• MAJOR CONTRIBUTION

Stress Inoculation Training

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This article outlines the theory, research, and procedures of stress inoculation training (SIT). SIT consists of three overlapping phases. The first phase, conceptualization, is an education phase that emphasizes the development of a warm, collaborative *relationship through which a careful assessment and problem reconceptualization are completed. The second phase, skill acquisition and rehearsal, target and develop a repertoire of palliative and instrumental coping skills for anxiety reduction. A table of common cognitive coping skills is included to exemplify the range of coping skills employed. The third phase, application and follow-through, focuses upon activities that transfer coping skills to real life and prevent relapse. Finally, guidelines for the selection and design of individual and group application of stress inoculation training are provided.*

THEORETICAL MODEL AND RESEARCH

Early stress inoculation training (SIT; Meichenbaum, 1972; Meichenbaum & Turk, 1976) focused on cognitive-emotional theory of anxiety and learning approaches for the development of cognitive and relaxation coping skills for anxiety reduction. Subsequently, SIT was broadened to include many other strategies for anxiety reduction based on recent developments in cognitive psychology (Meichenbaum, 1985).

SIT involves three, somewhat overlapping phases. The first phase is educational and conceptual in nature. The client and therapist form a warm, collaborative, Socratic relationship through which they begin to develop a common explanatory scheme for understanding the nature and treatment of anxiety. Typically, Schachter's (1966) two-factor theory of anxiety is integrated into the discussion—that is, that anxiety consists of heightened physiological arousal and anxiety engendering thoughts and images. From this understanding naturally flows a

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treatment process that emphasizes relaxation coping skills to lower heightened arousal and cognitive coping skills to alter anxiety-laden thoughts and images. Clients are also assisted to see anxiety as multiply caused, including their own inadvertent, self-fulfilling contributions, and as consisting of several stages, rather than a single overwhelming event.

The second phase, a skills acquisition and rehearsal phase, develops coping skills needed for anxiety reduction. Relaxation coping skills are trained in a manner similar to that of anxiety management training. Cognitive skills in self-awareness are enhanced—for example, through imagery recall procedures, discussion, and self-monitoring, so that clients become aware of their negative, anxious self-dialogue, thoughts, and images and begin to identify collaboratively incompatible, coping self-statements, images, and behaviors. The coping skills may include (a) information collection about the anxiety-arousing situation, (b) planning for resources and escape routes, (c) cognitive restructuring of absolutist, overgeneralized, catastrophic self-statements, (d) task-oriented self-instruction, (e) problem solving, and (e) behavioral efforts such as relaxation, assertiveness, and self-reward for coping. In order to foster generalization of these coping skills, they are translated into specific self-statements for use as cognitive counterresponses to anxiety.

The third phase emphasizes refining, applying, and transferring coping skills. Within sessions, skills are rehearsed in role plays, simulations, and imagery—for example, relaxation coping skills being applied to relax away tension induced by scenes from an anxiety hierarchy. For instance, clients may be asked to imagine such scenes as preparing for an anxiety-producing event, dealing with moderate anxiety, handling overwhelming levels of anxiety, and coping with the aftermath. As skills are consolidated and integrated within sessions, they are actively transferred to the external world through graded homework assignments and contracted behavioral experiments—for example, approaching a moderately anxiety-arousing situation, employing the coping skills, and reporting back to the therapist. Skills are further refined based on the feedback and discussion.

As noted above, cognitive change efforts in early SIT focused primarily on the modification of *cognitive events,* the internal dialogue, automatic thoughts (self-statements and images) of which the individual is aware and can report. Targeting cognitive events is appropriate as the literature on highly anxious individuals indicates that they react to threat with personalized, negative responses that direct attention away

from the task at hand (Sarason, 1975). For example, Deffenbacher (1978) found that for highly anxious individuals, evaluative stress elicited interfering anxiety in the form of attention to worrisome ruminations, task irrelevancies, and physiological upset, whereas a low-stress condition did not. Subsequent studies (e.g., Deffenbacher, (1986; Deffenbacher & Hazaleus, 1985) have shown that such internal dialogues separate high-anxiety from low-anxiety individuals in both laboratory and naturalistic settings. Others such as Richardson (1973) characterize the thinking processes of highly anxious individuals as consisting of worry about performance and potential consequences such as social disapproval and loss of status or esteem, fruitless rumination over possible responses and decisions, preoccupation with bodily reactions, and thoughts or feelings of inadequacy and self-criticism. Self-preoccupation, self-doubt, and self-deprecation have been found for highly anxious subjects in many other studies (see Meichenbaum and Butler, 1978, for a review).

Over time, SIT has integrated greater emphasis on *cognitive processes* and *cognitive structures* (Meichenbaum, 1985) that have significant implications for resistance to intervention efforts and for generalization and maintenance of treatment effects.

