



7-1-2014

Engagement in a Community-Based Integral Practice Program Enhances Well-being

Cassandra Vieten
Institute of Noetic Sciences

Mica Estrada
University of California, San Francisco

Adam B. Cohen
Arizona State University

Dean Radin
Institute of Noetic Sciences

Marilyn M. Schlitz
Institute of Noetic Sciences

See next page for additional authors

Follow this and additional works at: <https://digitalcommons.ciis.edu/ijts-transpersonalstudies>

 Part of the [Philosophy Commons](#), [Psychology Commons](#), and the [Religion Commons](#)

Recommended Citation

Vieten, C., Estrada, M., Cohen, A. B., Radin, D., Schlitz, M. M., & Delorme, A. (2014). Vieten, C., Estrada, M., Cohen, A. B., Radin, D., Schlitz, M., & Delorme, A. (2014). Engagement in a community-based integral practice program enhances well-being. *International Journal of Transpersonal Studies*, 33(2), 1–15.. *International Journal of Transpersonal Studies*, 33 (2). <http://dx.doi.org/10.24972/ijts.2014.33.2.1>



This work is licensed under a [Creative Commons Attribution-Noncommercial-No Derivative Works 4.0 License](#).

This Article is brought to you for free and open access by the Journals and Newsletters at Digital Commons @ CIIS. It has been accepted for inclusion in *International Journal of Transpersonal Studies* by an authorized administrator of Digital Commons @ CIIS. For more information, please contact digitalcommons@ciis.edu.

Engagement in a Community-Based Integral Practice Program Enhances Well-being

Authors

Cassandra Vieten, Mica Estrada, Adam B. Cohen, Dean Radin, Marilyn M. Schlitz, and Arnaud Delorme

Engagement in a Community-Based Integral Practice Program Enhances Well-being

Cassandra Vieten

Institute of Noetic Sciences
Petaluma, CA, USA

Adam B. Cohen

Arizona State University
Tempe, AZ, USA

Marilyn Mandala Schlitz

Institute of Noetic Sciences
Petaluma, CA, USA

Mica Estrada

University of California San Francisco
San Francisco, CA, USA

Dean Radin

Institute of Noetic Sciences
Petaluma, CA, USA

Arnaud Delorme

Institute of Noetic Sciences
Petaluma, CA, USA

This project examined associations between engagement in a community-based integral practice program and measures of health and well-being. In this prospective within-subjects uncontrolled cohort study, 53 participants of Integral Transformative Practice (ITP), a program that incorporates movement, nutritional and exercise recommendations, affirmations, contemplative introspection, theory and philosophy, and group discussions and activities, were followed over one year. Participants completed online questionnaires upon enrollment, at six months, and one year later. Repeated measures analyses showed that participants reported improved overall health and reduced symptoms of ill health, as well as increased psychological well-being, vitality, and quality of life over the course of the year. Greater involvement in the practice community predicted better psychological well-being, increased quality of life, and greater self-transcendence. Self-transcendence mediated the relationship between level of ITP involvement and psychological well-being outcomes, and predicted physical health outcomes, suggesting that this construct may be important to the effectiveness of participating in wellness interventions.

Keywords: *psychological well-being, health, transformative practice, integral, spirituality, self-transcendence*

How do people make positive changes in their lives? When confronted with stress, emotional difficulties, physical ailments, or life transitions, many people seek the help of a medical or psychological professional, or a clergy person. They may engage in religious or spiritual practices, diet and exercise regimens, or educational programs. They might join a gym, seek psychotherapy, join a church or a secular group, take up a hobby, or begin a meditation or yoga practice, all with the goal of increased well-being.

The way that people care for various aspects of their well-being is often fragmented: In general, the physical body is attended to by diet, exercise, and the

health care system, the mental/emotional aspects of the self are attended to by friends and family, formal education, or by mental health professionals—the vast majority of the latter employing “talk” therapy, or psychotherapy. Spiritual or existential needs may be addressed by involvement in organized religion or a spiritual practice.

However, there is a growing awareness among health and healing professionals that attending simultaneously to multiple dimensions of being may hold greater potential for health, healing, and quality of life than attending separately to single aspects (Ferrer, 2003; Schlitz, Amorok, & Micozzi, 2005). In a growing

paradigm described as integral, spiritual teachers, psychologists, health care providers, and theorists have noted that attending to physical, mental, emotional, and spiritual aspects of being in an integrated fashion, particularly in the context of community, may be optimal for achieving psychological well-being (Aurobindo, 1993; Engel, 1977; Farias, Underwood, & Claridge, 2013; Ferrer, 2003; Ginting, Naring, Kwakkenbos, & Becker, 2014; Koenig et al., 2014; Leonard & Murphy, 2005; Schlitz et al., 2005; Short, 2006; Wilber, Patten, Leonard, & Morelli, 2008).

A number of community-based programs (that is, programs that are not part of the conventional healthcare system or of formal organized institutions such as a workplace, church or school) have been developed that attempt to integrate physical, psychological, emotional, and spiritual practices for well-being into a cohesive program (Luskin, 2004). Whether short-term (such as a weekend workshop), or longer lasting (months or years), these integrated practice programs offer participants a community of like-minded people, a set of individual and group activities, a narrative about the nature of reality, and a theoretical pathway to personal growth. Oftentimes, programs request that participants make a commitment to a prescribed set of practices, as well as out-of-pocket fees to support the program. People may select a program because they encounter a book or website describing the program, or receive a recommendation from a professional or a trusted friend.

Comprehensive programs for health promotion that incorporate health care, nutrition, exercise, and stress management in the workplace have shown benefit and cost-effectiveness (Pelletier, 2001). Very little research exists on community-based programs however. Most of the existing literature on community-based self-improvement programs focuses on those that address a specific ailment or issue. Twelve-step programs, such as Alcoholics Anonymous, may represent the best known and largest community-based program, with an estimated 2.1 million people attending AA meetings in 115,000 locations worldwide. Empirical research on AA indicates modest positive effects on alcohol dependence, but few studies have examined the effects of participation in AA on overall health and quality of life, and many studies have been of inadequate methodological quality (Tonigan, Connors, & Miller, 2003). In another example of an issue-specific transformative practice program, the Dean Ornish lifestyle program, which integrates stress-

management, diet, exercise, and group support for people experiencing coronary artery disease, was shown to have beneficial outcomes that were sustained through a five-year follow-up (Koertge et al., 2003; Ornish et al., 1998).

In general, religious/spiritual involvement has been linked to greater physical and mental health, (Ellison & Levin, 1998; Goyal et al., 2014; Gu, Strauss, Bond, & Cavanagh, 2015; Koenig, 2004; Levin & Chatters, 1998; Strauss, Cavanagh, Oliver, & Pettman, 2014) and health-related physiological processes (Galante, Galante, Bekkers, & Gallacher, 2014; Seeman, Dubin, & Seeman, 2003). For example, there is a large body of literature on the health and well-being effects of Transcendental Meditation (Rainforth et al., 2007; Travis et al., 2010), mindfulness-based programs (Baer, 2003; Grossman, 2004) and other forms of meditation (Cahn & Polich, 2006; Galante et al., 2014; Murphy & Donovan, 1999) and some empirical studies on outcomes of various types of yoga and martial arts (Bushell, 2009; Fuller, 1988; Kirkwood, 2005; Pilkington, Kirkwood, Rampes, & Richardson, 2005). However, few empirical studies have focused on community-based programs that integrate mind-body practices from different wisdom traditions, have multiple teachers, and provide health recommendations combined with other psychological, emotional, or spiritual methods for improving well-being.

