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Three groups of long term meditators, ranging from 1.33 years to 8.75 years, were given a four quadrant mode of control inventory, reflecting a control model of psychological health. A linear relationship between length of practice and positive modes of control, particularly quadrant two (positive yielding) was hypothesized. As expected, the group which had practiced the longest had the highest quadrant two score and the most psychologically healthy profile. However, the relationship was curvilinear, not linear. These subjects then attended either a 2 week or a 3 month intensive retreat and were assessed immediately following the retreat (post test 1); after one month (post test 2) and after six months (post test 3). As hypothesized, the retreat intervention had the largest and most positive effect on quadrant two (positive yielding) from pretest to six month follow-up; and there were larger increases in quadrant two for the three month retreat than the two week retreat. Findings for overall satisfaction, self-control, and gender differences are also reported, and the article concludes with a discussion of the study's limitations and suggestions for future research.

To determine the modifiability of human behavior and cognitions several different self-control strategies—ranging from meditation to behavioral self-management—have been investigated (Shapiro, 1982; 1984; Shapiro & Zifferblatt, 1976; Shapiro & Walsh, 1984). Early empirical studies looking at meditation and the psychological construct of control almost invariably used Rotter's internal/external locus of control scale, assumed meditation would make individuals "more internal," and posited self-control as the mechanism by which that occurred (e.g., Hjelle, 1974; Marlatt et al., 1984). Some data supported this view.

For example, Hjelle (1974) found that a group of experienced meditators (nearly two years experience) had a significantly higher internal locus of control than prospective meditators. Although that could be accounted for by self-selection bias, a prospective study showed that as a result of meditation, meditators had a higher "internal locus of control" than before beginning to meditate. This shift to internal locus of control was more than a no-contact control group, but not more than other relaxation techniques. The proposed meditating mechanism for this shift was that meditation (as well as other relaxation strategies) might have provided a type of self-

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control procedure, giving individuals a greater sense of personal control (Marlatt, et al, 1984). There was also research which showed that individual meditators with a higher internal locus of control reported significantly fewer intrusions into their practice than "externals" (DiNardo & Raymond, 1979).

However, the literature was equivocal (e.g., Delmonte 1984; Dick, 1973). For example, Zaichkowski and Kamen, (1978) reported that with three months of meditation practice, locus of control scores did not change (unlike an equivalent exposure to EMG biofeedback). Finally, in a recent study by Alexander and Langer (1989) individuals (in homes for the elderly) were assigned to three treatment (TM, "mindfulness," mental relaxation), and one no-treatment condition for three months. After three years, perceived control on a revised internal locus of control scale (Levinson, 1974, 1981) showed that the mindfulness treatment condition had significantly higher perceived control than the TM group, even though the TM group had a higher survival rate.

Part of the difficulty in interpreting the relationship between meditation, control, and health in these studies has to do with the nature of the "tools" being used to measure control (Shapiro, 1990a). Internal locus of control is an expectancy belief about a (generic) individual's ability to obtain reinforcement from the external environment (Rotter, 1966, 1989; Strickland, 1989). This view of control is one in which an active, instrumental mode of control is involved. Although this has been the predominant view of control in Western psychology, increasingly its culture-bound features and assumptive limitations have been detailed. For example, Rodin (1986) in her seminal article on effects of sense of control on health and aging, says (borrowing from Deci, 1985): "...control may best be thought of in the more neutral term, self-determination, to convey the fact that individuals also may choose not to exercise direct control in certain instances and may still feel great freedom as a result of making this decision" (Rodin, 1986, p. 1275, footnote 3). In other words, the definition of control does not need to be limited to only an active, instrumental mode. Rather, a person can gain a sense of control, according to Rodin, either from direct, instrumental control, *or* from the choice of not-acting.

