

A PRELIMINARY STUDY OF LONG-TERM MEDITATORS: GOALS, EFFECTS, RELIGIOUS ORIENTATION, COGNITIONS

Deane H. Shapiro, Jr.
Irvine, California

Depending upon the psychotherapist's orientation and the client's goals, meditation has been used as a clinical intervention for self-regulation, self-exploration, and/or self-liberation. Most of meditation research to date, examining its self-regulation and self-exploration effects, has been based on an examination of short-term meditators (six to eight weeks, twenty to forty minutes a day). However, recently, there has been a call to examine longer term meditators as one way to assess more carefully whether some of the primary and original goals of meditation—self-liberation and compassionate service—were being attained (Shapiro & Walsh, 1984; Goleman, 1988; West, 1987; Murphy & Donovan, 1988; Kwee, 1990).

*a
call to
examine
longer term
meditators*

The majority of clinical interest in meditation has focused on its effects as a self-regulation strategy in addressing stress and pain management and enhancing relaxation and physical health (cf. Benson, 1975; Shapiro & Zifferblatt, 1976; Shapiro & Giber, 1978; Kabat-Zinn *et al.*, 1982, 1985, 1986; Orme-Johnson, 1987). By operationalizing the content and components of meditation, and divorcing it from its spiritual context, meditation could be viewed as a self-regulation strategy (cf. Ellis, 1984) and compared to other cognitive focusing, relaxation, and self-control strategies: e.g., guided imagery, hetero-hypnosis, self-hypnosis, biofeedback, progressive relaxation, autogenic training (Shapiro, 1982, 1985; Holmes, 1984; Dillbeck & Orme-Johnson, 1987).

Copyright © 1992 Transpersonal Institute

Portions of this article have been presented at the International Association for Applied Psychology (Kyoto, Japan, 1990); First International Conference on Psychotherapy, Meditation, and Health (Amsterdam, Holland, 1990); and the Institute of Noetic Sciences Third Annual Meditation Research Seminar (Esalen, Big Sur, California, 1991).

There has also been an interest in examining meditation as a possible adjunct to psychotherapy (Goleman, 1981). The non-reactive, detailed, systematic, and impartial observation of one's own cognitions and emotions through the technique of meditation can be a source of personal insight and self-understanding. For example, Kutz, Borysenko, and Benson (1985, p. 5) noted that even among patients with little psychological mindedness, approximately 20% "with a wide range of psychophysiological disorders, who joined stress reduction and relaxation programs involving mindfulness meditation, became interested in psychotherapy for further expansion of self-understanding." Within this framework, they refer to meditation as a "psychobiological form of introspection." Psychodynamic therapists have used meditation for controlled regression in the service of the ego and as a means to allow repressed material to come forth from the unconscious (Carrington & Ephron, 1975; Shafii, 1973); humanistic psychologists have used it to help individuals gain a sense of self-responsibility and inner directedness (e.g., Keefe, 1975; Schuster, 1979; Lesh, 1970); behaviorists have used it for stress management and self-regulation (e.g., Stroebel & Glueck, 1977; Shapiro, 1985a; Woolfolk & Franks, 1984).

*a
spiritual
dimension
of
human
experience*

The above research has emphasized the self-regulation and self-exploration aspects of meditation, and has intentionally divorced the content of the meditation technique from its original spiritual context. However, recently it has been argued that the topic of religion and values, in general, is one which cannot and should not be ignored by therapists. For example, Bergin (1991, p. 401), summarizing a decade of research on values and religious issues in psychotherapy and mental health, asserted that "there is a spiritual dimension of human experience with which the field of psychology must come to terms more assiduously." Part of this spiritual perspective involves an understanding of one's relationship not only with oneself, but what may be called our deepest belief and experience about the nature of ultimate reality, and the values that may grow from that belief.

Historically, meditation has been an essential element in nearly all contemplative religious and spiritual traditions. This includes not only the Eastern Hindu/Vedic and Buddhist traditions, upon which most of the meditation research has been carried out, but also Judaism, Christianity, and Islam (cf. Goleman, 1988). The goal has been liberation from the egoic self (Walsh & Vaughan, 1980); developing a sense of harmony with the universe; and the ability to increase one's compassion, sensitivity, and service to others. Therefore, more recent work on meditation has suggested the importance of re-introducing this self-liberation/compassionate service aspect of meditation back into Western research (Shapiro &

Walsh, 1984; Goleman, 1988; West, 1987; Murphy & Donovan, 1989; Kwee, 1990).

The current study, which was a preliminary investigation of long-term meditators, sought to address the following *primary hypotheses*: 1) goals and expectations regarding meditation shift along a self-regulation, self-exploration, self-liberation continuum (SR-SE-SL) in relation to length of practice; 2) effects of meditation practice will be related to goals and expectations (i.e., what you get is related to what you want).

Hypothesis one is assessed by comparing retrospective reports of initial reasons for learning meditation to current goals (assessed prior to beginning a meditation retreat). Hypothesis two is assessed in two ways: a) retrospectively by comparing initial reasons for learning meditation with subjective reports of effects; and b) prospectively, by comparing goals for the retreat with subjective reports of effects at one month and six months following the retreat.

