Effects of Two Online Positive Psychology and Meditation Programs on Persistent Self-Transcendence

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Abstract

The first comprehensive studies into the effects of transitioning to persistent forms of self-transcendence are reported. Two online protocols that combined positive psychology exercises and meditation methods were studied. Instruction was pre-recorded and delivered online. Protocol 1 (n=379) lasted 4-months, required 1.5-3 hours each day and contained a larger range of methods. Protocol 2 (n=246) lasted 6-weeks, required 1.5-2 hours per day, and was a subset of Protocol 1. Participants were assessed using the Authentic Happiness Inventory, Satisfaction with Life Scale, PERMA, Fordyce Emotions Questionnaire, Center for Epidemiology Studies Depression questionnaire, State/Trait Anxiety Inventory, Perceived Stress Scale, Gratitude Questionnaire, Mysticism Scale, Modified Nondual Embodiment Thematic Inventory, and Meaning in Life Questionnaire. After the program, participants were sorted into seven categories of self-transcendence: none, temporary, and five increasing degrees of persistent self-transcendence. Results from each measure were broken out by category, and compared within and across cohorts. 68% of participants transitioned to persistent self-transcendence for Protocol 1, and 65% for Protocol 2. Measures revealed consistent positive trends from the no self-transcendence category though the third or fourth category of persistent self-transcendence, with strong statistical significance and moderate to strong effect sizes. Generally, post-program scores, percentage changes and effect sizes were stronger for the longer program. Conclusion: Both long and shorter mixed positive psychology and meditation programs can transition participants to persistent forms of self-transcendence and result in highly beneficial results across a broad range of psychological indicators.

Keywords: positive psychology, meditation, mindfulness, self-transcendence, non-symbolic experience

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A category of human experience has been reported in the writings of philosophers and mystics since antiquity (Hanson, 1991; Stace, 1960). It goes by many names, including nondual awareness, enlightenment, mystical experience, peak experience, transcendental experience, the peace that passeth understanding, unity consciousness, union with God, and many others (Levin & Steele, 2005; MacDonald, 2000; Thomas & Cooper, 1980). Transient and persistent forms of self-transcendence occur in individuals across ages, ethnicities, and backgrounds. They are reported in spiritual and religious individuals, as well as atheists and agnostics alike (Newberg et al., 2001; Newberg & Waldman, 2006, 2009).

Self-transcendent states and experiences have been explored and defined under various nomenclatures such as flow (Csikszentmihalyi, 1991), hypoegoism (Leary & Guadagno, 2011), mindfulness (Davidson et al., 2003; Kabat-Zinn, 1994), peak experiences (Maslow, 1964), mystical experiences (Hood et al., 2001; James, 1902; Newberg et al., 2001; Wulff, 2000), and other terms (Yaden et al., 2017). The majority of research has been on temporary forms of the experience. Very little empirical study of self-transcendent states that are persistent has been conducted (e.g.: Butlein, 2005; Costeines, 2009; McCormick, 2010; Kilrea, 2013; Taylor, 2013), including a small number of neuroscience investigations (e.g.: Davis & Vago, 2013; Josipovic, 2014; Newberg & Waldman, 2018).

Abraham Maslow's (1971) model of self-actualization included a distinction between two kinds of self-actualizing individuals: 1) "merely healthy" self-actualizers and 2) "transcendent" self-actualizers. Those he referred to as transcendent self-actualizers were somewhere beyond self-actualization, in a category, or categories, of their own. Transcendent in this part of his model meant transient or temporary forms of self-transcendence. Maslow later extended this work to include a more persistent, form of self-transcendence that he referred to as the *plateau experience*:

> The fact is that these plateau experiences are described quite well in many literatures. This is not the standard description of the acute [peak] mystical experience, but the way in which the world looks if the mystic experience really takes. If your mystical experience changes your life, you go about your business as the great mystics did. For example, the great saints could have mystical revelations, but also could run a monastery. You can run a grocery store and pay the bills, but still carry on this sense of witnessing the world in the way you did in the great moments of mystic perception. Again, this implies a cognitive experience, and it feels like a witnessing of something that's there rather than something that you produce yourself. Therefore, you have a feeling of reality and can make a claim about the nature of reality (Maslow, as cited in Krippner, 1972, pp. 115-116)

Although transient forms of self-transcendence have been reported as highly impactful both in the moment and over time (i.e.: Maslow, 1971; Pahnke, 1966), persistent forms are likely to be as much or even more significant in individuals' lives due to far-reaching effects on daily life and psychological traits. For example, a central component of persistent self-transcendence involves the reported reduction or even complete absence of an individual's narrative self—a narrative or autobiographical schema that represents the ongoing storyteller that houses and perpetuates the conditioned past collected throughout a person's collective memories (Martin, 2019, 2020). The underlying assumption of these remembered collections of stories is that the narrative schema is a universal, human form of integrating and navigating reality, both at the individual and cultural level (Bruner, 1991; Howard, 1991; Polkinghome, 1988; Sarbin, 1986). There is likely to be a significant difference between the experience of life that is filtered through a narrative self that has been altered by a self-transient experience and the experience of life where reduced experience of the narrative self, or even no narrative self, is reported as part of the interpretation of experience.

Attempts at Measuring Self-Transcendence

The majority of research on self-transcendence has been based on introspection and subjective reporting. This is as true of thousand-year-old texts in religions such as Buddhism as it is in the more recent work within the academy. Attempts to identify the core components of religious and spiritual states through surveys and questionnaires have often suffered from methodological issues (e.g., Hardy, 1979; Laski, 1961). Studies have reported a surprisingly high percentage of individuals who report self-transcendence, ranging from 21-72% (Back & Bourque, 1970; Bourque & Back, 1971; Gallup, 1978; Glock & Stark, 1965; Greeley, 1974; Hay & Heald, 1987; Hay & Morisy, 1978; McClenon, 1984; Pafford, 1973; Tamminen, 1991; Thomas & Cooper, 1978, 1980; Vernon, 1968; Yamane & Polzer, 1994). These studies often attempted to rely upon surveys or sorting questions to determine self-transcendence, and they demonstrate the difficulty of this approach. When initial surveys were followed up on with in-person interviews, the number of individuals believed to have experienced or be experiencing self-transcendence typically fell to single or low double digit percentages. Open-ended responses can be equally difficult to analyze properly (Spilka et al., 2003). Often multiple techniques are needed to identify the actual portion of participants reporting self-transcendent experiences (Martin, 2010, 2019, 2020). Rather than seeking to directly identify self-transcendence, in more recent years, a variety of measures have sought to quantify the degree to which research participants experience various aspects of the experience. This has been complicated by the lack of a uniform definition for self-transcendence, or agreement about what might constitute it (Yaden et al., 2017).

The Mysticism Scale (M-Scale; Hood, 1975) represented the first major advancement in survey measurement for this area, and it remains the most widely used academic measure for self-transcendent experiences (Macdonald & Friedman, 2002). Originally published in 1975 as an operationalization of Stace's (1960) phenomenological categories of mystical experience, the M-Scale led the way into the current survey measurement-based approaches regarding self-transcendence. It provided the opportunity to shift from self-transcendent/not-self transcendent measurement to an

approach that looked at a constellation of subjective qualities and varying degrees of experience in larger populations. It enriched the debate by opening up a more nuanced empirical investigation into self-transcendence.

Persistent Non-Symbolic Experience

More recently, similar attempts at advancing the field have been made regarding categorization of the phenomenological aspects of the self-transcendent experience. In large part, this has been the result of a renewed interest in psychedelic experience, and the need to adequately describe and categorize the self-transcendence it can produce (Garcia-Romeu et al., 2014; Smigielski et al., 2019). Here we focus on advancements relating to phenomenological categorization for persistent forms of self-transcendence. While most of the recent efforts have been from studies with single or low double-digit participant counts (Costeines, 2009; Kilrea, 2013), Martin (2010, 2019, 2020) produced a more comprehensive effort that involved a mix of in-depth phenomenological data and standardized surveys from 319 participants.

In his research, Martin (2010, 2020) uses the term *persistent non-symbolic experience* (PNSE) as a catchall phrase for the wide variety of persistent self-transcendent and related experiences his participants reported. He adopted the phrase because difficulties in using colloquial terms, such as awakening, nonduality and enlightenment, with research participants led him to seek a scientific sounding but neutral terminology. The term non-symbolic was derived from Cook-Greuter's (2000) research involving ego development and transcendence. While she generally favored the word postsymbolic, in a 2000 paper she used a term related to non-symbolic, in the following context:

> Eastern psychologies have often pointed to the nonsymbolically mediated, or immediate ways of knowing as the only kind of knowing that can lead to enlightenment or true insight into human nature. In fact, they consider our addiction to language-mediated, discursive thought as

> a major hurdle in realizing the true or divine Self, or union with the Ground (Cook-Greuter, p. 230).

To be designated as experiencing PNSE, an individual must have experienced persistent self-transcendence or a related experience for more than a year (Martin, 2010, 2020).

Persistent Non-Symbolic Experience (PNSE) Continuum

Martin's (2020) prior research using qualitative semi-structured interviews evaluated using grounded theory and thematic analysis uncovered patterns that revealed distinct clusters of related experiences involving varying degrees of persistent self-transcendence. Because the semi-structured interviews aimed to sort individuals for later neuroscience research, and questions focused around changes in: sense of self, cognition, affect, perception, and memory. Each cluster represented a specific way of experiencing one's sense of self, perceptual experiences, and relationship to the external world.

These clusters were conceptually labeled and referred to as locations in a conscious effort to avoid more loaded and value-laden terms like stages or levels, and appeared to be ordered along a continuum of related and often progressive changes. Locations 1-4 reflect the four most common clusters along this continuum. Approximately 95% of participants fell within Locations 1-4 from the initial qualitative study. The general characteristics of each of these 5 categories are described below (see Martin, 2019, 2020 for a more comprehensive description of this study and its results).

Location 1

Location 1 individuals are on the earliest portion of the PNSE Continuum. As with every location, individuals can come from a wide range of demographic, religious or spiritual, and socio-cultural backgrounds. They might have experienced a dramatic, instantaneous shift into PNSE, or have transitioned more gradually. The transition to Location 1 carries a pronounced reduction in the influence of the narrative self—the self-referential, story-based form of self that housed the collective past and

forms the basis for identity creation and maintenance (Bruner, 1991; Howard, 1991; Polkinghome, 1988; Sarbin, 1986).

Although Location 1 results in a reduction in the narrative self, it is still present. This location brings only a minor form of self-transcendence, the experience of not being limited by the boundaries of the physical body. Individuals in Location 1 often have difficulty putting this experience into words. Some speak of feeling as though somehow they are not limited by the physical body, or that who they are somehow extends beyond it. Others phrase it as feeling like there is less of a boundary between them and the rest of the world, or as if they are more connected to what is outside of their body. This is distinct for them, and a clear difference from how their self-boundary was experienced prior to Location 1.

A hallmark feature of Location 1 is a newfound sense that everything is fundamentally fine. This sense most typically operates in the background of experience at Location 1 and brings with it what Martin (2019) calls a sense of *Fundamental Wellbeing*. Though Location 1 PNSE does not prevent negative emotions from arising, it does change an individual's relationship with these emotions, such that regardless of external circumstances—including events experienced as significantly negative – an individual is still able to achieve a meta-awareness that provides access to a sense of fundamental well-being. Although this sense of fundamental well-being usually remains in the background in Location 1, there are moments when it moves into the foreground and seems to infuse all experience of the world. The possibility of it remaining in the foreground becomes enticing, and individuals often begin to experiment to see if they can bring it forward more often. This can result in more deeply settling into Location 1 or produce movement along the continuum and a transition to Location 2.

Location 2

In Location 2, individuals experience a further reduction in their narrative self, self-referential thoughts, and in the emotional content of most of these types of thoughts that remain. This results in

these thoughts having less capability to draw their attention, and further deepens and increases their immersion in the present moment. It also makes them even less psychologically reactive. The deep sense that everything is fundamentally fine regardless of current circumstances moves more into the foreground the deeper someone moves into Location 2. Towards the furthest reaches of this location, it infuses experience most of the time. This is viewed as one of the best elements of the Location 2 experience.

In Location 2, the pervasive sense of everything being fundamentally fine deepens and individuals experience and report fewer and less powerful conditioned psychological responses. Conditioning around needing the approval of others is dissolving, and may result in less social, and socially desirable, behavior. The range of emotions these individuals experience becomes increasingly positive, and negative emotions become less frequent. In Location 2, the boundaries between what feels like you and what feels like outside of you increasingly soften, or disappear entirely. One popular term for this change in perception is nonduality, in reference to the Sanskrit term *advaita or* "not two" (Josipovic, 2019; Potter, 1981; Stephens, 2018; Torwestern, 1985). This self-transcendence is a hallmark feature of Location 2, whereas non-duality is not yet present in Location 1.

Location 3

Individuals who experience Location 3 report having been freed from a considerable amount of their previous psychological conditioning and negative emotions, and that the experience of present moment awareness, inner peace, and well-being has continued to grow and deepen. One dominant emotion is experienced that feels like a mixture of various highly positive emotions and feelings such as compassion, joy, and love. These feel like facets of a single meta-emotion. Though some facets are more active at times than others, this single meta-emotion itself is a near constant experience and companion. The emotion is not personal. Facets such as love are felt as divine or universal or, at a minimum, impersonal. When the experience of Location 3 has fully matured for someone, parts of

negative emotions are still occasionally felt but only rarely fully form, and generally only as a result of the triggering of very deep and powerful psychological conditioning, such as the death of a child or parent.

Individuals in Location 3 have less narrative self-related thought than those at Locations 1 or 2, though they might notice what remains of it more. Location 3 is typically experienced in one of two different ways. For many, there is a strong sense of divinity associated with the experience. However, others do not report feeling any divinity at all. For these individuals, there exists a sense of an all-pervasive consciousness. The sense of nonduality or oneness that is felt in Location 2 shifts. As one deepens into Location 3, a sense of deep connectedness and union enter the picture. Union is not possible if there is just one thing, so a subtle sense of self and other returns at this location. In Location 3, although a need for approval has lessened even further than Location 2, these individuals often value helping others and work to maintain social graces.

Location 4

Location 4 reflects a departure from previous locations, and this location is considerably different than what comes before it on the continuum in a number of ways. The remaining vestiges of narrative self-related thought are typically reported as being gone at this point, along with reports of any experience of emotion. The feelings of union with divinity or an all-pervasive consciousness are also not present, but that is not to say that individuals at Location 4 do not feel a sense of unity.

A more comprehensive form of nonduality occurs at this stage. These individuals typically report having no sense of agency, nor the ability to make a decision. Most report a complete and nearly unwavering immersion in the present moment and that life feels as if it is simply unfolding and they are watching the process happen.

Memory deficits are experienced at Location 4, related mostly to time-based prospective memory (e.g. remembering non-routine scheduled events). Location 4 individuals report an even deeper

sense of peace and well-being that seem to be an order of magnitude greater than previous locations on the continuum. Location 4 individuals often use the word freedom to refer to their dominant ongoing experience. While it is safe to say that all locations bring a feeling of expanded freedom, the amount of it experienced at Location 4 appears to be far more significant.

Mindfulness Meditation and Positive Psychology Programs and Interventions

For decades, mindfulness meditation courses, programs, interventions, and techniques have sought to meaningfully impact individuals' overall well-being, including their psychological, spiritual, emotional, and physical health (Creswell et al., 2019). Mind-body approaches encompass a variety of modalities—and often involve the goal of cultivating positive qualities, such as resilience, presence, insight, compassion, awareness, and equanimity, amongst many others (Baer et al. 2004; Goldstein 2002).