Others have gone further, noting that a sense of control can come from either active, assertive modes of control, or from yielding accepting modes: "More of a sense of control may be gained from letting go of active control (acceptance) than continuing efforts to try to change that over which we do not have active control" (Shapiro, Evans, Shapiro, 1987, p. 260). Rothbaum and Weisz (1984) have referred to the former as primary control (change the environment to fit the self); and the latter as secondary control (change the self to fit the environment) (cf. also Weisz & Rothbaum, 1984). Finally, in order to integrate the literature on self-control into the above, an interactive refinement has been made between agent and object of control; and mode of control (Shapiro & Bates, 1991).

Therefore, the type of perceived control obtained through meditation (accepting mode of control) may be different than that obtained through Langer's mindfulness method (instrumental mode of control), and to use the Rotter test to measure

perceived control may give a limiting view, as in the case of the Alexander and Langer (1989) study. To clarify the relationship of meditation and control in the above studies, we need more sophistication and precision in ways of measuring sense of control.

One effort in that direction has been the development of a four quadrant mode of control inventory (Shapiro, 1982a, 1985). Based on sex role psychology, East—West psychology, and the literature on Type A and B behavior, this inventory has been utilized with a variety of clinical as well as normative populations (see Shapiro, 1992). The results have shown that a sense of control from both modes can affect both physical and emotional wellbeing (Shapiro, Freedman, Piaget, 1991; Shapiro 1990b), and that psychological health involves a combination of increasing quadrants one and two (positive assertive and positive yielding) and decreasing quadrants three and four (negative assertive and negative yielding) (Shapiro, 1983).

The current study utilized the mode of control questionnaire in two ways. First, meditators were divided into three groups according to length of practice, and a cross-sectional four quadrant profile for each group obtained. Second, it was used as an assessment device to prospectively determine changes in perceived self-control and mode of control in these individuals following an intensive (two week or three month) meditation retreat.

Since meditation is a technique which emphasizes a yielding, accepting mode of control, the main hypothesis was that there would be higher quadrant two (positive yielding) scores in individuals who had practiced meditation the longest; and that a three month retreat would have more of an effect on increasing quadrant two scores than a two week retreat. On an exploratory level, it was also deemed important to look at how a) the overall four quadrant mode of control profile; b) satisfaction with mode of control profile; and c) perceived self-control varied as a function of practice. Finally, based on previous sex role research with meditation (Shapiro, Shapiro, Walsh, Brown, 1982), it was thought important to examine male and female differences to determine initial differences as well as treatment effects by gender.

Methodology

Subjects and Setting:

Subjects were 27 individuals, mean age of 35.6 years, who had signed up for either a three month or two week intensive Vipassana meditation retreat in Barre, Mass. There were 17 men (mean age of 35.3 years) and 10 women (mean age of 39.1 years). The average length of meditation experience was 4.26 years (4.5 years for men; 4.0 years for women). Seventy percent meditated regularly, more than an hour a day (66.6% of men were regular daily meditators (1.15 hrs) vs 80% of the woman (1.06 hrs a day).

Two thirds had previously practiced Vipassana; and the remaining 33.3% practiced a variety of different techniques: mantra; silent; mindfulness; Soto Zen; breathing concentration; yoga; visualization. A little less than 1/4 of the group were married; over 70% had completed college; over 1/3 were atheist/agnostic; and over 50% were in professional careers.

When divided into three groups. Group one ($n=10$) had practiced less than twenty-five months ($x=16.7$ months); group two ($n=9$) had practiced from 25 to 72 months ($x=47.1$ months); and group three ($n=8$) had practiced over 72 months ($x=105$ months).

Nature of the Meditation Retreat:

The meditative technique and tradition used on both retreats was Vipassana, part of the Theravadan Buddhist tradition. Vipassana meditation is a quieting technique designed to observe the mind and develop concentration. Meditation occurs up to 16 hours a day, including both sitting and walking meditation. Vipassana, traditionally, is a mindfulness type of meditation practice. However, in the initial stages, the breath is used as an anchor (Goldstein, 1976). Silence by meditators is observed throughout the retreat except for sessions with teachers. The two week and three month retreat began at the same time. Subjects were free to choose whichever retreat they wished, and had preselected their choice prior to arrival at the retreat site.

Measures: Four Quadrant Mode of Control Instrument.