Cognitive processes refer to the ways individuals process information. They include how individuals appraise events, selectively attend to and recall events, and seek information consistent with their beliefs—that is, search, inferential, storage, and retrieval processes (Taylor & Crocker, 1981). Cognitive processes tend to operate at an automatic "unconscious" level, to shape appraisals in a mood-congruent fashion (Bower, 1981) and to contain a confirmatory bias (Snyder, 1981) through which information is selected and processed to be congruent with prior experience. For example, Sarason (1975) and Wine (1980) have reported that when anxious, anxiety-prone individuals become more self-centered than task-centered and deflect their attention from the task, that contributes to their selectively perceiving, remembering, and interpreting experiences so as to filter out information that disconfirms their cognitive set and experience. Thus the anxious individual who does well at a task—for example, an exam, job interview, or date—is likely to employ causal explanations that discount the importance of the event or to reframe positive outcomes in a negative way. Attributions such as "I just got lucky," or "They were only being nice to me because they knew how anxious I was" abound. Moreover, the anxiety-prone individual is likely to call forth many similar examples from the past and take them as

being representative of a class of "failures due to anxiety."

Cognitive structures refer to the assumptions, beliefs, commitments, and meaning systems that influence the way the world and the individual are construed. They are the "core organizing principles" that influence what is attended to, how information is structured, and what importance is attached (Markus, 1977; Meichenbaum & Gilmore, 1984). They function to set behavior in motion, to guide the choice and direction of particular sequences of thought, feeling and action, and to determine their continuation, interruption, or change of direction. In a sense, cognitive structures control the "scripts" for internal dialogues, feelings, and behavior.

Although cognitive structures are generally adaptive, the structures of clients suffering from anxiety disorders tend to focus on one or a few major personal themes such as personal endangerment, loss of control, or fear of rejection. Such concerns are often too pervasive, too readily triggered, difficult to interrupt when triggered, too inaccessible, and highly resistant to countering information. Further, anxious individuals often behave in ways that elicit reactions in others that confirm their expectations and solidify their cognitive structures. For example, interfering test anxiety leads to poor exam performance or interpersonal anxiety leads to clumsy interactions and lost dating opportunities, confirming that they are "hopeless cases of anxiety." Such anxious individuals point to data that confirm their fears, often without recognizing how they unknowingly contributed to their own difficulties.

Although SIT procedures have increasingly incorporated cognitive processes and structures into the model and explored how these influence issues such as client resistance and relapse prevention, most of the outcome research involves the simpler version of SIT that focused primarily on cognitive events. With this limitation in mind, the results for SIT are encouraging. Although SIT has been effective with numerous client groups—for example, pain patients, individuals with anger control problems, and victim groups (see Meichenbaum, 1985, for a review), it has been applied most frequently to various anxiety or stress problems. For example, academic problems such as test anxiety (Deffenbacher & Hahnloser, 1981; Meichenbaum, 1972) and academic attrition (Wernick, 1984); performance anxieties such as speech (Altmaier, Ross, Leary, & Thornbrough, 1982; Fremouw & Zitter, 1978) and music performance (Sweeney & Horan, 1982) anxieties; interpersonal anxieties such as social phobias (Butler, Cullington, Munby, Amies, & Gelder, 1984) and unassertiveness (Kaplan, 1982); and anxiety states such as panic and generalized anxiety disorders (Barlow et al.,

1984; Clark, Salkovskis, & Chalkey, 1985) have been successfully treated with SIT. SIT effectively lowered stress in various populations—for example, high schools seniors undergoing developmental transitions (Jason & Burrows, 1983), anxious or stressed adults (Long, 1984), and stressed occupational groups such as teachers (Forman, 1982; Sharp & Forman, 1985). SIT also has shown promise with anxiety-related medical problems, demonstrating effectiveness with dental phobias (Moses & Hollandsworth, 1985), Type A behavior (Levenkron, Cohen, Mueller, & Fisher, 1983), tension headaches (Anderson, Lawrence, & Olson, 1981), low back pain (Turner, 1982), and stress stemming from surgical (Wells, Howard, Nowlin, & Vargas, 1986) and dental (Siegel & Peterson, 1980) procedures. In addition, SIT was at least as effective as other interventions with some studies showing that SIT produced significantly greater positive change on some variables than systematic desensitization (Meichenbaum, 1972), relaxation coping skills (Deffenbacher & Hahnloser, 1981; Sweeney & Horan, 1982; Turner, 1982), cognitive coping skills (Deffenbacher & Hahnloser, 1981), exposure (Butler et al., 1984), skill training (Sharp & Foreman, 1985), and group therapy (Levenkron et al., 1983). Thus SIT appears to be a promising intervention for many different anxious or stressed groups with which counseling psychologists work.