*primary
and
secondary
hypotheses*

An exploratory part of this investigation also examined the following three *secondary hypotheses*: 3) religious orientation will be significantly related to length of practice; 4) cognitions made when a subject does not practice will be significantly related to length of practice; and 5) cognitions before beginning practice will be significantly related to adverse effects.

Additional information from this study, including self-control and mode of control profile, and detailed information on adverse effects, is cited elsewhere (Shapiro, 1992c, d).

METHODOLOGY

Subjects and Setting

Overall Subject Demographics. Subjects were twenty-seven individuals, mean age of 35.6 (*sd* 13.2) years, who had signed up for either a three-month or two-week intensive Vipassana meditation retreat at the Insight Meditation Center, in Barre, Massachusetts. The average length of meditation experience was 4.27 (*sd* 3.32) years. Twenty-two (81.5%) meditated regularly, from forty-five minutes to an hour a day.

Two-thirds had previously practiced Vipassana, and the remaining 33.3% practiced a variety of different techniques: mantra, silence, mindfulness, Soto Zen, breathing concentration, yoga, and visualization.

Seventeen (62.9%) of the group were men; a little less than one-fourth of the group were married; over 50% were in professional careers, and over 70% had completed college.

Religious Orientation. Twenty-six of the twenty-seven people described their religious orientation as follows: ten (38.4%) said none, atheistic or agnostic; nine (34.6%) said they were Buddhists or wrote in Buddhist-plus (i.e., Buddhist/Christian; Buddhist/Protestant; Buddhist/Hindu); five (19.2%) listed a specific monotheistic religion; and two (7.7%) wrote in "all."

Nature of the Meditation Retreat. The meditative technique and tradition used on both retreats was Vipassana, part of the Theravada Buddhist tradition. Vipassana meditation is a quieting technique designed to observe the mind and develop concentration. It is a combined concentrative and opening up practice, with the breath as the anchor (Goldstein, 1976). Meditation at the retreats occurred up to sixteen hours a day, including both sitting and walking meditation. Silence by meditators was observed throughout retreats except for sessions with teachers.

Grouping by Length of Practice. For some of the analyses, the meditators were divided into three groupings based on length of practice. Group one (n=10) had practiced two years or less. Test Time One average was 16.7 months practice, approximately forty-five minutes a day, 80% regular meditators. Group two had practiced from over two years to less than seven years. Test Time One average was 47.1 months, approximately forty-five minutes a day, 88.8% regular meditators. Group three (N=8) had practiced seven years or more. Test Time One average was 105 months; 75% were regular meditators over an hour a day.

Measure

The Motivation, Expectation, Adherence (MEA) instrument is an open-ended paper and pencil form, detailed elsewhere (Shapiro, 1980), addressing the following issues:

Adherence. Relevant questions included: how long has the person meditated; how frequently per day; what type of meditation; have they changed practices and, if so, why? Have they ever stopped meditating and, if so, for how long? Finally, what reasons, excuses, justifications and/or explanations do they use when they do not meditate. In response to the question, "What do you say to yourself when you do not meditate on a given day?" Five types of cognitions were given. The first was "no time," "too high stress or pain in my life." The second was self-critical involving anger, guilt, should (e.g., "scold self," "blew it," "lazy," "cop out," "dummy").

The third was resolve (e.g., “make sure I do it tomorrow,” “do more the next day”). The fourth was acceptance (“it’s ok; sometimes it does not fit”; “feel no guilt”; “I’m feeling too rigid in my practice; I want to break the rules”). And the fifth was awareness (“try to become aware why not,” “observe the source of the resistance”).

Expectations, Goals. Questions addressing this topic included: 1) Why had the individual started meditation? 2) What did they perceive to be the qualities of a gifted meditator (also considered demand characteristics because done at a meditation retreat)? and 3) what specifically did they hope to get from the current retreat? It should be noted that throughout the paper the term “expectations” is used as a synonym for “goals,” and both are used with specificity to mean either initial reasons for learning meditation, or hopes for the retreat.

Cognitions Prior to Meditation. Cognitions were coded in three categories: positive/self-instructional (I’m glad to be doing this; keep yourself focused; this should be fun); negative (“I’m scared of pain”; “I’m not looking forward to this”); or “varies, do not know.”

Effects. Subjects were then provided space to list (in an open-ended format) the effects of meditation on their life under three categories: 1) positive influences, 2) adverse influences, and 3) general influences. The open-ended format, rather than codable items, was used so that there would be no present cues under the three categories of effects. This allowed individuals to write (or not write) whatever they felt appropriate and salient.

*positive,
adverse
and
general
influences*

Data Collection, Coding and Analysis

Collection. Testing was done at the start of each retreat (Time One), one month after the end of each retreat (Time Two), and six months after the end of each retreat (Time Three). Each individual who did not respond to the one-month or six-month follow-up within two weeks was sent a second form requesting compliance.