The mode of control inventory consists of 49 words reflecting four different quadrants, shown in Table 1. Only words which had a minimum of 83.33% agreement between six experts were included. The rater reliability and factor analytic studies describing the quadrants have been detailed elsewhere (Shapiro, 1982, 1985).

Subjects describe themselves on a four point Likert-type scale (describes me not well at all to describes me exceedingly well). Quadrant one (positive assertive) is a scale measuring an individual's self-description in terms of ability to alter the environment, others, and oneself, and includes words like "decisive," "communicating needs," "leading,". Alpha reliability for quadrant one is. 88, and test-retest reliability at five weeks is $r=.80$ (Alpha reliability and test-retest reliability for all quadrants, as well as convergent and discriminate validity studies are detailed in Shapiro, 1992). Quadrant two (positive yielding) involves knowing when a sense of control needs to come from letting go, trusting, and accepting, and words include "patient," "trusting," "accepting" (alpha reliability is .77; test-retest reliability at five weeks is $r=.67$). Quadrant three (negative assertive) involves too much active control and words include "manipulating," "overcontrolling," "dogmatic" (alpha reliability is .82; test-retest reliability at five weeks is $r=.78$). Quadrant four (negative yielding) involves too little control, and words include "indecisive," "manipulated," "timid" (alpha reliability is .70; test-retest reliability at five weeks is $r=.84$). A healthy psychological profile is considered to occur when quadrants one and two are higher than three and four. In general, for both men and women, quadrant one scores are slightly higher than quadrant two, and quadrant three scores are slightly higher than quadrant four (Shapiro, 1985).

Subjects then say for each word whether they would like to be more that way, stay the same, or be less that way. The percent of "stay the same" provides a "self-acceptance" self-satisfaction, real/ideal congruence score for each of the four quadrants based on the number of responses in which the person wishes to stay the same as a percentage of the number of responses. This acceptance score is also calculated across all four quadrants for a total acceptance score. In general, stay the same scores increase as a result of therapy and psychological intervention, and higher scores are representative of a healthier psychological profile than lower scores. Finally, where individuals do not want to "stay the same," a healthy profile is characterized by individuals wanting to be more quadrant one and quadrant two, and less quadrant three and quadrant four.

Thus, the mode of control inventory provides the following four variables: 1) a mean score for each of the four quadrants; 2) a satisfaction score for each of the four quadrants; 3) whether a person wants to be more or less that way for each of the four quadrants; and 4) and an overall satisfaction score across all four quadrants.

Finally, since the mode of control can be a measurement of different types of "self-control" the fiftieth

Table 1. A Four-Quadrant Model of Control

QUADRANT ONE	QUADRANT TWO
ACTIVE CONTROL POSITIVE ASSERTIVE	LETTING-GO CONTROL POSITIVE YIELDING ACCEPTING
QUADRANT THREE	**QUADRANT FOUR**
OVER-CONTROL NEGATIVE ASSERTIVE	TOO LITTLE CONTROL NEGATIVE YIELDING

word of the inventory is "self-control."

Data Collection:

The Mode of Control Inventory was taken at the start of each retreat (Pre Test). It was taken again by subjects at the end of each their respective two week or three month retreat (Post Test 2). One month after the end of each retreat (Post Test 2), and six months after the end of each retreat (Post Test 3), the Mode of Control was regiven. 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.

Data Analysis:

Simple descriptive statistics were used to develop the pretest profiles for the four variables enumerated above under mode of control inventory, and ANOVA with subsequent Tukey to compare significant findings based on length of practice. Non-parametric (Wilcoxon) tests were used to compare male and female; two week and three month groups; and direction of change by quadrant (more vs. less).

Data analysis of the intensive meditation retreat across the four repeated measures utilized an analysis of covariance that handles missing data (BMDP5V) (Dixon, Brown, Engelman et al., 1988). This procedure, used because of uneven compliance, puts parameters on the basis of maximum likelihood rather than least squares. One consequence of this approach is that the test statistic is chi-square rather than F distributed. The two groups are compared on the set of three post measures using the pretest as a covariate.