STRESS INOCULATION TRAINING PROCEDURES

Phase 1: conceptualization phase. The conceptualization phase of SIT constitutes approximately one-sixth to one-third of the training and has as its major objectives to (a) establish a collaborative working relationship with the client and, where appropriate, significant others; (b) conduct a clinically sensitive assessment of the nature and complexity of the presenting concerns; and (c) provide the client with a reconceptualization of his or her anxiety.

A most important element is the establishment of a warm, caring, collaborative relationship in which the client and therapist work together in an inductive fashion to develop a shared understanding of the client's problem. The style we are advocating is one in which the client is given considerable responsibility. It is not a relationship in which the therapist is considered "the expert" who pulls out of his or her bag of tricks the "right way" to reduce anxiety and teaches the client "how to cope." To the contrary, it is a relationship in which the client is expert on his or her anxiety, and the therapist works collaboratively *with* the client to develop a new, shared, working definition of anxiety

and treatment. In fact, we would argue that SIT is most effective when clients come up with the major "insights" and make suggestions about what should be done next. The therapist may need to structure the specifics of some interventions. However, when the client develops the idea or direction, he or she feels more involved and more likely to follow through instead of resisting it as an externally imposed activity. This kind of relationship is a critical element in the conceptualization phase, as well as other phases, of SIT and is a major vehicle through which SIT is done.

The type of relationship and approach being suggested can be seen in the approach to assigning self-monitoring homework. For example, early in therapy with a client who experienced panic attacks and severe social-evaluative anxieties, the need for more information about the situational cues eliciting anxiety and about the affective-physiological characteristics of his anxiety reactions became clear. A therapist-directed stance would have been simply to assign the client the task of tracking anxiety reactions and the situational contexts in which they occurred. The collaborative approach, however, is reflected in the following interchange in which therapist thoughts have been summarized within brackets.

Therapist [summarizing information on anxiety reactions that has been sparse, even though the client appears to be cooperating fully]: "So, you get a knot in your stomach, and you feel really nauseous when you sense you are on the spot. And what else happens?"

Client: "Uh, . . . I guess. . . . I just get really tense."

Therapist: "Really tense? How do you experience that?"

Client: "I don't know. . . . I just feel all panicked and tense and get an upset stomach."

Therapist [I've been trying to explore this for a while. He seems to be really trying, but it is not getting much clearer, beyond the stomach involvement. I don't think he really is that aware of his arousal or the situations that trigger it. Let's try to explore situational themes and then see if we can develop a reasonable self-monitoring strategy so that he can become more aware of both.]: "So you get all tensed up and your stomach is tied in a knot when you're really anxious. What things seem to make you have more or less of this anxiety?"

Client: "Well, I don't know. I just seem to be anxious all the time. I guess getting stuck where I could get anxious and maybe throw up on some one would be the worst."

Therapist [Well that's the one example, but let's see if we can get clearer on others.]: "So feeling trapped where you couldn't get out, like down a row in a class [client had mentioned this previously], where you would either

throw up or make a scene getting out would be really anxiety provoking. Are there particular situations that make it worse?"

Client: "Uh . . . I don't know. . . . It doesn't seem to make much difference. I am anxious all the time, unless I am home watching television or something like that. Home is my 'safe' place, you know."

Therapist: "Doing things in the 'safety' of home, like watching television, makes the anxiety go down. And what else lessens the anxiety?"

Client: "I don't know. . . . I guess that's about it."

Therapist [The situational analysis didn't lead very far. Let me try to determine what are the bodily and psychological cues he uses to identify that he is anxious. Does he notice low-intensity incipient cues? Can he focus on variability in level of his intensity in a given situation?]: "As you mentioned previously, sometimes the anxiety gets really bad, and you can't wait to get back to your 'safe' home. But at other times, you seem to be able, somehow, to stick it out. Although you are anxious, you are able to stay in the situation. Is that indeed the case?"

Client: [Client concurs and gives examples.]

Therapist: "Then I am a bit confused and perhaps you can help me out. What is it that distinguishes these different situations? On the one hand, you are sometimes overwhelmed and yet on the other, you evidence courage, and the coping skills to hang tough."

Client: "I am not sure . . . uh, I never thought about it much."

Therapist: "Any notions about how we might be able to better figure this out?"[Remember, you are at your therapeutic best when you can arrange for the client to come up with the therapeutic recommendation—in this case self-monitoring.]

Client: "I suppose I could keep track . . . you know, make some notes or something about when I get really uptight and when I just get upset."

Therapist [Good, we're getting closer, but let's see if he can refine this idea.]: "Keep track? How might you do that?"

Client: "Well, I could get a notebook, and, you know, write down what I was feeling."

Therapist: "That sounds like a really good idea. You could get a notebook and write down what you were feeling and the situation you were in at the time. So how about if you just divide the page in half, noting the situation on one side and your physical and emotional reactions on the other half like this [the therapist is demonstrating on a blank piece of paper he has taken from his desk]. How's that sound?"