There is some evidence that these multi-component community-based self-improvement programs hold promise for improving health and well-being. A study of a ten-day “emotional education program,” called the Hoffman Process, which includes mind, body, and spiritual aspects, showed that participation in the program was associated with declines in negative affect and depressive symptoms, and increases in positive outcomes such as life satisfaction, empathy, mastery, and emotional intelligence, and that these changes were sustained at a one-year follow-up (Levenson, Aldwin, & Yancura, 2006). Furthermore, the study showed that increases in forgiveness and spirituality mediated the effect of program participation on depressive symptoms. Very few other empirical studies of such programs exist.

The Study

Our previous research indicated that subjective retrospective reports of spiritual transformation identified less identification with ego, increased sense of meaning and purpose, and feeling part of a greater

whole were essential to increasing well-being (Schlitz, Vieten, & Amorok, 2008; Schlitz, Vieten, & Miller, 2010; Vieten, Amorok, & Schlitz, 2006; Vieten, Schlitz, & Amorok, 2009). The current study sought to examine prospectively how participation in Integral Transformative Practice (ITP), a community-based integral practice program (see Appendices A and B for a description of the ITP Program) was associated with health and well-being, and if so to investigate to what extent self-transcendence mediated such effects. Rather than determining efficacy in comparison to an active control, this pilot project sought to establish the promise of the program, and to develop appropriate measures, sample size estimates, and meditational hypotheses for a future randomized-controlled trial. Our objectives were to explore 1) whether participation in the program would be associated with measurable improvements in health and well-being over the course of a year; 2) whether amount or type of practice and involvement would be positively associated with greater improvements; and 3) to examine if variables related to spirituality, such as self-transcendence, would mediate the relationship between engagement in the program and measures of health and well-being.

Participants

Participants were 62 adults recruited from nine different ITP groups in the United States who were asked to complete a battery of measures three times over the course of one year: upon enrollment, after six months, and after one year. Using several approaches to enhance retention, such as small gifts, thank you notes, and birthday greetings, 86% of the sample was retained at the one-year measurement point. Of nine people who dropped out, seven dropped out of the ITP program, and two did not wish to complete the survey. The locations included Berkeley, CA, Columbus, OH, Crystal Lake, IL, Houston, TX, Mill Valley, CA, Palo Alto, CA, Seattle, WA, Tulsa, OK, and Walnut Creek, CA.

Participants (see Table 1) who completed the study were 65% female, had a mean age of 55 (SD = 10.2), and 45% were married or had a long-term live-in partner (35% separated or divorced). Ninety-six percent of the sample was White/Caucasian, most had completed college and some graduate education, and the mean gross family income was \$167,244 (SD = \$54,789). Fifty percent of the participants were professionals, 15% were business owners or entrepreneurs, and 7% were in management/sales or administration, with the remainder

in other occupations or retired. One-third of the sample lived in urban areas, two-thirds in suburban areas, and one person in a rural area.

Table 1. Participant characteristics

Variable	Percentage of Participants (N = 53)
<i>Gender</i>	
Male	35%
Female	65%
<i>Age (M/SD)</i>	
	55 (10.2)
<i>Marital Status</i>	
Never Married	18%
Married or Long Term Live In Partner	45%
Separated or Divorced	35%
Widowed	2%
<i>Occupation/Profession</i>	
Homemaker	3%
Professional	50%
Tradesperson	0%
Management/Sales	7%
Administration	5%
Business Owner / Entrepreneur	15%
Service Profession	3%
Unemployed or Unable to Work	2%
Other	16%
<i>Ethnicity</i>	
White	96%
Latino / Hispanic	4%
<i>Formal Education (yrs) (M/SD)</i>	
	17 (2.2)
<i>Gross Annual Income (M/SD)</i>	
	\$167,244 (\$54,789)
<i>Geographical Location</i>	
Urban	31%
Suburban	67%
Rural	2%
<i>Years in ITP (M/SD)</i>	
	13.6 (12.8)
First Year	24%
Second Year	35%
Third Year	13%
Fourth Year	10%
Five to Seven Years	5%
Seven to Ten Years	5%
Over Ten Years	8%
<i>Religious Upbringing</i>	
0 Not at all	0%
1	4%
2	6%
3	24%
4	19%
5 Deeply	47%

Over half (59%) of the participants were in their first or second year of participating in the ITP program. Fifteen people reported being new to ITP, and another 22 were in their second year. Thirteen percent had been practicing ITP for three years, 10% for four years, 5% each for between five to seven and seven to ten years, and 4% for over ten years. Forty-seven percent reported an upbringing that was deeply religious or spiritual, and another 43% reported a moderately spiritual or religious upbringing, whereas the remaining ten percent rated the extent of their religious or spiritual upbringing as little or very little.

Measures

This paper reports on the results of eight measures in addition to demographics and history. Other measures, including narrative and qualitative items, are listed at the end of this section. These will be reported on in a separate paper, under preparation.

Demographics and history. Demographics including age, ethnicity, income, education, religious and spiritual background, marital status, and region were collected at baseline. Historical engagement in ITP and other spiritual or transformative practices was measured with questions such as, “have you engaged in a meditation practice prior to ITP? If so, how often did you meditate? For how many months or years did you engage regularly in this practice?”

Level of engagement. Involvement in ITP and other self-improvement practices were measured using investigator-developed scales that asked participants to report on the quantity, frequency, and type of practices they used during the 90 days prior to each measurement point. Quantity of Practice was operationalized as the number of days in the 90 days prior to completing the survey that participants engaged in ITP activities. Because quantity and frequency may not necessarily reflect participants’ subjective involvement of the practice, we also asked participants to rate their overall perceived level of involvement (e.g., “Over the last 90 days, to what extent do you consider yourself involved in your transformative practice?”).

General physical health. Self-reported overall health was measured using one-item “Thinking back over the past month, how would you say your general health has been?” This global self-rating of general health has been shown to be reliably associated with mortality and survival in large samples, with predictive power over and above other methods of assessing health, such as physicians’ ratings (Idler & Benyamini, 1997).

Health symptoms. Physical symptoms were assessed using a thirteen-item health symptom checklist asking participants to report how often they had any of the following in the past month: headaches, faintness/dizziness, stomachache/pain, shortness of breath, chest pain, acne/skin irritation, runny/congested nose, stiff or sore muscles, stomach upset/nausea, irritable bowels, hot or cold spells, poor appetite, coughing/sore throat, or other. This measure is a reliable and valid index of self-perceived health status that has been used in previous research (Elliot & Sheldon, 1998; Emmons, 1992; Emmons & McCullough, 2003; Pennebaker, 1982).

Psychological well-being. The Psychological General Well-Being Index (PGWBI; Dupuy, 1984) is a 22-item questionnaire assessing subjective psychological well-being or distress. It contains validated subscales for Anxiety, Depressed Mood, Positive Well-Being, Self-Control, General Health, and Vitality. Internal consistencies for the subscales ranged from 0.72 – 0.88, and for the overall index, 0.94. The scale was validated in large public health samples, demonstrating high concurrent validity with longer scales. Test-retest reliabilities ranged from .50 – .86 depending on length between tests, demonstrating both stability and sensitivity to change over time (Dupuy, 1984).

Stress. The 10-item Perceived Stress Scale (PSS) (Cohen & Williamson, 1988) was used to measure stress. It is the most widely used measure to assess the degree to which life circumstances are appraised as stressful, and demonstrates excellent reliability, and concurrent, predictive, and discriminant validity (Cohen & Janicki-Deverts, in press).