Coding. A coding table was devised based on the categories of 1) self-regulation, 2) self-exploration, and 3) self-liberation/compassionate service. These categories can be used to code both goals/expectations/hopes for meditation, and positive effects of meditation. The following are examples of statements coded as goals. Self-regulation goals included items such as “learn to control my stress better”; “become more relaxed”; “learn to stop my negative thoughts”; “be able to deal with all situations calmly.” Self-exploration goals included statements such as “want to learn more about myself”; “want to see how my mind works”; “want to understand whether this relationship (job) is right for me.” Self-liberation/

compassionate service goals were included as one category, and included statements such as "want to place myself in God's presence"; "want to deepen my compassion for all living creatures"; "want to feel the sacred unity of the universe"; "want to go beyond my narrow ego."

*a
hierarchy
of
responses
was
assumed*

For purposes of coding, a hierarchy was assumed based on previous literature (cf. Wilber, 1977, 1980; Wilber, Engler, & Brown, 1986; Shapiro & Walsh, 1984). When more than one response was given, the highest response was coded (e.g., if a person wanted to meditate to learn to relax (1) and to be of service to others (3), this was coded as self-liberation. If a person wanted to remove pain (1) and learn more about themselves (2), this was coded as self-exploration. If a person wanted only self-regulation, this was coded as 1.

All material was coded blind to group, sex, and length of meditation. Rater reliability (between author and a non-meditating graduate student) was 92.7% for the self-regulation, self-exploration, self-liberation categories; 88.7% for the adherence cognitions; and 100% for the cognitions prior to meditation.

Data Analysis. Simple descriptive statistics were used to summarize the data from the MEA. Cross-tabulations were formed to examine the topics of the investigation. These pairs of variables were explored using the following tests (selected based on whether the variables investigated were ordinal or nominal): 1) initial reason for learning meditation, hopes for the retreat (Wilcoxon matched-pairs signed rank test); 2) goals (initial reasons, hopes for the retreat), and effects (at Time One and Time Two/Three): did you get what you want? (Pearson chi-square); 3-4) religious orientation, and length of practice; and cognitions and adverse effects; cognitions when individual does not meditate (Kendall's Tau-c).

RESULTS

Hypothesis One

Goals and expectations regarding meditation shift along an SR-SE-SL continuum in relation to length of practice. As can be seen from Table 1, seventy-five percent of those in group 3 (105 months practice) have self-liberation hopes; and none have only self-regulation hopes; whereas 30% in group 1 (average 16.7 months practice) have self-liberation hopes and 50% have self-regulation only hopes. These results are significant (Kendall Tau-c value=.426; $t=2.573$; $p<.05$).

Visual inspection of Figure 1 shows that for eleven individuals (gray shaded area) the initial reasons for learning meditation were the same as current hopes for the retreat. For eleven other individuals (area to the right of the gray shaded area), expectations had moved upward along the SR-SE-SL continuum. For five individuals (areas to the left of the gray shaded area), expectations had decreased. Overall, self-regulation hopes decreased from 37% to 29.6%, and self-liberation hopes increased from 33.3% to 40.7%. These results are in the expected direction, and approached significance ($z=-.653$ one tailed $p=.096$).² Therefore, hypothesis one is partially confirmed: expectations do shift along the SR-SE-SL continuum as a function of length of practice.

FIGURE 1

CROSS TABULATION OF INITIAL REASONS FOR WANTING TO LEARN MEDITATION AND HOPES FOR THE RETREAT: ALL SUBJECTS

REASONS FOR LEARNING MEDITATION	HOPES FOR RETREAT			
	NONE	SELF-REGULATION	SELF-EXPLORATION	SELF-LIBERATION
	1	8 (29.6%)	7 (25.9%)	11 (40.7%)
Self-Liberation 9 (33.3%)		1,1	2,3	3,3,3,3,3
Self-Exploration 6 (22.2%)	1		2	1,1,1,2
Self-Regulation 10 (37%)		1,1,1,2,2	1,2,3	2,3
2 Other		1	2	

Note:

Grey shaded area delineates that subject's initial reasons for learning meditation were the same as that subject's hopes for the retreat.

Each number in the cells above (e.g., 1,1,2,2,3,3) refers to an individual in group (1,2 or 3).

TABLE 1

RETREAT HOPES BY LENGTH OF PRACTICE*

LENGTH OF PRACTICE	HOPES FOR RETREAT			
	DO NOT KNOW	SELF-REGULATION	SELF-EXPLORATION	SELF-LIBERATION
Group One N=10 (16.7 Mo.)	1 (10%)	5 (50%)	1 (20%)	3 (30%)
Group Two N=9 (47.1 Mo.)		4 (44.4%)	3 (33.3%)	2 (22.2%)
Group Three N=8 (105 Mo.)			2 (25%)	6 (75%)

* $p<.05$

Hypothesis Two

Effects of meditation practice will be related to goals and expectations (i.e., what you get is related to what you want). Eighteen of the twenty-seven people (66.7%) stated positive effects which were

congruent with their reasons for beginning: i.e., a self-regulation reason for beginning to meditate produced a positive self-regulation effect; five individuals (18.5%) reported more beneficial results than their original expectations; and four (14.8%) individuals obtained less or different effects. In terms of why a person learned to meditate and positive effects at Time One, the finding was significant (Pearson chi-square = 24.51; df = 6; p = .00042). In terms of hopes for the retreat and positive effects at time 2/3, the results approach significance (Pearson chi-square = 11.24; df = 6; p = .081). Therefore, hypothesis two is partially confirmed.