Client: "Fine [said nodding his head]. So I just write down the situations and my reactions. I can do that easy enough. How many volumes do you want [said laughingly]?"

The therapist and client then summarize one of the events mentioned earlier in the session on the sheet of paper, and it is handed to the client with a negotiation that he will drop it by the therapist's office the day prior to the next session, so that the therapist has an opportunity to look it over. They also consider any barriers that might get in the way of the client's complying with the assignment.

Such an approach enlists the client as an active participant in the definition of therapeutic activities and minimizes confusion and resistance from more externally imposed strategies. It is from such a collaborative enterprise that client and therapist begin to develop a picture of the client's anxiety and what to do about it.

Clients often enter counseling with implicit notions or models of their anxiety condition. Typically, they see themselves as victims of anxiety. They are plagued by it, overwhelmed by it. They feel helpless to do anything about it. In the conceptualization phase the therapist uses the collaborative, Socratic relationship to help clients reconceptualize anxiety in more differentiated and benign ways. Often such interviewing is enhanced by clients' self-monitoring maladaptive thoughts, images, feelings, and behaviors and the situations in which they occur. The therapist and client work together to help the client become more aware of both external and internal events that trigger anxiety, of the components of anxiety (images, thoughts, feelings, physiological arousal, and behavior) and the stages that these go through, of important personal themes that cut across anxiety-arousing situations, and of the potential coping skills the client already possesses. This reconceptualization is consistently framed in the client's language, metaphors, and examples. In this way, clients own the conceptualization and come to see problems as addressable, rather than overwhelming, hopeless, and uncontrollable.

From the new conceptualization emerge the interventions of SIT. For example, if the emergent understanding of anxiety suggests that thoughts play a role in maintaining or exacerbating anxiety, then it is not a big step for the client to suggest that changing such thoughts might be helpful. Cognitive coping skills such as cognitive restructuring, problem solving, and task-oriented self-instruction are easily linked to such problems. Similarly, if physical and emotional tension are seen as important elements of the anxiety, the client may suggest that if he or she could only "learn to relax, things would be better." The therapist aptly responds, "Relax, what did you have in mind?" Relaxation coping skills training follows easily from this perspective. Thus Phase 1 ends when

client and therapist develop a new conceptualization of anxiety that not only helps clients understand anxiety in a new, more differentiated way, but also links the interventions of SIT to anxiety in a comprehensible way with which the client can agree and cooperate.

Surely, this approach will not work with all clients. However, the suggestion being offered is that the therapist should always try to help the client develop a sensible understanding of his or her problem and, whenever possible, have the client bring up (and thereby own) the suggestion of what should be done. With some clients the therapist may need to be more directive and offer suggestions. But even on these more directive occasions, the therapist should quickly drop back and solicit from the client his or her views on the suggestions in his or her own framework. Meichenbaum and Turk (1987) recently reviewed the literature on treatment noncompliance and underscored the value of such a collaborative relationship. In sum, the reconceptualization phase is an important collaborative process designed to carefully lay the groundwork for subsequent phases of SIT.

Phase 2: skill acquisition and rehearsal. From the prior description of the conceptualization phase, it is clear that a great deal transpires before any specific coping skills are developed and rehearsed. The primary objective of the second phase of SIT is to ensure that the client develops an effective coping repertoire. More specifically, this phase involves a general process that may be repeated several times depending on the aspect of anxiety under focus and on the feedback from ongoing efforts. Client and therapist collaboratively explore problematic responses, personal themes linking anxiety-arousing situations, and alternative, more adaptive coping strategies and responses. Self-monitoring, imagery recall, role plays, graded assignments, and the like are used to strengthen the usefulness of the coping responses and to teach the client how to use maladaptive responses (feelings, thoughts, behaviors, reactions of others) as cues to implement new coping responses. Results from these personal experiments shape coping skill development and provide the client with further occasions to reconsider his or her expectations and beliefs, as well as strengthen feelings of self-efficacy (Bandura, 1977). Discussion of these activities are converted into specific coping skills—for example, applied relaxation, cognitive restructuring, and problem solving.

Needed coping repertoires vary with the specific client or with the treatment goals. (Note that SIT has been conducted successfully on a group basis, and treatment objectives can be tailored to the group's

needs). Typically, coping techniques include both instrumental (problem-focused) and palliative (emotion-regulation) coping skills (Lazarus & Launier, 1978). Instrumental coping skills may involve strategies such as information gathering, problem solving, communication and social skills, and action efforts to change the environmental demands leading to anxiety. Palliative coping skills include a number of techniques designed to lower emotional arousal. These might include techniques such as perspective taking, cognitive restructuring, applied relaxation, expressing affect, and humor.

Although appropriate instrumental and palliative skills vary widely from client to client, four types of coping skills occur frequently enough that they are likely to be in the SIT treatment for most anxious clients. These are applied relaxation coping skills, cognitive restructuring, problem-oriented self-instruction, and self-reward/self-efficacy self-instruction.