Quality of life. The Quality of Life Scale (QOLS; Burckhardt & Anderson, 2003; Burckhardt, Woods, Schultz, & Ziebarth, 1989) is a 16-item instrument that asks respondents to rate their satisfaction with five conceptual domains of quality of life: material and physical well-being, relationships with other people, social, community and civic activities, personal development and fulfillment, and recreation, as delighted, pleased, mostly satisfied, mixed, mostly dissatisfied, unhappy, or terrible. It demonstrates high convergent and discriminant validity, and high internal consistency (0.82 – 0.92), and three-week test re-test reliability (0.78 – 0.84) while still being sensitive to change over time (Burckhardt & Anderson, 2003).

Self-transcendence. The Adult Self-Transcendence Inventory (ASTI; Levenson, Jennings,

Aldwin, & Shiraishi, 2005) was used to measure “self-transcendence,” a term used to describe (a) a desire to discover meaning in human life (Frankl, 2000), (b) a growing spirituality involving both an expansion of boundaries and an increased appreciation of the present (Reed, 1991), or (c) a developmental process that forms a pathway to wisdom (Levenson, Aldwin, & Cupertino, 2001). Representative items are “I often engage in quiet contemplation,” or “I feel that my individual life is a part of a greater whole,” and “Different parts of me are often at cross purposes” (reverse-scored). The ASTI demonstrates good internal consistency ($\alpha = 0.64 - 0.75$), and is correlated with personality in expected directions, but only modestly, supporting its validity as an independent construct. Scores on the ASTI are positively correlated to experience with meditation practice ($r = .30, p < .001$) (Levenson et al., 2005).

Daily Spiritual Experiences/Religiosity/Spirituality. Spiritual variables were measured using a modified version of the Brief Multidimensional Measure of Religiousness/Spirituality (BMMRS; Fetzer Institute/National Institute on Aging Working Group, 1999; Traphagan, 2005), which includes questions about Daily Spiritual Experiences, Meaning, Values/Beliefs, Forgiveness, Private Religious Practices, Religious and Spiritual Coping, Religious Support, Religious/Spiritual History, and Commitment. This instrument measures multiple aspects of religiousness and spirituality including religious and spiritual activities, beliefs, and identities, as opposed to previous measures that had focused primarily on religious affiliation and church attendance. In this study, we particularly focused on scores from the BMMRS 6-item Daily Spiritual Experiences subscale (Underwood & Teresi, 2002) to measure the inner spiritual feelings and awareness that one experiences from day to day. In Table 3, we also report Meaning and Value subscale although data for this scale was not collected after 6-month practice. Since the DSE uses religious language that the participants in our study do not themselves use, we modified the scale to include relevant terms. Modifications were made in collaboration with representatives from the ITP program. Sample items with modifications in brackets are: “I feel comfort in my religion, spiritual tradition, [or transformative practice].” “I feel God’s [or a spiritual force’s] presence.” Participants were asked to rate the frequency of these and other experiences as occurring many times a day, every day, most days, some days, once in a while, or never or almost never.

Integral Practice Enhances Wellbeing

Other measures not included in this paper that are the subject of a manuscript in preparation included an in-depth narrative of one past transformative experience (Cohen, Gruber, & Keltner, 2010; Shaver, Schwartz, Kirson, & O’Conner, 1987) cognitive appraisals related to the transformative experience (Smith & Ellsworth, 1985), positive and negative emotions experienced during the transformative experience (Watson, Clark, & Tellegen, 1988), and a number of qualitative, open-ended questions. One open-ended item “How have you changed in the past year?” assessed if participants reported positive changes in 1) mood, 2) awareness, 3) confidence, 4) alignment with values, 5) compassion for self and others, and 6) communication/relationships. .

Procedure

In this prospective, within-subjects design, participants were asked to complete online questionnaires upon enrollment in the study (baseline), six-months later (mid-year), and one year after enrollment (year-end). Prior to data collection, the survey items were reviewed with representatives from the ITP program to determine linguistic and programmatic relevance, and revised where appropriate. There was no comparison or control group.

Enrollment in this study coincided with the beginning of a year-long session in September 2006. People enrolling in the ITP program in their area were notified about the opportunity to participate in the study via emails from their local community group leaders and from the ITP central office. In addition, some ITP groups presented the opportunity to participate at their in-person local meetings. Interested participants enrolled in the project by phone or email and if interested in participating, were directed to an online survey link. Consent was obtained online. Participants were contacted by email or by phone six months and one year later to complete the same measures, with the exception of the historical information and demographics. At the end of the study, all questionnaire data were downloaded from the online survey software, processed, scored according to instructions for each scale, and analyzed using SPSS and Matlab Statistical Software. In all cases, we used test (Mauchly’s sphericity for ANOVA; Kolmogorov Smirnov for t-test) implemented in the SPSS software to assess whether it was appropriate to use a given test.

Results

Before testing the main hypotheses, we explored whether there were any baseline demographic

differences between those who dropped out of the longitudinal survey and those who did not. We used a student t-test for continuous variables (age, height, weight) and sign test (also known as Wilcoxon test) for binary ones (gender; marital status). For other categorical variables, because of the small sample size—only 9 participants dropped out—we used a Fisher’s exact test. All tests were performed two-tailed. No significant differences at the threshold $p < 0.05$ were identified between completers and drop-outs, including age, gender, height/weight, marital status, employment, ethnicity, education, income, or geographic region.

Repeated Measure Linear Trend Analysis

Repeated measures analyses of variance were performed to assess trends from baseline to 6-month and 12-month outcome measures. For each measure, data collection time was used a categorical predictor in the ANOVA. Results showed that participants experienced a significant reduction in health symptoms, improved general health, quality of life, and general psychological well-being. Three subscales of the General Psychological Well-Being Index improved significantly: vitality,

positive well-being, and self-control. Table 2 provides the mean scores and repeated measures outcomes for each variable.

Relationship of Quantity and Involvement in Practice to Outcomes

Was the level of engagement in ITP activities in the period preceding the measurement points predictive of health and well-being outcomes? As Table 3 shows, the Number of Days of Practice prior to the measurement point was not significantly correlated with physical health outcomes, but it was positively associated with psychological well-being at the 12-month measurement point, quality of life at the 6 and 12-month measurement points, and was negatively correlated with perceived stress at the 6-month measurement point.

Furthermore, Perceived Level of Involvement with ITP was associated with higher quality of life, lower levels of perceived stress, higher self-transcendence, and more daily spiritual experiences at the 6-month measurement point, and with psychological well-being and self-transcendence at the 12-month measurement point. Reported engagement in ITP activities (e.g., actual activity in the last 90 days) appears

to be an overlapping but distinct construct from perceived involvement (e.g., subjective level of involvement or importance of the practice in one’s life), with correlations ranging from 0.414 at the 6-month time point to 0.500 at the 12-month time point, so both measures of involvement were utilized in subsequent analyses.

Self-Transcendence Predicts Physical Health

A mediation analysis revealed that self-transcendence partially mediated the relationship between ITP involvement at 6 months and psychological well-being at 12 months (see Figure 1.A). In other words, increases in self-transcendence (See Appendix C for the items that make up the self-transcendence scale) in large part explain the improvements in psychological well-being. Furthermore, self-transcendence was a strong predictor of general physical health at all time points ($r = .286$,

Table 2. Repeated measure linear trend analysis of self-reported health, well-being, and transformative experience.