Hypothesis Three

Religious orientation will be significantly related to length of practice. As can be seen from Table 2, the relationship between length of practice and religious orientation is significant (Kendall Tau-c value .342; t = 2.214; p < .05). Visual inspection of Table 2, a cross tabulation between length of practice and religious orientation, shows that the percentage of "None" (atheist, agnostic, secular humanist) goes down from 60% of group one to 25% of group three; and the number of "all" (a write-in category) increases from 0% in group one to 25% in group three. The percentage of "monotheistic" is lowest in group three of all groups. Therefore, hypothesis three is confirmed.

TABLE 2
RELIGIOUS ORIENTATION BY LENGTH OF PRACTICE*

LENGTH OF PRACTICE	RELIGIOUS ORIENTATION			
	NONE	MONOTHEISTIC	BUDDHIST +	ALL
Group One N=10	6 (60%)	2 (20%)	2 (20%)	
Group Two N=8	2 (25%)	2 (25%)	4 (50%)	
Group Three N=8	2 (25%)	1 (12.5%)	3 (37.5%)	2 (25%)

*p < .05

Hypothesis Four

Cognitions made when a subject does not practice will be significantly related to length of practice. When adherence responses were coded by length of practice, there is a significant difference between groups in terms of the type of cognition made when the individual does not meditate (Kendall Tau-c value = .502; t-value = 3.907; p < .001). As can be seen from visual inspection of Table 3, 80% of group one's and 66.6% of group two's cognitions involved

blaming the external (no time, high stress) or blaming the self (anger, should); versus only 12.5% of group three's. Further, the highest percentage of "awareness"—i.e, using non-meditating as something to learn from—was in group three. Therefore, hypothesis four is confirmed.

TABLE 3
COGNITIONS WHEN DO NOT MEDITATE ON A GIVEN DAY
BY LENGTH OF PRACTICE**

LENGTH OF PRACTICE	COGNITIONS				
	NO TIME HIGH STRESS	ANGER SHOULD	RESOLVE ONLY	ACCEPT	AWARENESS
Group One N=10	3 (30%)	5 (50%)	1 (10%)	1 (10%)	
Group Two N=9	2 (22.2%)	4 (44.4%)	1 (11.1%)	1 (11.1%)	1 (11.1%)
Group Three N=8		1 (12.5%)	2 (25%)	2 (25%)	3 (37.5%)

**p<.001

Hypothesis Five

Cognitions made before beginning practice will be significantly related to adverse effects. This finding is significant, both retrospectively (Pearson chi square = 9.53; df = 2; p = .009) and prospectively (Pearson chi square = 7.55; df = 2; p = .023). Cross tabulating of pre-meditation cognitions at Time One with adverse effects at Time One and Time Two/Three are shown in Table 4. Visual inspection shows that adverse influences at both Time One and Time Two/Three are reported *least* by those with positive cognitions, followed by those who did not know or reported "high variation," and are reported most frequently by those who had all negative or mixed positive/negative cognitions. Therefore, hypothesis five is confirmed.

The majority of subjects 55.6% (15 of 27) reported they made positive self-cognitions before beginning their meditation practice. These included self-reinforcement (e.g., "glad I'm sitting"; "pleased with myself"); self-regulation/relaxation: (e.g., "now is a time for inner stillness"; "let go"; "a chance to strengthen my discipline"); self-liberation/compassionate service (e.g., "wish for love for all"; "desire to come into God's presence"). Seven individuals said they did not know what they said right before meditating, or that there was high variation; and five listed either all negative ("apprehension"; "fear more than I can handle") or mixed positive/negative ("fear of pain, hope for joy, peace"; "wanting to trust and learn, yet scariness of surrender"; "I hope this is fun; I hope there is no pain; I hope I don't mind the pain; hope I can concentrate; good, here is another sitting").

TABLE 4
COGNITIONS BEFORE MEDITATING BY ADVERSE EFFECTS
AT TIME ONE AND TIME TWO/THREE

COGNITIONS	ADVERSE EFFECTS	
	TIME ONE** RETROSPECTIVE	TIME TWO/THREE* PROSPECTIVE
Positive	4 of 15 (26.7%)	0 of 10 (0%)
Varies/Don't Know	5 of 7 (71.4%)	1 of 2 (50%)
Neg or Mixed +/-	5 of 5 (100%)	3 of 5 (60%)

*p<.05

**p<.01

DISCUSSION

This investigation illustrates the importance of studying long-term meditators. The discussion highlights three areas: a) the relevance and implications of the SR-SE-SL continuum for therapy in terms of the use of meditation, and the goal of positive health; b) the relationship between religious orientation and length of practice in terms of the "universal context/particular expression" issue; and c) the importance of the study of cognitions in meditation, both as a potential dependent variable indicating healthy change and as a potential mechanism mediating adverse effects.