Applied relaxation coping skills are trained much as they are in anxiety management training. They are introduced within a self-management rationale and related to helping the client manage his or her anxious arousal and affect. Clients are trained not only in progressive relaxation procedures, but also in coping skills such as relaxation without tension, pleasant imagery, breathing exercises, and cognitively cued relaxation. As these skills are mastered within the session, clients are encouraged to begin to apply them in nonanxious situations to assess the ease with which they can be initiated under nonstressful, naturalistic conditions. In time, they apply the coping procedures in anxious situations.

Cognitive restructuring refers to identifying and modifying anxiety engendering cognitive events, processes, and structures. Common cognitive restructuring procedures include (a) evaluating the validity and viability of thoughts and beliefs, (b) eliciting and evaluating predictions, (c) exploring alternative explanations, (d) attribution retraining, and (e) altering an absolutist, catastrophic thinking style. As the client becomes aware of his or her automatic thoughts or internal dialogue, he or she is encouraged to view these as hypotheses worthy of testing, rather than proven facts or accepted truths. Then collaboratively personal experiments are designed and undertaken to test the adaptiveness (not the so-called rationality) of these thoughts. In discussing the outcome of these experiments and other client self-observations, the client and therapist develop a set of coping self-statements that may be used to anticipate and handle anxiety. These cognitive strategies are *not*

offered as catch phrases to be repeated mindlessly. The therapist does *not* prescribe a "list of things to say to yourself that will make your anxiety go away." To the contrary, the list of cognitive restructuring skills grows out of a collaborative discussion of the impact of negative, anxiety-engendering thoughts and how and when the client can use incompatible coping self-statements. The list is emergent, honed by the successes and failures of the client's personal experiments, and linked to cognitive processes and structures. The object of these interventions is for clients to gain cogent ways of altering dysfunctional cognitions that foster anxiety and worry and to begin to view stressors, including their own anxiety, as problems to be solved, rather than as personal threats.

If the client's cognitive repertoire is deficient in skills for approaching and solving problems, then task-oriented, problem-solving self-instructional training may also be added. These cognitively orienting and attention-focusing strategies are directed toward attending to and coping with the behavioral demands of the anxiety-arousing situation—for example, preparing for a test, giving a speech, calling for a date, or making small talk in a social interaction. Once again, these cognitive skills are developed in the crucible of the client's experience and shaped to fit his or her cognitive and behavioral styles.

A final set of cognitive coping skills is self-reward/self-efficacy self-statements that help the client support his or her coping efforts. Such self-statements must be believable to the client. They typically provide (a) support for examples successful coping, (b) reward for the process of trying to cope when anxiety is not managed fully, (c) positive, realistic expectations for future anxiety control, and (d) self-attributions for gain in anxiety control.

Table 1 summarizes some of the common types of self-statements that might be rehearsed in Phase 2 of SIT. The first group of thoughts are examples of emotional palliatives designed to instill greater emotional calm directly through their content or indirectly through the triggering of relaxation coping skills. The second group too are emotional palliatives, but they focus on alteration of dysfunctional, anxiety-engendering thoughts. Changing the maladaptive thought brings greater calm through lowered emotionality elicited by the adaptive thoughts. Thus the first two types of coping responses are designed to reduce interfering cognitive and emotional arousal. The third category represents more instrumental or action-oriented cognitions. They are designed to keep the individual focused on and engaging his or her full range of adaptive skills appropriate to the anxiety-

arousing situation. They focus on coding the stressor as a problem, approaching it, breaking it down into manageable units, and developing and implementing plans for its resolution. The final cognitive categories may be added as needed. One set focuses on terminating efforts and aborting worry cycles when no good or workable solution is available. Often this must be anchored in changing cognitive structures involving the necessity for a solution. The other category involves temporal and environmental plans to escape the anxiety experience if the experience is totally overwhelming. Interestingly, often knowing that the individual can leave the situation literally or in a short time gives the individual confidence enough not to abort coping. The final cognitive category involves self-reward and self-efficacy attributions for coping efforts.

No client is likely to need training in all of these cognitive categories. They are suggested only as general classes and examples, *not* cognitive prescriptions. Specific self-statements should emerge naturally from the course of therapy and the nature of the client's problems. This point is demonstrated in the case of a severely socially anxious male. The counselor and client had for parts of three sessions been discussing his self-deprecatory, catastrophizing thoughts about interpersonal interactions and his anxiety reactions. He continued to self-monitor social-evaluative anxiety and began to notice some change when, on his own, he distilled several themes in a list of "comforting thoughts" (see below).