Mindfulness-based interventions (MBIs), reflect many practices, processes, and characteristics related to the modulation of attention, awareness, and acceptance (Van Dam et al. 2017), and have garnered substantial scientific support (Gu et al., 2015; Keng et al., 2011). An effective treatment for a range of psychological disorders, MBIs incorporate a wide variety of methods (Godfrin & van Heeringen 2010; Gu et al., 2015; Keng et al., 2011; Ma & Teasdale, 2004; Miller et al., 1995). MBI research has largely focused on clinical populations, and relatively few studies have sought to investigate the potential benefits in healthy individuals (Chambers et al., 2009; Gu et al., 2015). Moreover, a relative dearth exists related to studies of MBIs that explicitly focus on improving well-being, as compared to reducing negative affect, thoughts, and behaviors (Lindsay & Creswell 2015).

Seligman and Csikszentmihaly (2000) ushered in the contemporary positive psychology movement by highlighting the degree to which a psychopathological bias prevailed within Western psychology research. Numerous studies have now demonstrated the long-term benefits of positive

psychology interventions (PPIs). PPIs represent treatment methods and intentional activities that focus on fostering positive feelings, behaviors, and cognitions.

Subjective well-being is an important component of mental health, and PPIs often seek to meaningfully impact it, or the cognitive or affective appraisal of one's own life as a whole (Diener et al. 1999). PPIs include a wide range of programs, daily exercises, and techniques, such as counting your blessings (Emmons & McCullough, 2003; Seligman et al. 2005), practicing kindness (Otake et al., 2006), setting personal goals (Sheldon et al., 2002), expressing gratitude (Sheldon & Lyubomirsky, 2004, 2006; Seligman et al., 2006), Three Good Things (Seligman et al. 2005), Best Possible Selves (King, 2001), and a variety of more specific exercises, such as the crafting one's ideal eulogy and forgiveness-related exercises (Wisemen, 2010). PPIs have been effective in helping individuals cultivate skills for improving mood, psychological resilience, positive affect, cognitive functioning, positive reappraisal of thoughts, and improved interpersonal interactions (Geschwind et al. 2011; Hanley and Garland 2014; Hölzel et al. 2011).

The two studies described here — an intensive, multimodal 4-month mindfulness meditation and positive psychology program and a shortened, similar, 6-week protocol —were designed to produce and study persistent forms of self-transcendence. The aims were three-fold: 1) to examine a wide range of psychological, emotion-based, self-transcendence, and well-being related outcomes in healthy adults who had completed an intensive, multimodal 4-month MBI and PPI program; 2) assess the same indices for participants who completed a shorter, similar 6-week version of the protocol; and 3) to examine these indices in relation to the Persistent Non-Symbolic Experience Continuum (Martin, 2019, 2020) for those participants who had reported having not experienced an ongoing or persistent form of non-symbolic experience prior to the program.

Methods

Participants

Data from two different studies are presented here. Study 1 is referred to as Cohort 1, and Study 2 is referred to as Cohort 2. Both cohorts were recruited from an online and offline call for interested participants that included email and social media messages sent from organizations with an interest in persistent self-transcendence, podcast and radio interviews, speaking at events, and Facebook advertising. Participants from each cohort self-reported that they did not experience Persistent Non-Symbolic Experience (PNSE) prior to starting their protocol. Cohort 1 reflects 371 adults (Mean age= 51; SD=14), and Cohort 2 (Mean age= 49; SD=13) represents 245 adults. For both cohorts, all participants were screened for serious psychological problems or psychiatric history that required substantial medication or hospitalization. Tables 1 and 2 present the demographic breakdown for Cohorts 1 and 2. Participants were not required to provide all demographic information to participate.

<INSERT TABLE 1 HERE>

<INSERT TABLE 2 HERE>

Design

Cohort 1: A 4-Month Protocol

Cohort 1 used a 4-month protocol that was broken into two parts that contained instruction, with a two-week meditation break in between. Participants worked independently during the first two weeks, and were assigned to a small group at the beginning of Week 3. Typically this group ranged in size from 5-7 participants, however occasionally they were as small as 3 because of participant scheduling difficulties. These small groups were used to enhance mutual, peer-level support, as well as to provide practice partners for methods that needed more than one person.

Participants were required to initially dedicate a minimum of 1.5 hours per day to the program, this often rose to approximately 2.5-3 hours per day by week 4. A minimum of one continuous hour per day was dedicated to practice of an assigned method. Method instruction was given each Saturday via pre-recorded video content and written instruction on the cohort website, except for the first two

weeks, which were comprised of two sessions each. On those weeks there was an additional method instruction session on Wednesday. The program contained approximately 50 hours of instruction.

The remaining half hour was divided between techniques that were performed upon waking and just prior to sleeping, which were termed the *morning and evening exercises*. These were primarily positive psychology based exercises involving forgiveness, gratitude, goal reemphasizing (goals related to a positive course outcome), and creative visualization that involved participants projecting that they would have a great day. These exercises were introduced gradually during the first 4 sessions, but were cumulative. So, for example, by week 3 each morning and evening participants completed the goal-related, forgiveness, and gratitude exercise back to back. In the mornings they added the creative visualization exercise to the compilation.

Each of the first four sessions also contained one additional positive psychology exercise. These could be completed anytime during the session, but had to be completed during the session in which they were introduced. The exercises included performing five acts of kindness on a single day that would not lead to self-benefit, writing an ideal self-eulogy in the voice of a person of the participant's choosing, completing a goal setting exercise that focused on positive program outcomes, and writing a letter expressing gratitude to the most important person in the participant's life.

The MBI-related methods for part 1 were focused on a phased-in body awareness meditation that was a modified form of Vipassana meditation, a small-group exercise focused on experiencing and describing awareness, and an exercise where participants created a list of people in their life and brought them to mind one at a time while generating and experiencing love.

During the two-week break at week 7, participants were required to continue with the minimum hour of method practice each day. During the first week they could practice any MBI-related method from part 1 of the program. Participants were encouraged to experiment with different combinations of methods, such as doing one method for 30 minutes, followed by a different one for another 30 minutes.

Or, taking pieces and parts of various methods and experimenting to see if they could create a new method that was more effective than anything they had previously used in the program. During the second week, they continued this experimentation and were allowed to incorporate methods, or parts of methods, that they were aware of from outside the program.

Participants continued their morning and evening positive psychology exercises during the meditation break. They also read a manuscript that educated them on the research into PNSE. The goal of this manuscript was to help them to self-identify where they were located on the PNSE Continuum. That manuscript was eventually published as a public book (Martin, 2019).

Part 2 consisted of five additional meditation practices, with a new one presented each week. These including the following: the Headless Way, parts from a modified form of Actualism, Ascension-style mantra meditation, individual and paired experience noting, subtle noting, and aspects of Unified Mindfulness. Part 2 also included two weeks with no new instruction where participants continued their one hour per day of practice. One of these occurred at week 11 of the program and focused on either continued practice of Headless Way or the modified Actualism technique. If participants were not finding either of these effective, they could choose any other MBI-related practice that they had learned in the program up to that time. The final practice week occurred at the end of the program. During it, participants were encouraged to use whatever MBI-related practice or practices had resonated with them most during the program. They were also allowed to experiment again with combinations of methods, and creating customized methods out of pieces of MBI practices they had learned in the program. Participants continued their morning and evening exercises throughout the program, and were encouraged to continue practicing both them, and the most effective MBI method that they found, after the program.

Cohort 2: A 6-Week Protocol

During experimentation with the 4-month protocol, it was noted that a majority of participants reported transitioning to ongoing and persistent forms of self-transcendence using a subset of the protocol. A shortened version of that subset was tested as the a 6-week protocol for Cohort 2. It used the same morning and evening exercises, and the same positive psychology exercises as detailed above. It also used the modified form of Vipassana, the small-group exercise focused on experiencing and describing direct awareness, Headless Way, and the modified version of Actualism. It did not assign participants to persistent small groups.

Rating Non-Symbolic Experience

An iterative process was used during Cohort 1 to determine whether or not participants experienced non-symbolic experience and, if they did, what type. Initially, a descriptive document was provided to participants that had been refined in prior research (Martin, 2019, 2020), and participants were asked to self-rate their degree and type of non-symbolic experience. Participants who reported a location on the PNSE Continuum received an in-depth semi-structured research interview from the lead author that sought to independently assess their degree and type of non-symbolic experience. The conclusion of that assessment was then compared to their self-assessment. When there was a difference, the lead author worked with the participant to update the descriptive document to enhance its clarity, and the document was recirculated. This iterative process continued until participant self-assessments matched interview-based assessments. After this period for Cohort 1, and through all of Cohort 2, participants' self-reports regarding degree and type of non-symbolic experience, which were contained in their end of session surveys and Exit General Information Form, were reviewed and, when needed, appropriate adjustments made. When the participants written self-reports were unclear, participants were contacted for additional clarifications or to conduct an in-depth semi-structured interview.

Instruments

All instruments were administered online. Pre-measurement was completed during the week before the protocol began, and post-measurement was completed during the week following the end of the protocol. Participants were asked to register for an account at the Authentic Happiness website (https://www.authentichappiness.sas.upenn.edu/testcenter), which is made publicly available by the Positive Psychology Center at the University of Pennsylvania, and to take the following measures on that website: Authentic Happiness Inventory (AHI; Seligman et al., 2005), Center for Epidemiology Studies-Depression Scale (CES-D; Radloff, 1997), PERMA Scale (Seligman, 2005), Satisfaction with Life Scale (SWLS; Diener et al., 1985), Gratitude Questionnaire (GQ-6; McCullough et al., 2002), Fordyce Emotions Questionnaire (FEQ; Fordyce, 1988), and Meaning in Life Questionnaire (MLQ; Steger et al. 2006). All other measures were administered on the private research website of the Center for the Study of Non-Symbolic Consciousness using LimeSurvey or a Premiere plan account in SurveyMonkey.com.

In addition to baseline/post-program surveys, participants completed end-of-session surveys, which are not reported on here. These varied by session to be responsive to protocol content, but generally included: first and last name, a narrative description of how the session went for the participant, a narrative description of any difficulties the participant was experiencing (if any), degree of happiness, change in happiness, well-being level, compliance with session practices, and why compliance was lacking (if relevant). From the end of the practice intensive on, participants also began to report their degree and type of non-symbolic experience, if any. Participants reporting non-symbolic experience were asked to describe it.

Because participants participated in either a 4-month or 6-week protocol it was impossible for them reach one year of non-symbolic persistence. The term PNSE specifically refers to one or more years of persistence, so the studies reported on here introduced the new term *ongoing non-symbolic experience* (ONE) to refer to persistence of less than one year, including persistence that began to occur during the program. When used here it includes Locations 1-4. Two additional terms were also

introduced for participant reporting. Temporary non-symbolic (tNSE) experience refers to transient forms of non-symbolic experience that occurred within a measurement period, and no non-symbolic experience (nNSE) refers to no experience of non-symbolic experience at all during a measurement period. For post-program measures, the measurement period was the entire protocol. For example, if a participant reported nNSE on their post-program measure it meant that they did not experience any non-symbolic experience during the study.

General Information Form (Cohort 1)

Prior to the program, Cohort 1 participants completed an general information form that included the informed consent document for the program, and which collected the following information (note, not all fields were required): first name, middle name, last name, email address, date of birth, sex, place of birth, current residence, current relationship status, highest education level, occupation, race/ethnicity, prior experience with PNSE, childhood religious and spiritual traditions, current religious or spiritual traditions, meditation experience, contemplative or centering prayer experience, and prior use of hallucinogenic drugs.

General Information Form (Cohort 2)

Prior to the program, Cohort 2 participants completed an general information form that collected the following information (note, not all fields were required): first name, middle name, last name, email address, date of birth, sex, place of birth, current residence, current relationship status, highest education level, occupation, race/ethnicity, happiness level, well-being level, prior program experience (i.e.: participating in Cohort 1 – for screening), prior experience with PNSE, childhood religious and spiritual traditions, current religious or spiritual traditions, importance of spirituality or religion, frequency of attendance for spiritual or religious services, meditation experience, contemplative or centering prayer experience, and prior use of hallucinogenic drugs. Cohort 2

participants completed a separate informed consent document, online as part of their measures. It was not bundled with the General Information Form as it was for Cohort 1.

Exit General Information Form (Cohort 1 and 2)

At the conclusion of the program, Cohort 1 and 2 participants completed another general information form that asked for updates involving any changes in their relationship status, current address, occupation, hallucinogenic drug use, or religious or spiritual orientation that took place during the study. It asked them to rate their changes on a range of items such as: inner peace, reactivity, sleep quality, happiness, well-being, and tolerance of others, habits, memory, sensory perception, and medical conditions (these are not reported on here). This survey also asked them to list any methods and practices they had done during the program that were not part of the protocol, to rank the protocol's methods by preference, and included a general satisfaction survey.

Finally the exit survey asked participants to rate their degree and type of ONE if any. Those who reported ONE were asked to respond in detail to the following question: "If you selected a location in the previous question, what is it within your experience that you feel matches ongoing/persistent non-symbolic experience?" Those who reported tNSE were asked to respond in detail to the following question: "If not ongoing or persistent, do you feel that you experienced non-symbolic experience? If so please tell us about it (how long, how often, what it felt like, if it matched the description of a location, etc.)." The form also inquired into any the range and degree of temporary state experiences they might have had, with questions such as: "Do you feel that you have had something which might be referred to as a non-symbolic experience, mystical experience, unitive experience, kundalini experience, a period where your mind has fallen completely silent, a period of profound stillness and deep inner peace, a period of profoundly overwhelming energy or love or bliss, or any other similar event or moment while taking the course? If so please tell us about it/them."

Authentic Happiness Inventory

The Authentic Happiness Inventory (AHI; Seligman et al., 2005) is a subjective measure for the assessment of happiness. Based on Seligman's authentic happiness theory, the AHI assesses "[…] experiencing and savoring pleasures, losing the self in engaging activities, and participating in meaningful activities" (Seligman et al., 2005, p. 414). The AHI consists of 24 sets of five statements from which the person has to choose the statement that best describes his or her feelings in the past week. A sample set of statements ranges from "I am usually in a bad mood" to "I am usually in a unbelievably great mood." For this study, AHI total score is reported.

Center for Epidemiology Studies-Depression (CES-D) Questionnaire

The CES-D (Radloff, 1997) is a 20-item self-report screening tool for depressive symptoms. Each item is scored on a Likert rating scale from 0 to 3 and the total score ranges from 0 (no depressive complaints at all) to 60 (many depressive complaints). Scoring for this measure specifies that increasingly high levels of depression are indicated by scores of 16 or more. For this study, the CES-D total score is reported.

PERMA Scale

The PERMA scale (Seligman, 2005) examines a person's level of well-being according to nine dimensions. The five core domains are: Positive Emotion, Engagement, Relationships, Meaning, and Accomplishment. Four additional domains are: Happiness, Negative Affect, Loneliness, and Health. The measurement scale developed consists of 23 items with a scoring interval from 0 to 10. All nine subscales are reported for this study.

Satisfaction with Life Scale

The Satisfaction with Life Scale (SWLS; Diener et al., 1985) is a 5-item measure for the assessment of global, cognitive satisfaction with one's own life. The SWLS uses a 7-point Likert-style scale (from 1 = "strongly disagree to 7 = "strongly agree"). A sample item is: "In most ways, my life is

close to my ideal." The SWLS is widely used in research and shows good psychometric properties (Pavot & Diener, 1993). The total SWLS score is reported for this study.

