

Promoting differential relaxation

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AMONG patients presenting with symptoms of psychological stress, anxiety and tension are probably, apart from depression, the commonest manifestations. Practical experience shows that anxiolytic drugs are not always totally effective in controlling these symptoms and in such cases, training in relaxation may have considerable value.

Jacobson (1938) made a major contribution to this technique, not only in systematising 'progressive relaxation' but in emphasising the importance of its application to everyday life situations—'differential relaxation'. Some criticism (Wolpe, 1958) has, however, attached to the length of supervised training required and even sustained group treatment may not be economical.

My contribution has been a series of tape-recorded exercises aimed at improving availability of the technique whilst reducing the therapist's routine involvement (Martin, 1969). This modification immediately raises questions of possible reduction in effectiveness of the method, the amount of time saved and indeed how the recordings were devised and should be applied.

The recordings

Since the doctor would not be present to assess the subject's comprehension of instructions or rate of progress, a direct transfer of Jacobson's technique onto tape was not feasible. It is more important to begin at an extremely simple level and to produce a series of directions of gradually increasing complexity. In this way and also by insisting on mastery of one 'exercise' before moving on, the patient can much more easily determine a rate of progress in keeping with his or her own ability.

Furthermore, since there is deprivation of personal contact, it seemed legitimate to employ any device which might reinforce the desired effect. So material from other approaches including hypnotic induction and yoga was used and every attempt made in vocal technique to capitalise on the recording medium by inducing a soothing and reassuring atmosphere. Despite Jacobson's own reservations direct suggestion was used.

The series of five exercises is introduced by a simple explanation of the physiological basis of tension and thereafter, the overall aim is to induce increasing relaxation both by specific instructions and by the creation of visual images which also improve single-minded concentration.

Exercise one

Exercise one is the most directly based on Jacobson, since the subject is made aware of tension by encouragement to active muscular contraction of the entire body. Although individual muscle groups are not considered, this section is made as strenuous as possible to underline the sensation of relaxation which follows.

As a result of this practical demonstration, it is then easier to encourage a general feeling of increasing 'softening and loosening'. The commentary also evokes a mental picture (the deliberately regressive image of a child's toy) to emphasise the aim and

engage total attention. The session concludes with congratulation on the achievement of this relaxed state.

Exercise two

Visual imagery and concentration preface exercise two and the patient is asked to imagine himself in a soothing, outdoor situation. In isolated instances this can have its drawbacks—some people hate beaches and for others, the countryside is merely a reminder of their allergy. Then, instruction concentrates on respiratory rate and rhythm, while repeating the exhortations of exercise one.

The first exercises thus introduce two simple ideas and are usually grasped readily.

Exercise three

Exercise three, however, is very much central to the series and requires many more sessions for mastery. For the first time, eye fixation on an external object is required and the problems attached to this are carefully explained. Previous instructions are briefly summarised and once the subject is deemed to be in a receptive state, progressive relaxation of individual muscle groups is gradually suggested. It is to be noted that with a good subject, this could induce light hypnotic state and consequently close attention to the commentary is stressed. Even greater emphasis is now placed upon what the individual has, by personal effort, achieved.

Exercise four

Exercise four owes part of its approach to the technique of meditation; it seeks to reinforce single-minded concentration: this is felt to be important in preparing the patient confronted by stressful situations to have enough self-discipline to use what has been learned.

Interestingly, extensive use of this exercise has revealed an aspect which was not initially fully appreciated: the contemplation of a neutral object, may promote (in analytic terms) some loosening of conscious censorship and create a mental state similar to free association. The subject may thus attain insights which were previously denied (case report available).

Exercise five

The fifth recording seeks to promote deeper relaxation by a direct attempt at medium trance hypnotic induction (arm levitation). This is only available for use in supervised conditions and additional precautions are included in the verbal instructions.

The patient is also given printed directions prior to starting individual treatment at home or as a member of a clinic group. The instructions are slightly modified according to the amount of supervision available. The time spent on each exercise will vary considerably but some indication of recommended minima is given and a complete course would last at least four months. In the latter stages, further explanation is given with encouragement to use the technique in real-life stress situations (v.i.).

Method

There are no clear guidelines for the selection of patients. The judgment of the clinician in referring cases where tension is a clear element must be paramount although the exclusion of psychotics is generally recommended. In my previous report I have sought to emphasise that otherwise, co-existent conditions, e.g. depression, do not require exclusion but certainly other specific treatment.

