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ABSTRACT
            This paper provides some practical as well as
theoretical uses of group desensitization. It is hoped that the
reader will gain some knowledge as to how to apply this technique in
a variety of situations as well as with a number of variations.
Although some problems of application have been mentioned, the
authors intend that the therapist feel a degree of flexibility in
modifying these techniques to fit his purposes. This paper is broken
down into the following topics: (1) relaxation training, (2) problems
in relaxation training, (3) anxiety hierarchy construction, (4)
relaxation-imagery process, and (5) variants of group
desensitization. The authors mention that in vivo (live rather than
imagined) group desensitization is another variant that has been
shown to have merit. Although equally as effective as desensitization
procedures, it can often become impractical when other simpler
approaches are also available. It is also pointed out that relaxation
as a technique is rapidly becoming a popular therapeutic device for
handling everyday tension. (Author/BW)

Group Desensitization: Techniques and Problems of Application

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1

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Systematic desensitization was formally developed by
Joseph Wolpe (1958) as a psychotherapeutic procedure for the
treatment of certain persistent learned, unadaptive behaviors
(situation-specific anxieties, fears, phobias). The treatment
process involves confronting the client with actual or symbolic
representations of events which inappropriately produce anxiety,
while the client performs a behavior (e.g., relaxation) which
is antagonistic to anxiety. This procedure is based on a
principle called reciprocal inhibition, and was explained by
Wolpe (1958) as follows:

> If a response antagonistic to anxiety can be made to
> occur in the presence of anxiety-evoking stimuli so
> that it is accompanied by a complete or partial sup-
> pression of the anxiety responses, the bond between
> these stimuli and the anxiety responses will be
> weakened [p. 71].

There is currently some discussion as to the validity of the
theoretical explanation, but the effectiveness of the thera-
peutic procedure has been well documented (Cooke, 1968;
Davison, 1968; Garlington & Cotler, 1968; Goldfried, 1971;
Lang, 1969; Lang, Lazovik & Reynolds, 1965; Nawas, Fishman,
& Pucel, 1970; Paul, 1969).

Systematic desensitization was first developed for use in
individual psychotherapy since it involved an ellaborate,
individualized process of (a) relaxation training; (b) identi-
fication of an individualized hierarchy of inappropriately
anxiety-producing situations; and (c) imaginal visualization
of anxiety-provoking situations while experiencing complete
relaxation. It was initially thought that group desensitiza-
tion would be less effective since (a) clients learn relaxa-
tion at different rates (some clients would be ready for
desensitization at a given time while others would not); (b)
the anxiety hierarchy had to include only those situations
which were directly related to the inappropriate fears of the
individual in treatment (difficult to identify a complete list

of generally applicable, but specific, anxiety-producing events which have the same impact on each group member); and (c) during the combined relaxation-imagery process, if the client begins to experience anxiety he is told to stop the visualization and concentrate on relaxation (clients experience tension at different times to different stimuli, making general group progress through the anxiety hierarchy very cumbersome).

Nevertheless, growing interest in the economy of group work and the efficacy of the above assumptions about effective therapy prompted a great deal of research into the possible value of group desensitization (Lazarus, 1961). Interestingly enough it was found that the desensitization process was very effective when adapted for use with groups (Donner, 1968; Fishman & Nawas, 1971; Graff, MacLean, & Loving, 1971; Laxer, Quarter, Kooman, & Walker, 1969; Laxer & Walker, 1970; Meichenbaum, Gilmore, & Fedoravicius, 1971; Nawas & Pucel, 1971; Paul, 1965; Paul & Shannon, 1965; Suinn, 1968).

In an early description of why a group approach to the desensitization process (a process originally thought to be highly individualized) would be effective, Paul (1965) explained that the desensitization technique was used by his clients (on their own) as a technique for reducing perceived stress. Paul stated that

> ...subjects in the group seemed to perceive the desensitization method as an active mastery technique which they could acquire and use themselves, more than in the individual application. Clients' descriptions of utilizing desensitization training to master anticipated areas of stress themselves suggest the development of a confidence-building 'how to cope' orientation pp. 133-134.