Gratitude Questionnaire

The Gratitude Questionnaire (GQ-6; McCullough et al., 2002) is a six-item self-report questionnaire designed to assess individual differences in the proneness to experience gratitude in daily life. Respondents endorse each item on a 7-point Likert-type scale (1 = strongly disagree and 7 = strongly agree). Research has demonstrated that the GQ-6 relates to optimism, hope, spirituality, life satisfaction, empathy, religiousness, and forgiveness. The total GQ-6 score is reported for this study.

Fordyce Emotions Questionnaire

The Fordyce Emotions Questionnaire (FEQ; Fordyce, 1988) assesses the intensity and frequency of happiness, measuring emotional well-being as an indicator of one's perceived happiness. For this measure, four items are calculated and reported: 1) happiness/unhappiness with 11 descriptive phrases on a 0-10 scale, as well as estimates of the percentage of time that the respondent felt (FEQ-Happy), 2). Happy (FEQ-%Time-Happy), 3). Unhappy (FEQ-%Time-Unhappy), and 4). Neutral (FEQ-%Time-Neutral). Based on normative data taken from a sample of 3050 American adults, for overall happiness the average score (out of 10) is 6.92. The average score on time is happy, 54.13 percent; unhappy, 20.44 percent; and neutral, 25.43 percent.

Meaning in Life Questionnaire

The Meaning in Life questionnaire (MLQ; Steger et al. 2006) is a 10-item self-report survey designed to measure two dimensions of meaning in life: (1) how much respondents feel their lives have meaning, termed Presence of Meaning (MLQ-Presence), and (2) how much respondents strive to find meaning and understanding in their lives, termed Search for Meaning (MLQ-Search). Respondents answer each item on a 7-point Likert-type scale ranging from 1 (Absolutely Untrue) to 7 (Absolutely True). Both subscales—MLQ-Presence and MLQ-Search—are reported for this study.

State-Trait Anxiety Inventory

The State-Trait Anxiety Inventory (STAI-State and STAI-Trait) is a commonly used measure of trait and state anxiety in clinical settings to diagnose anxiety, as well as to distinguish it from depressive syndromes (Spielberger et al., 1983). The scale contains 20 items for assessing trait anxiety and 20 for state anxiety. State anxiety items include: "I am tense; I am worried" and "I feel calm; I feel secure." Trait anxiety items include: "I worry too much over something that really doesn't matter" and "I am content; I am a steady person." All items are rated on a 4-point scale (e.g., from "Almost Never" to "Almost Always"). Higher scores indicate greater anxiety. Two scores are reported: STAI-State and STAI-Trait.

Perceived Stress Scale

The Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983) is the most widely used psychological instrument for measuring the degree to which situations in one's life are appraised as stressful. Items were designed to tap how unpredictable, uncontrollable, and overloaded respondents find their lives. The scale also includes a number of direct queries about current levels of experienced stress. The questions in the PSS ask about feelings and thoughts during the last month. In each case, respondents are asked how often they felt a certain way. For this study the PSS total score is reported.

Mysticism Scale

The Mysticism Scale (M-scale) was developed and validated by Ralph Hood (1975). It has become the most widely used measure of mysticism. Factor analysis (Hood, Morris, & Watson, 1993) has revealed three dimensions:

1. Extrovertive mysticism, which consists of items including inner subjectivity ("I have had an experience in which all things seemed to be conscious."); unity ("I have had an experience in which I realized the oneness of myself with all things.");

2. Introvertive mysticism, which includes timelessness and spacelessness ("I have had an experience which was both timeless and spaceless"); ego loss ("I have had an experience in which something greater than myself seemed to absorb me"); ineffability ("I have had an experience which cannot be expressed in words")

3. Interpretation, which consists of items associated with the three aspects of positive affect ("I have experienced profound joy"); sacredness ("I have had an experience which I knew to be sacred"); noetic quality ("I have had an experience in which a new view of reality was revealed to me")

Total scores range from 32 to 160. For this study, the total score is reported, as well as the three subscale scores.

Modified Nondual Embodiment Thematic Inventory

The Modified Nondual Embodiment Thematic Inventory (MNETI) is a 24-item (scoring range 24-100) measure built on the original 20-item Nondual Embodiment Thematic Inventory that was designed to evaluate qualities of the nondual experience and spiritual awakening (Butlein, 2005). The original NETI attempted to differentiate between individuals with transpersonal ideas from individuals who live the transpersonal at the deepest level. It assessed the following qualities: compassion, resilience, propensity to surrender, interest in truth, defensiveness, capacity to tolerate cognitive dissonance and/or emotional discomfort, gratitude, frequency of nondual experience, anxiety level, motivational paradigm, authenticity, level of disidentification from the mind, and humility. The NETI was negatively correlated with the Center for Epidemiology Studies-Depression (CES-D) mood ($p < 0.01$) and STAI Trait and State anxiety ($p < 0.01$) scales, demonstrating discriminant validity. The original instrument focuses on Locations 1-3. This research project added four additional questions designed add sensitivity to Location 4. The total MNETI score is reported for this study.

Results

This research sought to examine the psychological and self-transcendent effects of two intensive mindfulness meditation and positive psychology programs, with specific focus on the changes that occur for those who subjectively report having experienced a systemic and fundamental shift in the ways in which they experience the world, referred to here as persistent non-symbolic experience (PNSE) or ongoing non-symbolic experience (ONE).

Baseline and post-program scores were analyzed for a wide range of psychological assessments. For clarity in reporting, measures have been grouped into the following categories: Well-being, Meaning, Lifestyle, Emotion, and Self-Transcendence. Tables 4-13 present baseline and post-program survey data for all measures, along with descriptive statistics, t-test statistics, effect sizes, and % change. Results are broken down by Location 1 (L1), Location 2 (L2), Location 3 (L3), Location 4 (L4), temporary non-symbolic experience (tNSE), and no non-symbolic experience (nNSE). Cohen's conventions for modest, moderate, and strong standardized differences are d=0.2, d=0.5, and d=0.8+, respectively (Rosnow & Rosenthal, 2008). Table 3 displays the total sample for each cohort, along with the percentage representation for each location.

<INSERT TABLE 3 HERE>

For Cohort 1, 67% (N=249) self-reported to have transitioned into ONE, representing Locations 1-4. In addition, 21% (N=78) reported temporary non-symbolic experience, and 12% (N=44) indicated no non-symbolic experience. For Cohort 2, 65% (N=160) reported a transition to ONE, 25% (N=61) reported temporary non-symbolic experience, and 10% (N=24) described having no non-symbolic experiences while using the protocol.

Well-Being Measures and Factors

These instruments tap into a wide range of positive outcomes, all related to overall well-being and happiness. Well-being measures included Authentic Happiness Inventory (AHI), Fordyce Emotions Questionnaire (FEQ-Happiness, FEQ-%Time-Happy), Gratitude Questionnaire (GQ-6), Satisfaction with

Life Scale (SWLS), and PERMA-Happiness. Two factors of the FEQ specifically assessed unhappiness and neutrality: FEQ-%Time-Unhappy and FEQ-%Time-Neutral.

Cohort 1

Table 4 presents the results for all participants, as well as broken down by PNSE location for Cohort 1. The most noteworthy results are described below. See Table 4 for a more comprehensive analysis of these measures of well-being.

<INSERT TABLE 4 HERE>

All Participants. For Cohort 1, for all participants, effect sizes ranged from 0.54 (GQ-6) to 0.77 (AHI and PERMA-Happiness) for measures of happiness, indicating moderate to strong effect for these measures. Significant increases were found for all measures of happiness, gratitude, and well-being. Most notably, a significant improvement from baseline was reported for the percent of time that a participant felt happy (FEQ-%Time-Happy; +38% from baseline; effect size, 0.72, $p<.001$). In addition, substantial reductions were demonstrated for the percent of time a participant felt unhappy (FEQ-%Time-Unhappy; -46% from baseline; effect size, -0.63, $p<.001$) and neutral (FEQ-%Time-Neutral; -30% from baseline; effect size, -0.51, $p<.001$).

Location 1. For participants who reported a transition to Location 1 significant increases were found for all measures related to well-being and happiness. At Location 1, participants reported their subjective experience of happiness—indexed by the percent of the time that they felt happy (FEQ-%Time-Happy; +47% from baseline; effect size, 0.93, $p<.001$). Moreover, participants demonstrated a significant increase in their sense of authentic happiness (AHI; +20% from baseline; effect size, 1.15, $p<.001$), overall happiness (FEQ; +20% from baseline; effect size, 0.93, $p<.001$), and life satisfaction (SWLS; +29% from baseline; effect size, 0.91, $p=.010$).

Location 2. At Location 2, participants demonstrated the strongest effects for the increase in their sense of authentic happiness (AHI; +23% from baseline; effect size= 1.49, p<.001) and overall happiness (FEQ; +16% from baseline; effect size, 1.06, p<.001).

Location 3. For participants who reported a transition to Location 3, results demonstrated a significant increase in overall happiness, with a strong effect (FEQ-Happiness; +14% from baseline; effect size, 1.09, p<.001), as well as the percent of time participants felt happy (FEQ-%Time-Happy; -+30% increase from baseline; effect size, 1.06, p<.001). Significant decreases were also reported for the percent of time participants felt unhappy (FEQ-%Time-Unhappy; -67% from baseline; effect size, -0.84, p<.001) and neutral (FEQ-%Time-Neutral; -49% reduction from baseline; effect size, -0.82, p<.001).

Location 4. For participants at Location 4 improved their overall sense of authentic happiness (AHI; +21% from baseline; effect size= 1.06, p=.011), as well as their life satisfaction (SWLS; +20% from baseline; effect size, 0.91, p<.001).

Temporary Non-Symbolic Experience (tNSE). For participants who reported a temporary form of NSE, a significant increase was found for one's overall satisfaction with life (SWLS; +17% from baseline; effect size, 0.46, p<.001), overall happiness (PERMA-Happy; +18% from baseline; effect size, 0.59, p<.001), and the percent of the time that a participant felt happy (FEQ-%Time-Happy; +31% from baseline; effect size, 0.51, p<.001).

No Non-Symbolic Experience (nNSE). For participants who reported neither a temporary experience of, nor a persistent transition to NSE, with the exception of an increase in the percent of time that a participant felt happy (FEQ-%Time-Happy; +28% from baseline; effect size, 0.42, p=.007), and a reduction in percent of time participants felt unhappy (FEQ-%Time-Unhappy; -29% from baseline; effect size, -0.45, p<.001), all other happiness measures were not significant.

Cohort 2

Table 5 displays results for all participants, as well as broken down by degree and type of non-symbolic experience for Cohort 2. Results with the strongest effect sizes are described below. See Table 5 for a more comprehensive analysis of these measures of well-being.

<INSERT TABLE 5 HERE>

All participants. For all participants who completed the intensive 6-week program, effect sizes ranged from 0.38 (GQ-6) to 0.63 (FEQ-Happiness) for measures of well-being, indicating modest to moderate effect for these measures. Pooling all participants, the most dramatic shift was found for overall happiness (FEQ-Happiness; +15% from baseline; effect size, 0.63, p<.001). In addition, a substantial improvement reported for the percent of the time that a participant felt happy (FEQ-%Time-Happy; +33% from baseline; effect size, 0.60, p<.001), while reductions were found for the percent of time a participant felt unhappy (FEQ-%Time-Unhappy; -31% from baseline; effect size, -0.46, p<.001) and neutral (FEQ-%Time-Neutral; -24% from baseline; effect size, -0.43, p<.001).

Location 1. For participants who reported a transition to Location 1 significant increases were found for all measures related to well-being and happiness. Most notably, participants at Location 1 reported a significant increase in their subjective experience of happiness—indexed by the percent of the time that they felt happy (FEQ-%Time-Happy; 42% from baseline; effect size, 0.85, p<.001), as well as their sense of authentic happiness (AHI; +15% from baseline; effect size, 0.80, p<.001).

Location 2. At Location 2, participants demonstrated the largest increase in their overall happiness (FEQ; +15% from baseline; effect size, 0.93, p<.001), sense of authentic happiness (AHI; +14% from baseline; effect size= 0.82, p<.001), overall happiness (PERMA-Happy; +15% from baseline; effect size, 0.77, p<.001), and the percent of the time that participants felt happy (FEQ-%Time-Happy; +24% from baseline; effect size, 0.61, p<.001).

Location 3. For participants who reported a transition to Location 3, results demonstrated a significant increase in overall happiness (FEQ; +27% from baseline; effect size, 1.37, p=.005), satisfaction

with life (SWLS; +37% from baseline; effect size, 1.67, p=.002) and gratitude, with strong effects for all measures (GQ-6; +12% from baseline; effect size, 0.83, p=.04). Significant decreases were also reported for the percent of time participants felt unhappy (-67% reduction from baseline; effect size, -1.04, p=.05) and neutral (-62% reduction from baseline; effect size, -1.20, p=.005).

Location 4. Due to a low sample size for this sub-group, while the majority of measures either did not reach significance or were trending, a strong effect was found for participants' increase in gratitude (GQ-6; +9% from baseline; effect size, 1.71, p=.021). Significant reductions were also found for the percent of time participants felt unhappy (FEQ-%Time-Unhappy; -47% from baseline; effect size, -0.94, p=.035).

Temporary Non-Symbolic Experience (tNSE). For participants who reported a temporary form of NSE, a significant increase was found for overall happiness (FEQ; +17% from baseline; effect size, 0.54, p<.001) and PERMA-Happy (+10% from baseline; effect size, 0.54, p<.001), and the percent of the time that a participant felt happy (FEQ-%Time-Happy; +33% from baseline; effect size, 0.51, p<.001). Significant decreases were also found for the percent of time participants felt unhappy (FEQ-%Time-Unhappy; -26% from baseline; effect size, -0.41, p<.001) and neutral (FEQ-%Time-Neutral; -25% from baseline; effect size, -0.63, p<.001).

No Non-Symbolic Experience (nNSE). For participants who reported neither a temporary experience of, nor a persistent transition to NSE, while there were mean increases from baseline to post-program on measures of well-being and decreases on measures assessing unhappiness and neutrality, the percent of time participants felt unhappy (FEQ-%Time-Unhappy; -21% from baseline; effect size, -0.29, p=.008) was the only well-being measure that reached significance.

Meaning Measures and Factors

Measures that assessed the degree to which participants experienced their lives as having meaning included PERMA-Meaning and MLQ-Presence, while MLQ-Search tapped into a drive to find

meaning and understanding in their lives, which can be interpreted, at least in part, as a lack of meaning. Due to the volume of assessments made and page count limitations, the most impactful results are described below.

Cohort 1

Table 6 displays results for all participants, as well as broken down by degree and type of non-symbolic experience for Cohort 1. Results with the strongest effect sizes are described below. See Table 6 for a more comprehensive analysis of these measures related to meaning, presence, and search.

<INSERT TABLE 6 HERE>

All participants. For all participants, results demonstrated that participants experienced a significant increase in meaning (MLQ-Presence; +9% from baseline; effect size, 0.47, p<.001; PERMA-Meaning; +16% from baseline; effect size, 0.58, p<.001), as well as a decrease in search for meaning (MLQ-Search; -21% from baseline; effect size, -0.49, p<.001).

Location 1. Participants who reported a transition to Location 1 experienced a significant increase in meaning (MLQ-Presence; +11% from baseline; effect size, 0.64, p<.001; PERMA-Meaning; +15% from baseline; effect size, 0.70, p<.001), as well as a significant decrease in the search for meaning in their lives (MLQ-Search; -35% from baseline; effect size, -0.68, p<.001).