"I can handle this situation. Have I ever failed at it before?" (followed by a careful appraisal).
"I can do some relaxation techniques to help now. So, just take those deep breaths and let that wave of relaxation flow through."
"Most of the discomfort I feel doesn't last too long. So, if I can make it through the first part, I'm OK."
"If I can't handle a situation at this point, I have options to leave or get out of the situation. I don't have to be able to handle everything. I can keep working on it. I can give myself space."
"There is nothing innately wrong with me. I just need to change some old habits."
"My rights can come before others. I have a responsibility to myself as well as to others."
"Just how threatening is this situation?" (followed by a thoughtful appraisal).

This list was not given as an assignment or prescribed by the therapist. It first emerged as an entry in his self-monitoring log. Only after the personal meaning of the list was discussed and the client's

TABLE 1 Examples of Types of Self-Statements Rehearsed in Stress Inoculation Training

Cool Relaxed Thoughts

–Just stay cool. Getting all anxious and upset won't help.
–It's just not worth it. Who is going to know or care in a month anyway?
–Just relax. That's it, take those three deep breaths . . .
–OK, if I need to, I will just switch on that calm relaxation image and calm myself down.

Cognitive Restructuring of Maladaptive Thoughts

–Is this an all-or-none situation? Things aren't usually black-and-white.
–Don't jump to conclusions. Check out the possibilities.
–Don't take is so personally. What's my share of the responsibility pie anyway? Even if I am responsible for this problem, it doesn't mean I'm a bad person.
–Put it into context. If you look at it the right way, it's pretty funny.
–One snow flake doesn't make a blizzard. Just stay with what's going on.
–It's not going well, but that doesn't mean that I'm worthless or it's hopeless, just that it didn't work out for me this time.
–I don't "have to" do it "perfectly" or "right." I am just going to do *my* best. That's all I can ask of myself or anyone else.
–Don't worry. Worrying doesn't help.

Task-Oriented, Problem-Solving Self-Instruction

(a) *Seeing the anxiety-arousing situation as a problem*
–It's not a disaster, just a problem to be solved.
–It's ok to feel some anxiety, but it's just a hassle to be dealt with.
–This is the anxiety cues I knew I would experience. It is the reminder to use my coping skills.

(b) *Orienting to the anxiety-arousing situation as a problem*
–Just think about what I can do about it. That's better than getting all anxious about it.
–Stay task oriented. What's my job here?
–Keep my thoughts straight and focus on how to handle it.
–Worrying won't do any good. Think objectively and develop a plan.

(c) *Breaking the anxiety-arousing situation down into smaller units*
–Ok, how can I break this down?
–What are the component parts? Let's see if I can break it into smaller hassles that I can handle.
–There are a series of steps here. Let me see which one I am going to take first. Just remember to stay focused and take each step one at a time.
–Let me chunk the problem. I can handle little anxieties one at a time.

(d) *Problem solving*
–What is it that I have to do here? How am I going to approach this?
–Develop a plan. Let's see the first step would be . . .
–What's my goal? How would I like things to be? What can I do to make them that way?

(continued)

TABLE 1 Continued

–What are my resources? What do I have and who can I get to help me?
–How am I doing? What else can I do with this situation?
(e) *Terminating problem solving when no solution is available*
–There's not always a good solution. Looks like I'm in one of those situations. So, let's go and move onto the next thing.
–I can't do anything about it, except stop being anxious about it, so let's focus on that.
–I can't do anything about it until (a certain time or certain things happen) so no use worring about it until then. When that happens, then I'll come back to it.
(f) *Ultimate control and escape routes*
–Bottom line, I'm in control. I can always get up and walk out.
–Let's see, if I were feeling truly overwhelmed, I would . . .
–I am not going to fall apart. The anxiety can't last forever, and besides I can always stop the anxiety by . . .
–It will be over soon.
–I'll just think about something else and prevent myself from dwelling on my anxiety.
–On my 10-point scale my present level is an 8. Let me see if it will go up or down. Perhaps I can turn it into a 4 or 5. Don't try to get rid of it totally. Just try to keep it manageable.

Self-Reward/Self-Efficacy

–That's it; hang in there. You're doing fine!
–It's not going all that great, but I'm really trying and feel good about that.
–You're coping. Good work. I'm pleased about coping with the anxiety.
–It wasn't as bad as I expected. Coping with anxiety is coming around the more I work at it.
–I'm not an "anxious person" ("hopeless case," "goofball," etc.), just a person with periods of anxiety, which I am learning to control.
–I'm getting better at this anxiety management stuff.

self-initiation supported were they rehearsed to lower anxiety generated by the visualization of anxiety-arousing scenes.

Phase 3: Application and follow-through. The focus of SIT thus far has been on helping clients change their views of anxiety and develop new coping skills. The third phase of SIT is designed to strengthen the coping skills for application in day-to-day situations and to maximize the chances of maintenance across time and settings.