In other words, the desensitization technique was not considered by Paul's clients to be a limited, individualized, situation-specific approach, but a more general skill. This idea is consistent with those of Goldfried (1971) who views ". . .systematic desensitization as self-control training for the reduction of anxiety [p. 232]." According to Goldfried,

3

...rather than construing desensitization as involving
a more or less passive elimination of specific fears,
the therapeutic procedure is seen as being directed
toward providing the client with a more general skill
for reducing anxiety, thereby enabling him to exercise
greater self-control in a variety of anxiety provoking
situations [p. 233].

If this view of desensitization is correct, one need not be
as concerned about exercising extreme care in developing
highly unique or individual anxiety hierarchies, and one
would not need to be as concerned about whether each client
in the group were experiencing similar degrees of relaxation
or anxiety to the same stimuli. The group desensitization
techniques discussed in the present paper (relaxation training,
anxiety hierarchy construction, and the relaxation-imagery
process) will probably fall somewhere between the two major
views presented above.

Relaxation Training

Originally, it was thought that for the effective learning
of complete, total relaxation to occur (a necessary prerequisite
to effective desensitization) the client needed approximately
six individualized training sessions (Wolpe, 1958; Wolpe &
Lazarus, 1966). In other words, six or more individual inter-
views would have to elapse before desensitization (relaxation-
imagery process) could begin. However, it has recently been
found that effective relaxation training can occur in one
session and with standardized, taped instructions without
concern for individual variations during the process (Fishman
& Nawas, 1971; Krapfl & Nawas, 1969; Nawas, Fishman, & Pucel,
1970). This was true for individual and group treatment.
These recent findings make the use of this technique much more
practical for the counselor who is limited by time and an
increasing demand for services.

The actual form of the relaxation training instructions
seems to vary slightly in the literature (Downing, 1970;
Lazarus, 1971; Wolpe & Lazarus, 1966), but the present authors
feel the exact form to be unimportant so long as relaxation
is effectively achieved. Nevertheless, a sample instructional
dialogue is included in Appendix A. It is suggested that the
instructions be given in their entirety during the first

interview, but that during subsequent interviews the counselor make the decision to condense the instructions until the client is able to respond to the simple suggestion to become totally relaxed and to inform the counselor as soon as this is achieved (usually by raising a finger). This process can be shortened by having the client practice relaxation at home for 5-10 minutes a day as taught in the first training session. As a result, more time will be available for the relaxation-imagery process which could begin following the first relaxation training session.

Problems in Relaxation Training

After deep and heavy relaxation training it is sometimes difficult to move various muscles--they feel loose and heavy. Therefore, immediately following each session it would be well to allow the client time to regain normal muscle tone. This may be accomplished by asking the client how he feels, and by discussing very simply his ability to relax during the session. Once the combined relaxation-imagery process has begun, it would also be useful to verify the client's ability to imagine the suggested scenes. By this time the client will have sufficient muscular control to walk from the office, and the counselor will also have information on the effectiveness of the session.

Another difficulty comes when using relaxation training with current or former drug users. During the relaxation process such clients frequently experience visual and physical sensations similar to those experienced while under the influence of drugs. This is often surprising and frightening, especially to clients who have quit or are trying to quit the use of drugs. In such cases group relaxation can be counter-productive. In fact, individual relaxation would not be advisable unless the counselor and client are adequately prepared to handle the problem.

Deep muscle relaxation may also serve to temporarily remove certain emotional defenses. For some clients this may pose an initial problem which the prepared counselor can help over-come. For example, a client who has been justifying or rationalizing a lack of meaningful involvement with peers may become painfully aware of an intense loneliness that strong defenses have not previously allowed into full consciousness.

The client may react with strong feelings of loneliness, sadness, depression, and/or tears. These feelings need not occur beyond the first training session if the counselor meets individually with the client to work through and work toward satisfactory solutions to the problem.

Anxiety Hierarchy Construction

An anxiety hierarchy is a list of anxiety-eliciting situations that are arranged along a single dimension in descending order in accordance with the degree of anxiety produced. For any one person the number of separate hierarchies may vary depending on the complexity of the presenting problem. Once the raw data have been obtained from (a) interviews, (b) the Revised Willoughby Questionnaire (Wolpe, 1960--See Appendix C), (c) the Fear Survey Schedule (Wolpe 1969--See Appendix D), and (d) any other source suggesting situations producing unadaptive anxiety, the anxiety hierarchies may be constructed.