Location 2. For Location 2, strong effects were reported for all measures tapping into meaning. Results demonstrated that participants experienced a significant increase in the presence of meaning (MLQ-Presence; +12% from baseline; effect size, 0.93, p<.001; PERMA-Meaning; +15% from baseline; effect size, 0.93, p<.001), as well as a significant decrease in search for meaning (MLQ-Search; -34% from baseline; effect size, -0.53, p<.001).

Location 3. At Location 3, participants experienced a significant increase in meaning (MLQ-Presence; +6% from baseline; effect size, 0.62, p<.001; PERMA-Meaning; +15% from baseline; effect size, 1.05, p<.001).

Location 4. For Location 4, results demonstrated that participants experienced a significant increase in meaning (PERMA-Meaning; +10% from baseline; effect size, 0.61, p<.001) and a decrease in search for meaning (MLQ-Search; -47% from baseline; effect size, -0.63, p=.045).

Temporary Non-Symbolic Experience (tNSE). For participants who reported a temporary form of NSE, results demonstrated that participants experienced a significant increase in presence of meaning (MLQ-Presence; +5% from baseline; effect size, 0.25, p=.04) overall life meaning (PERMA-Meaning; +10% from baseline; effect size, 0.33, p<.001), as well as a significant decrease in search for meaning (MLQ-Search; -21% from baseline; effect size, -0.51, p<.001).

No Non-Symbolic Experience (nNSE). For participants who reported neither a temporary experience of, nor a persistent transition to NSE, results demonstrated that participants experienced a significant increase in meaning (PERMA-Meaning; +12% from baseline; effect size, 0.43, p<.001).

Cohort 2

Table 7 displays results for all participants, as well as broken down by degree and type of non-symbolic experience for Cohort 2. Results with the strongest effect sizes are described below. See Table 7 for a more comprehensive analysis of these measures related to meaning, search, and presence.

<INSERT TABLE 7 HERE>

All participants. For Cohort 2, all participants reported a significant increase in meaning (PERMA-Meaning; +15% from baseline; effect size, 0.48, p<.001), as well as a decrease in search for meaning (MLQ-Search; -14% from baseline; effect size, -0.36, p<.001).

Location 1. Participants who reported a transition to Location 1 experienced a significant increase in meaning (MLQ-Presence; +10% from baseline; effect size, 0.51, p<.001; PERMA-Meaning; +17% from baseline; effect size, 0.65, p<.001), as well as a decrease in search for meaning (MLQ-Search; -12% from baseline; effect size, -0.30, p<.001).

Location 2. For Location 2, results demonstrated that participants experienced a significant increase in meaning (PERMA-Meaning, +13% from baseline; effect size, 0.53, p=.005), as well as a decrease in the search for meaning (MLQ-Search; -18% from baseline; effect size, -0.39, p=.015).

Location 3. At Location 3, relative to the other locations, participants reported the strongest effects and increases in meaning (PERMA-Meaning, +46% from baseline; effect size, 1.35, p=.007) and presence of meaning (MLQ-Presence, +23% from baseline; effect size, 1.12, p=.008), as well as a significant decrease in search for meaning (MLQ-Search; -31% from baseline; effect size, -0.67, p=.004).

Location 4. Results demonstrated that participants at Locations 4+ experienced a significant decrease in search for meaning (MLQ-Search; -40% from baseline; effect size, -1.07, p=.015).

Temporary Non-Symbolic Experience (tNSE). For participants who reported a temporary form of non-symbolic experience, results demonstrated that participants experienced a significant increase in meaning (MLQ-Presence, +7% from baseline; effect size, 0.37, p<.001; PERMA-Meaning, +9% from baseline; effect size, 0.26, p=.013), as well as a significant decrease in search for meaning (MLQ-Search; -13% from baseline; effect size, -0.41, p<.001).

No Non-Symbolic Experience (nNSE). For participants who reported neither a temporary experience of, nor a persistent transition to NSE, no results reached significance.

Lifestyle Measures and Factors

The PERMA survey contains factors that assess the quality of relationships, health, engagement, and accomplishment. These included PERMA-Relationships, PERMA-Engagement, PERMA-Accomplishment, PERMA-Health. Here we group these together as lifestyle factors, though the engagement, relationship, and accomplishment factors can also be considered alongside PERMA-Positive Emotion, and PERMA-Meaning to form a more wholistic assessment of wellbeing (Seligman, 2005). Due to the volume of assessments, the most impactful results are described below.

Cohort 1

Table 8 displays results for all participants, as well as broken down by degree and type of non-symbolic experience for Cohort 1. Results with the strongest effect sizes are described below. See Table 8 for a more comprehensive analysis of these measures of lifestyle and health.

<INSERT TABLE 8 HERE>

All participants. For measures spanning a range of lifestyle factors, effect sizes for all participants were low to modest, ranging from 0.34 (PERMA-Health) to 0.54 (PERMA-Relationships). While there were significant improvements for all health and lifestyle assessments, most notably, results demonstrated that participants experienced a significant increase in accomplishment (PERMA-Accomplishment; +12% from baseline, effect size, 0.53, p<.001) and relationship quality (PERMA-Relationships, +16% from baseline, effect size, 0.54, p<.001).

Location 1. For those who reported a transition to Location 1, participants experienced a significant increase in all lifestyle measures, with the strongest effect for relationship quality (PERMA-Relationships; +15% from baseline, effect size, 0.59, p<.001), level of engagement (PERMA-Engagement; +12% from baseline, effect size, 0.59, p<.001) and accomplishment (PERMA-Accomplishment; +12% from baseline, effect size, 0.62, p<.001).

Location 2. For participants at Location 2, results demonstrated moderate to strong effect sizes and increases from baseline for all measures, with the strongest effect for level of engagement (PERMA-Engagement; +15% from baseline, effect size, 0.89, p<.001). Increases were also reported for relationship quality (PERMA-Relationships; +18% from baseline, effect size, 0.81, p<.001), and accomplishment (PERMA-Accomplishment; +11% from baseline, effect size, 0.83, p<.001).

Location 3. For all measures related to lifestyle factor, participants who reported a transition to Location 3 experienced significant improvement across all indices, with strongest effects for accomplishment (PERMA-Accomplishment; +13% from baseline, effect size, 0.94, p<.001) and relationship quality (PERMA-Relationships; +15% from baseline, effect size, 0.81, p<.001).

Location 4. Results demonstrated that participants experienced a significant increase in relationship quality (PERMA-Relationships; +15% from baseline, effect size, 0.90, p<.001) and accomplishment (PERMA-Accomplishment; +11% from baseline, effect size, 0.81, p<.001).

Temporary Non-Symbolic Experience (tNSE). Results demonstrated that participants reporting tNSE experienced a significant increase in relationship quality (PERMA-Relationships; +11% from baseline, effect size, 0.37, p<.001).

No Non-Symbolic Experience (nNSE). For participants who reported neither a temporary experience of, nor a persistent transition to NSE, results demonstrated an increase in engagement (PERMA-Engagement; +7% from baseline, effect size, 0.28, p=.032) and accomplishment (PERMA-Accomplishment; +7% from baseline, effect size, 0.31, p=.021).

Cohort 2

Table 9 displays results for all participants, as well as broken down by degree and type of non-symbolic experience for Cohort 2. Results with the strongest effect sizes are described below. See Table 9 for a more comprehensive analysis of these measures of lifestyle and health.

<INSERT TABLE 9 HERE>

All participants. For all participants, effect sizes were low to modest, ranging from 0.28 (PERMA-Health) to 0.45 (PERMA-Accomplishment). While there were significant improvements for all lifestyle factors, the most notable result was a significant increase in accomplishment (PERMA-Accomplishment; +11% from baseline, effect size, 0.45, p<.001) and relationships (PERMA-Relationships; +12% from baseline, effect size, 0.41, p<.001).

Location 1. For those who reported a transition to Location 1, a significant increase in all health and lifestyle measures was reported, with the strongest effect for accomplishment (PERMA-Accomplishment; +12% from baseline, effect size, 0.59, p<.001) and level of engagement (PERMA-Engagement; +12% from baseline, effect size, 0.52, p<.001)

Location 2. At Location 2, participants experienced a significant increase in all measures, with the strongest effects for level of accomplishment (PERMA-Accomplishment; +17% from baseline, effect size, 0.68, p<.001) and engagement (PERMA-Engagement; +13% from baseline, effect size, 0.62, p=.002).

Location 3. Participants who had transitioned to Location 3 reported strong effect sizes, as well as significant percentage increases from baseline for all lifestyle factors. In order of effect size, results demonstrated that participants experienced a significant increase in level of engagement (PERMA-Engagement; +33% from baseline, effect size, 1.4, p=.003), relationship quality (PERMA-Relationships, +30% from baseline, effect size, 1.01, p<.001), accomplishment (PERMA-Accomplishment; +21% from baseline, effect size, 1.06, p<.001), and health (PERMA-Health; +19% from baseline, effect size, 0.72, p<.001).

Location 4. At Location 4, although participants exhibited a significant increase in all lifestyle measures, relationship quality (PERMA-Relationships, +35% from baseline, effect size, 1.14, p=.045) was the only lifestyle factor to reach significance.

Temporary Non-Symbolic Experience (tNSE). Results demonstrated that participants experienced a significant increase in relationship quality (PERMA-Relationships, +13% from baseline, effect size, 0.40 p<.001), and accomplishment (PERMA-Accomplishment; +10% from baseline, effect size, 0.33, p<.001).

No Non-Symbolic Experience (nNSE). For participants who reported neither a temporary experience of, nor a persistent transition to NSE there were no measures that reached significance.

Emotion Measures and Factors

Participants were assessed on several surveys that index a range of positive and negative emotions, depressive symptoms, state and trait anxiety, perceived stress, and loneliness. These included CES-D, PERMA-Positive emotions, PERMA-Negative emotions, STAI-Trait Anxiety, STAI-State Anxiety, Perceived Stress Scale (PSS), and PERMA-Loneliness.

Cohort 1

Table 10 displays results for all participants, as well as broken down by degree and type of non-symbolic experience for Cohort 1. Results with the strongest effect sizes are described below. See Table 10 for a more comprehensive analysis of these emotion related measures.

<INSERT TABLE 10 HERE>

All participants. For participants overall in Cohort 1, the majority of these scales indexed negative emotions, with moderate to strong effect sizes ranging from -0.58 (PERMA-Loneliness) to -0.85 (STAI-Trait Anxiety) and one positive emotion scale (PERMA-Positive Emotion; +20% from baseline; effect size, 0.73, p<.001). Depressive symptoms dropped significantly (CES-D; 47% from baseline; effect size, -0.68, p<.001), along with trait anxiety (STAI-Trait; -21% from baseline; effect size, -0.83, p<.001), state anxiety (STAI-State; -19% from baseline; effect size, -0.69, p<.001), and perceived stress (PSS; -33% from baseline; effect size, -0.82, p<.001).

Location 1. Participants who reported a transition to Location 1 demonstrated a significant decrease in trait anxiety (STAI-Trait; -25% from baseline; effect size, -1.13, p<.001) state anxiety (STAI-State; -25% from baseline; effect size, -1.00, p<.001), perceived stress (PSS; -37% from baseline; effect size, -1.01, p<.001), depressive symptoms (CES-D; -55% from baseline; effect size, -0.87, p<.001) and feelings of loneliness (PERMA-Loneliness; -55% from baseline; effect size, -0.79, p<.001). Participants also reported an increase in positive emotions, with 24% improvement from baseline (PERMA-Positive Emotion; effect size, 0.92, p<.001).

Location 2. Participants who transitioned to Location 2 reported an even more pronounced reduction in depressive symptoms (CES-D; -68% from baseline; effect size, -1.13, p<.001). Moreover, similar to Location 1, at Location 2, a significant decrease in trait anxiety was found (STAI-Trait; -30% from baseline; effect size, -1.44, p<.001), as well as a reduction in perceived stress (PSS; 47% from baseline; effect size, -1.22, p<.001). Participants demonstrated significant reductions in loneliness

(PERMA-Loneliness; 62% from baseline; effect size, -0.77, p<.001) and an increase in positive emotions (PERMA-Positive Emotion; 25% from baseline; effect size, 1.30, p<.001).

Location 3. At Location 3, participants demonstrated a reduction in negative affect (PERMA-Negative Affect; -58% reduction from baseline effect size, -0.97, p<.001), depressive symptoms (CES-D; -63% from baseline, effect size, -0.84, p<.001), loneliness (PERMA-Loneliness; -62% from baseline effect size, -0.56, p<.001), trait anxiety (STAI-Trait; -22% decrease from baseline; -0.91, p<.001), and perceived stress (PSS; -42% from baseline; effect size, -1.00, p<.001). In addition, and an increase in positive emotions (PERMA-Positive Emotion; 15% from baseline; effect size, 0.97, p<.001).

Location 4. In Location 4, significant reductions were found for trait anxiety (STAI-Trait; -24% decrease from baseline; -1.02, p<.001), state anxiety (STAI-Trait; -19% from baseline; effect size, -1.05, p<.001) and depressive symptoms (CES-D; -73% from baseline; effect size, -0.81, p<.001), as well as an overall increase in positive emotions (PERMA-Positive Emotion; +19% from baseline; effect size, 1.09, p<.001).

Temporary Non-Symbolic Experience (tNSE). For participants who reported a temporary form of NSE, significant reductions in most measures, with the strongest effect sizes for positive emotions (PERMA-Positive emotions; +19% from baseline; effect size, 0.57, p<.001), trait anxiety (STAI-Trait; -14% decrease from baseline; -0.65, p<.001), perceived stress (PSS; -21% from baseline; effect size, -0.61, p<.001), and negative emotions (PERMA-Negative Affect; -25% from baseline; effect size, -0.54, p<.001).

No Non-Symbolic Experience (nNSE). For participants who reported neither a temporary experience of, nor a persistent transition to NSE, significant reductions in depressive symptoms (CES-D; 28% effect size, -0.49, p<.001) and trait anxiety (STAI-Trait; -13% decrease from baseline; -0.48, p<.001) were found.

Cohort 2

Table 11 displays results for all participants, as well as broken down by degree and type of non-symbolic experience for Cohort 2. Results with the strongest effect sizes are described below. See Table 11 for a more comprehensive analysis of these emotion-related measures.

<INSERT TABLE 11 HERE>

All participants. Participants demonstrated significant reductions in all measures of negative emotions with effect sizes ranging from -0.29 (PERMA-Loneliness) to -0.67 (PSS), with a significant increase in positive emotions (PERMA-Positive emotions, +16% from baseline, effect size, 0.55, p<.001). Most notably, depressive symptoms dropped significantly as a result of this intensive 6-week program (CES-D; -39% from baseline, effect size, -0.61, p<.001), along with trait anxiety (STAI-Trait, -16% from baseline, effect size, -0.65, p<.001), state anxiety (STAI-state, -14% from baseline, effect size, -0.50, p<.001), and perceived stress (PSS, -25% from baseline, effect size, -0.67, p<.001).

Location 1. For Location 1, effect sizes range from low to strong (-0.33 to -0.97). Participants who had transitioned to Location 1 reported a reduction in depressive symptoms (CES-D; -44% from baseline; effect size, -0.70, p<.001), a decrease in trait anxiety (STAI-Trait; -21% from baseline; effect size, -0.97, p<.001), and a reduction in perceived stress (PSS; -30% from baseline effect size, -0.84, p<.001).