Dependent Variables	Means			F	df	Signif.
	Baseline	6-months	12-months			
Health Symptoms	206.00	219.00	234.00	8.99	(1, 46)	$p < .01$
General Health	10.75	11.10	11.69	7.65	(1, 47)	$p < .001$
Psychological Well-Being	80.19	81.43	85.83	15.17	(1, 47)	$p < .001$
Vitality (Subscale)	13.59	13.90	14.56	11.43	(1, 47)	$p < .001$
Positive Well-Being (Subscale)	13.98	13.90	14.77	4.59	(1, 47)	$p < .05$
Self Control (Subscale)	12.27	12.43	13.01	13.71	(1, 47)	$p < .001$
Quality of Life	88.06	89.82	91.02	4.59	(1, 46)	$p < .05$
Perceived Stress	13.71	13.13	13.98	–	(1, 47)	$p < ns$
Self-Transcendence	134.9	134.7	137.5	3.11	(1, 46)	$p < 0.08$
Daily Spiritual Experiences	15.51	16.44	16.07	–	(1, 47)	$p < ns$

$p < .05$ at Time 1, $r = .409$, $p < .01$ at Time 2, $r = .302$, $p < .05$ at Time 3). A sub-sequent mediation analysis revealed that psychological well-being mediated the relationship between self-transcendence and general physical health, all at 12 months (see Figure 1.B).

Qualitative Outcomes

As indicated in the method section, we used open-ended questions to assess changes that might not have been captured by the questionnaire data. Answers to the open-ended question “How have you changed in the past year?” were qualitatively analyzed by two independent coders using a thematic analysis process in which they read through the responses, categorized similar or synonymous responses into themes, and then compared their themes for consensus. This resulted in six themes with at least three responses each including positive changes in: 1) mood, 2) awareness, 3) confidence, 4) alignment with values, 5) compassion for self and others, and 6) communication/relationships. These results will be reported in detail in a separate paper.

Discussion and Conclusion

These results indicate that overall health, psychological well-being, and quality of life improved over the course of a year among the ITP participants in this study. Quantity/frequency of ITP activities and subjective level of engagement in ITP were correlated with psychological, but not with physical, health outcomes. Self-transcendence

mediated the relationship between ITP involvement and psychological well-being, suggesting that finding greater peace, meaning, belonging, and connection to a greater whole may have accounted for improvements in overall psychological well-being.

We anticipated that higher level of engagement in ITP activities would directly predict increased physical health. This hypothesis was not supported. Though health did improve in the overall sample over the course of the year, it was not significantly related to the reported amount of practice. However, ITP involvement did directly predict increases in self-transcendence, which in turn predicted physical health. Furthermore, psychological well-being mediated the relationship between self-transcendence and physical health. Our qualitative results are notable because while many participants reported joining the program to enhance physical health, their reported salient outcomes lay more in the arena of positive psychological and social well-being. Our results indicate that these changes may have in fact facilitated the improvements observed in quantitative measures of physical health. Some neuroscientists accept the somatic marker hypothesis (Damasio, 1994) in which psychological elements (memories, thoughts, and feelings) are rooted in the body. Therefore, working with the mind, body, and spirit simultaneously could potentially alter physical health.

Table 3. Pearson Correlates between reported frequency / quantity and subjective level of engagement in ITP practice over 30 days prior to measurement point with health, well-being, and spiritual outcomes.

	Health Symptoms	General Health	Psychological Well-Being	Quality of Life	Perceived Stress	Self-Transcendence	Daily Spiritual Experiences	Meaning and Value
Six Months								
Total Activity Days in Past 3 Months	.174	.085	.252	.307*	-.298*	.434**	.338*	not assessed
Subjective Level of Engagement	.226	.041	.172	.430**	-.284*	.430**	.447**	not assessed
Twelve Months								
Total Activity Days in Past 3 Months	-.019	.002	.315*	.307*	-.220	.363*	.564**	.395**
Subjective Level of Engagement	.122	.130	.285*	.223	-.212.	.313*	.247	.373**

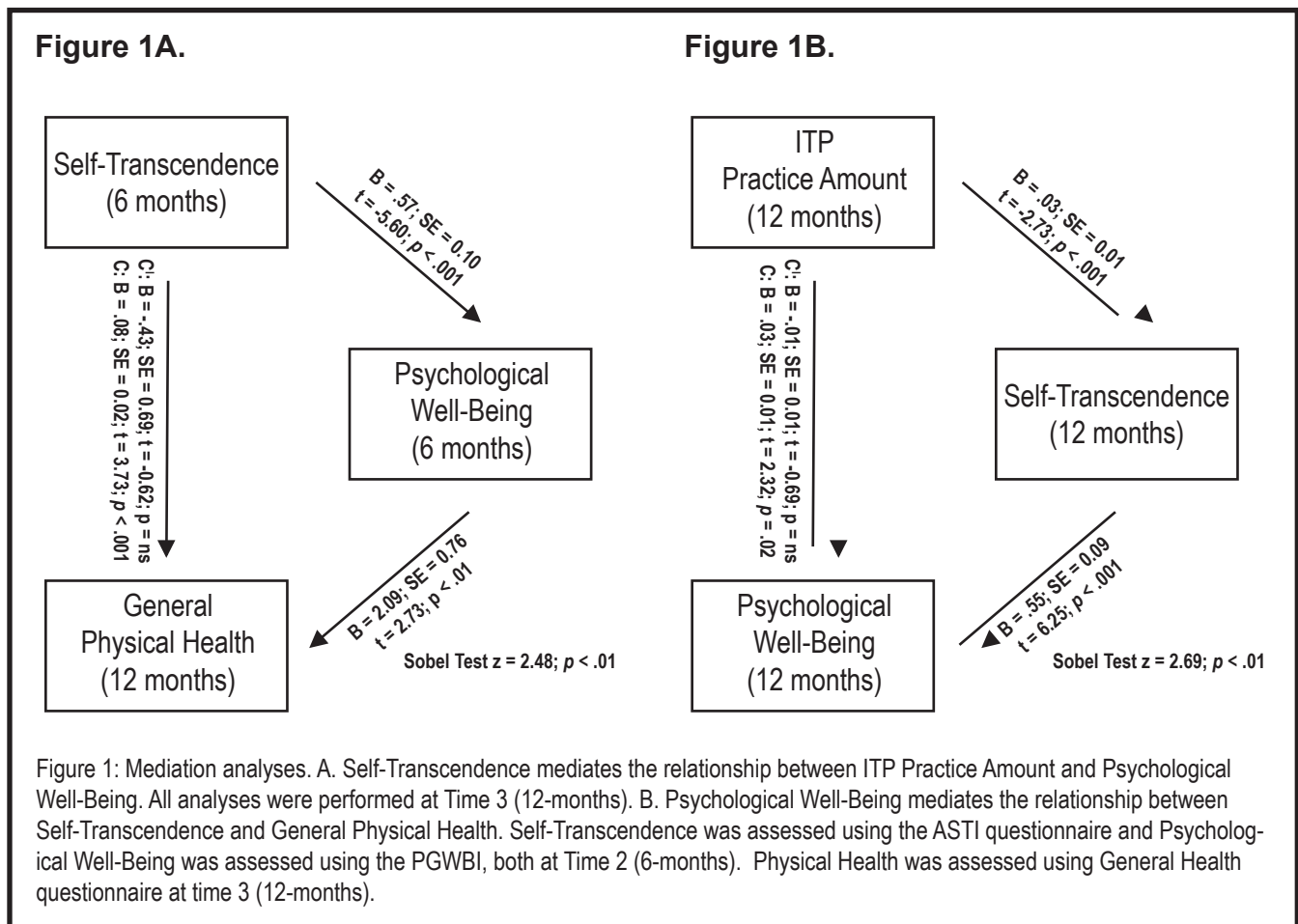
Note: * $p < .05$ (two-tailed); ** $p < .01$ (two-tailed)

Our results support a hypothetical model in which involvement in integral practices leads to greater self-transcendence, which results in greater psychological well-being, and then leads to enhanced physical health. This leads us to speculate that perhaps the common notion that physical health should be attained first, and then psychological health, and then existential well-being as a sort of “icing on the cake,” might need to be turned on its head. Perhaps existential well-being should be considered fundamental, leading to increased psychological health, and then increased physical health.

