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**ZEN MEDITATION AND BEHAVIORAL SELF-CONTROL
STRATEGIES APPLIED TO A CASE
OF GENERALIZED ANXIETY**

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There has been an increased interest in both Eastern and Western settings to develop self-control strategies by which an individual can learn to gain a greater degree of existential control and freedom in his life. The current study combined the self-control techniques of Zen meditation and behavioral self-management, and applied them to a case of generalized anxiety. The subject was a female undergraduate student who complained of "free floating anxiety" and who described her feelings of loss of self-control and anxiety as an "overpowering feeling of being bounced around by some sort of all powerful forces, themselves neurotic." Intervention consisted of training in behavioral self-observation and functional analysis, a weekend Zen experience workshop and three weeks of formal and informal meditation. Results indicated a significant decrease in daily feelings of anxiety, stress, and tension during the intervention phase. The case report concludes with a brief discussion and suggested guidelines for the continued integration of Eastern and Western self-control strategies in psychotherapy.

There is increased interest among both behavioral psychologists and humanistic/transpersonal psychologists to develop techniques which can help an individual take more control over his own life. In behavioral circles, this search has led to the development of a variety of self-management techniques, such as self-observation, deep-muscle relaxation, self-instructions, thought stopping, and covert imagery (cf. Goldfried & Merbaum, 1973; Thoresen & Mahoney, 1974; Mahoney & Thoresen, 1974). In humanistic/transpersonal circles, this interest in self-control has led to a revived and systematic exploration of Eastern techniques, such as yoga and meditation (cf. Tart, 1969; Ornstein, 1971; Kasamatsu & Hirai, 1966; Hirai, 1974; Akishige, 1970).

To date, there have been three empirical studies which have attempted to explore the psychotherapeutic application of Eastern techniques in combination with, or as an adjunct to, Western techniques.** These cases have involved fears and phobias (cf. Boudreau, 1972); drug addiction (Shapiro & Zifferblatt, in press); and "anxiety neurosis" (Girodo, 1975). The current study, building on a theoretical rationale developed elsewhere (Shapiro, in press A), attempts to apply a combination of Zen meditation and behavioral self-control strategies to a case of generalized

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** For a discussion of the results of the larger group design research project, see Shapiro, in press B.

anxiety.

METHOD

Subject and Setting: The subject was a female undergraduate student who complained of "free floating anxiety" and was taking a seminar from the author at Stanford University entitled "Zen meditation and behavioral self-control." The class was an attempt to synthesize, on a theoretical level, different conceptions of man and different therapeutic goals derived from Zen Buddhism and social learning theory. On a practical level, each student was asked to monitor several different behaviors, one of which was anxiety.

Procedure: Students were given wrist counters, and told to click the counter whenever they felt themselves anxious. Anxiety was discussed in terms to specific physical cues: e.g., stomach butterflies, headaches, etc; and specific verbal statements such as "I'm feeling nervous, tense, out of control." Students were told to define their own criteria for determining anxiety, and then to do a functional analysis of antecedents and consequences occurring before and after the feelings of anxiety (cf. Goodwin, 1969).

After monitoring anxiety for a baseline period of two weeks, there was a weekend workshop for one-half the students, which consisted of teaching the technique of both formal and contingent informal Zen breath meditation. After the workshop, the entire class was given a three week "reading break" during which time the author had no contact with any students. During those three weeks, students in the experimental group were instructed to meditate for ten minutes two times a day, as well as to continue to monitor feelings of anxiety and to practice contingent informal breath meditation whenever they discriminated anxiety cues during the day.

RESULTS

At the start of the class, the subject described her feelings of loss of self-control and anxiety as an "overpowering feeling of being bounced around by some sort of all powerful forces, themselves neurotic." Visual inspection of figure one indicates the decrease in frequency of anxious feelings which the subject reported during the intervention phase. Particularly informative are the anecdotal data in which the subject describes the process of anxiety management (Fig. 1).