Location 2. Participants who reported a transition to Location 2 reported a pronounced reduction in depressive symptoms (CES-D effect size; -59% from baseline; effect size, -0.76, p<.001). Moreover, a similar decrease in trait anxiety was found (STAI-Trait; -22% from baseline; effect size, -0.88, p<.001) for Location 2 as Location 1, as well as a reduction in perceived stress (PSS; -39% from baseline; effect size, -1.01, p<.001). Participants demonstrated significant reductions in loneliness (PERMA-Loneliness; -52% from baseline; effect size, -0.64, p<.001) and an increase in positive emotions (PERMA-Positive Emotion; +20% from baseline; effect size, 0.92, p<.001).

Location 3. At Location 3, participants demonstrated a decrease in reported negative affect (PERMA-Negative Affect; - 68% from baseline; effect size, -1.12, p<.001) and trait anxiety (STAI-Trait; -32% effect size, -1.82, p<.001), as well as an increase in positive emotions (PERMA-Positive Emotion; 36% effect size, 1.80, p<.001). Participants also exhibited significant reductions in loneliness, (PERMA-Loneliness; -76% from baseline, effect size, -1.13, p<.001), and depressive symptoms (CES-D; -80% from baseline; effect size, -1.53, p=.003).

Location 4. Significant reductions were found for perceived stress (PSS; -48% from baseline; effect size, -2.44, p=.015), along with depressive symptoms (CES-D; -52% from baseline; effect size, -1.08, p<.001).

Temporary Non-Symbolic Experience (tNSE). For participants who reported a temporary form of non-symbolic experience, significant reductions in depressive symptoms were found (CES-D; -28% from baseline effect size, -0.53, p<.001).

No Non-Symbolic Experience (nNSE). For participants who reported neither a temporary experience of, nor a persistent transition to non-symbolic experience, no measures reached significance.

Self-Transcendence Measures and Factors

Participants were assessed on two surveys that relate to self-transcendence, the Mysticism Scale (M-Scale) and the Modified Nondual Embodiment Thematic Inventory (MNETI).

Cohort 1

Table 12 displays results for all participants, as well as broken down by degree and type of non-symbolic experience for Cohort 1. Results with the strongest effect sizes are described below. See Table 12 for a more comprehensive analysis of these measures of self-transcendence.

<INSERT TABLE 12 HERE>

All participants. Overall, participants experienced a significant increase in all three M-Scale subscales (Extrovertive; +16% from baseline, effect size, 0.41, p<.001; Introvertive; +11% from baseline;

effect size, 0.39, p<.001; Interpretive; +8% from baseline; effect size, 0.34, p<.001), as well as M-Scale Total score (+11% from baseline; effect size, 0.41, p<.001). In addition, a significant increase was reported for the MNETI (25% from baseline, effect size, 1.00, p<.001).

Location 1. At Location 1, participants experienced a significant increase in all three M-Scale subscales (Extrovertive; +22% from baseline; effect size, 0.56, p<.001; Introvertive; +16% from baseline; effect size, 0.59, p<.001; Interpretive; +12% from baseline; effect size, 0.52, p<.001), and the M-Scale Total score (+16% from baseline; effect size, 0.61, p<.001). In addition, a significant increase was reported for the MNETI (31% from baseline; effect size, 1.6, p<.001).

Location 2. Moderate to high effects were found for participants at Location 2 for all three M-Scale subscales (Extrovertive; +20% from baseline; effect size, 0.68, p<.001; Introvertive; +16% from baseline; effect size, 0.79, p<.001; Interpretive; +12% from baseline; effect size, 0.71, p<.001), as well as M-Scale Total score (+15% from baseline; effect size, 0.81, p<.001). Similar to Location 1, participants at Location 2 reported a 31% increase on the MNETI (effect size, 1.87, p<.001).

Location 3. At Location 3, participants experienced a significant increase in all three M-Scale subscales (Extrovertive; +10% from baseline; effect size, 0.65, p<.001; Introvertive; +9% from baseline; effect size, 0.64, p<.001; Interpretive; +7% from baseline; effect size, 0.68, p=001), and their M-Scale Total score (+9% from baseline; effect size, 0.73, p<.001). In addition, a significant increase was reported for the MNETI (20% from baseline, effect size, 1.34, p<.001).

Location 4. At Location 4, a significant increase was reported for the MNETI (21% from baseline, effect size, 1.46, p<.001).

Temporary Non-Symbolic Experience (tNSE). For participants who reported a temporary form of NSE, a significant increase in one of the three M-Scale subscales was reported (Extrovertive; +14% from baseline, effect size, 0.33, p=.001), as well as M-Scale Total score (+6% from baseline, effect size, 0.21,

p=.02). In addition, a significant increase was reported for the MNETI (17% from baseline, effect size, 0.76, p<.001)

No Non-Symbolic Experience (nNSE). For participants who reported neither a temporary experience of, nor a persistent transition to NSE, no significant changes from baseline scores were found for the M-Scale. Given that the M-Scale is sensitive to reporting tNSE, this is a notable finding that may support these participants self-assessment of their lack of NSE. By contrast a significant result with a moderate effect size was found for the MNETI (14% from baseline, effect size, 0.53, p<.001).

Cohort 2

Table 13 displays results for all participants, as well as broken down by degree and type of non-symbolic experience for Cohort 2. See Table 13 for a more comprehensive analysis of these measures of self-transcendence.

<INSERT TABLE 13 HERE>

All participants. Participants exhibited an increase on all three M-Scale subscales (Extrovertive; +15% from baseline; effect size, 0.42, p<.001; Introvertive; +11% from baseline; effect size, 0.40, p<.001; Interpretive; +13% from baseline; effect size, 0.57, p<.001) and their M-Scale Total score (+12% from baseline; effect size, 0.50, p<.001). A moderate effect size was also found for the MNETI (+8% from baseline; effect size, 0.48, p<.001).

Location 1. At Location 1, participants experienced a significant increase in M-Scale Total score (+14% from baseline; effect size, 0.73, p<.001), as well as all three subscales (Extrovertive; +15% from baseline; effect size, 0.55, p<.001; Introvertive, +13% from baseline; effect size, 0.67, p<.001; Interpretive, +13% from baseline; effect size, 0.74, p<.001). In addition, participants experienced a significant increase on the MNETI (+9% from baseline; effect size, 0.71, p<.001).

Location 2. At Location 2, participants experienced a significant increase in M-Scale Total score (+16% from baseline; effect size, 0.76, p<.001), as well as all three subscales (Extrovertive; +21% from

baseline; effect size, 0.76, p<.001; Introvertive; +13% from baseline; effect size, 0.52, p<.001; Interpretive; +15% from baseline; effect size, 0.90, p<.001). Moreover, a significant increase was reported for the MNETI (+7% from baseline, effect size, 0.48, p<.001).

Location 3. For those who had transitioned to Location 3, significant increases were reported for M-Scale Total score (+20% from baseline; effect size, 0.80, p<.001), as well as all three subscales (Extrovertive; +24% from baseline; effect size, 0.79, p<.001; Introvertive; +18% from baseline; effect size, 0.68, p=.013; Interpretive; +19% from baseline; effect size, 0.89, p<.001). In addition, a significant increase was reported for the MNETI (+24% from baseline; effect size, 2.04, p<.001).

Location 4. At Location 4, participants experienced a significant increase in all three M-Scale subscales (Extrovertive; +18% from baseline; effect size, 0.60, p=.224; Introvertive; +24% from baseline; effect size, 1.24 p=.017; Interpretive; +18% from baseline; effect size, 0.83, p=.003), and their M-Scale Total score (+20% from baseline; effect size, 0.95, p=.024). Participants at Location 4 exhibited a strong effect on the MNETI (+21% from baseline; effect size, 1.94, p<.001).

Temporary Non-Symbolic Experience (tNSE). For participants who reported a temporary form of NSE, a significant increase in all three M-Scale subscales (Extrovertive; +11% from baseline; effect size, 0.29, p=.002; Introvertive; +5% from baseline; effect size, 0.17, p=.17; Interpretive; +12% from baseline; effect size, 0.51, p<.001), and their M-Scale Total score (+9% from baseline; effect size, 0.35, p<.001). For participants who had experienced a temporary non-symbolic experience, a significant, albeit low, effect was reported on the MNETI (+5% from baseline; effect size, 0.35, p<.001).

No Non-Symbolic Experience (nNSE). For participants who reported neither a temporary experience of, nor a persistent transition to NSE, no significant changes from baseline scores were found for the M-Scale, and their M-Scale subscales, or MNETI.

Discussion

While research has focused largely on peak experiences and transient forms of transcendence (Csikszentmihalyi, 1991; Hood et al., 2001; Maslow, 1964; Newberg et al., 2001; Wulff, 2000; Yaden et al., 2017), the scientific literature has yet to report a complex, multimodal psychological study of individuals who have experienced a transition to persistent forms of self-transcendence. To the authors' knowledge, the studies reported here are the first to do so, and to have studied a complex mixed methodological approach that included a variety of mindfulness meditation modalities and positive psychology interventions in two intensive protocols. Taken together, results from both the 4-month protocol and the shortened 6-week protocol, provide support that a combination of mindfulness based interventions (MBIs) and positive psychology interventions (PPIs) can be effective mechanisms through which individuals can cultivate meaningful change related to their psychological and emotional well-being, possibly even including self-transcendence. In comparison to other MBIs and PPIs that have demonstrated low to moderate effects (Bolier et al., 2013; Chiesa et al., 2011; Sedlmeier, 2012; Sin & Lyubomirsky, 2009), the results reported here demonstrate moderate to strong effect sizes and significant improvements in indices spanning five areas: Well-being, Meaning, Lifestyle, Emotions, and Self-transcendence.

Differences Between ONE, tNSE, and nNSE

It is clear that the experience of the no non-symbolic experience (nNSE), temporary non-symbolic experience (tNSE), and ongoing non-symbolic experience (ONE) sub-groups were all quite different from each another. ONE sub-groups' post-program means were higher on all measures, though the tNSE subgroup did come within range of some of the lower end means within the overall ONE sub-group. From a program outcome and psychological benefit perspective, it was best to be in a sub-group that experienced ONE. Typically, even the lowest ONE post-program mean exceeded the overall cohort post-program mean for a given measure, where as nNSE and tNSE were usually below it.

Martin's (2019, 2020) previous research found that more people seemed to be in Location 1 than Location 2, and so on, with very few people seeming to be in Location 4. Interestingly, a similar trend seemed present in the data for both cohorts, which may support his findings. Martin also reported that those participants did not all report transitioning to Location 1 and progressing from there. Rather, they seemed to be able to initially transition to any Location from 1-4. This also seems supported by both of the studies reported here.

A considerable number of participants reported only experiencing temporary non-symbolic experience. Although the tNSE sub-groups did not reach ongoing non-symbolic experience, the members of this group clearly derived substantial benefit from both protocols. Their beginning and ending means were typically lower than the ONE sub-groups, however tNSE sub-groups' percentage of change on well-being related measures was on par a surprising amount of the time with sub-groups that were in the ONE range, with high statistical significance and effect sizes that were typically moderate and lower than ONE groups.

The tNSE sub-groups' percent of change for emotion measures was typically just under about half of the low end of what was seen in the ONE groups, with high statistical significance and low to moderate effect sizes. There were a number of measures for which the tNSE sub-group had a lower initial mean score than the nNSE sub-group, yet pulled ahead to a higher post-program mean. Generally, if a participant did not transition to ONE it seemed more beneficial to have been in this sub-group that at least had glimpses of non-symbolic experience.

More participants in the study reported having no non-symbolic experience than reported having transitioned to Location 3 or higher, which provides an opportunity to examine the outcome of the program on an acceptably sized population that did not transition to ONE or even experience a temporary non-symbolic state during the study. The nNSE sub-group typically exhibited the worst baseline and post-program means across measures. However, on nearly every measure, their scores

improved, sometimes quite substantially. For example, both Cohort 1 and 2 improved on every well-being related measure. Only two of Cohort 1's well-being measures failed to reach significance, whereas only 1 of the Cohort 2 well-being measures was significant. The nNSE sub-groups' emotion-related measures showed a similar pattern. For Cohort 1, they all trended in the desired direction, most had moderate effect sizes, and only state anxiety (STAI-Y1) failed to reach significance. None of Cohort's 2 emotion-related measures reach significance, and all had low effect sizes. However, the means for all but state anxiety (STAI-Y1) trended the desired direction.

There was a large gap between the nNSE sub-group and all ONE sub-groups. For example, the Cohort 1 nNSE sub-group reported their percent of time being happy as 50% at post-program and their percent of time unhappy as 12% post-program, both with moderate effect sizes. By contrast, the Cohort 1 Location 3 sub-group reported being happy 83% of the time, and unhappy just 5% of the time, both with strong effect sizes. Despite substantial differences like these, it is clear that the nNSE sub-group comprehensively benefitted from the program across most of the same psychological areas as the other participants.

Overall Baseline and Post-Program Mean Trends

Post-program means generally trended in an optimum direction from nNSE to Location 3 for the majority of measures. As a result, Location 3 had the most desirable post-program means on most measures across both cohorts. According to Martin (2019, 2020) individuals reported that well-being increased when they transitioned to PNSE. These individuals also reported increases in well-being from lower to higher locations, and Martin reported that his participants consistently referred to Location 3 as the pinnacle of positive human experience, which the data here might support. However, there is a discrepancy between Martin's qualitative reports and the data reported here relating to Location 4, which is discussed further in a later section.

At first glance, it appears that a similar trend occurs in baseline means as post-program means. This introduces the possibility that the trend in post-program means occurs because each has a correspondingly higher baseline starting point. However, unlike with post-program means, there are numerous exceptions.

Nonetheless, the degree to which this occurs is worth noting. It does seem that, broadly speaking, higher initial scores were paired with higher post-scores. This might suggest that people who enter a program of this nature with higher baseline means are more likely to shift into ONE. Two aspects are important to keep in mind regarding this possibility.

First, as ranges of scores were inconsistent across cohorts for a given measure, and averages are reported here, it was not possible to utilize a participant's baseline score to predict what the program outcome would be for that individual. For example, at least thus far, there does not seem to be a universal "Location X" range for the baseline or post-program means for any given measure, for either the 4-month protocol or the 6-week protocol. Second, any investigative or predictive analysis may need to include more than one measure. Extensive data mining has sought to uncover composites of measures, and even questions from within and across measures from Cohort 1 (because there are more participants in each sub-group), in an effort to uncover a baseline data set that can accurately predict outcomes at an individual level. All attempts thus far have failed.

Potential Effects of Program Length

The two cohorts presented here provide an opportunity to potentially explore the differences between longer and shorter mixed MBI and PPI interventions. Cohort 1's 4-month protocol contained all of the methods that Cohort 2's 6-week protocol contained, plus several additional elements as outlined in the methods section. Briefly, these included additional meditation methods, pre-assigned small groups for peer-support, more days of practice for some methods, and time to experiment with individually optimizing methods.

Generally speaking, effect sizes, percentage of change, and post-program means were often more optimal across sub-groups and measures for Cohort 1 as compared to Cohort 2. It is possible that that more time spent using the methods, or the additional elements, in Cohort 1's protocol led to better outcomes. The data reported here do not take into account participants' degree of engagement with the program, or the degree to which they felt matched to their protocol's methods or the program in general, though there may be differences related to this that are relevant as well.

Participants in Cohort 1 could potentially have longer during the program to spend in ONE, or to have more temporary non-symbolic experiences and this could produce an impact. Overall the data does suggest that tNSE leads to better psychological outcomes than nNSE. From the weekly survey data, not reported here, it is clear that some participants initially transition to one location, but then progress further along the continuum while using the protocol. This happened more for the Cohort 1 protocol, which could be because of its length. Benefits of a longer protocol might also be reflected in the comparative percentages of participants in each location for Cohorts 1 and 2 (see Table 3).

