treatment. When the group was divided at the mean number of sessions (8.7), there were 20 patients in the short treatment group (mean 6.3 sessions) and 21 in the long treatment group (mean 11.0 sessions). At the 6-month follow-up there were 18 and 20 patients in the two subgroups. The multivariate analyses showed that those who had longer treatment started with more severe symptoms. There were main effects of both time and treatment length, without any interaction between these factors, showing that both groups improved to the same extent, and maintained this improvement during follow-up.

Discussion

The main aim of this study was to find out whether Anxiety Management is an effective treatment for generalised anxiety. The findings presented here show that patients with GAD treated with Anxiety Management changed more than a matched group waiting for treatment. The changes during treatment were highly significant, and were replicated almost exactly when patients in the waiting list group completed treatment. In both cases the effects of treatment persisted throughout the 6-months follow-up. By the end of the study the anxiety ratings of half the patients had fallen below the cut-off point that distinguishes a normal from a clinical population on the Leeds Anxiety Scale. The improvement was shown in measures of depression and of patients' problems, as well as in measures of anxiety. We cannot say how far our population after treatment differs from the normal population because the relevant norms are not available. Nevertheless, it seems reasonable to conclude that Anxiety Management has a substantial effect. An appropriately designed comparative treatment trial will have to be carried out in order to ascertain the specificity of the treatment, and to identify its most effective parts.

Particular care was taken to ensure that the diagnosis of generalised anxiety disorder was reliable, and to exclude phobic patients with generalised anxiety for whom exposure might have been the treatment of choice. The group was homogenous, in so far as only those with anxiety that had persisted for at least 6 months were included. Patients with more chronic disorders were excluded because they are difficult to distinguish from those with personality disorders, and because many complain of depression as well as anxiety. We excluded those chronic patients whose symptoms had been continuously present for 2 years. However, some of those included had had previous discrete episodes of anxiety and had high trait anxiety scores; they might therefore fulfil less stringent criteria for chronicity. Our results cannot be taken to apply to patients with more chronic anxiety, and this group requires further study.

It might be supposed that patients who are depressed and anxious would respond less well than those with anxiety alone. In these cases depression might be the primary disorder, despite the presenting complaint of anxiety; Anxiety Management might not help overcome coexisting depression or depression might reduce the vigour with which patients would carry out Anxiety Management procedures. In keeping with this idea, there is some evidence from this study that the initial level of depression is important. Thus, two patients had to be withdrawn from the study because they became significantly more depressed during the waiting period and urgently required other treatment. Two others continued to ask for help for depression during the follow-up period, and received antidepressant medication. The remaining patients were about equally divided between those who were only anxious and those who were anxious and fulfilled the criteria for minor depressive disorder (i.e. depressed mood persistent for a minimum of 2 weeks, and at least two symptoms from a checklist of 16). These two subgroups were not significantly different after treatment or at follow-up, suggesting that Anxiety Management is effective in both kinds of case.

About half of our patients had recurrent (though not very frequent) panic attacks. The frequency of attacks declined substantially with treatment, and there was no difference between subgroups with and without panic attacks either in their immediate response to treatment, or in the maintenance of change. This may be because lowering the level of general anxiety makes panic attacks less likely. This would be the case if panic attacks are merely an index of severity of anxiety, rather than an indication of a distinct form of anxiety disorder. It may also be because Anxiety Management, which contained instructions on how to manage panic attacks, helped patients to re-evaluate the significance of the symptoms they experienced during attacks, and helped them to control these symptoms, perhaps by reducing their fear of possible catastrophic consequences.

Even though it is not yet known which components of Anxiety Management are effective, this brief and simple treatment is clearly suitable for patients with persistent generalised anxiety disorder, who are commonly seen in general practice and for whom prolonged drug treatment is unsatisfactory. Cognitive therapy (Beck *et al*, 1985) and combinations of relaxation and cognitive treatment (e.g. Barlow *et al*, 1984) have also been proposed for anxiety disorders, but they have not yet been evaluated

https://doi.org/10.1192/bjp.151.4.535 Published online by Cambridge University Press

in controlled trials. These treatments may be more complex and in most cases last longer than Anxiety Management, which requires about half as much therapist time as the treatment described by Barlow *et al*. Anxiety Management is easily taught to therapists, and readily understood by patients. It is also a rational method of treating generalised anxiety disorders because, as well as including procedures for controlling symptoms, it deals with anxious cognitions and avoidance behaviour, both of which appear to contribute to the maintenance of anxiety disorders.

Acknowledgements

This research was supported by the Medical Research Council of Great Britain. We are indebted to the many general practitioners who referred patients to the study, and to the patients who completed so many assessment procedures during the course of treatment. We would like to thank J. Catalan, D. Clark and P. Cowen for their comments on an earlier draft of the manuscript.

References

BARLOW, D. H., COHEN, A. S., WADDELL, M. T., VERMILYEA, B. B., KLOSKO, J. S., BLANCHARD, E. B. & DI NARDO, P. A. (1984) Panic and generalised anxiety disorders: nature and treatment. *Behaviour Therapy*, **15**, 431–449.

BECK, A. T., LAUDE, R. & BOHNERT, M. (1974) Ideational components of anxiety neurosis. *Archives of General Psychiatry*, **31**, 319–325.