The statistical analysis for this N=1 research design is taken from O. White (1971, 1972). White has developed procedures for fitting trend lines to N=1 data based on medians rather than means. This method, known as the median slope procedure, is less influenced by data variability than parametric procedures. The median slope of the baseline phase was $\times 1.2$ (i.e., increasing) and for the intervention phase was $\div 1.497$ (decreasing). The step between phases (i.e., the difference between the last point of the median slope of the baseline phase and the first point of the median slope of the intervention phase) was $\div 1.037$, and the progress change was $\div 1.796$. Although the step between phases was not significant, the slope changes alone were significant, and there was a significant decrease in feelings of anxiety during the intervention phase ($p=02$, binomial test, Siegel, 1956).

Subject's perception of herself on the semantic differential dimension of "Anxious...Calm" before beginning to self-monitor was seven (extremely anxious). After the three week intervention, her self-report on the semantic differential was two (moderately calm).

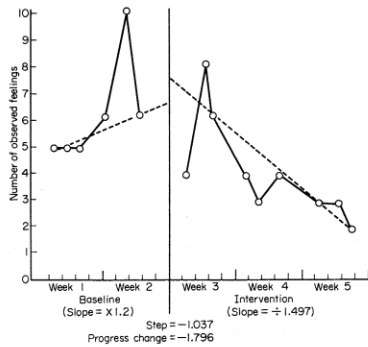


Fig. 1. Daily self-observation of anxious feelings.

ANECDOTAL DATA:

- 1st Week: ...overpowering feelings of being bounced around by some sort of all powerful forces, themselves neurotic. (sic)
- 2nd Week: I find the anxious periods can be timed-upon awakening and before English class in the evening. As if I'm conditioned to be anxious at those times. (sic)
- 3rd Week: By focusing on breathing, I realize the trivia of my anxiety.
- 4th Week: Self-control is growing as I feel I am starting to beat anxiety. I fall into breathing meditation much more automatically. At first informal meditation involved concentration on my breathing, but I don't even need to do this anymore. Just the recognition that I am anxious is a signal to dismiss my thoughts and worries. It's something like just recognizing that I am becoming anxious is a signal for calm.
- 5th Week: I can direct myself out of anxiety very well now. Enormous improvement.

DISCUSSION

It is important to note that this particular intervention strategy occurred within the structure of an academic class, thereby illustrating what might be called "psychological or affective education." In other words, the students learned both academic, theoretical knowledge, while at the same time practically applying that knowledge to themselves for their own personal growth.

There are two methodological considerations which should be noted. First, there is no way to ferret out the active versus the inert ingredients of the intervention: e.g., was it contingent informal meditation or formal meditation which most helped the subject's anxiety. From the subject's perception, it seems that contingent informal meditation was more effective. However, it is difficult, without

further research, to sort out the specific variance attributable to either strategy. Second, it could be that the initial increase in anxiety over the first two weeks was due to the "reactive effect" of monitoring: i.e., as the subject became more aware of herself and her anxiety, she saw more times when she was anxious, and may have literally become "anxious about her anxieties." This effect could thus account for the increase in anxiety over the first two weeks, and the resultant increasing slope.

However, the meditation techniques did in fact reverse the slope; and, although the data reported here are only that of the subject's phenomenological perception, in a clinical setting that perception seems a valid indication of therapeutic success.

The efficacy of this intervention strategy seems to lie in combining informal and formal meditation with the contingencies and specificity of functional analysis. Although it is a testable hypothesis, I'd speculate that non-contingent informal meditation would not have been as powerful an intervention as making the informal meditation contingent upon antecedent cues. Further, I would hypothesize that the practice of formal meditation helped the subject to "fall into informal breath meditation much more automatically" (cf. anecdotal data, week four).

Thus, in summary, it appears that the continued cross-fertilization of these two seemingly disparate fields of study—Zen Buddhism and social learning theory—offers a potentially exciting area for developing better and more effective clinically-oriented self-control strategies.*

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* From a Western perspective, Zen meditation is often seen merely as a technique that may be useful when applied to certain clinical problems. However, from an Eastern perspective, Zen meditation is a way of being in the world, a total awareness of oneself, of nature, of others. Thus it is important to note that the technique of formal Zen meditation may be being used for goals other than those for which it was originally intended. Similarly, it appears that making informal meditation contingent upon certain cues seems to make it a more effective clinical intervention strategy for an immediate problem. This is in no way meant to suggest, however, that the combination of behavioral self-management skills with informal meditation makes informal meditation more effective for the goal for which it was originally intended: "ongoing awareness of all cues."

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