The results for the nNSE sub-group, more than any other, may allow us to examine the effects of the program itself and its length, separate from whether a person has experienced non-symbolic experience. Overall, results for the Cohort 1 nNSE sub-group were generally higher, more likely to be statistically significant, and had higher effect sizes than results for the Cohort 2 nNSE sub-group. Because these sub-groups did not experience any non-symbolic experience during their program, these results may have been from the longer practice time of Cohort 1, its additional methods, or a combination thereof.

Discrepancies with Location 4

According to Martin (2019, 2020), individuals who transitioned from Location 3 to Location 4 often stated that Location 4 brought more wellbeing, but that does not appear to be supported by the data here. In fact, it was relatively rare for both cohorts to have desirable trends continue from nNSE

through to Location 4 (MLQ-Search and STAI-Trait Anxiety). Based on Martin's qualitative research, one would expect these results, but also expect to see a similar pattern for depression, happiness, satisfaction with life, loneliness, and self-transcendence — at a minimum.

There are several possibilities. First, the Location 4 sub-group in each cohort was among the smallest in the program (Cohort 1, N=18; Cohort 2, N=8). There were several measures which relate to the expected qualities mentioned previously, where at least one of the cohort's Location 4 sub-groups did not reach statistical significance (e.g.: PERMA-Negative Affect, PERMA-Positive Emotion, PERMA-Meaning, FEQ-Happiness, FEQ-%Time-Neutral, PERMA-Happiness, AHI, FEQ-%Time-Happy, and SWLS). Some of factors such as PERMA-Loneliness and FEQ-%Time-Unhappy exhibited tiny baseline to post-program differences between Location 3 and Location 4 that could indicate ceiling effects. So, one possibility is that much of the time, the sample size and statistical power were insufficient to paint an accurate picture of what is happening beyond Location 3.

Another potential confound is that participants in Location 2 and Location 4 often report difficulties in taking these types of measures. In prior research, Martin (2010) reports that he collected and analyzed feedback at both an item and measure level for several of the surveys used here. Individuals at Location 2 and Location 4 were more likely to report that questions often did not make sense to them. As noted previously, these individuals reported experiencing a sense of self in which the boundaries between self and the world are dissolved to varying degrees. This made them feel that the measures were often asking questions about aspects of a sense of self that they were not able to fully perceive, or perhaps could not even perceive at all. This was more pronounced at Location 4 than Location 2. As a result, another possibility for the difference between Martin's (2019, 2020) previous qualitative research and our findings here regarding Location 4 may be an inherent difficulty involved in the question interpretation for these participants.

Another discrepancy between Martin's (2019, 2020) prior research and the data reported here concerns emotion, such that previous findings have revealed that Location 4 individuals often report no experience of emotion; however, in this study, Location 4 individuals report positive (PERMA-Positive Emotion factor) and negative emotion (PERMA-Negative Affect factor), in addition to overall neutrality (FEQ-%Time-Neutral). Again, this may be due to question interpretation. The FEQ question is asked in the context of the percent of time an individual is happy and unhappy, which could affect how participants interpret neutrality in context, and Location 4 individuals reported very low scores of negative emotion. What they do report could be related to question interpretation. A similar pattern emerged for PERMA-Positive Emotion factor, which is comprised of three questions that could be interpreted by Location 4 individuals as having relatively little, or perhaps nothing, to do with emotion ("In general, how often do you feel joyful?"; "In general, how often do you feel positive?"; and "In general, to what extent do you feel contented?"). A high score on those questions would be in line with Martin's (2019, 2020) previous data in which reports such as joyousness, positivity, and contentedness were not viewed as emotional by Location 4 participants.

CONCLUSION

Overall, these results add to the growing literature regarding the use of mindfulness and positive psychology interventions to meaningfully impact well-being, emotion, meaning, and self-transcendence. This study utilized a distinctly multi-faceted range of instruments that created a more exhaustive picture than any one measure alone, as well as more than any previous study in this area. Both a longer-term protocol (4-month) and a shorter subset protocol (6-weeks) were examined, each of which sought to catalyze and measure the results of a persistent non-symbolic shift in participants (Martin, 2010, 2019, 2020).

The results reported here lend support for the use of intensive mindfulness-based and positive psychology interventions as effective vehicles through which to enhance subjective well-being,

happiness, gratitude, positive and negative emotion, meaning, life satisfaction, and self-transcendence in adult, non-clinical populations in as short as six-weeks using an intensive, multimodal program. When results were divided out by degree and type of non-symbolic experience, generally the higher a sub-group's pre-program mean within its cohort on a measure, the more likely participants were to have reported a transition to ongoing non-symbolic experience while using the protocol. In addition, the higher a sub-group's post-program mean within its cohort, the more likely they were to report a higher location on the PNSE Continuum, up to a peak at Location 3 or 4 depending on the measure.

This study, though quite comprehensive, is just a starting point. Future longitudinal research on the effects of both program lengths would add to the ongoing knowledgebase related to the long-term effectiveness of these types of programs. Additional research is warranted to learn whether the results reported here would remain consistent over time, to what degree, and what aspects of the protocol led to the difference in outcome. The present data only allow us to identify that a majority of participants who completed each protocol transitioned to ONE, but not what caused this transition or the specific impact that it might have had on the psychological measures used in the study.

Contributions

JAM conceived of and managed both studies and their research teams, and significantly contributed to all data analysis and writing. ME was the primary data analysist for the Cohort 2 data and wrote the initial draft. AB was the primary data analysist for the Cohort 1 data. EDS contributed to the writing, and provided study support for Cohort 2. LB provided study support for Cohort 1.

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Table 1. Demographic information for Cohort 1 (4-month protocol)

	N	%
Gender		
Male	204	57
Female	155	43
Religious affiliation		
All Christian Groups	24	7
Atheist	33	9
Eastern traditions	117	32
Other Religions	121	34
Agnostic	64	17
Ethnicity or race		
Caucasian (other than Hispanic)	292	81
Hispanic or Latino	16	4
Black or African American	6	2
Asian/Pacific Islander	19	5
Other	26	7
Highest education level completed		
High school diploma or G.E.D.	10	3
Attended college but did not complete degree/ Associate's degree	36	10
Bachelor's degree	136	38
Graduate/Professional degree	177	49
Geographic distribution		
North America	287	78
Europe	46	13
South America	1	<1
Asia	16	5
Oceania	14	4

Table 2. Demographic information for Cohort 2 (6-week protocol)

	N	%
Gender		
Male	146	60
Female	99	40
Religious affiliation		
All Christian Groups	20	8
Atheist	10	4
Eastern traditions	84	33
Other Religions	80	35
Agnostics	51	20
Ethnicity or race		
Caucasian (other than Hispanic)	212	87
Hispanic or Latino	5	2
Black or African American	5	2
Asian/Pacific Islander	10	4
Other	13	5
Highest education level completed		
High school diploma or G.E.D.	5	2
Attended college but did not complete degree / Associate's degree	22	9
Bachelor's degree	109	45
Graduate/Professional degree	109	44
Geographic distribution		
North America	171	68
Europe	57	23
South America	1	1
Asia	6	2
Oceania	10	4

Table 3. Total sample for each Cohort and percent breakdown by degree and type of non-symbolic experience

Cohort 1 (4-month protocol)			Cohort 2 (6-week protocol)		
	N	%			%
All	371		All	245	
L1	122	32.88	L1	106	43.26
L2	71	19.14	L2	35	14.28
L3	38	10.25	L3	11	4.49
L4	18	4.85	L4	8	3.27
tNSE	78	20.02	tNSE	61	24.90
nNSE	44	11.86	nNSE	24	9.80

Table 4. Well-being measures for Cohort 1 (4-Month) categorized by degree and type of non-symbolic experience

		Pre-test			Post-test							
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
Authentic Happiness Inventory (AHI)													
	All participants	369	3.13	0.63	3.70	0.84	0.57	0.21	0.50, 0.66	14.43	p<.001	18.21	0.77
	Location 1	122	3.03	0.54	3.63	0.5	0.59	-0.04	0.51, 0.68	14.53	p<.001	19.80	1.15
	Location 2	71	3.34	0.54	4.11	0.49	0.77	-0.05	0.67, 0.88	14.4	p<.001	23.05	1.49
	Location 3	36	3.54	0.67	4.1	0.49	0.56	-0.18	0.36, 0.76	5.69	p<.001	15.82	0.95
	Location 4	18	3.52	0.66	4.27	0.75	0.75	0.09	0.34, 1.17	3.84	p=.011	21.31	1.06
	Temporary Non-Symbolic Experience (tNSE)	78	2.94	0.61	3.29	0.76	0.35	0.15	0.20, 0.49	4.78	p<.001	11.90	0.51
	No Non-Symbolic Experience (nNSE)	44	2.89	0.7	3.44	1.57	0.55	0.87	0.06, 1.05	2.25	p=.029	19.03	0.45

Table 4 (cont). Well-being measures for Cohort 1 (4-Month) categorized by degree and type of non-symbolic experience

		Pre-test		Post-test								
	N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
Fordyce Emotions Questionnaire (FEQ) Happiness												
All participants	369	6.77	1.68	7.86	1.34	1.09	-0.34	0.94, 1.25	13.93	p<.001	16.10	0.72
Location 1	122	6.53	1.61	7.81	1.09	1.28	-0.52	1.00, 1.56	9.18	p<.001	19.60	0.93
Location 2	71	7.35	1.43	8.56	0.75	1.21	-0.68	0.88, 1.54	7.27	p<.001	16.46	1.06
Location 3	36	7.68	1.15	8.75	0.77	1.07	-0.38	0.67, 1.47	5.47	p<.001	13.93	1.09
Location 4	18	7.89	0.9	8.56	1.34	0.67	0.44	-0.28, 1.61	1.48	p=.16	8.49	0.59
tNSE	78	6.31	1.94	7.21	1.61	0.9	-0.33	0.58, 1.22	5.55	p<.001	14.26	0.51
nNSE	44	6.11	1.67	7.02	1.45	0.91	-0.22	0.39, 1.43	3.50	p<.001	14.89	0.58

Table 4 (cont). Well-being measures for Cohort 1 (4-Month) categorized by degree and type of non-symbolic experience

			Pre-test		Post-test								
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
FEQ-%Time-Happy													
	All participants	369	48.10	25.05	66.25	25.37	18.15	0.32	15.61, 20.68	14.10	p<.001	37.73	0.72
	Location 1	122	45.93	24.67	67.58	22.07	21.66	-2.60	16.88, 26.43	8.98	p<.001	47.14	0.93
	Location 2	71	53.45	23.41	76.75	20.64	23.3	-2.77	17.58, 29.02	8.13	p<.001	43.59	1.06
	Location 3	36	63.97	20.77	83.39	15.49	19.42	-5.28	12.07, 26.76	5.37	p<.001	30.36	1.06
	Location 4	18	62.67	24	75.44	27.34	12.78	3.34	2.62, 22.94	2.65	p=.017	20.38	0.50
	tNSE	78	41.21	24.17	53.87	25.72	12.67	1.55	7.73, 17.60	5.11	p<.001	30.72	0.51
	nNSE	44	38.80	24.59	49.75	27.22	10.95	2.63	3.06, 18.85	2.8	p=.008	28.22	0.42
FEQ-%Time-Unhappy													
	All participants	368	17.08	13.99	9.29	10.36	-7.79	-3.63	-9.09, -6.50	-11.83	p<.001	-45.61	-0.63
	Location 1	122	16.70	12.85	8.9	9.25	-7.80	-3.60	-10.01, -5.58	-6.98	p<.001	-46.71	-0.70
	Location 2	71	15.59	11.97	4.87	5.14	-10.72	-6.83	-13.17, -8.27	-8.72	p<.001	-68.76	-1.16
	Location 3	36	11.53	12.06	3.78	4.97	-7.75	-7.09	-11.11, -4.39	-4.68	p<.001	-67.22	-0.84
	Location 4	17	11.65	17.42	3.82	3.17	-7.82	-14.25	-15.83, 0.19	-2.07	p=.05	-67.21	-0.63
	tNSE	78	20.58	15.44	14.53	13.04	-6.05	-2.40	-9.33, -2.78	-3.68	p<.001	-29.40	-0.42
	nNSE	44	21	15.29	14.82	12.35	-6.18	-2.94	-10.37, -2.00	-2.98	p=.005	-29.43	-0.45

Table 4 (cont). Well-being measures for Cohort 1 (4-Month) categorized by degree and type of non-symbolic experience

			Pre-test		Post-test								
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
FEQ-%Time-Neutral													
	All participants	366	34.86	21.25	24.22	20.86	-10.64	-0.31	-12.96, -8.32	-9.01	p<.001	-30.35	-0.51
	Location 1	121	37.4	21.62	23.59	20.03	-13.81	-1.59	-18.21, -9.41	-6.22	p<.001	-36.93	-0.66
	Location 2	71	30.96	19.27	16.77	15.68	-14.18	-3.59	-18.64, -9.73	-6.35	p<.001	-45.83	-0.81
	Location 3	36	24.5	15.99	12.53	12.89	-11.97	-3.10	-18.27, -5.67	-3.86	p<.001	-48.86	-0.82
	Location 4	16	26.06	20.53	21.12	27.79	-4.94	7.26	-19.05, 9.18	-0.75	p=.47	-18.96	-0.20
	tNSE	78	38.35	21.95	31.67	19.85	-6.68	-2.10	-11.45, -1.91	-2.79	p=.007	-17.42	-0.32
	nNSE	44	39.64	22.38	35.43	25.02	-4.2	2.64	-11.80, 3.39	-1.12	p=.27	-10.62	-0.18
The Gratitude Questionnaire (GQ-6)													
	All participants	369	36.40	5.48	39.09	4.14	2.69	-1.34	2.24, 3.15	11.66	p<.001	7.39	0.55
	Location 1	122	36.23	5.31	39.56	3.57	3.33	-1.74	2.66, 3.99	9.83	p<.001	9.19	0.74
	Location 2	71	37.39	5.21	40.25	2.86	2.86	-2.35	1.76, 3.95	5.19	p<.001	7.65	0.68
	Location 3	36	39.03	3.48	41.19	1.82	2.17	-1.66	1.08, 3.26	4.04	p<.001	5.53	0.78
	Location 4	18	37.89	4.28	39.67	4.16	1.78	-0.12	0.07, 3.49	2.19	p=.043	4.70	0.42
	tNSE	78	35.29	5.4	37.19	5.19	1.9	-0.21	0.63, 3.16	2.98	p=.004	5.38	0.36
	nNSE	44	34.5	7.03	37.36	4.84	2.86	-2.19	1.46, 4.27	4.10	p<.001	8.29	0.47

Table 4 (cont). Well-being measures for Cohort 1 (4-month) categorized by degree and type of non-symbolic experience