This notion is not without empirical and theoretical support. There is growing evidence that psychological well-being and happiness predict longer life expectancy (Yang, 2008). Cloninger (et al., 1993), a pioneering researcher in neurobiology and genetics of personality and psychopathology, identified self-transcendence as one of seven dimensions of temperament and character. His model has demonstrated concurrent, discriminant, and predictive validity in multiple experiments, and genetic and

neurobiological underpinnings have been identified for the temperament and character dimensions (Cloninger, 2004). After decades of research, Cloninger (2004) has concluded that “prior approaches to feeling good have small or brief benefits because they separate the biological, psychological, social, and spiritual processes of living that must be in harmony for a happy life” (p. v). He identified self-transcendence as a developmentally advanced character trait that leads to greater personality coherence and well-being (Cloninger, Svrakic, & Svrakic, 1997).

Self-transcendence has been described by Levenson et al. (2005) as “a decreasing reliance on externals for definition of the self, increasing interiority and spirituality, and a greater sense of connectedness with past and future generations” (p. 127), and the authors identify this shift in self-identity as an essential component of wisdom. Interestingly, Kohls, Walach & Wirtz (2009) concluded from their research that spiritual practices may buffer one against the distress that can be caused by potentially stress-inducing spiritual



experiences such as ego loss or cognitive deconstruction (Contrada & Ashmore, 1999; Metzinger, 2010). It is possible that involvement in a spiritual practice may support the process of self-transcendence, some aspects of which might otherwise be destabilizing.

An emerging field of research is showing that health behavior and emotional well-being cluster in social networks, and that health interventions can have a “contagious” effect in communities (Fowler & Christakis, 2008). The fact that this population showed increases in physical health at a mean age of 55 (SD = 10.5) is promising. Previous work studying ITP participants showed significant improvements in cognitive abilities in seniors over 55 over the course of one year (Brassington, Luskin, DiNucci, & Haskell, 2003). Future research should explore whether engaging in an integrated program of mind-body practices in a supportive community holds the potential to buffer against declining mental and physical health with age, perhaps in comparison to involvement in secular communities or engagement in single practices.

The phenomenon of people participating in community-based self-improvement programs that incorporate spiritual practices and contemplative introspection, along with study and readings, discussions and activities, and nutrition and exercise recommendations, may reflect a societal movement toward an increasing number of people self-identifying as “spiritual but not religious” (Fuller, 2001; Phillips, 2009). It is possible that such participation is taking the place of activities that used to be a part of involvement in one’s organized religion. It may also reflect a growing movement among individuals who are finding ways to improve their health and well-being outside of the conventional healthcare system.

Limitations of this study include a small sample size, lack of a comparison/control group, reliance on self-report and retrospective recall measures, and analyses that were primarily correlational. In addition, this was a relatively homogeneous, high-income sample, which may limit generalizability to other populations. While there was adequate retention over the course of the year, with a 16% drop-out rate and no significant differences between drop-outs and study-completers on baseline variables, it may be that people who did not complete the year-long ITP program experienced fewer benefits than those who remained in the program. Future research utilizing a randomized controlled design and intent-to-treat analysis is warranted.

Integral Practice Enhances Wellbeing

Learning more about how effective community-based integral practice programs are in promoting health and personal development in their participants, what specific elements of the programs account for the outcomes observed, by what mechanisms these changes occur, and how background and inherent characteristics of participants affect the outcomes, may provide useful information for developing new community-based health and well-being programs. Through engagement in integral practice communities, perhaps there are greater potentials for health, well-being, and quality of life as people age than was previously thought possible.

Conflicts of Interest

The authors declare no competing interests.

Authors Contributions

CV was responsible for the overall design and implementation of the study, ME conducted the bulk of the statistical analysis, AC participated in the selection of measures and interpretation and reporting of results, AD and DR assisted with manuscript preparation, statistical analysis and interpretation of results, and MMS participated in the design of the study.

Acknowledgements

We would like to acknowledge the Integral Transformative Practice (ITP) participants in this study; IPTI President Pam Kramer, Vice-President Barry Robbins and the ITP group leaders who helped to recruit and follow-up with participants; ITP Founders Michael Murphy and George Leonard, and Annie Leonard; Christina and Jim Grote; and the research assistants, volunteers, and consultants who contributed to this project, including James Carson, Charlene Farrell, Brandon Houston, Artie Konrad, Wayne Ramsey, and Dorena Rode. This project was made possible by funding from The Fetzer Institute and the members of the Institute of Noetic Sciences.

Appendix A

Integral Transformative Practice

When Michael Murphy, author and co-founder of the Esalen Institute, and George Leonard, a journalist/writer, fifth-degree black belt in Aikido, led personal

growth workshops at Esalen and elsewhere, they observed that participants often experienced insights that resulted in temporary gains in health, well-being, and quality of life (Leonard & Murphy, 2005). However, these gains often rapidly faded as they returned to their “regular lives.” To address this, they developed Integral Transformative Practice™ (ITP), a community-based integral practice program, and co-wrote, *The Life We Are Given* (Leonard & Murphy, 2005), with the intention of providing a set of coherent practices in a supportive community environment for ongoing personal and social development.

ITP is integral in that the various aspects of the self are seen as complementary attributes of an underlying wholeness. It is transformative in that it aims at positive change in body, being or performance, or the manifestation of unrealized potentialities. And it is a practice in that it involves long-term, positive activities which, above and beyond any specific external rewards, are of value in and of themselves. The essence of ITP’s theoretical underpinnings is the philosophy of “evolutionary panentheism,” that of the divine being both immanent and transcendent to our world.

While ITP can be done on one’s own or with another person, it is customarily practiced in a group or community that meets weekly. At the core of the practice are nine commitments which include a 1) 40 minute series of physical exercises called the “kata,” which involves movement, rhythmic breathing, deep relaxation techniques, imagery, focused surrender, affirmations and meditation, 2) contemplative practice, 3) physical fitness training, 4) cognitive development, and 5) a service component, (all of which are detailed in Appendix B), and 6) participation in Leonard Energy Training (LET) exercises, a set of practices derived from Aikido, for centering mind, body, and spirit through the exploration of one’s subtle energy. ITP stands on four legs: theory & philosophy, practice, community, and research, and also distinguishes itself through the concept of multiple practices, multiple teachers, and multiple leaders.

Appendix B

The Nine Integral Transformative Practice Commitments

1. I take full responsibility for my practice and for all transformations of my body and being that flow from it. While respecting my teachers and fellow

practitioners, I fully understand that I am the final authority.