For individual cases, once desensitization has been selected as the technique of choice, the typical approach to hierchy construction involves taking the data obtained and identifying the differential themes to be created. Then, the counselor and the subject begin to identify scenes to be included along each dimension. The subject is asked to subjectively rank each scene according to the amount of anxiety it evokes. At the same time that the hierarchies are being constructed the subject begins his relaxation training and the desensitization process is carried out as usual.

The assumption underlying the construction of individual hierarchies is that they must be unique to the individual. Recent studies using individual desensitization (Emery & Krumboltz, 1967; McGlynn, 1971) have indicated that the uniqueness of the hierarchies is not of primary importance since standardized, automated desensitization programs were found to be effective in reducing symptom-related anxiety.

In attempting to apply these techniques of hierarchy construction to groups, similar results as to the efficacy of standardized hierarchies have been obtained (Donner, 1970; Donner & Guerny, 1969; Fishman & Newas, 1971; Newas, Fishman & Fucel, 1970; Paul & Shannon, 1966). In the past it has been felt that a problem on constructing hierarchies for groups has centered on the individual differences of the

group members with regard to the relevance of the group
hierarchy to their own problem. Again, standardized group
methods have proven to be equally as effective. Consequently,
the advantage of group methods is obvious in the amount of
time saved.

Groups are most often selected on the basis of individual
group members displaying similar anxiety symptoms. However,
one may work with heterogeneous problem groups with emphasis
on teaching them a general anxiety reducing skill rather than
eliminating a single, situation-specific anxiety. Regardless
of the type of group the more common method of constructing
group hierarchies is by group discussion it is sometimes
helpful to have group members first write individual lists
of anxiety-producing situations). This allows each client
the opportunity to introject those scenes that are particularly
uncomfortable for him. The scenes are kept as open-ended as
possible so as to allow the subject to visualize himself in
a situation relevant to his own anxiety. The presentation of
the scenes proceeds in the same fashion as for one-to-one
desensitization with the exception that the group proceeds at
the rate of the slowest member.

There is one problem that one must consider when using
group hierarchies. Our experiences dictate that for very
specific fears conditioned by a definite stimulus-chaining
of events, individual hierarchy construction may be warranted.
For other, more diffuse fears, group hierarchies are equally
as effective as individual hierarchies. To partially handle
this problem, at the beginning of each desensitization session
some researchers (Konda, 1967; Paul & Shannon, 1966) have
the group discuss their problem areas and thereby continually
revise the hierarchies or formulate new ones if deemed
appropriate.

Relaxation-Imagery Process

Once relaxation training and anxiety hierarchy construc-
tion are complete, the counselor may begin the actual desensi-
tization process. The procedure normally involves having the
group achieve complete relaxation and then imagine or picture
in their minds a scene involving the situation from the group
hierarchy which evokes the least amount of anxiety. Tradition-
ally, only three to five scenes are imagined in each session,

and when one of the group signals that he is experiencing
anxiety (usually by raising a finger) the group is asked to stop
imagining that scene, relax, and picture a neutral or pleasant
scene. The traditional approach never allows the group to
experience anxiety for any length of time. However, an approach
suggested by Goldfried (1971) which emphasizes the learning of
an anxiety reducing skill would have the group continue to picture a scene after
~~an~~ anxiety was signalled and have the group learn to remove
that anxiety and replace it with relaxation. Regardless of which
approach the counselor takes the relaxation-imagery process
continues until the group is able to relax while visualizing
each hierarchy item (the hierarchy may be revised periodically
as suggested above).

variants of Group Desensitization

Theoretically, there has been some question as to the condi-
tions that contribute most to the desensitization process.
Seamons (1971) in a review of literature found a number of
apparent discrepancies as to the theoretical explanations of
this process. It was his conclusion that Rachman (1967) and
Valins and Ray (1967) offered the most plausable explanations.
These authors attributed anxiety reduction to either "mental
calmness" or the roll of cognitions that become associated with
the emotions experienced.

