

EFFECTIVE USE OF RELAXATION TRAINING IN DEALING WITH TENSION AND ANXIETY: A SELECTED REVIEW

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Abstract

Relaxation training is currently employed both in relation to systematic desensitization treatment of phobias and by itself as a direct means of dealing with tension and anxiety. A selected review of the literature suggests that the greatest benefit may be derived when the procedure is viewed as developing an active coping skill and directly related to the individual's daily living situation.

Résumé

A l'heure actuelle, on emploie l'entraînement à la détente et en relation avec les traitements de désensibilisation systématique des phobies, et comme moyens directs de traiter la tension et l'anxiété. Une revue sélective de la littérature suggère que les plus grands bénéfices peuvent être obtenus lorsque le processus est vu comme étant le développement de la capacité active de se débrouiller et comme étant directement relié au vécu journalier de l'individu.

The publication of Jacobson's *Progressive Relaxation* (1938) added relaxation training to the extensive list of medico-physical procedures that have been employed for the treatment of tension and anxiety. This paper reviews some of the research literature on the use of relaxation therapy since Jacobson's original work, and suggests a possible avenue for its more effective employment in the future.

Focussing specifically on muscle relaxation, Jacobson regarded it as a skill that could be perfected, as with any other skill, with extensive practice. Once mastered, it was to be used actively to deal directly with tension when it was experienced in the course of one's daily living.

Due in part to the extensive recommended length of treatment (50-200 training sessions), together with the increasing use of drugs to combat tension and the widespread acceptance of psychoanalysis as a psychotherapeutic orientation, Jacobson's methods did not gain popularity at the start. Although occasional professional references are made to him during the next twenty years, it was not until the late 1950's that progressive relaxation obtained a recognized position as a therapeutic tool.

In his 1958 publication of *Psychotherapy by Reciprocal Inhibition*, Wolpe described Jacobson's methods, employing a modified shortened version of them in the preparation of the anxious patient for systematic desensitization. According

to Wolpe, systematic desensitization is to be regarded as a reconditioning process in which the relaxation response is gradually substituted for the inappropriate anxiety response the individual has learned to make to certain situations. In contrast to the approach advocated by Jacobson, the person is not instructed to use relaxation as a means of actively coping with anxiety. Instead, the anxiety-provoking situation is terminated if any anxiety is experienced, and only re-introduced when the individual is in a relaxed state.

Some studies on the role of relaxation employed in this fashion (Yates, 1970; Nawas, Welsch and Fishman, 1970) have tended to support Wolpe's clinical observations that training in progressive muscle relaxation was a necessary component in the success of desensitization therapy. However, other controlled investigations have shown that the procedure is effective regardless of whether such training is part of the program or not (Cooke, 1968; Crowder and Thornton, 1970; Freeling and Shemberg, 1970; Waters, McDonald and Koresko, 1972). Craighead (1973) has conducted a particularly well-controlled experimental study demonstrating this finding, while other researchers have obtained similar results under actual clinical conditions (Argas, Leitenberg, Berlow, Curtis, Edwards and Wright, 1971).

A few studies have attempted to assess the effects of the *type* of relaxation employed. Bellack (1973) deconditioned laboratory-induced fear using desensitization associated with mental

relaxation. No differential or progressive muscle relaxation was employed. Marshall, Strawbridge and Keltner (1972) obtained comparable results.

As further (and more dramatic proof) that muscle relaxation is not essential in desensitization therapy, a number of investigators have had their subjects or patients *tense* their muscles as part of the desensitization procedure (Grim, 1971; Sue, 1972; Vodde and Gilner, 1971). In all cases, results were obtained that were comparable to those found using desensitization with muscle relaxation.

Although such findings appear clear cut, caution must still be exercised in making any generalization to the population at large. More detailed consideration of individual differences in responsiveness has revealed that personality and physiological factors may significantly influence the effects of relaxation training. For example, Farmer and Wright (1971) examined the relationship of muscle reactivity to desensitization. Measuring physiological reactivity through the Faster and Cleveland Barrier Score, they found that for persons who tense their muscles under stress, desensitization employing relaxation produces substantial reductions in avoidance behaviour. In contrast, persons who tend to tense their muscles less under stress benefited equally whether relaxation was used or not. Furthermore, Stoudenmire (1972), based on the work of Eysenck and Rachman (1965), observed a different response between introverts and extroverts to traditional systematic desensitization. Both were exposed to muscle relaxation training; however, results indicated that only the introverts experienced a significant decrease in state anxiety.

Along with the examination of its usefulness in the context of systematic desensitization, the value of relaxation training by itself has been investigated. Both clinical case study reports and studies employing physiological measures have demonstrated that deep muscle relaxation can have beneficial results. In addition to reducing muscle tension, the procedure has been found to produce significant decrements in pulse rate, blood pressure, skin conductance, and respiration (Paul, 1969; Tasto and Huebner, 1976; Clark, 1963; Wolpe, 1964). Furthermore, it has been used successfully for, among other things, the reduction of neurotic fear (Davison, 1965), examination anxiety (Snider and Oetting, 1966), and insomnia in children (Weil and Goldfried, 1972).