2. I seek to join in commitments with other ITP practitioners. While maintaining my individual autonomy and authority, I commit myself to my ITP community in vision and practice. I understand that just two people can make a community. I also know that I can create a community through electronic networks, or even practice alone, bolstered by the greater ITP community.
3. I do the ITP Kata at least five times a week. I understand that, time permitting, I can lengthen any part of the Kata, and that extended periods of meditation at the end of the Kata and at other times of the day are recommended.
4. I accomplish at least three hours of aerobic exercise every week in increments of no less than twenty minutes. Three sessions of strength training a week are also recommended, but there is no commitment on this.
5. I am conscious of everything I eat.
6. I develop my intellectual powers by reading, writing, and discussion. I thoughtfully consider the visions and the readings set forth in chapter 12 and, commensurate with my own best judgment, seek to integrate cognitive understanding into my practice.
7. I open my heart to others in love and service. I stay current in expressing my feelings to those close to me and take care of my emotional needs in appropriate and healthy ways, seeking counsel when needed.
8. For each six- to twelve-month period, I make at least one affirmation having to do with significant positive change in my own being. I also make the following affirmation: “My entire being is balanced, vital, and healthy.” I include my affirmations during transformative imaging in my Kata and seek in appropriate and healthy ways to realize those affirmations.
9. I am dedicated to finding ways of reaching out and offering help to those in need. I understand that an important part of Integral Transformative Practice is to help ameliorate the unnecessary waste and suffering in the world and advance the evolution of our species and society to a more balanced, more peaceful, more joyful condition.

References

- Aurobindo, S. (1993). *Integral yoga: Sri Aurobindo's teaching & method of practice*. Pondicherry, India: Lotus Press.
- Baer, R. A. (2003). Mindfulness training as a clinical intervention: A conceptual and empirical review. *Clinical Psychology: Science and Practice, 10*(2), 125-143. doi:10.1093/clipsy.bpg015
- Brassington, G. S., Luskin, F. M., DiNucci, E., & Haskell, W. E. (2003). An integrated mind-body-spirit intervention to promote healthy aging. Paper presented at the Annual Conference of the Western Psychological Association, Vancouver, BC, Canada.
- Burckhardt, C. S., & Anderson, K. L. (2003). The Quality of Life Scale (QOLS): Reliability, validity, and utilization. Retrieved from <http://www.biomedcentral.com> doi:10.1002/nur.4770120604
- Burckhardt, C. S., Woods, S. L., Schultz, A. A., & Ziebarth, D. M. (1989). Quality of life of adults with chronic illness: A psychometric study. *Research in Nursing & Health, 12*(6), 347-354. doi:10.1111/j.1749-6632.2009.04538.x
- Bushell, W. C. (2009). Longevity: Potential life span and health span enhancement through practice of the basic yoga meditation regimen. *Annals of the New York Academy of Sciences, 1172*, 20-27.
- Cahn, R. B., & Polich, J. (2006). Meditation states and traits: EEG, ERP, and neuroimaging studies. *Psychological Bulletin, 132*(2), 180-211. doi:10.1037/0033-2909.132.2.180
- Cloninger, C. (2004). *Feeling good: The science of well-being*. New York, NY: Oxford University Press. doi:10.1017/S095457949700148X
- Cloninger, C., Svrakic, N., & Svrakic, D. (1997). Role of personality self-organization in development of mental order and disorder. *Developmental Psychopathology, 9*(4), 881-906.
- Cohen, A. B., Gruber, J., & Keltner, D. (2010). Comparing spiritual transformations and experiences of profound beauty. *Psychology of Religion and Spirituality, 2*(3), 127-135. doi:10.1037/a0019126
- Cohen, S., & Janicki-Deverts, D. (in press). Who's stressed? Distributions of psychological stress in the United States in probability samples from 1983, 2006 and 2009. *Journal of Applied Social Psychology*. Retrieved from http://www.psy.cmu.edu/~scohen/Cohen_Janicki_PSS_JASP_2010.doc
- Cohen, S., & Williamson, G. (1988). Perceived stress in a probability sample of the US. In S. Spacapan & S. Oskamp (Eds.), *The social psychology of health: Claremont Symposium on Applied Social Psychology*. Newbury Park, CA: Sage.
- Contrada, R. J., & Ashmore, R. D. (1999). *Self, social identity, and physical health: Interdisciplinary explorations*. New York, NY: Oxford University Press.
- Damasio, A. R. (1994). *Descartes' error: Emotion, reason and the human brain*. New York, NY: Random House.
- Dupuy, H. J. (1984). Psychological general well-being. In N. K. Wenger (Ed.), *Assessment of quality of life in clinical trials of cardiovascular therapies*. New York, NY: Le Jacq.
- Elliot, A. J., & Sheldon, K. M. (1998). Avoidance, personal goals and the personality-illness relationship. *Journal of Personality and Social Psychology, 75*(5), 1282-1299. doi:10.1037/0022-3514.75.5.1282
- Ellison, C. G., & Levin, J. S. (1998). The religion-health connection: Evidence, theory, and future directions. *Health Education & Behavior, 25*(6), 700-720. doi:10.1177/109019819802500603
- Emmons, R. A. (1992). Abstract versus concrete goals: Personal striving level, physical illness, and psychological well-being. *Journal of Personality and Social Psychology, 62*(2), 292-300. doi:10.1037/0022-3514.62.2.292
- Emmons, R. A., & McCullough, M. E. (2003). Counting blessings versus burdens: An experimental investigation of gratitude and subjective well-being in daily life. *Journal of Personality and Social Psychology, 84*(2), 377-389. doi:10.1037/0022-3514.84.2.377
- Engel, G. L. (1977). The need for a new medical model: A challenge for biomedicine. *Science, 196*(4286), 129-136. doi:10.1126/science.847460
- Farias, M., Underwood, R., & Claridge, G. (2013). Unusual but sound minds: mental health indicators in spiritual individuals. *British Journal of Psychology, 104*(3), 364-381. doi:10.1111/j.2044-8295.2012.02128.x
- Ferrer, J. N. (2003). Integral transformative practice: A participatory perspective. *Journal of Transpersonal Psychology, 35*(1), 21-42.
- Fetzer Institute/National Institute on Aging Working Group. (1999). *Multidimensional measurement of religiousness/spirituality for use in health research*. Kalamazoo, MI: John E. Fetzer Institute.