Goldfried (1971) recently proposed a mediational paradigm
wherein he felt that "the client is being taught to cope with his
proprioceptive anxiety responses and cues rather than with
situations which elicit the tension (p. 232)." This has its
implications for hierarchy construction in that perhaps one
need not be so concerned about specific themes since it is the
client's ability to "relax away the tension" that is of para-
mount importance.

Relaxation as a technique in and of itself is fast becoming
a popular therapeutic device for handling everyday tension.
Teaching relaxation in groups either with a therapist present or
by audiotape recordings is an effective variant. The present
authors have found that having clients associate the positive
feelings of relaxation with positive feelings about themselves,
a feeling of well-being, and a feeling of self esteem is both
enjoyable and helpful to clients.

Procedural variations among different researchers as to relaxation training, hierarchy construction and desensitization proper are summarized rather extensively by Paul (1969).

Modeling, both live and video-taped, has been used effectively by some researchers (Bandura, Blanchard, & Ritter, 1969; Mann, 1972; Mann & Rosenthal, 1969; Shannon & Wolf, 1967) and shows itself to be economical with regard to therapist time. Although the preliminary findings of the use of videotapes as models of group desensitization are yet situation-specific, the ease of application makes the potential use in public schools very encouraging.

The use of standard group hierarchies and its applicability for use in groups has already been alluded to.

In vivo (live rather than imagined) group desensitization is another variant that has been shown to have merit (Ritter, 1968). Although equally as effective as other desensitization procedures, it can often become impractical when other simpler approaches are also available.

There are times when social action on the part of the client precludes the use of desensitization proper (Lazarus & Serben, 1968). In such cases assertive training (Wolpe, 1969) or behavioral rehearsal (Lazarus, 1966) may be more appropriate.

Since for some children relaxation proper is often difficult to achieve, Lazarus and Abramovitz (1962) proposed an interesting variation in "emotive imagery." Here the child is asked to identify with some hero in a story and to visualize this hero performing a number of behaviors that would normally create anxiety for the child. This identification tends to inhibit the anxiety, thus desensitizing the child to the feared stimulus. Although the authors are not aware of studies which have used this technique in groups there is no reason to believe that its effectiveness would be any different.

Summary

The purpose of this paper was to provide some practical as well as theoretical uses of group desensitization. It is hoped that the reader will gain some knowledge as to how to apply

this technique in a variety of situations as well as with a number of variations. Although some problems of application have been mentioned the therapist should feel a degree of flexability in modifying these techniques to fit his purposes.

References

Bandura, A., Blanchard, E. B., & Ritter, B. The relative efficacy of desensitization and modeling approaches for inducing behavioral, affective and attitudinal changes. Journal of Personality and Social Psychology, 1969, 13, 173-199.

Cooke, G. Evaluation of the efficacy of the components of reciprocal inhibition. Journal of Abnormal Psychology, 1968, 73, 464-467.

Davison, G. C. Systematic desensitization as a countercondi-tioning process. Journal of Abnormal Psychology, 1968, 73, 91-99.

Donner, L. Effectiveness of a pre-programmed group desensiti-zation treatment for test anxiety with and without a thera-pist present. Unpublished doctoral dissertation, Rutgers University, 1968.

Donner, L. Automated group desensitization--a follow-up report. Behavior Research and Therapy, 1970, 8, 241-247.

Donner, L., & Guerny, B. G. Automated group desensitization for test anxiety. Behavior Research and Therapy, 1969, 7, 1-13.

Downing, L. N. The innovative use of the relaxation process in counseling. Paper presented at the American Personnel and Guidance Association Convention, Atlantic City, New Jersey, April, 1971.

Emery, J. R., & Krumboltz, J. D. Standard versus individualized hierarchies in desensitization to reduce test anxiety. Journal of Counseling Psychology, 1967, 14, 204-209.

Fishman, S. T. & Nawas, M. M. Standardized desensitization method in group treatments, Journal of Counseling Psychology, 1971, 18, 520-523.

Garlington, W. K., & Cotler, S. B. Systematic desensitization of test anxiety. Behavior Research and Therapy, 1968, 6, 247-256.