It is important that the therapist takes time to explain the nature of treatment and to ensure the patient's *active* co-operation (this may require reinforcement at later assessments). Thereafter, sessions with the recordings may be begun immediately.

Wherever feasible, the patient should preferably be introduced into a group situation with staff who are familiar with the technique and the recordings. While not essential, this obviates an early difficulty: however comprehensive the accompanying instructions, patients are invariably encountered who are not sure if they are carrying out the directions precisely or who have individual queries. Starting a group session in a clinic resolves this, or alternatively the therapist can overcome the problem by early review.

Considerable practical experience now shows that, except where specialised treatment is to be given (e.g. desensitisation) the doctor's further active participation can be limited to brief encouragement and discussion of practical problems.

In the later stages, as the patient acquires confidence and competence, one further point requires continual emphasis. This report is entitled 'differential relaxation' and this refers to Jacobson's insistence on learning to relax unessential muscle groups whilst actively engaged in day-to-day activities. It follows that increasing mastery of the technique must be gained not only alone in the supine position but sitting, working, in the company of colleagues and finally, actively in anxiety-provoking situations (without the preliminaries of eye closure or fixation).

All the exercises have been carefully designed to achieve this ultimate aim and no patient should be allowed to claim that the method has failed until he has mastered the technique and yet still reports insuperable tension symptoms. Since, by this stage, so many factors are contributing to the irradiation of anxiety (including reciprocal inhibition), practical experience shows that such cases are very few.

Results

The time factor is important. Table 1 shows a range of diagnoses which have responded to treatment with length of training sessions (which would normally employ the therapist) and times spent with the doctor.

TABLE 1
TIME NEEDED BY PATIENTS

<i>Patient</i>	<i>Diagnosis</i>	<i>Length of history</i>	<i>Approximate time with record sessions</i>	<i>Approximate time with therapist</i>	<i>Outcome</i>
E.P. aet 33 Male	Anxiety state	10 years	c. 18 hours	<2 hours	Symptom free
A.M. aet 54 Female	Phobic anxiety state	12 years	c. 72 hours	<5 hours	Symptom free
S.V. aet 34 Female	Anxiety state	10 years	c. 42 hours	0·6 hours	Markedly improved
R.E.S. aet 61 Female	Asthma	Life long	c. 9 hours	<2 hours	Markedly improved
D.J.C. aet 34 Male	Anxiety state with phobias	4 years	Used at home: 42 hours	0·3 hours	Improved
D.J. aet 30 Male	Premature ejaculation	5 years	Used at home: 44 hours	0·3 hours	Symptom free
M.B. aet 56 Male	Anxiety state	6 months	c. 30 hours	<4 hours	Symptom free
J.R. aet 36 Male	Phobic anxiety state	14 years	c. 54 hours	0·4 hours	Markedly improved

In all cases, established drug therapy and management (which had brought some degree of relief) were continued but there had been no change in these for some months prior to training and none was allowed during the course.

One of the criticisms of Jacobson's technique has been early relapse when the method is stopped. The outcome here given is after follow-up of one to three years.

Beyond this, the effectiveness of any method for the treatment of anxiety is uncertain because of the undisputed difficulties in reliable assessment and introducing appropriate controls. Our preliminary study in a general, psychiatric unit used the criterion of length of inpatient stay. Alternate routine admissions who were not so disturbed that exposure to the recordings was likely to be meaningless, attended daily at the treatment centre where they were asked to co-operate in sessions using exercises one and two. No special explanation of the project was provided.

Table 2 gives the average lengths of stay for the entire unit (two consultant teams) during the period of observation, lengths of stay for 85 subjects and for 85 controls who were also inpatients exposed to the hospital regime but without relaxation training. In considering the figures it should be borne in mind that the general unit's figures

TABLE 2
MEAN LENGTHS OF STAY: FEBRUARY 1970-JULY 1971

	<i>Male</i>	<i>Female</i>	<i>Total</i>
Entire unit (all diagnoses treatments and disposals)	52.1 days	42.2 days	47.2 days
Patients—85	49.1 days	43.4 days	46.1 days
Controls—85	57.1 days	53.3 days	55.0 days

include all patients (whether or not referred for relaxation), all diagnoses (including organic states) and all modes of departure (including discharge against medical advice). In the observed series all such factors (which are likely to shorten the length of elective inpatient care artificially) have been eliminated.