- Fowler, J. H. & Christakis, N. (2008). The dynamic spread of happiness in a large social network: Longitudinal analysis over 20 years in the Framingham Heart Study. *British Medical Journal*, *337*(2338), 1-9.
- Frankl, V. E. (2000). *Man's search for ultimate meaning*. Cambridge, MA: Perseus Books.
- Fuller, J. (1988). Martial arts and psychological health. *British Journal of Medical Psychology*, *61*, 317-328. doi:10.1111/j.2044-8341.1988.tb02794.x
- Fuller, R.C. (2001). *Spiritual, but not religious: Understanding unchurched America*. New York, NY: Oxford University Press. doi:10.1093/0195146808.001.0001
- Galante, J., Galante, I., Bekkers, M. J., & Gallacher, J. (2014). Effect of kindness-based meditation on health and well-being: A systematic review and meta-analysis. *Journal of Consulting and Clinical Psychology*, *82*(6), 1101-1114. doi:10.1037/a0037249
- Ginting, H., Naring, G., Kwakkenbos, L., & Becker, E. S. (2014). Spirituality and negative emotions in individuals with coronary heart disease. *Journal of Cardiovascular Nursing*. Published ahead-of-print. doi:10.1097/JCN.0000000000000201
- Goyal, M., Singh, S., Sibinga, E. M., Gould, N. F., Rowland-Seymour, A., Sharma, R., ... Haythornthwaite, J. A. (2014). Meditation programs for psychological stress and well-being: A systematic review and meta-analysis. *JAMA Internal Medicine*, *174*(3), 357-368. doi:10.1001/jamainternmed.2013.13018
- Grossman, P., Neimann, L., Schmidt, S., & Walach, H. (2004). Mindfulness-based stress reduction and health benefits: A meta-analysis. *Journal of Psychosomatic Research*, *57*(1), 35-43. doi:10.1016/S0022-3999(03)00573-7
- Gu, J., Strauss, C., Bond, R., & Cavanagh, K. (2015). How do mindfulness-based cognitive therapy and mindfulness-based stress reduction improve mental health and wellbeing? A systematic review and meta-analysis of mediation studies. *Clinical Psychology Review*, *37C*, 1-12. doi:10.1016/j.cpr.2015.01.006
- Idler, E. L., & Benyamini, Y. (1997). Self-rated health and mortality: A review of twenty-seven community studies. *Journal of Health and Social Behavior*, *38*(1), 21-37. doi:10.2307/2955359
- Kirkwood, G., Rampes, H., Tuffrey, V., Richardson, J., Pilkington, K. (2005). Yoga for anxiety: A systematic review of the research evidence. *British Journal of Sports Medicine*, *39*(12), 884-891. doi:10.1136/bjbm.2005.018069
- Koenig, H. G. (2004). Religion, spirituality, and medicine: Research findings and implications for clinical practice. *Southern Medical Journal*, *97*(12), 1194-1200. doi:10.1097/01.SMJ.0000146489.21837.CE
- Koenig, H. G., Berk, L. S., Daher, N. S., Pearce, M. J., Bellinger, D. L., Robins, C. J., ... King, M. B. (2014). Religious involvement is associated with greater purpose, optimism, generosity and gratitude in persons with major depression and chronic medical illness. *Journal of Psychosomatic Research*, *77*(2), 135-143. doi:10.1016/j.jpsychores.2014.05.002
- Koertge, J., Weidner, G., Elliott-Eller, M., Scherwitz, L., Merritt-Worden, T. A., Marlin, R., ... Ornish, D. (2003). Improvement in medical risk factors and quality of life in women and men with coronary artery disease in the Multicenter Lifestyle Demonstration Project. *The American Journal of Cardiology*, *91*(11), 1316-1322. doi:10.1016/S0002-9149(03)00320-5
- Kohls, N., Walach, H., & Wirtz, M. (2009). The relationship between spiritual experiences, transpersonal trust, social support, and sense of coherence and mental distress: A comparison of spiritually practising and non-practising samples. *Mental Health, Religion & Culture*, *12*(1), 1-23. doi:10.1080/13674670802087385
- Leonard, G., & Murphy, M. (2005). *The life we are given: A long-term program for realizing the potential of our body, mind, heart, and soul*. East Rutherford, NJ: Tarcher.
- Levenson, M. R., Aldwin, C. M., & Cupertino, A. P. (2001). Transcending the self: Towards a liberative model of adult development. In A. L. Neri (Ed.), *Maturidade & velhice: Um enfoque multidisciplinar* (pp. 99-115). Sao Paulo, Brazil: Papirus.
- Levenson, M. R., Aldwin, C. M., & Yancura, L. (2006). Positive emotional change: Mediating effects of forgiveness and spirituality. *Explore*, *2*(6), 498-508. doi:10.1016/j.explore.2006.08.002
- Levenson, M. R., Jennings, P. A., Aldwin, C. M., & Shiraishi, R. W. (2005). Self-transcendence: Conceptualization and measurement. *The Inter-national Journal of Aging and Human Development*, *60*(2), 127-143. doi:10.2190/XRXM-FYRA-7U0X-GRC0
- Levin, J. S., & Chatters, L. M. (1998). Research on Religion: An overview of empirical findings and theoretical issues. In H. Koenig (Ed.), *Handbook of religion and mental health* (pp. 33-50). San Diego, CA: Academic Press. doi:10.1016/B978-012417645-4/50070-5

- Luskin, F. (2004). Transformative practices for integrating mind-body-spirit. *Journal of Alternative and Complementary Medicine*, 10(1), 15-23. doi:10.1089/1075553042245872
- Metzinger, T. (2010). *The ego tunnel: The science of the mind and the myth of the self*. New York, NY: Basic Books.
- Murphy, M., & Donovan, S. (1999). *The physical and psychological effects of meditation*. Sausalito, CA: Institute of Noetic Sciences.
- Ornish, D., Scherwitz, L. W., Billings, J. H., Gould, K. L., Merritt, T. A., Sparler, S., ... Brand, R. J. (1998). Intensive lifestyle changes for reversal of coronary heart disease. *JAMA: The Journal of the American Medical Association*, 280(23), 2001-2007. doi:10.1001/jama.280.23.2001
- Pelletier, K. (2001). A review and analysis of the clinical- and cost-effectiveness studies of comprehensive health promotion and disease management programs at the worksite: 1998-2000 update. *American Journal of Health Promotion*, 16(2), 107-116. doi:10.4278/0890-1171-16.2.107
- Pennebaker, J. W. (1982). *The psychology of physical symptoms*. New York, NY: Springer-Verlag. doi:10.1007/978-1-4613-8196-9
- Phillips, R. (2009). LifeWay research finds American “millennials” are spiritually diverse. Retrieved from <http://www.lifeway.com/article/170233>
- Pilkington, K., Kirkwood, G., Rampes, H., & Richardson, J. (2005). Yoga for depression: The research evidence. *Journal of Affective Disorders*, 89(1-3), 13-24. doi:10.1016/j.jad.2005.08.013
- Rainforth, M., Schneider, R., Nidich, S., Gaylord-King, C., Salerno, J., & Anderson, J. (2007). Stress reduction programs in patients with elevated blood pressure: A systematic review and meta-analysis. *Current Hypertension Reports*, 9(6), 520-528. doi:10.1007/s11906-007-0094-3
- Reed, P. G. (1991). Self-transcendence and mental health in oldest-old adults. *Nursing Research*, 40(1), 5-11. doi:10.1097/00006199-199101000-00002
- Schlitz, M., Amorok, T., & Micozzi, M. S. (2005). *Consciousness & healing: Integral approaches to mind-body medicine*. St. Louis, MO: Elsevier.
- Schlitz, M. M., Vieten, C., & Amorok, T. A. (2008). *Living deeply: The art and science of transformation in everyday life*. New Harbinger.
- Schlitz, M. M., Vieten, C., & Miller, E. M. (2010). Worldview transformation and the development of social consciousness. *Journal of Consciousness Studies*, 17(7-8), 18-36.
- Seeman, T. E., Dubin, L. F., & Seeman, M. (2003). Religiosity/spirituality and health: A critical review of the evidence for biological pathways. *American Psychologist*, 58(1), 53-63. doi:10.1037/0003-066X.58.1.53
- Shaver, P., Schwartz, J., Kirson, D., & O'Conner, C. (1987). Emotion knowledge: Further exploration of a prototype approach. *Journal of Personality and Social Psychology*, 52, 1061-1086. doi:10.1037/0022-3514.52.6.1061
- Short, B. (2006). AQAL: Beyond the biopsychosocial model. *Journal of Integral Theory and Practice*, 1(3), 126-141.
- Smith, C. A., & Ellsworth, P. C. (1985). Patterns of cognitive appraisal in emotion. *Journal of Personality and Social Psychology*, 48(4), 813-838. doi:10.1037/0022-3514.48.4.813
- Strauss, C., Cavanagh, K., Oliver, A., & Pettman, D. (2014). Mindfulness-based interventions for people diagnosed with a current episode of an anxiety or depressive disorder: A meta-analysis of randomised controlled trials. *PLoS One*, 9(4), e96110. doi:10.1371/journal.pone.0096110
- Tonigan, J. S., Connors, G. J., & Miller, W. R. (2003). Participation and involvement in Alcoholics Anonymous. In T. F. Babor & F. K. Del Boca (Eds.), *Treatment matching in alcoholism* (pp. 184-206). Cambridge, UK: Cambridge University Press.
- Traphagan, J. W. (2005). Multidimensional measurement of religiousness/spirituality for use in health research in cross-cultural perspective. *Research on Aging*, 27(4), 387-419. doi:10.1177/0164027505276049
- Travis, F., Haaga, D., Hagelin, J., Tanner, M., Arenander, A., Nidich, S., ... Schneider, R. (2010). A self-referential default brain state: Patterns of coherence, power, and eLORETA sources during eyes-closed rest and Transcendental Meditation practice. *Cognitive Processing*, 11(1), 21-30. doi:10.1007/s10339-009-0343-2
- Underwood, L., & Teresi, J. (2002). The daily spiritual experience scale: Development, theoretical description, reliability, exploratory factor analysis, and preliminary construct validity using health-related data. *Annals of Behavioral Medicine*, 24(1), 22-33. doi:10.1207/S15324796ABM2401_04
- Vieten, C., Amorok, T., & Schlitz, M. M. (2006). I to we: The role of consciousness transformation in compassion and altruism. *Zygon*, 41(4), 915-932.
- Vieten, C., Schlitz, M., & Amorok, T. (2009). A research-based model of consciousness transformation. *Shift: At the Frontiers of Consciousness*, 23, 32-34.

- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54(6), 1063-1070. doi:10.1037/0022-3514.54.6.1063
- Wilber, K., Patten, T., Leonard, A., & Morelli, M. (2008). *Integral life practice: A 21st-century blueprint for physical health, emotional balance, mental clarity, and spiritual awakening*. Boston, MA: Integral Books.
- Willin, M. J. (2000). Paranormal manifestations of music. *Journal of the Society for Psychical Research*, 64(859), Apr 2000), 93-108. .
- Yang, Y. (2008). Long and happy living: Trends and patterns of happy life expectancy in the U.S., 1970-2000. *Social Science Research*, 37(4), 1235-1252. doi:10.1016/j.ssresearch.2007.07.004

About the Authors

Cassandra Vieten, PhD, is President and CEO of the Institute of Noetic Sciences and a scientist in the Mind-Body Medicine Research Group at California Pacific Medical Center Research Institute. Funded by the National Institutes of Health, the State of California, and several private donors and foundations, her research has focused on spirituality and health; development and pilot testing of mindfulness-based approaches to cultivating emotional balance (primarily in the areas of addiction and pregnancy/postpartum well-being); and factors, experiences, and practices involved in psychospiritual transformation to a more meaningful, compassionate, and service-oriented way of life. She completed her pre- and post-doctoral research training at The University of California, San Francisco, working primarily on the biological and psychological underpinnings of addiction and alcoholism. She received her PhD in clinical psychology at the California Institute of Integral Studies, where her clinical training focused on the integration of Eastern philosophy and spirituality into psychotherapy.

Adam B. Cohen, PhD, (University of Pennsylvania) is Associate Professor of Psychology at Arizona State University. Dr. Cohen's research fuses cultural and evolutionary approaches to religion. Dr. Cohen is the author of more than 40 peer-reviewed articles and is associate editor of *Journal of Personality and Social Psychology: Personality Processes and Individual*

Differences. He has won the Margaret Gorman award from the American Psychological Association (Psychology of Religion and Spirituality division), the Godin Prize from the International Association for the Psychology of Religion, and is the editor of *Culture Reexamined* (American Psychological Association).

Mica Estrada, PhD, received her doctoral degree (1997) in Social Psychology from Harvard University and now is an Assistant Professor in the Department of Social and Behavioral Sciences and the Institute of Health and Aging at the University of California, San Francisco (UCSF). Her research program focuses on social influence, including the study of identity, values, forgiveness, well-being, and integrative education. Currently she is engaged in several longitudinal studies, which involve the implementation and assessment of interventions aimed to increase underrepresented minority student persistence in STEM careers (funded by NIH, NSF, and HHMI). With the NSF Climate Change Education grant, she Directs an interdisciplinary team, to provide learning opportunities to San Diego leaders about the changing climate. A common characteristic of her research is to design and empirically test theory-driven interventions that change individual behavior, social norms, well-being, and community consciousness.

Dean Radin, PhD, is Chief Scientist at the Institute of Noetic Sciences and Volunteer Faculty in the Department of Psychology at Sonoma State University. His original career track as a concert violinist shifted into science after earning a BSEE degree in electrical engineering, magna cum laude with honors in physics, from the University of Massachusetts, Amherst, and then an MS in electrical engineering and a PhD in psychology from the University of Illinois, Urbana-Champaign. For a decade he worked on advanced telecommunications R&D at AT&T Bell Laboratories and GTE Laboratories. For over two decades he has been engaged in frontiers research on the nature of consciousness. Before joining the research staff at IONS in 2001, he held appointments at Princeton University, University of Edinburgh, University of Nevada, Interval Research Corporation, and SRI International.

Marilyn Schlitz, PhD, is a social anthropologist, researcher, writer, and public speaker. She serves as President Emeritus and Senior Fellow at the Institute

of Noetic Sciences, Senior Scientist at the California Pacific Medical Center, and Board Member of Pacifica Graduate Institute. For more than three decades, Marilyn has been a leader in the field of consciousness studies. Her research and publications focus on personal and social transformation, cultural pluralism, extended human capacities, and mind body medicine. She has a depth of leadership experience in government, business, and the not-for-profit sectors. She recently wrote and produced a feature film and book entitled, *Death Makes Life Possible*, an ebook entitled *Transforming Grief*, and an audio series entitled *Living the Noetic Life*. www.marilynschlitz.com

Arnaud Delorme, PhD, is a CNRS principal investigator in Toulouse, France, and a faculty project scientist at the University of San Diego California. In 2000, Dr. Delorme completed his PhD Thesis on visual categorization in humans, monkeys, and machines. Based on the results of his modeling work, he co-created with Simon Thorpe the Spikenet Technology Company, now a successful start-up. Dr. Delorme then moved to the Salk Institute for a post-doc in Terry Sejnowski and Francis Crick's laboratory where he focused on statistical analysis of electro-encephalographic (EEG) signal recorded during various cognitive tasks. He developed the free EEGLAB software for advanced analysis of EEG signals in collaboration with Scott Makeig, software which is now amongst the most used software in EEG research worldwide. He was awarded a Brettencourt-Schueller young investigator award and a 10-year anniversary ANT young investigator award for his contributions to the field of EEG research.

About the Journal

The *International Journal of Transpersonal Studies* is a peer-reviewed academic journal in print since 1981. It is sponsored by the California Institute of Integral Studies, published by Floragrades Foundation, and serves as the official publication of the International Transpersonal Association. The journal is available online at www.transpersonalstudies.org, and in print through www.lulu.com (search for IJTS).