Therapeutic effort is first directed toward making sure that the client can reduce anxiety within the session. To achieve this goal, the therapist may employ a variety of techniques—for example, anxiety-arousing imagery, role plays, simulations, and graduated in vivo practice, to increase client anxiety and provide the opportunity to initiate coping

skills to lower arousal. For example, adaptive cognitive self-dialogue and process (see Table 1 for examples) might be rehearsed in imagery to the stages of coping with anxiety arousal (preparing for or approaching the anxiety-arousing situation, confronting moderate anxiety arousal, dealing with anxiety arousal and feeling overwhelmed, and the aftermath). Alternatively, these might be practiced in an anxiety hierarchy similar to systematic rational restructuring (see article in this issue). Relaxation coping skills might be employed to reduce anxiety generated from scenes in the hierarchy. The client would imagine the scene, experience anxiety arousal, and actively relax away the anxiety while staying in the scene (procedurally parallel to the final stage of anxiety management training). Cognitive and relaxation coping skills can be combined and rehearsed at the same time. Practice of the coping skills is discussed, leading to refinements that are rehearsed again. Regardless of the training format, the initial goal is to make sure that clients have mastered the skills so they are ready for use in real life.

As coping skills are mastered within sessions, attention is turned to transferring them to the external environment. Typically, this is done through graded homework assignments or in vivo sessions in which therapist assistance is faded as the client gains anxiety control. As with other steps in SIT, information from such assignments is discussed, and application of coping skills is further modified, leading to new, collaboratively developed assignments. Application of coping skills to other sources of anxiety and dysfunctional behavior are encouraged, and new coping skills developed and rehearsed as needed.

Another important element of Phase 3 is that of *relapse prevention*. Relapse prevention emphasizes the important role of preparing clients to cognitively reframe setbacks, failures, and backsliding as "learning trials" instead of occasions "to catastrophize" (Marlatt & Gordon, 1984). If the client interprets such lapses as evidence of inadequate personal efficacy—for example, "I'm a hopeless basket case" or "I'll never manage anxiety," this appraisal can undermine subsequent coping efforts. The client might infer that he or she is not really capable of handling the stressor and thus give up. SIT is designed to anticipate and subsume such reactions when the client reexperiences anxiety or encounters failures or setbacks. The goal of treatment is not to eliminate anxiety, but to help the client respond adaptively in anxiety-arousing situations and to be resilient in the face of fear. The therapist and client identify high-risk situations in which lapses may occur and then help the client to develop and rehearse coping skills to handle them. The

therapist empathizes with the client's concern about failure, but often provides an attributional set that is counter to the client's prevailing cognitive structures. The therapist suggests that the client will reexperience anxiety and that this is "expected" as "everyone is a creature of habit," but that the individual can use these as opportunities to continue to manage anxiety. "Failures" might even be planned and scheduled.

The other side of the attributional equation is also addressed by the SIT therapist. It is not only that the client changes, but rather that the therapist conscientiously ensures that the client attributes such change to him- or herself. By asking the client to discuss improvements, by asking him or her to compare how he or she handled the situation this time compared with in the past, and by asking "what does this mean about me as a person," the therapist can have the client attribute the change to oneself rather than external factors. Kopel and Arkowitz (1975) have reported on the value of such self-attributions to the maintenance and generalization of behavior changes.

The last feature of SIT is concerned with follow-through into the future. In most SIT programs, some form of follow-up or booster sessions is built in. The timing of such sessions varies, but in most instances at least the last sessions are conducted every 2 weeks, rather than weekly. This gives greater time for coping skill consolidation and a greater sense of self-efficacy as the client is increasingly on his or her own. Further follow-up sessions can take place at 1-, 3-, 6-, and 12-month intervals. The frequency and timing of such sessions varies from case to case. Contact by phone or letter also might be employed if future visits are difficult. At this point there are few data about the most effective timing or manner of such posttreatment contacts. However, clients often report that knowing they will meet with their therapist or group maintains an awareness of continued efforts to cope.

APPROPRIATE DESIGN AND USE OF SIT

SIT can be implemented on an individual or group basis. As indicated throughout this article, individual SIT is anchored in a caring, collaborative relationship and is sensitively tailored to the individual characteristics of the client and his or her anxiety. As much as possible, group SIT embodies the same characteristics. It is suggested that SIT groups be reasonably homogeneous with regard to presenting problem—for example, anxious clients, pain patients. Because group treatment is usually short-term (8-22 sessions), a highly heterogeneous

client group does not permit sufficient time to focus on varied target-specific conceptualizations and coping skills. It is also suggested that group sessions be at least 75-90 minutes in length, so that there is sufficient time to attend to the individual differences and needs of group members (usually numbering 6-12). The number of sessions for either individual or group SIT should depend on the needs and progress of the client. That is, the length of treatment should be performance-based, rather than merely time-based. Also, follow-up assessments, booster sessions, and follow-through interventions should be programmed, wherever feasible.