The test looked for 1) a group effect (between the two week and three month groups) on all measures; for 2) a time effect (changes over time for both groups); and 3) for an interaction effect (group × time). Differences between men and women overall were also analyzed.

Results

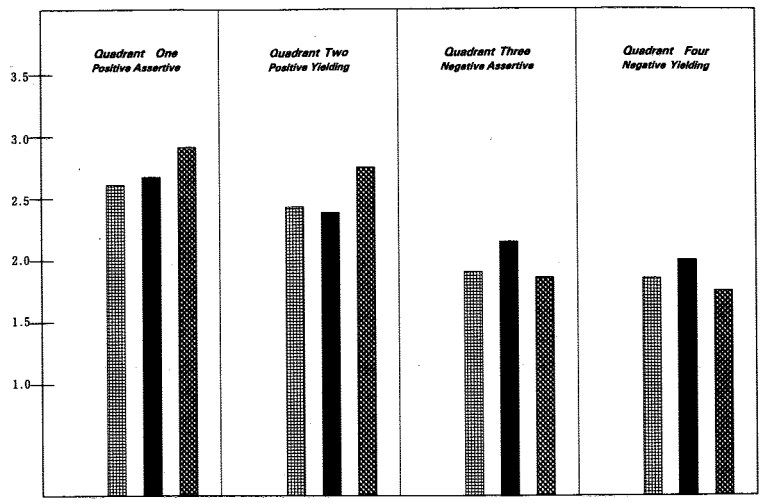
Mode of Control and Self-Control Profile of Long Term Meditators (Pretest)

Length of Practice Differences. As can be seen from Fig. 1, group three, those who had meditated the longest (average 8.75 years) had a higher quadrant two (positive yielding) score than the other two groups. In addition, this group also had the most positive mean mode profile of all: their quadrant one and two scores were the highest and their quadrant three and four scores were the lowest. However, the results were not linear, as expected. Rather, the least psychologically healthy profile of all was the middle group, whose quadrant two score was the lowest, and whose quadrant three and four scores were the highest.

Although the results are in the expected direction for group three, only quadrant three is significant ($df=2, 23$; $F=4.13$; $p=0.294$); and subsequent Tukey shows differences between group three and group two at the $p=.05$ level. Quadrant four approached significance ($df=2, 23$; $F=2.91$, $p=0.074$).

In terms of percent satisfied for the mode score, the results were not as expected. Rather, group one had the highest percent satisfaction with their mode of control scores. Even though group three had a healthier mode of control profile, they were less satisfied with that profile than group one. Further, group two's overall satisfaction was the lowest.

The mean self-control score was also highest for group three (2.71) compared to 2.50 for groups one and two, but the results were not significant. Although group three had the highest score, the percentage of individuals who wanted to stay the same was lowest (12.5%) compared to 20% for group one and 33.3% for group two. From 60–66% of individuals in each group wanted "more" self-control; and, 20% of group



	MODE OF CONTROL									SELF CONTROL
	MEANS (SD)				PERCENT SATISFIED					
	Quadrant 1 Positive Assertive	Quadrant 2 Positive Yielding	Quadrant 3 Negative Assertive	Quadrant 4 Negative Yielding	Quadrant 1 Positive Assertive	Quadrant 2 Positive Yielding	Quadrant 3 Negative Assertive	Quadrant 4 Negative Yielding	TOTAL	MEANS (SD)
GROUP 1 <25 months n=10	2.52 (.42)	2.45 (.52)	1.86 (.42)	1.77 (.50)	35.9 (23.8)	25.0 (21.6)	38.6 (18.2)	40.5 (32.4)	34.0 (18.9)	2.50 (.76)
GROUP 2 25–72 mont N=9	2.54 (.46)	2.39 (.20)	2.22 (.33)	2.15 (.41)	29.9 (25.3)	12.7 (15.3)	27.8 (22.3)	20.0 (21.4)	23.39 (17.2)	2.50 (.97)
GROUP 3 >72 months N=8	2.84 (.33)	2.66 (.45)	1.77 (.16)	1.63 (.40)	41.1 (23.1)	21.4 (28.6)	24.5 (23.6)	37.1 (31.5)	30.4 (22.3)	2.71 (.76)

Fig. 1. Cross sectional four quadrant profile of meditators based on length of practice.

one and 25% of group three wanted "less" self-control, compared to 0% of group two.