SR-SE-SL as Goal and Effect

*the
issue
of
demand
characteristics*

There are demand characteristics in any psychological orientation. In psychotherapy they involve understanding the therapist's beliefs about the qualities of the psychologically healthy individual. In this study, the issue of demand characteristics was addressed by asking individuals what they believed were the "qualities of a truly gifted meditator."

Of the twenty-three individuals who responded,³ more than one quality was often listed, as follows: 73.9% listed a self-regulation quality ("discipline"; "ability to persist despite doubt, fear, boredom"; "ability to face any situation with equanimity"); 21.7% put self-exploration ("self-knowing"; "wise"; "totally honest with him/herself"; "moment to moment awareness"); and 65.2% put down self-liberation/compassionate service ("love for all beings"; "egoless"; "belief in basic harmony of the universe").

How do these goals "fit" in terms of psychotherapy? Most therapists, even from widely differing orientations, would probably have little theoretical difficulty using meditation as a self-regulation and/or self-exploration technique: e.g., to teach a person skills

to relax and to be able to face stressors with equanimity; to teach individuals to learn more about their thoughts, behaviors, self. Certainly the results of this study indicate meditation's potential utility in those areas. Subjects reported self-regulation effects of "greater ability to cope with life situations; increased equanimity; sense of inner peacefulness and perspective which I am able to carry everywhere with me." Subjects also reported self-exploration effects; "recognizes how much I'm run by my thoughts"; "greater understanding of my own self-images, opinions, values, feelings and emotions."

But how well would the self-liberation/compassionate service aspect of meditation "fit" with most therapeutic approaches? This study raises the question, is stress management an end in itself? Is self-exploration an end in itself? Certainly for some therapeutic approaches and clients, they are. The goals of psychotherapy have traditionally been personal/social adjustment. But should they be? This directly raises the question of values in therapy (Campbell, 1975; Kanfer, 1979; Frank, 1977, 1987), and raises the question of what might be a vision of positive, or exceptional psychological health (Walsh & Shapiro, 1983).

As the anecdotal evidence below shows, self-regulation/stress management can be an end in itself, or it can point the way to something more. For individuals who continue to meditate, expectations and effects shift overall along a self-regulation, self-exploration, self-liberation/compassionate service continuum. Both retrospectively and prospectively, positive self-liberation effects increased in relation to practice.⁴ For example, one person stated that his initial reasons for learning meditation were "stress management for better public speaking and in sexual situations." His reported effects from meditation were both self-regulation *and* a desire to help contribute something of service to the world. Another noted: "Stillness of my mind makes the heart more apparent." In other words, the self-regulation/stress management effect from meditation was not an end in itself, but a step toward developing greater compassion.

*positive
self-liberation
effects
increased
in relation to
practice*

The study shows that shifts in expectations and goals of meditators along a SR-SE-SL continuum are related to length of practice, and that individuals "want what they get" from meditation. The highest frequency of subjects, 37%, began meditation for its self-regulation effects. Twenty-two percent began it for its potential self-exploration effects, a figure similar to the 20% cited by Kutz et al. (1985). And one-third of this group began meditation for its spiritual/self-liberation effect. Further, the majority of individuals (63.9% prospectively to 93.4% retrospectively) receive positive effects along the SR-SE-SL continuum from the practice of meditation which are congruent with or exceed their expectations and hopes.

Religious Orientation

Most meditation applications have been within clinical and health care situations, as self-regulation techniques primarily, and to a lesser extent as self-exploration techniques. In these settings they have been utilized as secular techniques devoid of religious and philosophical context. Further, even the Transcendental Meditation organization, when it has taught its technique in schools and prisons, portrays meditation as a non-religious technique.

*the
variable
of
religious
orientation
and
context*

The generic, secular approach to meditation as a technique devoid of context may be effective (and even appropriate) in certain settings and for certain short-term meditators. It appears, however, that when meditation is practiced as a long-term strategy, the variable of religious orientation and context—the particularism of community, language, tradition—becomes increasingly important. This study suggests that the longer one meditates within a particular tradition, the more difficult it is to keep from identifying oneself as part of that tradition, a finding similar to that of Compton (1991). As was seen in Table 2, the longer a person has meditated, the less likely were they to define their religious orientation as none, or monotheistic, and the more likely as “Buddhist” and “All.” Since these individuals were attending a Buddhist retreat, this finding suggests that congruence between the meditative technique and the religious orientation becomes increasingly important.

Further support for this observation is given by examining those who identified themselves as belonging to a specific monotheistic religion. For example, 80% of individuals who identified themselves as belonging to a monotheistic religion began the practice of meditation for self-regulation reasons, and in terms of hopes for retreat, they were still the group with the highest percentage (60%) with self-regulation only hopes. This would involve a minimum of religious (contextual) conflict.