Goldfried, M. R. Systematic desensitization as training in
self-control. Journal of Consulting and Clinical Psychology,
1971, 37, 228-234

Graff, R. W. Maclean, G. D., & Loving, A. Group reactive
inhibition and reciprocal inhibitions therapies with
anxious college students. Journal of Counseling Psychology,
1971, 18, 431-436.

Kondas, O. Reduction of examination anxiety and "stage-fright"
by group desensitization and relaxation. Behavior Research
and Therapy, 1967, 5, 275-281.

Krapfl, J. E., & Nawas, M. M. Client-therapist relationship
factor in systematic desensitization. Journal of Consulting
and Clinical Psychology, 1969, 33, 435-439.

Lang, P. J. The mechanics of desensitization and the laboratory
study of human fear. In C. M. Franks, (ed.), Behavior
therapy: Assessment and status. New York: McGraw-Hill,
1969.

Lang, P. J., Lazovik, A. D., & Reynolds, D. J. Desensitization,
suggestibility, and pseudotherapy. Journal of Abnormal
Psychology, 1965, 70, 395-402.

Laxer, R. M., Quarter, J., Kooman, A., & Walker, K. Systematic
desensitization and relaxation of high-test-anxious secon-
dary school students. Journal of Counseling Psychology,
1969, 16, 446-451.

Laxer, R. M., & Walker, K. Counterconditioning versus relaxa-
tion in the desensitization of test anxiety. Journal of
Counseling Psychology, 1970, 17 431-436.

Lazarus, A. A. Group therapy of phobic disorders by systematic
desensitization. Journal of Abnormal and Social Psychology,
1961, 63, 504-510.

Lazarus, A. A. Behavior rehearsal vs. non-directive therapy
vs. advice in effecting behavior change. Behavior Research
and Therapy, 1966, 4, 209-212.

Lazarus, A. A. Behavior therapy and beyond. New York: McGraw-Hill, 1971.

Lazarus, A. A., & Abramovitz, A. The use of "emotive imagery" in the treatment of children's phobias. Journal of Mental Science, 1962, 108, 191-195.

Lazarus, A. A., & Serber, M. Is systematic desensitization being misapplied? Psychological Reports, 1968, 23 215-218.

Mann, J. Vicarious desensitization of test anxiety through observation of videotaped treatment. Journal of Counseling Psychology, 1972, 19, 1-7.

Mann, J., & Rosenthal, T. L. Vicarious and direct counter-conditioning of test anxiety through individual and group desensitization. Behavior Research and Therapy, 1969, 7, 359-367.

McGlynn, F. D. Individual versus standardized hierarchies in the systematic desensitization of snake-avoidance. Behavior Research and Therapy, 1971, 9, 1-5.

Meichenbaum, D. H., Gilmore, J. B., & Fedoravicius, A. Group insight versus group desensitization in treating speech anxiety. Journal of Consulting and Clinical Psychology, 1971, 36, 410-421.

Nawas, M. M., Fishman, S. T., & Lucel, J. C. A standardized desensitization program applicable to group and individual treatments. Behavior Research and Therapy, 1970, 8, 49-56.

Nawas, M. M. & Pucel, J. C. Relationship factors in desensitization: A persistent trend. Journal of Counseling Psychology, 1971, 18, 239-243.

Paul, G. L. Insight versus desensitization in psychotherapy. Stanford: Stanford University Press, 1965.

Paul, G. L. Outcome of systematic desensitization: II. Controlled investigations of individual treatment, technique variations, and current status. In C. M. Franks (Ed.), Behavior therapy: Assessment and status. New York: McGraw-Hill, 1969.

Paul, G. L., & Shannon, D. T. Treatment of anxiety through systematic desensitization in therapy groups. Journal of Abnormal Psychology, 1966, 71, 124-235.

Rachman, S. The role of muscular relaxation in desensitization therapy. Behavior Research and Therapy, 1968, 6, 159-166.

Ritter, B. The group desensitization of children's snake phobias using vicarious and contact desensitization procedures. Behavior Research and Therapy, 1968, 6, 1-6.