Effects of the Retreat

Mode of Control:

Overall. As can be seen from Table 2, the largest change in mode score from baseline pretest to six month follow-up (post test 3) occurred in quadrant two (positive yielding), which increased from a mean of 2.46 to 2.69. During the same period, quadrant two also increased more in the three month group (2.50 to 2.74) than in the two week group (2.43 to 2.60). There was also the greatest increase in satisfaction. Based on the repeated measures analysis of covariance, there were group × time differences for quadrant two satisfaction (chi-square=11.82; p=.003). Overall quadrant two satisfaction level rose over time, but there were differences between

groups in those fluctuations.

Between baseline and six month follow up, mean scores also rose overall for quadrant one (2.57 to 2.69). The two week retreat showed a large increase from pretest to post test 3, (2.48 to 2.75), and the three month group showed no change. However, although quadrant one scores remained unchanged, closer inspection of the data reveals that comparing quadrant one scores of completed tests at pretest and post test 1 (N=13), there was a significant drop in positive assertiveness (Wilcoxon matched pairs signed ranks $z=-2.13$; $p=.033$)

Mean self-control increased overall from pretest of 2.52 (SD. 87) to post test 3 six month follow-up 2.91 (SD .70). Interestingly, the overall percentage of those who wanted more self-control prior to the retreat (65.5%) increased slightly at six month follow-up (70.0%) even though the mean level had increased from 2.52 to 2.91.

Table 2. Four Quadrant Mode of Control at Pretest and for All Post Tests Overall, by Gender, and by Retreat

		Means				Percent Satisfaction				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Total
Overall N										
pre	27	2.57	2.46	1.94	1.81	34.5	20.7	31.8	34.7	29.8
postl	17	2.64	2.43	1.91	1.69	37.1	22.8	29.0	33.3	30.3
post2	12	2.63	2.69	1.91	1.77	36.6	27.6	33.7	42.9	33.8
post3	10	2.69	2.69	1.98	1.84	39.4	28.6	26.0	21.0	30.6
Male										
pre	17	2.57	2.42	1.99	1.85	32.6	19.0	30.7	28.5	27.7
post1	10	2.60	2.26	2.10	1.84	35.6	19.5	25.0	30.0	27.4
post2	6	2.30	2.61	1.99	1.93	31.3	33.3	28.6	40.0	32.0
post3	4	2.55	2.67	2.14	2.05	32.8	23.2	27.5	30.0	28.2
Female										
pre	10	2.57	2.52	1.85	1.76	37.0	25.7	32.1	40.0	32.7
post1	7	2.67	2.59	1.72	1.54	40.2	30.8	32.7	34.3	34.8
post2	6	2.85	2.60	1.87	1.57	38.5	20.2	38.1	46.7	34.0
post3	6	2.70	2.60	1.86	1.67	46.2	37.1	28.6	18.0	36.0
Two Weeks										
Pre	8	2.48	2.43	1.92	1.85	40.9	33.3	34.5	36.7	36.5
Post1	4	2.89	2.52	1.79	1.65	50.0	41.1	48.2	45.0	46.4
Post2	5	2.82	2.67	1.91	1.67	44.8	28.6	42.9	46.7	39.8
Post3	4	2.75	2.60	2.02	1.70	51.6	46.3	21.4	17.5	38.1
Three Month										
Pre	19	2.65	2.50	1.96	1.82	34.2	15.3	30.3	33.6	27.6
Post1	13	2.57	2.40	1.94	1.70	33.5	17.6	23.5	30.0	25.7
Post2	7	2.59	2.71	1.91	1.85	30.4	26.8	26.8	40.0	29.3
Post3	6	2.65	2.74	1.96	1.91	31.2	16.7	29.1	23.3	25.6

Subjects in the three month retreat initially had a lower self-control score 2.52 (SD .87) than subjects in the two week retreat 2.67 (SD 1.03). Between pretest and post test 3, the self-control scores rose for both the two week retreat 2.75 (SD .50) and the three month retreat 3.00 (SD .81). However, even though self-control scores rose more for the three month retreat, desire to have more self-control also rose to a greater extent in the three month group. At pretest, 66.7% in the three month retreat wanted more self-control, while 83.3% wanted more self-control at post test 3. The percentage remained at 50% from pretest to post test 3 for the two week retreat.