Mathematics and science are based on the idea of universals. Psychology, in general, and psychotherapy specifically, may also be seen as seeking universal truths and techniques. However, just because a technique can be expressed in universal, context-free language does not necessarily mean attention to its particular expression is not also important, at least for some people. What are the implications of this? Does it mean that Buddhists should only learn meditation from other Buddhist teachers, secularists only learn generic meditation from secular teachers? The very notion seems to lead to a potentially dangerous regression of specificity: e.g., should we, under certain circumstances, match client and therapist by gender, age, and religious orientation? This study certainly does not answer such a question, but it does raise its relevance for further investigation, particularly regarding the vari-

able of religious orientation (cf. Shapiro, 1992 for further discussion).

Cognitions

The role of cognitions in emotions and behavior change is a central issue of discussion within and between differing therapeutic approaches. In this study, two sets of cognitions were examined: 1) what a person said on days when they did not meditate, and 2) what a person said right before they began to meditate. The first has relevance for understanding issues of adherence and compliance and as a potential variable for psychological health; the second as one possible mechanism mediating meditation's effects.

Adherence and compliance is a major issue in all self-regulation strategies. Meditation is no exception. What is interesting in these results, however, as highlighted in Table 4, is that it appears that the longer the individual meditates, the more likely they are to use non-compliance in an educational and learning way, rather than with self-blame and other-blame. This has clear relevance to therapy, where a major step in learning to overcome resistance is to help individuals become aware of why the resistance exists, and what they can learn from it. It appears that the non-reactive type of attentional training involved in meditation may help facilitate this type of awareness.

*using
non-compliance
in an
educational
and
learning
way*

Meditation has been previously defined as "a family of techniques which have in common a conscious attempt to focus attention in a nonanalytical way and an attempt not to dwell on discursive, ruminating thought" (Shapiro, 1982, p. 268). However, although the goal may be to not dwell on discursive thought, this definition states that meditation is a process—"an attempt"—and therefore allows for the exploration of the cognitions that occur prior to meditation, as well as when the person does not meditate. Although only a correlation, this study did show, as noted in Table 4, that adverse effects reported by subjects were correlated with the nature of cognitions made before beginning meditation practice. This is certainly a topic worthy of further investigation.

Final Comments

In many ways this study can be seen as a heuristic effort to examine the potential importance of an SR-SE-SL continuum with long-term meditators. These results must be interpreted with caution, both because results are correlational, not causal, based on a cross-sectional design, and because of the small sample pool. Part of the problem with sample size is an inherent difficulty with this type of

research because of the still small pool of long-term meditating subjects. However, as the number of Western meditators increases, that obstacle should become easier to overcome, and the importance of obtaining data from long-term meditators, particularly when looking at the "upper end" of the continuum, cannot be overemphasized. Future research also needs to refine more carefully, through long-term prospective studies, whether and to what extent there is a developmental progression in the SR-SE-SL continuum, and how discrete the categories are over time. Meditation may be seen as merely a technique, and it may be used by different people for different reasons, or by the same person at different times in their lives for different reasons (cf. Lazarus, 1984; Shapiro, 1990).

Additional research should prospectively investigate to what degree long-term meditators represent a self-selected group. Short-term adherence and compliance is a problem with meditation (as well as with all other self-regulation techniques). As certain goals of short-term meditation are (or are not) fulfilled, which individuals drop out, and which continue?

*a
focus
on
issues
of
both
content
and
context*

The study of long-term meditators, however, can be helpful if it forces us to focus on issues of both content and context. In so doing, it may challenge therapists to recognize, or at least confront the often unexamined contextual biases within which specific techniques are used (cf. Weisz, Rothbaum, Blackburn, 1984; Shapiro 1991, 1992a, b). Further, the technique of meditation is unique in many ways in providing a bridge between self-regulation, stress management, and mind/body issues on the one hand, and religion and values on the other.

NOTES

¹Of the twenty-seven individuals who filled out questionnaires at Time One, twelve filled out follow-up questionnaires at Time Three (six month follow-up); and five filled out follow-up questionnaires at Time Two (one month follow-up) but not Time Three. Therefore, follow-up prospective data at Time 2/3 are based on these seventeen.

²These figures are conservative for three reasons. First, they are based on context free coding. If a person said they wanted discipline, that was coded as self-regulation, even if it could be self-regulation within the context of a spiritual perspective. Second, there may be a retrospective memory distortion such that those who have practiced longer "remember" their initial reasons differently in light of current practice. For example, 75% of Group Three remember their reasons for starting as self-liberation versus 20% of those in group one and 11.1% of group two. Third, even if Group Three members did in fact begin for spiritual reasons, this creates a ceiling effect such that there is no place for Group Three to go upward along the continuum.

³Four individuals said they were not able to say, the most clever answer of these being "Loud snoring during a meditation session is probably a contra-indication."