			Pre-test		Post-test								
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
Satisfaction with Life Scale (SWLS)	All participants	369	22.05	7.18	26.84	7.17	4.79	-0.01	4.17, 5.42	15.15	p<.001	21.72	0.67
	Location 1	122	20.66	7.00	26.66	6.22	6.00	-0.78	4.92, 7.08	11.02	p<.001	29.04	0.91
	Location 2	71	24.45	6.37	30.76	4.44	6.31	-1.93	5.01, 7.61	9.68	p<.001	25.81	1.15
	Location 3	36	26.78	6.85	31.17	6.26	4.39	-0.59	1.99, 6.79	3.72	p<.001	16.39	0.67
	Location 4	18	25.28	6.34	30.33	4.63	5.06	-1.71	2.71, 7.40	4.54	p<.001	19.98	0.91
	tNSE	78	20.29	6.87	23.68	7.86	3.38	0.99	2.14, 4.63	5.40	p<.001	16.71	0.46
	nNSE	44	19.93	7.13	21.68	7.50	1.75	0.37	-0.17, 3.67	1.84	p=.07	8.78	0.24
PERMA-Happiness	All participants	368	6.84	1.89	8.19	1.63	1.35	-0.26	1.17, 1.52	14.96	p<.001	19.74	0.77
	Location 1	122	6.65	1.8	8.3	1.32	1.64	-0.48	1.34, 1.95	10.58	p<.001	24.81	1.05
	Location 2	70	7.4	1.61	9.08	0.76	1.68	-0.85	1.32, 2.03	9.37	p<.001	22.70	1.33
	Location 3	36	8.19	1.53	9.17	0.77	0.97	-0.76	0.48, 1.46	4.04	p<.001	11.97	0.81
	Location 4	18	7.72	1.84	9.06	1.26	1.33	-0.58	0.43, 2.24	3.12	p=0.006	17.36	0.85
	tNSE	78	6.15	1.9	7.28	1.95	1.13	0.05	0.72, 1.54	5.44	p<.001	18.37	0.59
	nNSE	44	6.23	1.94	6.91	1.83	0.68	-0.11	0.12, 1.24	2.46	p=.02	10.91	0.36

Table 5. Well-being measures for Cohort 2 (6-week) categorized by degree and type of non-symbolic experience

		Pre-test			Post-test							
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
Authentic Happiness Inventory (AHI)													
	All participants	243	3.09	0.63	3.48	0.70	0.39	0.07	0.31, 0.47	9.82	p<.001	12.62	0.59
	Location 1	106	3.12	0.532	3.58	0.62	0.46	0.08	0.33, 0.57	7.53	p<.001	14.74	0.80
	Location 2	35	3.46	0.557	3.93	0.59	0.47	0.04	0.29, 0.68	5.03	p<.001	13.58	0.82
	Location 3	11	3.27	0.79	4.09	0.30	0.82	-0.48	0.31, 1.32	3.61	p=.005	25.08	1.37
	Location 4	8	3.50	0.54	3.75	0.46	0.25	-0.08	-0.34, 0.84	1.00	p=.35	7.14	0.50
	Temporary Non-Symbolic Experience (tNSE)	60	2.87	0.72	3.14	0.68	0.27	-0.04	0.11, 0.42	3.48	p=.001	9.41	0.39
	No Non-Symbolic Experience (nNSE)	23	2.84	0.61	2.96	0.71	0.18	0.18	-0.70, 0.42	1.44	p=.16	4.23	0.18

Table 5 (cont). Well-being measures for Cohort 2 (6-week) categorized by degree and type of non-symbolic experience

		Pre-test		Post-test								
	N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
Fordyce Emotions Questionnaire (FEQ) Happiness												
All participants	245	6.57	1.66	7.55	1.47	0.98	-0.19	0.80, 1.15	11.08	p<.001	14.92	0.63
Location 1	106	6.82	1.28	7.77	1.19	0.95	-0.09	0.69, 1.12	7.27	p<.001	13.93	0.77
Location 2	35	7.28	1.46	8.34	0.68	1.06	-0.78	0.57, 1.55	4.56	p<.001	14.56	0.93
Location 3	11	7.00	1.79	8.91	0.83	1.91	-0.96	0.72, 3.09	3.60	p=.005	27.29	1.37
Location 4	8	7.75	0.71	8.25	0.89	0.50	0.18	-0.59, 1.59	1.08	p=.32	6.45	0.62
tNSE	61	5.85	1.92	6.85	1.72	1.00	-0.20	0.63, 1.36	5.47	p<.001	17.09	0.55
nNSE	24	5.67	1.88	6.38	1.61	0.71	-0.27	0.17, 1.24	2.73	p=.12	12.52	0.41

Table 5 (cont). Well-being measures for Cohort 2 (6-week) categorized by degree and type of non-symbolic experience

		Pre-test			Post-test							
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
FEQ-%Time-Happy													
	All participants	234	44.66	23.42	59.42	25.76	14.76	2.34	11.1, 17.47	8.80	p<.001	33.05	0.60
	Location 1	100	44.70	21.23	63.25	22.55	18.55	1.32	13.94, 23.37	7.86	p<.001	41.50	0.85
	Location 2	35	59.37	23.76	73.54	22.40	14.17	-1.36	6.44, 26.09	3.37	p<.001	23.87	0.61
	Location 3	10	55.30	27.77	83.60	9.35	28.30	-18.42	10.24, 46.35	3.55	p<.001	51.18	1.37
	Location 4	8	60.13	19.89	68.37	23.49	8.24	3.60	-17.60, 34.10	4.36	p=.48	13.70	0.38
	tNSE	60	36.2	21.3	48.25	25.7	11.97	4.39	6.64, 7.28	4.50	p<.001	32.29	0.51
	nNSE	21	32.9	22.1	36.05	23.1	3.10	0.97	-3.15, 9.34	1.03	p=.31	9.57	0.14
FEQ-%Time-Unhappy													
	All participants	233	16.37	12.12	11.24	10.16	-5.13	-1.96	-6.43, -3.8	-7.77	p<.001	-31.34	-0.46
	Location 1	99	15.09	9.93	9.81	7.74	-5.28	-2.18	-7.05, -2.73	-5.29	p<.001	-34.99	-0.59
	Location 2	35	12.08	10.98	7.71	7.12	-4.37	-3.87	-7.22, -1.51	-3.11	p<.001	-36.18	-0.47
	Location 3	10	13.90	11.94	4.60	4.06	-9.30	-7.88	-18.96, 0.36	-2.17	p=.05	-66.91	-1.04
	Location 4	8	8.75	5.42	4.63	2.97	-4.12	-2.45	-7.16, 0.05	-2.27	p=.035	-47.09	-0.94
	tNSE	60	20.70	13.70	15.40	11.80	-5.27	-1.95	-8.13, -2.39	-3.67	p<.001	-25.60	-0.41
	nNSE	21	21.10	15.30	16.57	15.91	-4.62	0.53	-7.90, -1.32	-2.90	p=.008	-21.47	-0.29

Table 5 (cont). Well-being measures for Cohort 2 (6-week) categorized by degree and type of non-symbolic experience

			Pre-test		Post-test								
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
FEQ-%Time-Neutral													
	All participants	234	38.61	20.59	29.41	21.97	-9.20	1.38	-11.87, -6.27	-6.38	p<.001	-23.83	-0.43
	Location 1	100	39.00	19.20	27.67	19.50	-11.41	0.33	-15.83, -6.98	-5.11	p<.001	-29.05	-0.59
	Location 2	35	28.80	19.10	18.74	20.6	-10.09	1.53	-19.45, -0.07	-2.18	p=.036	-34.93	-0.51
	Location 3	10	30.8	21.22	11.80	7.13	-19.00	-14.09	-30.47, -7.50	-3.74	p=.005	-61.69	-1.20
	Location 4	8	31.13	20.87	27.00	23.03	-4.13	2.16	-28.77, 20.52	-0.40	p=.65	-13.27	-0.19
	tNSE	60	20.70	13.70	15.46	11.8	-5.27	-1.95	-8.13, -2.39	-3.67	p=.001	-25.31	-0.63
	nNSE	21	45.85	21.35	47.381	21.77	1.52	0.42	-5.25, 8.3	0.47	p=.64	3.34	0.07
The Gratitude Questionnaire (GQ-6)													
	All participants	244	36.73	4.88	38.50	4.31	1.76	-0.56	1.20, 2.29	6.29	p<.001	4.82	0.38
	Location 1	106	37.13	4.55	39.15	3.54	2.02	-1.01	1.12, 2.92	4.44	p<.001	5.44	0.50
	Location 2	35	38.40	4.03	39.71	3.13	1.31	-0.90	-0.09, 2.72	1.89	p=.06	3.41	0.36
	Location 3	11	37.18	7.26	41.81	2.97	4.63	-4.29	0.12, 9.39	2.19	p=.04	12.45	0.83
	Location 4	8	37.00	2.62	40.25	0.60	3.25	-1.34	0.65, 5.84	2.96	p=.02	8.78	1.71
	tNSE	60	35.22	5.23	36.67	5.70	1.45	0.47	0.39, 2.46	2.77	p=.007	4.12	0.27
	nNSE	24	35.95	5.11	36.20	4.09	0.25	-1.02	-1.31, 1.81	0.33	p=.74	0.70	0.05

Table 5 (cont). Well-being measures for Cohort 2 (6-week) categorized by degree and type of non-symbolic experience

			Pre-test		Post-test								
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
Satisfaction with Life Scale (SWLS)	All participants	245	22.26	6.88	25.71	6.77	3.52	-0.14	2.70, 4.15	9.32	p<.001	15.50	0.51
	Location 1	106	22.72	6.35	26.97	5.29	4.26	-1.06	3.11, 5.39	7.36	p<.001	18.71	0.73
	Location 2	35	26.68	6.58	28.85	6.08	2.17	-0.50	1.16, 3.17	4.37	p<.001	8.13	0.34
	Location 3	11	22.90	6.34	31.36	3.35	8.46	-2.99	4.03, 12.87	4.26	p=.002	36.94	1.67
	Location 4	8	24.63	8.39	28.00	6.16	3.37	-2.24	-3.23, 9.99	1.21	p=.27	13.68	0.46
	tNSE	61	19.91	6.55	22.62	7.54	2.71	0.99	1.21, 4.19	3.62	p=.001	13.61	0.38
	nNSE	24	18.75	6.50	20.04	6.53	1.29	0.03	-0.99, 3.57	1.17	p=.26	6.88	0.20
PERMA-Happiness	All participants	244	6.69	1.83	7.65	1.85	0.96	0.02	0.77, 1.19	9.39	p<.001	14.35	0.52
	Location 1	106	7.00	1.59	8.06	1.39	1.06	-0.20	0.74, 1.36	6.75	p<.001	15.14	0.71
	Location 2	35	7.49	1.89	8.65	0.99	1.16	-0.90	0.66, 1.67	4.73	p<.001	15.49	0.77
	Location 3	11	7.09	1.84	9.27	0.64	2.18	-1.20	0.95, 3.41	3.94	p=.003	30.75	1.58
	Location 4	8	7.75	1.04	8.63	0.92	0.88	-0.12	-0.34, 2.09	1.70	p=.13	11.35	0.90
	tNSE	60	5.77	1.77	6.73	1.8	0.96	0.03	0.57, 1.36	4.90	p<.001	16.64	0.54
	nNSE	24	5.96	1.90	5.99	2.27	0.03	0.37	-0.86, .77	-0.11	p=.92	0.50	0.01

Table 6. Meaning measures for Cohort 1 (4-month) categorized by degree and type of non-symbolic experience

			Pre-test		Post-test								
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
Meaning in Life Questionnaire (MLQ)- Search													
	All participants	369	21.62	8.4	17.17	9.81	-4.45	1.41	-5.32, -3.57	-9.97	p<.001	-20.58	-0.49
	Location 1	122	22.68	8.06	16.86	9.07	-5.82	1.01	-7.29, -4.35	-7.85	p<.001	-25.66	-0.68
	Location 2	71	19.76	8.53	14.76	10.16	-5.00	1.63	-7.47, -2.53	-4.04	p<.001	-25.3	-0.53
	Location 3	36	16.75	8.63	14.75	11.39	-2.00	2.76	-4.65, 0.65	-1.53	p=0.13	-11.94	-0.20
	Location 4	18	18.67	9.39	12.67	9.65	-6.00	0.26	-10.89, -1.10	-2.59	p=.02	-32.14	-0.63
	tNSE	78	23.63	7.31	19.47	8.98	-4.16	1.67	-5.91, -2.40	-4.71	p<.001	-17.6	-0.51
	nNSE	44	23.27	8.34	21.66	9.19	-1.61	0.85	-3.64, 0.42	-1.60	p=0.12	-6.92	-0.18
Meaning in Life Questionnaire (MLQ)- Presence													
	All participants	368	23.3	4.56	25.41	4.47	2.11	-0.09	1.61, 2.60	8.42	p<.001	9.06	0.47
	Location 1	122	22.56	4.65	25.35	4.02	2.79	-0.63	1.97, 3.61	6.74	p<.001	12.37	0.64
	Location 2	71	23.94	3.62	27.24	3.51	3.30	-0.11	2.35, 4.19	7.08	p<.001	13.64	0.92
	Location 3	36	26.06	3.53	27.81	1.85	1.75	-1.68	0.68, 2.82	3.33	p=.002	6.72	0.62
	Location 4	18	25.83	3.97	26.94	3.11	1.11	-0.86	-1.63, 3.85	0.86	p=.40	4.3	0.31
	tNSE	78	22.29	4.33	23.47	4.98	1.18	0.65	0.01, 2.35	2.01	p=.05	5.29	0.25
	nNSE	44	22.82	5.65	23.5	5.67	0.68	0.02	-1.18, 2.54	0.74	p=.46	2.98	0.12

Table 6 (cont). Meaning measures for Cohort 1 (4 month) categorized by degree and type of non-symbolic experience

		Pre-test			Post-test								
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
PERMA-Meaning													
	All participants	369	7.13	2.03	8.25	1.83	1.12	-0.20	0.94, 1.30	12.01	p<.001	15.71	0.58
	Location 1	122	6.94	1.92	8.19	1.63	1.25	-0.29	0.97, 1.53	8.69	p<.001	18.01	0.70
	Location 2	71	7.77	1.78	9.17	1.17	1.40	-0.61	1.02, 1.79	7.29	p<.001	18.02	0.93
	Location 3	36	8.08	1.72	9.45	0.68	1.37	-1.04	0.87, 1.87	5.55	p<.001	16.96	1.05
	Location 4	18	8.26	1.69	9.18	1.3	0.92	-0.39	0.43, 1.42	3.98	p<.001	11.14	0.61
	tNSE	78	6.62	2.08	7.34	2.22	0.72	0.14	0.26, 1.18	3.11	p=.003	10.88	0.34
	nNSE	44	6.3	2.23	7.17	1.83	0.87	-0.40	0.14, 1.6	2.42	p=.02	13.81	0.43

Table 7. Meaning measures for Cohort 2 (6-week) categorized by degree and type of non-symbolic experience

			Pre-test		Post-test								
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
Meaning in Life Questionnaire (MLQ)- Search													
	All participants	245	22.75	8.17	19.54	9.51	-3.21	1.34	-4.22, -2.15	-6.06	p<.001	-14.11	-0.36
	Location 1	106	21.8	8.09	19.14	9.49	-2.66	1.40	-4.22, -1.09	-3.37	p<.001	-12.20	-0.30
	Location 2	35	21.85	9.70	17.91	10.45	-2.97	0.96	-7.06, -0.82	-2.57	p=.015	-18.03	-0.39
	Location 3	11	20.81	9.152	14.45	9.8	-6.36	0.65	-12.65, -.073	-2.25	p=.04	-30.56	-0.67
	Location 4	8	19.62	8.03	11.75	6.58	-7.87	-1.45	-13.79, -2.04	-3.19	p=.015	-40.11	-1.07
	tNSE	61	25.44	7.12	22.11	8.96	-3.33	1.84	-5.40, -1.25	-3.20	p<.001	-13.09	-0.41
	nNSE	24	23.29	7.19	22.08	7.68	-1.21	0.49	-4.46, 2.04	-0.77	p=.45	-5.20	-0.16
Meaning in Life Questionnaire (MLQ)- Presence													
	All participants	245	22.54	4.69	24.38	4.09	1.84	-0.60	1.22, 2.40	6.06	p<.001	8.16	0.41
	Location 1	106	22.79	4.73	24.99	3.83	2.20	-0.90	1.20, 3.18	4.40	p<.001	9.65	0.51
	Location 2	35	24.11	4.27	25.51	3.63	1.40	-0.64	-0.36, 3.16	0.67	p=.11	5.81	0.35
	Location 3	11	20.81	5.52	25.63	2.5	4.82	-3.02	1.58, 8.05	3.32	p=.008	23.16	1.12
	Location 4	8	24.75	2.81	26.25	3.19	1.50	0.38	-1.62, 4.62	1.13	p=.29	6.06	0.50
	tNSE	61	21.88	4.63	23.44	3.77	1.56	1.27	0.53, 2.57	3.05	p<.001	7.13	0.37
	nNSE	24	20.79	4.56	21.20	5.47	0.41	0.91	-0.86, 1.69	0.67	p=.51	1.97	0.08