Discussion

Based on the cross-sectional analysis of length of practice, group three, which had meditated the longest, had the highest quadrant two score, as expected. Further, prospectively, at the six month follow-up the meditators overall, as a result of an intensive meditation retreat, showed the largest and most positive gains in the positive yielding mode of control, quadrant two, and their satisfaction level with quadrant two rose significantly. Therefore, it is safe to say that meditation does have an effect on increasing the positive yielding mode of control.

Interestingly, group three also had the healthiest four-quadrant mode of control psychological profile, and highest self-control score. But the results were not linear, as group two had the lowest quadrant two score, and the least healthy mode of control profile, a finding which was not expected. The control model of psychological health reflected in the three groups was in some ways reminiscent of a Zen poem. When one is unenlightened, mountains are mountains; when one seeks enlightenment, mountains are no longer mountains. When one attains enlightenment, mountains are mountains.

There are three additional findings from this study worth noting, which future research may want to investigate more fully: satisfaction levels, self-control, and gender differences.

Satisfaction levels: Why was quadrant two satisfaction, when looked at across groups, the lowest overall of the three quadrants, and at pretest, was what these long term meditators wanted to change more than any other quadrant? Further, future research needs to address the issue of overall satisfaction levels. One would hypothesize that long term meditators would be more accepting of their "mode of control" regardless of what it was. Yet this was not the case. Group one satisfaction is the highest of the three groups; and there is almost no overall change in satisfaction (wanting to stay the same) across the four quadrants from pretest (29.8%) to post test 3 six months after the retreat (30.6%). There were also significant time differences for quadrant four (chi square=9.89; $p=.007$). The largest decrease in satisfaction was in quadrant four (negative yielding), where subjects showed a significant drop in satisfaction (chi-square=9.89; $p=.007$). Is this a sign of conflict, or a positive sign of motivation for continued growth? In other words does the systematic observation of one's internal processes cause one to realize how far one is from one's goal and

therefore, at some level, become less accepting of who one is, rather than more?

Self-control: Although perceived self-control increased from pretest to post test 3, desire to have more self-control also increased. Is there such a thing as being hooked on self-control so that even as one's self-perceived level increases, so does one's desire? Certainly self-control appears to be an important variable to meditators. Three questions provide support for this. First, if we look at information about why individuals first decided to practice meditation, 21.4% noted that it related to self-control: mental and emotional discipline and concentration. Second, when asked what are the qualities of a gifted meditator, 31% stated items related to self-control (discipline, perseverance, able to stay in the present; concentration; and better able to control feelings). Third, when asked about their hopes for the retreat, 34.5% mentioned self-control and discipline related goals: increase concentration, determination, discipline; quit smoking; remove negative emotions, lose fears; drop inhibitions; increase energy. However, there were some negative comments related to self-control, evidenced by the fact that over 13% wanted less self-control at the start of the retreat, and 20% less self-control by the end of the retreat.