⁴Although the data is too small for statistical comparison, it should be noted that of the six individuals in the two-week retreat, three (50%) reported SR effects, and three (50%) SE effects. Of the eleven individuals in the three-month retreat, four (36.3%) noted self-regulation effects, two (18.2%) self-exploration effects, and three (27.3%) self-liberation effects.

REFERENCES

- BENSON, H. (1975). *The relaxation response*. New York: Morrow.
- BERGIN, A. E. (1991). Values and religious issues in psychotherapy and mental health. *American Psychologist*, 46, 4, 394-403.
- CAMPBELL, D. T. (1975). On the conflicts between biological and social evolution and between psychology and moral tradition. *American Psychologist*, 30, 1103-20.
- CARRINGTON, P. & EPHRON, H. (1975). Meditation as an adjunct to psychotherapy. In S. Arieti & G. Chrzanowski (Eds.), *The world biennial of psychotherapy and psychiatry (111)*. New York: J. Wiley.
- COMPTON, W. C. (1991). Self-report of attainment in experienced Zen meditators: A cautionary note on objective measurement. *Psychologia*, 34, 15-17.
- DILLBECK, M. D. & ORME-JOHNSON, D. W. (1987). Physiological differences between Transcendental Meditation and rest. *American Psychologist*, 42, 879-81.
- ELLIS, A. (1984). The place of meditation in rational-emotive therapy and cognitive behavior therapy. In D. H. Shapiro & R. N. Walsh (Eds.), *Meditation: Classic and contemporary perspectives*. New York: Aldine, 671-73.
- FRANK, J. (1977). Nature and function of belief systems: Humanism and transcendental religion. *American Psychologist*, 32, 7, 555-59.
- FRANK, J. D. (1987). The drive for power and the nuclear arms race. *American Psychologist*, 42, 4, 337-44.
- GARFIELD, S. L. & BERGIN, A. E. (Eds.) (1986). *Handbook of psychotherapy and behavior change* (Third Ed.). New York: Wiley.
- GOLDSTEIN, J. (1976). *The experience of insight*. Santa Cruz, CA: Unity Press.
- GOLEMAN, D. (1981). Meditation and consciousness: An Asian approach to mental health. *American Journal of Psychotherapy*, 30, 41-54.
- GOLEMAN, D. (1988). *The meditation mind*. Los Angeles: Tarcher.
- HOLMES, D. A. (1984). Meditation and somatic arousal reduction. *American Psychologist*, 39, 1-10.
- KABAT-ZINN, J. (1982). An outpatient program in behavioral medicine for chronic pain patients based on the practice of mindfulness meditation: Theoretical considerations and preliminary results. *General Hospital Psychiatry*, 4, 33-47.
- KABAT-ZINN, J., LIPWORTH, L. & BURNEY, L. (1985). The clinical use of mindfulness meditation for the self-regulation of chronic pain. *Journal of Behavioral Medicine*, 8, 163-90.
- KABAT-ZINN, J., LIPWORTH, L., BURNEY, L. & SELLERS, W. (1986). Four year follow-up of a meditation-based program for the self-regulation of chronic pain. *Clinical Journal of Pain*, 2, 150-73.
- KANFER, F. (1979). Personal control, social control, and altruism: Can society survive the age of individualism? *American Psychologist*, 34, 3, 231-39.

- KEEFE, T. (1975). Meditation and the psychotherapist. *American Journal of Psychiatry*, 45, 3, 484-89.
- KUTZ, I., BORYSENKO, J. Z., BENSON, J. (1985). Meditation and psychotherapy: A rationale for the integration of dynamic psychotherapy, the relaxation response, and mindfulness meditation. *American Journal of Psychiatry*, 142, 1-8.
- KWEE, M. (Ed.). (1990). *Psychotherapy, meditation, and health*. London: East-West.
- LAZARUS, A. A. (1984). Meditation: The problems of any unimodal technique. In D. H. Shapiro & R. N. Walsh (Eds.), *Meditation: Classic and contemporary perspectives*. New York: Aldine, 691.
- LESH, T. (1970). Zen meditation and the development of empathy in counselors. *Journal of Humanistic Psychology*, 10, 1, 37-74.
- MURPHY, M. & DONOVAN, S. (1988). *The physical and psychological effects of meditation*. Esalen Institute: Study of Exceptional Functioning.
- ORME-JOHNSON, D. W. (1987). Transcendental meditation and reduced health care utilization. *Psychosomatic Medicine*, 49, 493-507.
- SCHUSTER, R. (1979). Empathy and mindfulness. *Journal of Humanistic Psychology*, 19, 1, 71-77.
- SELIGMAN, M. E. P. (1975). *Helplessness*. San Francisco: Freeman.
- SHAFIL, M. (1973). Silence in the service of ego: Psychoanalytic study of meditation. *International Journal of Psychoanalysis*, 54, 4, 431-43.
- SHAPIRO, D. H. (1980). *Meditation: Self-regulation strategy and altered states of consciousness*. New York: Aldine.
- SHAPIRO, D. H. (1982). Comparison of meditation with other self-control strategies: biofeedback, hypnosis, progressive relaxation: A review of the clinical and physiological literature. *American Journal of Psychiatry*, 139, 3, 267-74.
- SHAPIRO, D. H. (1985). Clinical use of meditation as a self-regulation strategy: Comments on Holmes's conclusions and implications. *American Psychologist*, 40, 7, 719-22.
- SHAPIRO, D. H. (1985a). Meditation and behavioral medicine: Applications of a self-regulation strategy to the clinical management of stress. In S. Burchfield (Ed.), *Stress: Psychological and physiological interactions*. New York: Hemisphere Publishing Corporation, 307-28.
- SHAPIRO, D. H. (1990). Meditation, self-control, and control by a benevolent other: Issues of content and context. In M. Kwee (Ed.), *Psychotherapy, meditation, and health*. London: East-West, pp. 65-123.
- SHAPIRO, D. H. (1991). *Manual for the Shapiro control inventory (SCI)*. Palo Alto: Behaviordyne.
- SHAPIRO, D. H. (1992). The universal/particular relationship: A challenge for transpersonal psychology. Paper prepared for the Institute of Noetic Sciences.
- SHAPIRO, D. H. (1992a). *The role of control and self-control in psychotherapy and health care*. New York: John Wiley.
- SHAPIRO, D. H. (1992b). *The human quest for control*. Los Angeles: Tarcher.
- SHAPIRO, D. H. (1992c). A mode of control and self-control profile for long term meditators. *Psychologia*, 35, 1-11.
- SHAPIRO, D. H. (1992d). Adverse effects of meditation: Reports of long term meditators before and following an intensive retreat. *International Journal of Psychosomatics*, in press.