Seamons, T. R. The role of relaxation in the desensitization process: Guidelines and precautions. Paper presented at the American Personnel and Guidance Association Convention, Atlantic City, New Jersey, April 1971.

Shannon, D. T., & Wolff, M. E. The effects of modeling in reduction of snake phobia by systematic desensitization. Urbana, Ill.: University of Illinois, 967.

Suinn, R. M. The desensitization of test-anxiety by group and individual treatment. Behavior Research & Therapy, 968, 6, 385-387.

Valins, S., & Ray, A. A. Effects of cognitive desensitization on avoidance behavior. Journal of Personality and Social Psychology, 1967, 7, 343-350.

Wolpe, J. Psychotherapy by reciprocal inhibition. Stanford: University Press, 1958.

Wolpe, J. The practice of behavior therapy. New York: Pergamon, 1969.

Wolpe, J., & Lang, P. J. A fear survey schedule for use in behavior therapy. Behavior Research and Therapy, 1964, 2, 27-30.

Wolpe, J., & Lazarus, A. A. Behavior therapy techniques: A guide to the treatment of neurosis. New York: Pergamon, 1966

Appendix A

Relaxation Instructions

Before we begin today I want you to take a moment and get in the most comfortable position you can. Move your body so you can feel that if you let your legs, arms, or other muscles go completely limp they would not fall, but would remain in a comfortable position. Now close your eyes and keep them closed throughout the session so you will not be distracted by light or anything around you. Do not fall asleep, although you may feel very close to this at times. Just listen to my instructions and follow them carefully.

The purpose of this session is to teach you how to relax and remove all muscle tension. You will quickly learn the difference between tension and relaxation as I have you tense, hold, and then relax muscle groups throughout your body. This way you will also learn how to remove and replace tension with effortless relaxation. As each muscle group is relaxed, maintain its relaxation while moving on to the next group. In this way you will arrive at a final state of deep and complete relaxation. As you become completely relaxed, you may experience pleasant and natural sensations of warmth or heaviness in your muscles.

All right. Let's begin now. With both hands resting comfortably, make a tight fist with both hands and hold it. Tighter. Feel how the muscles pull on top of each hand, in the fingers, and in the upper and lower parts of each forearm. Now relax. Let your hands and forearms drop and go completely limp. Remove the tension and replace it with effortless relaxation.

Now, while keeping both hands completely relaxed, raise both your shoulders as high as you can. Feel the pull of the muscles across the shoulders as you raise them higher. Now relax and drop your shoulders. Allow them to sag farther and farther. Feel the relaxation spread from muscle to muscle.

Now this time tighten the muscles in your forehead and scalp by wrinkling up your forehead and raising your eyebrows at the same time. Notice the feeling of tightness and tension. Now relax. Observe how the tension disappears as your brow becomes smoother and smoother.

Now squint your eyes tightly and wrinkle up your nose. Tighter, tighter, notice the tension building in your face. Now relax. Let all the muscles around your entire face completely relax. Experience the pleasure of calm, effortless relaxation.

Now with your moth closed, pull back the corners of your mouth as far as you can. Feel the tension increase as you pull the corners back farther and farther. Now relax. Notice the sensation of warmth that flows into these muscles as they become more and more relaxed.

Now tense your jaw muscles by biting your teeth together. Bite hard. Notice the feeling of tightness in your jaw muscles. Now relax. Let your jaws go completely limp. Let them sag and hang comfortably relaxed.

Now push your head back as far as it will go. Hold it. Feel the tension in the back of your neck. Now relax. Let your head return to its normal position. Now bend your head forward, touching your chin to your chest. Again feel the pressure in the back of your neck. Now relax. Return your head to its normal, comfortable position, and go on relaxing.

Pay attention to your body, and if any tension has crept back into any of your muscles, notice where it is, then remove it and replace it with deep, complete relaxation.

Now take a deep breath. Fill your lungs full and hold your breath. Notice how the muscles pull across your chest, and how the tension builds. Now relax. Breathe right out and breathe normally, in and out. Notice how all the muscles of your body become more relaxed when you exhale. Go on breathing normally, easily, freely, completely relaxed.