Gender differences: Overall, wonen's profile was healthier than men's at pretest; and from pretest to six month follow-up, changes for women were positive in three of the four quadrants and perceived self-control increased; whereas for men from pretest to six month follow-up, three of four quadrants changed in a negative direction and self-control, decreased. Further, men's quadrant one score fell considerably at the one month follow-up (post test 2), and did not rebound to baseline until the six month follow-up (post test 3). In addition, men's quadrant four (negative yielding) rose from pretest to six month follow-up. Previous research questioned whether the sex role shifts toward self-perception of sex role stereotypic feminine words and lower score on masculine words as a result of a meditation retreat was desirable (Shapiro, Shapiro, Walsh, Brown, 1982). As gandhi noted, he did not want individuals attracted to his practice of non-violence for the wrong reasons. He noted that it required individuals who had a certain "fire in the belly" before satyagraha (literally firm holding to the truth) could be effectively practiced (Teixeria, 1987). The results of this study at least suggest a caution especially for men, about a potential adverse effect in practicing meditation in terms of a loss of mode of control balance, particularly a decrease in quadrant one and an increase in quadrant four. It is possible that this loss is self-correcting over time. For example, based on the three groups in terms of length of practice, men's quadrant one and two scores are higher in those who have practiced the longest. However, men in group one (<25 months) begin with both a lower quadrant one (2.49 vs. 2.55) and quadrant two (2.26 vs 2.73) than women. Only in group three (>72 months) are men's scores slightly higher than women's: q1 (2.86 vs 2.78); q2 (2.67 vs 2.64). Because of the nature of this study, it cannot be determined whether this increase is a function of length of practice and/or reflects a drop out of a certain pool of meditators before six years of practice. This project, as well as other research (e.g., Shapiro, Freedman & Piaget, 1991) has shown that both quadrant one and quadrant two can rise together. Therefore,

further long term prospective research is required on whether there is a certain subset of men for whom these effects exist, and, if so, whether and over what period of time reintegration and balance occurs.

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Added (SDs) Table 2

groups in those fluctuations.

Between baseline and six month follow up, mean scores also rose overall for quadrant one (2.57 to 2.69). The two week retreat showed a large increase from pretest to post test 3, (2.48 to 2.75), and the three month group showed no change. However, although quadrant one scores remained unchanged, closer inspection of the data reveals that comparing quadrant one scores of completed tests at pretest and post test 1 (N=13), there was a significant drop in positive assertiveness (Wilcoxon matched pairs signed ranks $z=-2.13$; $p=.033$)

Mean self-control increased overall from pretest of 2.52 (SD. 87) to post test 3 six month follow-up 2.91 (SD .70). Interestingly, the overall percentage of those who wanted more self-control prior to the retreat (65.5%) increased slightly at six month follow-up (70.0%) even though the mean level had increased from 2.52 to 2.91.

Table 2. Four Quadrant Mode of Control at Pretest and for All Post Tests Overall, by Gender, and by Retreat

		Means				Percent Satisfaction				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Total
Overall N		.48	.49	.52	.56					
pre	27	2.57	2.48	1.94	1.81	34.5	20.7	31.8	34.7	29.8
postl	17	2.64	2.43	1.91	1.69	37.1	22.8	29.0	33.3	30.3
post2	12	2.63	2.69	1.91	1.77	36.6	27.6	33.7	42.9	33.8
post3	10	2.69	2.69	1.98	1.84	39.4	28.6	26.0	21.0	30.6
Male		(.51)	(.46)	(.46)	(.49)					
pre	17	2.57 (.50)	2.42	1.99	1.85	32.6	19.0	30.7	28.5	27.7
post1	10	2.60	2.26	2.10	1.84	35.6	19.5	25.0	30.0	27.4
post2	6	2.30	2.61	1.99	1.93	31.3	33.3	28.6	40.0	32.0
post3	4	2.55	2.67	2.14	2.05	32.8	23.2	27.5	30.0	28.2

Additional Tables Not IN ARTICLE

Table 6
RELIGIOUS ORIENTATION AND ADVERSE EFFECTS AT TIME ONE AND TIME TWO/THREE

	ADVERSE EFFECTS	
Religious Orientation	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

	RETREAT HOPES			
Religious Orientation	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%)

EDITOR'S NOTE

Meditation, often the primary teaching method in spiritual practice, is attempted by innumerable students. It is generally believed, however, that it is most meaningful when pursued as a long-term practice. To investigate this assumption, Deane Shapiro, Jr. found and studied twenty-seven meditators with over four years average meditation experience. His research shows significant shifts along a continuum measuring the meditator's reports of self-regulation, self-exploration and self-liberation.