Table 3 gives an analysis of diagnostic categories for subjects and controls. Not surprisingly the method appears to have no significant effect in psychotic states (Student

TABLE 3
DIAGNOSES

	<i>MALES</i>			<i>FEMALES</i>			<i>TOTAL</i>	
	<i>Psychosis</i>		<i>Neurosis (days)</i>	<i>Psychosis</i>		<i>Neurosis (days)</i>	<i>Psychosis (days)</i>	<i>Neurosis (days)</i>
	<i>Schizo- phrenic (days)</i>	<i>Endogenous depression (days)</i>		<i>Schizo- phrenic (days)</i>	<i>Endogenous depression (days)</i>			
Patients 85	64.6	68.4	34.5	41.2	73.5	35.1	61.9	35.4
Controls 85	69.1	54.2	52.3	58.3	61.8	41.0	60.8	47.1

t test $p < 0.1$) but there is a considerable reduction in length of stay for neurotic subjects contrasted with controls (Student t test $p < 0.001$ confirmed by Mann-Whitney U).

Table 4 gives analyses of the neurotic sub-categories and appears to emphasise the particular value of the method in anxiety-dominated syndromes although the size of cells is here too small to proceed with reliable statistical calculation. While length of inpatient stay is admittedly a crude criterion, the figures suggest that for whatever reason, the relaxation sessions are contributing an additional factor to the therapeutic regime: they appear effective. Undoubtedly other factors are involved and further, more detailed study is desirable.

TABLE 4
NON-PSYCHOTIC DIAGNOSES

	<i>Neurotic depression</i>	<i>Anxiety states</i>	<i>Personality disorders</i>
Patients—43	28.3 days	23.8 days	54.6 days
Controls—38	48.5 days	43.9 days	53.5 days

Discussion

The main purpose of this report is to present further information about a method of treatment which may be suitable in a variety of anxiety states and while complementary to existing therapy, does not encroach unduly upon the doctor's time.

Human contact has not been entirely excluded and experience has tended to show that brief but regular encouragement of subjects is highly desirable if they are not to abandon the effort before progress can be reliably assessed. Nevertheless, this expenditure is relatively small and eminently worth while.

It seems relevant also to make some further comment upon the content of the exercises. Mental science, in common with other disciplines, has its different schools of thought. Close inspection can sometimes show that these are mere confusions of nomenclature and to some degree, differential relaxation may be an example.

The exercises owe something of their origins to muscular control, yoga and hypnotic induction but these are not discreet entities: all three have central principles in common. Whether one calls the sessions 'exercises' or 'asanas', whether one trains the patient to lie supine and relaxed or teaches him savasana (the yogic death pose): whether he disciplines his breathing or practices pranayama, the concept is essentially similar. The ultimate aim remains as deep, selective, relaxation and peace of mind (samadhi). Vahia *et al.* (1966) have added to the literature on this technique in terms of ancient Indian concepts.

In conclusion, it must be emphasised that we are not here primarily concerned with the value of bodily relaxation as a technique but with easing its application without unduly reducing efficacy and perhaps, therefore, making it available to a larger number of potential candidates. The exercises employed teach patients about muscular relaxation but also make many reassuring suggestions about inner calmness. Rachman (1965) has already emphasised the doubts which must still exist as to which part or parts of the method are the real essentials for success. Much more work is required here and, I believe, on the clinical syndromes and personalities most likely to respond.

Summary

A development of training in progressive bodily relaxation by the use of graded tape recorded exercises is described. Its application to a range of psychiatric symptoms is

reported to show that removal of personal contact with the therapist does not militate against successful results and provides considerable saving of time. The report is not concerned with the effectiveness of relaxation methods or reasons for their successes but brief mention of some of the wider implications underlines the need for further research.

The recordings entitled *Progressive Relaxation* are now generally available through the Medical Recording Service of the Royal College of General Practitioners, Chelmsford, England.

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ADDENDUM

Progressive relaxation for individual use, tape 68-32, running for 90 minutes and *Progressive relaxation for group and supervised use*, tape 68-33, running for 35 minutes, are two tapes by Dr I. C. A. Martin now available from the Medical Recording Service Foundation of the Royal College of General Practitioners, Kitt's Croft, Writtle, Chelmsford, Essex.

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