There are, however, other findings which question whether the response can be used effectively in this simple manner (Davison 1968; Lang, Lazovik and Reynolds, 1965; Rachman, 1965, 1968). For example, some studies of the maintenance effects of relaxation, beyond

immediate training benefits, have indicated relatively short-lived effects (Rachman, 1965, 1968). Other investigators have reported that subjects given relaxation training fared no better than those receiving therapist attention and an expectation of success (Davison, 1968; Lang, Lazovik and Reynolds, 1965), and that by itself, it did not significantly reduce avoidance behaviour (Lang and Lazovik, 1963).

A critical factor determining its usefulness under these circumstances would appear to be how it is presented to the subject. In particular, after the manner suggested by Jacobson (1938), an effort needs to be made to instruct the individual in the daily application of relaxation as an *active coping skill*. Several investigators have drawn attention to its benefits when it has been taught in this fashion (Paul and Shannon, 1966; Bootzin and Kazdin, 1972; Sherman, 1972). In one study, Zeisset (1968) first trained in-patients in progressive muscle relaxation and then taught them how to employ this method whenever they experienced undue anxiety in their everyday interactions. When taught as a skill to be used actively in coping with anxiety, it was found to be significantly more effective than either a no-contact or attention-placebo control group. Furthermore, Goldfried and Trier (1974) reported that subjects trained in a skill-oriented relaxation program demonstrated continued improvement in a follow-up test five weeks later.

Relating this approach to systematic desensitization, Goldfried (1971) has suggested that the Wolpean procedure be modified so that relaxation is used by the individual to cope with any tensions experienced when anxiety-provoking situations are presented by the therapist. Jacks (1972) has compared a modified form of this self-control approach derived from Goldfried's work with the classical desensitization produced. Acrophobic patients in one group received an additional session of classical systematic desensitization while those in another condition obtained self-control training, in which they were instructed to maintain anxiety-producing images and "relax away" the tension experienced. Neither group showed any behavioural differences in the post-test avoidance measure, but the self-control subject reported significant reductions in experienced anxiety. More recently, studies by Denney and Rupert (1977) and Spiegler et al. (1976) demonstrated the superiority of the self-control procedure over standard counter-conditioning conditions. Of particular interest is the finding in the former study that the active coping rationale given to student subjects appeared to be more effective than the passive rationale of reciprocal inhibition in producing persistent post-treatment changes in academic

performance. Along similar lines, Snyder and Deffenbacher (1977) provide additional evidence for an active coping rationale in reducing test and other anxieties. While they reported no significant difference in the effectiveness of self-control and desensitization groups, they indicated that the counterconditioning instructions given the desensitization group were combined with a self-control rationale, group discussion and the homework assignment of employing relaxation to cope with anxiety and self-administering scenes between sessions. Under these conditions both groups showed significant improvements in dealing with nontargeted anxieties, suggesting a generalized learning of anxiety-management skills.

While failure to consistently demonstrate significant benefits from relaxation training may in part be attributed to the lack of emphasis on relaxation as an active coping skill, at least one other observation should be noted here. Much of the work in the literature has viewed relaxation as a secondary or attention placebo condition (Trexler and Karst, 1972). This has meant that relaxation training has frequently had to 'compete' with other treatment strategies that may in themselves be better geared to the major clinical problems under investigation. Under these circumstances, it is not surprising that relaxation training has suffered in the comparison. When such results are considered over several studies, they have no doubt served to minimize the benefits attributed to relaxation training.

It is curious that the training of progressive relaxation has not been more closely connected with its day-to-day applications from the beginning, especially since Jacobson (1938) clearly noted the importance of making training programs relevant to the person's real life concerns. Viewed as an active coping skill, it would be expected that the more extensive *in vivo* training the individual obtains with the procedure, that is, the more actual practice he has, the greater the benefits to be derived. This in fact has been found in several studies (Goldfried and Trier, 1974; Goldfried and Merbaum 1973; Sherman, 1972). Considered within a reinforcement paradigm, the relatively immediate benefits obtained from employing relaxation 'on-the-spot' would tend to reinforce its further use (practice), and strengthen appropriate discrimination of the circumstances in which it is to be used.

Lazarus (1975), in a recent consideration of the value of relaxation training involving the use of biofeedback, suggests that it is only a palliative approach and needs to be combined with a direct attack on the life circumstances producing the tension to be maximally effective. This review of the literature is not meant to contradict Lazarus'

position. Indeed, it seems reasonable that the primary focus in treatment should be given to directly interfering with the psychological and situational factors that precipitate the tension. However, when relaxation training is employed, there is evidence to suggest that the greatest benefit is derived when relaxation is considered as an active coping skill and directly related to the individual's daily living situation.

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