——, EMERY, G. & GREENBERG, R. L. (1985) *Anxiety Disorders and Phobias: A Cognitive Perspective*. New York: Basic Books.

BUTLER, G., CULLINGTON, A., MUNBY, M., AMIES, P. & GELDER, M. (1984) Exposure and anxiety management in the treatment of social phobia. *Journal of Consulting and Clinical Psychology*, **52**, 642–650.

—— & GELDER, M. (1987) Anxiety management: developing effective strategies. *Behaviour Research and Therapy* (in press).

CATALAN, J., GATH, D., EDMONDS, G. & ENNIS, J. (1984) The effects of non-prescribing in general practice: 1. Controlled evaluation of psychiatric and social outcome. *British Journal of Psychiatry*, **144**, 593–603.

—— & GATH, D. (1985) Benzodiazepines in general practice: time for a decision. *British Medical Journal*, **290**, 1374–1376.

CLARK, D. M. (1986) Cognitive therapy for anxiety. *Behavioural Psychotherapy*, **14**, 283–294.

GOLDBERG, D. & HILLIER, V. F. (1979) A scaled version of the General Health Questionnaire. *Psychological Medicine*, **9**, 139–145.

HAMILTON, M. (1959) The assessment of anxiety states by rating. *British Journal of Medical Psychology*, **32**, 50–55.

—— (1967) Development of a rating scale for primary depressive illness. *British Journal of Social and Clinical Psychology*, **6**, 278–296.

HIBBERT, G. (1984) Ideational components of anxiety: their origin and content. *British Journal of Psychiatry*, **144**, 618–624.

HOELSHER, T. J., LICHSTEIN, K. L. & ROSENTHAL, T. L. (1984) Objective vs subjective assessment of relaxation compliance among anxious individuals. *Behaviour Research and Therapy*, **22**, 187–193.

JANNOUN, L., OPPENHEIMER, C. & GELDER, M. (1982) A self-help treatment programme for anxiety state patients. *Behavior Therapy*, **13**, 103–111.

MATHEWS, A. M. & GELDER, M. G. (1969) Psycho-physiological investigations of brief relaxation training. *Journal of Psychosomatic Research*, **13**, 1–12.

OST, L.-G. (1985) Coping techniques in the treatment of anxiety disorders: two controlled case studies. *Behavioural Psychotherapy*, **13**, 154–161.

PAYKEL, E. S., MYERS, J. K., DIEVETT, M. N., KLERMAN, G., LINDENTHAL, J. L. & PEPPER, M. (1969) Life events and depression. *Archives of General Psychiatry*, **21**, 753–760.

RAPEE, R. M. (1985) Distinctions between panic disorder and generalised anxiety disorder: clinical presentation. *Australian and New Zealand Journal of Psychiatry*, **19**, 227–232.

SNAITH, R. P., BRIDGE, G. W. K. & HAMILTON, M. (1976) The Leeds scales for the self assessment of anxiety and depression. *British Journal of Psychiatry*, **128**, 156–165.

SPIELBERGER, C., GORSUCH, R. & LUSHENE, R. (1970) *State-Trait Anxiety Inventory Manual*. Palo Alto: Consulting Psychologist Press.

SPITZER, R. L., ENDICOTT, J. & ROBINS, E. (1978) *Research Diagnostic Criteria for a Select Group of Functional Disorders*, 3rd edn. New York: State Psychiatric Institute.

SUINN, R. M. & RICHARDSON, F. (1971) Anxiety Management Training: a nonspecific behavior therapy program for anxiety control. *Behavior Therapy*, **2**, 498–510.

SURTEES, P. G. (1980) Social support, residual adversity and depressive outcome. *Social Psychiatry*, **15**, 71–80.

TYRER, P. & OWEN, R. (1984) Anxiety in primary care: is short-term drug treatment appropriate? *Journal of Psychiatric Research*, **18**, 73–79.

WADDELL, M. T., BARLOW, D. H. & O'BRIEN, G. T. (1984) A preliminary investigation of cognitive and relaxation treatment of panic disorder: effects on intense anxiety vs 'background' anxiety. *Behaviour Research and Therapy*, **22**, 393–402.

WATSON, J. P. & MARKS, I. M. (1971) Relevant and irrelevant fear in flooding: a crossover study of phobic patients. *Behavior Therapy*, **2**, 275–293.

WING, J. K., COOPER, J. E. & SARTORIUS, N. (1974) *The Measurement and Classification of Psychiatric Symptoms*. London: Cambridge University Press.

WOODWARD, R. & JONES, R. B. (1980) A controlled trial with anxious patients. *Behaviour Research and Therapy*, **18**, 401–407.

*Gillian Butler, MA, MSc, *Research Associate and Senior Clinical Psychologist, University of Oxford Department of Psychiatry*; Anne Cullington, MSc, *Senior Clinical Psychologist, Department of Psychology, Warneford Hospital*; George Hibbert, MRCPsych, *Clinical Tutor, University of Oxford Department of Psychiatry*; Ivana Klimes, BSc, MSc, *Senior Clinical Psychologist, Department of Psychology, Warneford Hospital*; M. G. Gelder, DM, FRCP, FRCPsych, *Handley Professor of Psychiatry, University of Oxford Department of Psychiatry*

*Correspondence: *Warneford Hospital, Headington, Oxford OX3 7JX*

https://doi.org/10.1192/bjp.151.4.535 Published online by Cambridge University Press