- SHAPIRO, D. H. & GIBER, D. (1978). Meditation and psychotherapeutic effects. *Archives of General Psychiatry*, 35, 294-302.
- SHAPIRO, D. H., EVANS, G. & SHAPIRO, J. (1987). Human control. *Science*, 238, 260.
- SHAPIRO, D. H. & WALSH, R. N. (Eds.) (1984). *Meditation: Classic and contemporary perspectives*. New York: Aldine.
- SHAPIRO, D. H. & ZIFFERBLATT, S. (1976). Zen meditation and behavioral self-control: Similarities, differences, clinical applications. *American Psychologist*, 31, 519-32.
- STROEBEL, C. & GLUECK, B. (1977). Passive meditation: Subjective and clinical comparison with biofeedback. In G. E. Schwartz & D. Shapiro (Eds.), *Consciousness and self-regulation*. New York: Plenum, 1977.
- WALSH, R. N. & SHAPIRO, D. H. (Eds.) (1983). *Beyond health and normality: Explorations of exceptional psychological wellbeing*. New York: Van Nostrand.
- WALSH, R. N. & VAUGHAN, F. (Eds.) (1980). *Beyond ego*. Los Angeles: Tarcher.
- WEST, M. A. (Ed.) (1987). *The psychology of meditation*. Oxford: Clarendon Press.
- WEISZ, J. R., ROTHBAUM, F. M. & BLACKBURN, T. C. (1984). Standing out and standing in: The psychology of control in America and Japan. *American Psychologist*, 39, 9, 955-69.
- WILBER, K. (1977). *Spectrum of consciousness*. Wheaton, IL: Theosophical Publishing.
- WILBER, K. (1980). *The Atman project*. Wheaton, IL: Theosophical Publishing.
- WILBER, K., ENGLER, J. & BROWN, D. (Eds.) (1986). *Transformations of consciousness: Conventional and contemplative perspectives on development*. Boston: New Science Library/Shambhala.
- WOOLFOLK, R. L. & FRANKS, C. (1984). Meditation and behavior therapy. In D.J. Shapiro & R.N. Walsh (Eds.), *Meditation: Classic and contemporary perspectives*. New York: Aldine, pp. 674-76.

Requests for reprints to: Deane H. Shapiro, Jr., Dept. of Psychiatry & Human Behavior, California College of Medicine, University of California, Irvine, Irvine, California 92717.

Additional Tables NOT IN ARTICLE

Table 6

RELIGIOUS ORIENTATION AND ADVERSE EFFECTS AT TIME ONE AND TIME TWO/THREE

Religious Orientation	ADVERSE EFFECTS	
	Time One	Time Two/Three
None	4 of 10 (40%)	2 of 6 (33.3%)
Monotheistic	3 of 5 (60%)	2 of 5 (40%)
Buddhist +	6 of 8 (75%)	1 of 4 (25%)
All	2 of 2 (100%)	1 of 1 (100%)

Table 5

RETREAT HOPES BY RELIGIOUS ORIENTATION

Religious Orientation	RETREAT HOPES			
	Do Not Know	Self Regulation	Self Exploration	Self Liberation
None N=10	1 (10%)	2 (20%)	2 (20%)	5 (50%)
Monotheistic N=5		3 (60%)		2 (40%)
Buddhist + N=9		3 (33.3%)	4 (44.4%)	2 (22.2%)
All N=2				2 (100%)