Now making sure that your muscles remain relaxed, tighten your stomach muscles. Make them hard and hold it. Feel the tension. Now relax. Focus on the surge of relief and the complete comfort of relaxation. Notice the general sense of well-being that comes with relaxing your stomach muscles. Continue relaxing, enjoying the calm, pleasant sensations of deep, total relaxation.

Now I want you to tighten the muscles in the upper thigh portions of both legs. Feel the pressure as you tighten the

top and bottom muscles of both legs. Now relax. Observe the
difference between the feelings of tension and relaxation.
Let your muscles go loose and heavy.

Now I want you to tighten the calf muscles of both legs.
Make them tighter. Notice how they almost hurt as they tense.
Now relax. Notice the relief of relaxation as you let your
muscles go.

Finally, push the toes of both feet hard into the soles of
your shoes so that you arch up both feet. Feel the pressure
in your feet. Now relax. Let your feet go and enjoy the calm-
ness of effortless relaxation.

Again, pay attention to your entire body. If you feel any
tension anywhere, just remove it and replace it with deep,
complete relaxation. You know how. Relax more and more.

(If appropriate, may begin relaxation-imagery process
here.)

In a few moments I'm going to ask you to return to a
normal state of waking tension. This does not mean that you
will be as tense as when you came in, but just alert enough
to go about the rest of the day's activities without any trouble.
We'll do this gradually, so you won't be startled at all. I
am going to count from 4 to 1. When I count 1 you will open
your eyes and feel very refreshed and relaxed, much like
you'd feel if you had just awakened from a nice afternoon nap.

O.K.. . .four. . .three. . .two. . .one. . .Open your
eyes. Just stay as comfortable as possible.

Appendix B

Relaxation Suggestions[1]

. . .Remove the tension and replace it with relaxation.

. . .Become relaxed, more and more.

. . .Try to experience a feeling of deeper and deeper relaxation.

. . .Notice the calm, peaceful feeling as you relax.

. . .Let yourself relax deeply, totally.

. . .Enjoy the calmness of effortless relaxation.

. . .Feel the heaviness as you relax more and more.

. . .Experience the pleasure of calm, effortless relaxation.

. . .Feel the relaxation spread from muscle to muscle.

. . .Let all your muscles go loose and heavy.

. . .Try to experience a feeling of deeper and deeper relaxation.

. . .Your muscles may feel comfortably heavy as you relax.

. . .Let your muscles go, more and more.

. . .Let your muscles become looser and looser.

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[1]Possible relaxation suggestions for maintaining relaxation during the relaxation-imagery process. These alternatives may allow for some variation in your instructions.

Appendix C

REVISED WILLOUGHBY QUESTIONNAIRE FOR
SELF-ADMINISTRATION[2]

Instructions: The questions in this schedule are intended
to indicate various emotional personality traits. It is not
a test in any sense because there are no right and wrong
answers to any of the questions.

After each question you will find a row of numbers whose
meaning is given below. All you have to do is to draw a
ring around the number that describes you best.

> 0 means "No," "never," "not at all," etc.
> 1 means "Somewhat," "sometimes," "a little," etc.
> 2 means "About as often as not," "an average amount" etc.
> 3 means "Usually," "a good deal," "rather often," etc.
> 4 means "Practically always," "entirely," etc.

1. Do you get anxious if you have to speak or perform in
   any way in front of a group of strangers?
   0 1 2 3 4

2. Do you worry if you make a fool of yourself, or feel you
   have been made to look foolish? 0 1 2 3 4

3. Are you afraid of falling when you are on a high place
   from which there is no real danger of falling; for
   example, looking down from a balcony on the tenth floor?
   0 1 2 3 4

4. Are you easily hurt by what other people do or say to
   you? 0 1 2 3 4

5. Do you keep in the background on social occasions?
   0 1 2 3 4

6. Do you have changes of mood that you cannot explain?
   0 1 2 3 4

7. Do you feel uncomfortable when you meet new people?
   0 1 2 3 4

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[2]Wolpe, J. The practice of behavior therapy. New York:
Pergamon, 1969, pp. 281-282. (By permission of the author)