Early literature on SIT focused most heavily on evaluating the importance of the treatment phases, the relative contributions of cognitive and relaxation coping skills, and the populations to which SIT might be applied. Many of the interventions used a simplified version of SIT that dealt primarily with altering cognitive events and failed to assess and intervene at the levels of cognitive processes and structures. In spite of these limitations, findings were encouraging and led to several recommendations for intervention design outlined below.

(1)Retain all three phases of SIT. Coping skill acquisition and rehearsal and at least some application would seem necessary for clients to learn ways of coping (Vallis, 1984). The educational or conceptualization phase might seem less needed. However, as described earlier in this article and by Meichenbaum (1985), the educational or conceptualization phase contains a number of activities that seem indispensable to individual counselling. Even for specific programs, retention of this phase would appear helpful. For example, it added significantly to the treatment of speech anxiety (Schuler, Gilner, Austin, & Davenport, 1982), facilitated dental appointment setting (Moses & Hollandsworth, 1985), and provided direction in pain tolerance (Vallis, 1984).

(2) Train both cognitive and relaxation coping skills. Typically, SIT exposes clients to both relaxation and cognitive coping skills. Of studies that have compared the combination cognitive and relaxation coping skills to each component (e.g., Altmaier et al., 1982; Deffenbacher & Hahnloser, 1981; Novaco, 1975; Sweeney & Horan, 1982; Vallis, 1984), none has shown the combination to be superior on some variables. Certainly, in the individual case, selection of skill components should be tailored to the characteristics of the case. However, as a general rule, it is advisable to include training in both. This recommendation is particularly relevant to group programs in which detailed individual assessment may not be done. Little time would be wasted by training both

cognitive and relaxation coping skills, and the probability of meeting individual needs within the group would be enhanced.

(3) Train the three cognitive coping skills of problem-oriented self-instruction, restructuring of negative cognitions, and self-reward/self-efficacy statements. Even though no study was found that directly evaluated the inclusion of self-reward/self-efficacy training, the vast literature on this topic would support inclusion of this component. Several studies (e.g., Arnkoff, 1986; Glogower, Fremouw, & McCroskey, 1978; Vallis, 1984) have shown the effectiveness of training in task-oriented self-instruction or in restructuring negative cognitions. The studies that included the combination of the two (Glogower et al., 1978; Vallis, 1984) suggested that the combination was better. Thus although the relative need for these different cognitive coping skills may vary with the targeted group and the needs of the individual case, inclusion of all cognitive components would seem warranted at this time. Again, this would seem particularly important for group programs in which individual needs are more likely to vary.

(4) Combine SIT with skill training when necessary. To cope well, the individual needs the skills not only to reduce his or her anxiety but also to behave more competently. Combining the anxiety reduction of SIT with skill training may be a most appropriate, comprehensive treatment for many anxious, unskilled individuals. For example, the combination of SIT and skill training was additionally helpful for unassertive (Kaplan, 1982) and test-anxious (Dendato & Diener, 1986) college students and anxious or depressed medical outpatients (Shaffer, Shapiro, Sank, & Coghlon, 1981). The nature of the individual case will determine the relevance of this recommendation, but SIT would appear to offer a considerable feature to group and psychoeducational interventions that aim at both anxiety or stress reduction and skill enhancement.

(5) Program for generalization. Although some studies have shown significant generalization (e.g., Shaffer et al., 1981; Sharp & Forman, 1985; Sweeney & Horan, 1982), others have not (e.g., Fremouw & Zitter, 1978; Levenkron et al., 1983). This suggests the need for assessment of and programming for generalization of the coping skills to other problem areas. Perhaps some version of the general cognitive strategies of Hussain and Lawrence (1978) could be introduced toward the end of SIT, and clients could be given specific tasks in adapting skills to other areas—for example, depression and anger. As Stokes and Baer (1977) have aptly noted, we should not lament the fact that we do not

obtain treatment generalization, but instead train for it explicitly. Meichenbaum (1983) has provided guidelines for training in order to increase the likelihood of obtaining generalization.

These recommendations stem from early SIT research that tended to emphasize primarily cognitive and relaxation coping skills and are, therefore, most appropriate for cognitive-relaxation coping skills programs, though certainly relevant to broader programs. However, as SIT has developed, it has become a more comprehensive, flexible system for conceptualizing and intervening with anxious clients (see Meichenbaum, 1985). Various cognitive, behavioral, and emotional coping skills are now integrated within the context of a collaborative, Socratic relationship as outlined earlier. SIT is not a panacea for clients suffering anxiety problems. As with many therapeutic approaches, it may not work for clients who cannot form collaborative relationships, resist completely taking responsibility for change activities, or have expectations that differ dramatically from the SIT model. In many instances, SIT may represent a useful adjunct to other forms of interventions such as medication or couples therapy. Thus at this point SIT may be becoming more of an orientation or personal paradigm of the therapist as he or she approaches thinking about and intervening with anxious clients, a general approach that the counselor or therapist may sensitively depart from or refer to as the details of the case suggest.

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