8. Do you daydream frequently, i.e., indulge in fantasies not involving concrete situations? 0 1 2 3 4

9. Do you get discouraged easily, e.g., by failure or criticism? 0 1 2 3 4

10. Do you say things in haste and then regret them?
    0 1 2 3 4

11. Are you ever disturbed by the mere presence of other people? 0 1 2 3 4

12. Do you cry easily? 0 1 2 3 4

13. Does it bother you to have people watch you work even when you do it well? 0 1 2 3 4

14. Does criticism hurt you badly? 0 1 2 3 4

15. Do you cross the street to avoid meeting someone?
    0 1 2 3 4

16. At a reception or tea do you go out of your way to avoid meeting the important person present? 0 1 2 3 4

17. Do you often feel just miserable? 0 1 2 3 4

18. Do you hesitate to volunteer in a discussion or debate with a group of whom you know more or less? 0 1 2 3 4

19. Do you have a sense of isolation, either when alone or among people? 0 1 2 3 4

20. Are you self-conscious before "superiors" (teachers, employers, authorities)? 0 1 2 3 4

21. Do you lack confidence in your general ability to do things and to cope with situations? 0 1 2 3 4

22. Are you self-conscious about your appearance even when you are well-dressed and groomed? 0 1 2 3 4

23. Are you scared at the sight of blood, injuries, and destruction even though there is no danger to you?
    0 1 2 3 4

24. Do you feel that other people are better than you?
    0 1 2 3 4

25. Is it hard for you to make up your mind? 0 1 2 3 4

Appendix D

Date: _____ Name: _____

FEAR INVENTORY[3]

The items in this questionnaire refer to things and experiences that may cause fear or other unpleasant feelings. Write the number of each item in the column that describes how much you are disturbed by it nowadays.

	Not at all	A Little	A Fair Amount	Much	Very Much
1. Noise of vacuum cleaners					
2. Open wounds					
3. Being alone					
4. Being in a strange place					
5. Loud voices					
6. Dead people					
7. Speaking in public					
8. Crossing streets					
9. People who seem insane					
10. Falling					
11. Automobiles					
12. Being teased					
13. Dentists					
14. Thunder					
15. Sirens					
16. Failure					
17. Entering a room where other people are already seated					
18. High places on land					
19. Looking down from high buildings					
20. Worms					
21. Imaginary creatures					
22. Strangers					
23. Receiving injections					
24. Bats					

[3]Wolpe, J. The practice of behavior therapy. New York: Pergamon, 1969, pp. 283-286 (by permission of the author).

	Not at all	A Little	A Fair Amount	Much	Very Much
25. Journeys by train					
26. Journeys by bus					
27. Journeys by car					
28. Feeling angry					
29. People in authority					
30. Flying insects					
31. Seeing other people injured					
32. Sudden noises					
33. Dull weather					
34. Crowds					
35. Large open spaces					
36. Cats					
37. One person bullying another					
39. Tough looking people					
40. Sight of deep water					
41. Being watched working					
42. Dead animals					
43. Weapons					
44. Dirt					
45. Crawling insects					
46. Sight of fighting					
47. Ugly people					
48. Fire					
49. Sick people					
50. Dogs					
51. Being criticized					
52. Strange shapes					
53. Being in an elevator					
54. Witnessing surgical operations					
55. Angry people					
56. Mice					
57. Blood: (a) human (b) animal					
58. Parting from friend					
59. Enclosed places					
60. Prospect of a surgical operation					

	Not at All	A Little	A Fair Amount	Very Much	Much
61. Feeling rejected by others					
62. Airplanes					
63. Medical odors					
64. Feeling disapproved of					
65. Harmless snakes					
66. Cemeteries					
67. Being ignored					
68. Darkness					
69. Premature heart beats (missing a beat)					
70. (a) Nude men (b) Nude women					
71. Lightning					
72. Doctors					
73. People with deformities					
74. Making mistakes					
75. Looking foolish					
76. Losing control					
77. Fainting					
78. Becoming nauseous					
79. Spiders					
80. Being in charge or responsible for decisions					
81. Sight of knives or sharp objects					
82. Becoming mentally ill					
83. Being with a member of the opposite sex					
84. Taking written tests					
85. Being touched by others					
86. Feeling different from others					
87. A lull in conversation					