Table 7 (cont). Meaning measures for Cohort 2 (6-week) categorized by degree and type of non-symbolic experience

			Pre-test		Post-test								
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
PERMA-Meaning													
	All participants	244	6.75	2.11	7.75	2.05	1.00	-0.06	0.75, 1.23	8.18	p<.001	14.81	0.48
	Location 1	106	6.94	1.95	8.13	1.72	1.19	-0.23	0.86, 1.53	7.07	p<.001	17.15	0.65
	Location 2	35	7.48	1.98	8.44	1.64	0.96	-0.34	0.32, 1.67	3.01	p=.005	12.83	0.53
	Location 3	11	6.27	2.91	9.18	0.87	2.91	-2.04	0.97, 4.83	3.35	p=.007	46.41	1.35
	Location 4	8	7.38	1.79	8.87	1.35	1.49	-0.44	-0.46, 3.4	1.81	p=.11	20.19	0.94
	tNSE	61	6.16	2.13	6.72	2.23	0.56	1.36	0.12, 1.00	2.55	p=.013	9.09	0.26
	nNSE	23	6.39	2.30	6.56	2.48	0.17	0.18	-0.57, 0.91	0.48	p=.63	2.66	0.07

Table 8. Lifestyle measures for Cohort 1 (4-month) categorized by degree and type of non-symbolic experience

			Pre-test		Post-test								
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
PERMA-Health													
	All participants	369	7.29	2.24	8	1.98	0.71	-0.26	0.55, 0.87	8.55	p<.001	9.74	0.34
	Location 1	122	7.17	2.31	8.06	1.91	0.88	-0.40	0.60, 1.17	6.11	p<.001	12.41	0.42
	Location 2	71	7.61	1.95	8.54	1.5	0.93	-0.45	0.58, 1.27	5.32	p<.001	12.22	0.54
	Location 3	36	7.84	2.2	8.87	1.47	1.03	-0.73	0.59, 1.47	4.78	p<.001	13.14	0.55
	Location 4	18	7.41	2.59	8.09	2.44	0.69	-0.15	-0.10, 1.47	1.84	p=.08	9.18	0.27
	tNSE	78	7.31	2.05	7.63	1.88	0.32	-0.17	0.02, 0.64	1.99	p=.05	4.38	0.16
	nNSE	44	6.56	2.53	6.86	2.56	0.3	0.03	-0.33, 0.93	0.97	p=.34	4.57	0.12
PERMA-Relationships													
	All participants	369	6.79	2.17	7.89	1.93	1.11	-0.24	0.93, 1.29	12.19	p<.001	16.2	0.54
	Location 1	122	6.67	2.13	7.83	1.78	1.15	-0.35	0.84, 1.46	7.49	p<.001	17.39	0.59
	Location 2	71	7.03	2.18	8.57	1.55	1.53	-0.63	1.09, 1.98	6.82	p<.001	21.91	0.81
	Location 3	36	7.81	2.21	9.19	0.97	1.39	-1.24	0.73, 2.05	4.27	p<.001	17.67	0.81
	Location 4	18	7.72	1.76	9.04	1.08	1.32	-0.68	0.80, 1.83	5.35	p<.001	17.1	0.90
	tNSE	78	6.24	2.03	7.01	2.19	0.77	0.16	0.39, 1.16	3.97	p<.001	12.34	0.37
	nNSE	44	6.47	2.29	7.03	2.1	0.56	-0.19	0.10, 1.03	2.44	p=.02	8.66	0.26

Table 8 (cont). Lifestyle measures for Cohort 1 (4-month) categorized by degree and type of non-symbolic experience

			Pre-test		Post-test								
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
PERMA-Engagement													
	All participants	369	7.28	1.63	8.05	1.52	0.77	-0.11	0.63, 0.93	10.23	p<.001	10.58	0.49
	Location 1	122	7.14	1.55	7.99	1.34	0.85	-0.21	0.60, 1.10	6.68	p<.001	11.90	0.59
	Location 2	71	7.51	1.44	8.67	1.15	1.16	-0.29	0.81, 1.51	6.58	p<.001	15.45	0.89
	Location 3	36	8.27	1.29	9.09	0.77	0.82	-0.52	0.44, 1.21	4.36	p<.001	9.92	0.77
	Location 4	18	8.18	1.29	9.02	0.67	0.83	-0.62	0.23, 1.43	2.91	p=.001	10.27	0.82
	tNSE	78	6.9	1.74	7.36	1.84	0.46	0.10	0.08, 0.85	2.38	p=.02	6.67	0.26
	nNSE	44	6.76	1.82	7.23	1.51	0.46	-0.31	0.07, 0.86	2.35	p=.02	6.95	0.28
PERMA-Accomplishment													
	All participants	369	7.34	1.61	8.19	1.58	0.85	-0.03	0.69, 1.0	10.96	p<.001	11.58	0.53
	Location 1	122	7.21	1.72	8.21	1.48	1.00	-0.24	0.79, 1.22	9.42	p<.001	13.87	0.62
	Location 2	71	7.80	1.31	8.81	1.11	1.01	-0.20	0.66, 1.35	5.83	p<.001	12.95	0.83
	Location 3	36	7.94	1.52	9.08	0.81	1.14	-0.71	0.66, 1.62	4.80	p<.001	14.36	0.94
	Location 4	18	8.05	1.53	9.07	0.92	1.02	-0.61	0.33, 1.70	3.13	p=.006	12.67	0.81
	tNSE	78	7.06	1.48	7.50	1.83	0.44	0.35	0.02, 0.86	2.10	p=.04	6.23	0.26
	nNSE	44	6.70	1.70	7.23	1.70	0.54	0.00	0.085, 0.99	2.40	p=.02	7.91	0.31

Table 9. Lifestyle for Cohort 2 (6-week) categorized by degree and type of non-symbolic experience

			Pre-test		Post-test								
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
PERMA- Health													
	All participants	243	7.36	1.93	7.88	1.77	0.52	-0.16	0.35, 0.71	5.83	p<.001	7.07	0.28
	Location 1	105	7.53	1.74	8.24	1.38	0.71	-0.36	0.42, 1.01	4.85	p<.001	9.43	0.45
	Location 2	35	7.67	2.06	8.40	1.55	0.73	-0.51	0.30, 1.18	3.46	p<.001	9.52	0.40
	Location 3	11	7.09	2.25	8.45	1.43	1.36	-0.82	0.26, 2.45	2.78	p<.001	19.18	0.72
	Location 4	8	8	1.3	8.37	1.59	0.37	0.29	-0.76, 1.96	0.55	p=.34	4.62	0.25
	tNSE	60	6.92	1.81	7.13	2.06	0.21	0.25	-0.06, 0.50	1.52	p=.13	3.03	0.11
	nNSE	23	7.04	2.60	6.86	2.12	-0.18	-0.48	-0.70, 0.35	-0.68	p=.51	-2.56	-0.08
PERMA- Relationships													
	All participants	245	6.57	2.08	7.39	1.96	0.82	-0.12	0.56, 1.05	6.54	p<.001	12.48	0.41
	Location 1	106	6.85	2.03	7.68	1.90	0.83	-0.13	0.46 1.2	4.47	p<.001	12.12	0.42
	Location 2	35	7.17	2.12	8.15	1.46	0.98	-0.66	0.30, 1.66	2.93	p<.001	13.67	0.54
	Location 3	11	6.76	2.00	8.81	2.05	-0.93	-0.85	0.90, 3.21	3.97	p<.001	30.33	1.01
	Location 4	8	5.54	1.833	7.5	1.60	1.96	-0.23	0.04, 3.86	2.42	p=.045	35.38	1.14
	tNSE	61	5.93	1.94	6.70	1.94	0.77	0.01	0.33, 1.21	3.52	p<.001	12.98	0.40
	nNSE	24	6.04	2.15	6.38	2.30	0.34	0.15	-1.2, 0.53	-0.79	p=.43	5.63	0.15

Table 9 (cont). Lifestyle for Cohort 2 (6-week) categorized by degree and type of non-symbolic experience

			Pre-test		Post-test								
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
PERMA-Engagement													
	All participants	243	6.79	1.84	7.55	1.81	0.76	-0.03	0.52, 0.97	6.65	p<.001	11.19	0.42
	Location 1	105	6.98	1.74	7.84	1.57	0.86	-0.17	0.52, 1.17	5.13	p<.001	12.32	0.52
	Location 2	35	7.41	1.76	8.36	1.25	0.95	-0.51	0.37, 1.53	3.32	p=.002	12.82	0.62
	Location 3	11	6.79	2.15	9.00	0.63	2.21	-1.52	0.94, 3.47	3.88	p=.003	32.55	1.40
	Location 4	8	7.17	1.57	8.63	0.74	1.46	-0.83	-0.18, 3.09	2.10	p=.07	20.36	1.19
	tNSE	61	6.22	1.83	6.62	1.92	0.40	0.09	-0.006, 0.82	1.97	p=.05	6.43	0.21
	nNSE	23	6.51	1.96	6.43	2.10	0.28	-0.18	-0.84, 0.70	-0.20	p=.84	-1.23	-0.04
PERMA-Accomplishment													
	All participants	242	6.98	1.76	7.77	1.75	0.79	-0.01	0.61, 1.02	11.59	p<.001	11.32	0.45
	Location 1	105	7.27	1.48	8.13	1.43	0.86	-0.05	0.544, 1.15	5.50	p<.001	11.83	0.59
	Location 2	35	7.15	1.91	8.34	1.57	1.19	-0.34	0.56, 1.81	3.87	p<.001	16.64	0.68
	Location 3	11	7.49	2.07	9.09	0.53	1.60	-1.54	0.21, 2.99	2.57	p<.001	21.36	1.06
	Location 4	8	7.96	0.95	8.75	0.46	0.79	-0.49	-0.06, 1.64	2.18	p=.035	9.92	1.06
	tNSE	60	6.33	1.83	6.95	1.92	0.62	1.38	0.21, 1.01	3.07	p<.001	9.79	0.33
	nNSE	23	6.45	2.01	6.73	1.83	0.25	-0.18	-0.35, 0.93	0.94	p=.36	4.34	0.15

Table 10. Emotion measures for Cohort 1 (4-month) categorized by degree and type of non-symbolic experience

			Pre-test		Post-test								
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
CES-D Questionnaire													
	All participants	366	11.16	8.62	5.93	6.61	-5.23	-2.01	-6.02, -4.45	-13.14	p<.001	-46.86	-0.68
	Location 1	122	11.96	9.24	5.33	5.44	-6.65	-3.80	-8.13, -5.18	-8.94	p<.001	-55.51	-0.87
	Location 2	71	9.92	7.88	3.14	3.17	-6.74	-4.71	-8.54, -4.95	-7.48	p<.001	-68.25	-1.12
	Location 3	35	6.67	6.36	2.44	3.25	-4.16	-3.11	-5.97, -2.35	-4.68	p<.001	-62.37	-0.82
	Location 4	18	7.94	9.75	2.17	2.41	-5.78	-7.34	-9.77, -1.79	-3.05	p=.007	-72.67	-0.81
	tNSE	78	12.47	8.43	9.62	8.70	-2.85	0.27	-4.52, -1.18	-3.40	p=.001	-22.85	-0.33
	nNSE	44	13.5	7.72	9.73	7.62	-3.77	-0.10	-5.83, -1.72	-3.70	p<.001	-27.93	-0.49
PERMA-Negative Affect													
	All participants	369	3.39	2.05	1.98	1.62	-1.41	-0.45	-1.60, -1.24	-15.57	p<.001	-41.59	-0.76
	Location 1	122	3.63	2.24	1.92	1.41	-1.72	-0.83	-2.03, -1.40	-10.72	p<.001	-47.11	-0.91
	Location 2	71	3.2	1.94	1.29	1.14	-1.92	-0.80	-2.37, -1.47	-8.51	p<.001	-59.69	-1.20
	Location 3	36	2.15	1.58	0.91	0.85	-1.24	-0.73	-1.67, -0.81	-5.81	p<.001	-57.67	-0.98
	Location 4	18	1.96	1.41	0.94	0.98	-1.02	-0.43	-1.68, -0.35	-3.22	p=.005	-52.04	-0.84
	tNSE	78	3.91	1.95	2.92	1.73	-0.99	-0.22	-1.37, -0.61	-5.2	p<.001	-25.32	-0.54
	nNSE	44	3.71	1.82	2.87	1.96	-0.84	0.14	-1.35, -0.32	-3.26	p=.002	-22.64	-0.44

Table 10 (cont). Emotion measures for Cohort 1 (4-month) categorized by degree and type of non-symbolic experience

			Pre-test		Post-test								
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
STAI –State Anxiety (Y-1)													
	All participants	365	34.21	10.27	27.62	8.75	-6.59	-1.52	-7.60, -5.57	-12.78	p<.001	-19.26	-0.69
	Location 1	124	35.72	10.77	26.73	6.86	-8.98	-3.91	-10.73, -7.27	-10.18	p<.001	-25.17	-1.00
	Location 2	67	31.39	9.17	23.69	4.82	-7.70	-4.35	-9.96, -5.43	-6.79	p<.001	-24.53	-1.05
	Location 3	38	28.11	8.35	22.66	4.00	-5.45	-4.35	-7.71, -3.17	-4.86	p<.001	-19.39	-0.83
	Location 4	18	26.22	6.26	21.22	2.46	-5.00	-3.80	-7.36 -2.63	-4.46	p<.001	-19.07	-1.05
	tNSE	76	37.04	8.75	32.47	9.78	-4.57	1.03	-7.03, -2.10	-3.69	p<.001	-12.34	-0.49
	nNSE	42	38.07	11.04	35	11.91	-3.07	0.87	-6.52, 0.38	-1.80	p=.08	-8.06	-0.27
STAI –Trait Anxiety (Y-2)													
	All participants	365	38.55	10.39	30.27	9.18	-8.28	-1.21	-9. 16, -7.39	-18.39	p<.001	-21.48	-0.85
	Location 1	124	39.59	9.59	29.83	7.55	-9.76	-2.04	-11.09, -8.43	-14.51	p<.001	-24.65	-1.13
	Location 2	67	36.15	9.58	25.25	4.84	-10.9	-4.74	-13.23, -8.56	-9.31	p<.001	-30.15	-1.44
	Location 3	38	31.11	9.49	24.42	4.32	-6.68	-5.17	-9.07, -4.30	-5.67	p<.001	-21.50	-0.91
	Location 4	18	30.72	8.82	23.5	4.82	-7.22	-4.00	-10.08, -4.36	-5.32	p<.001	-23.50	-1.02
	tNSE	76	42.36	9.28	36.26	9.64	-6.09	0.36	-8.04, -4.15	-6.24	p<.001	-14.40	-0.65
	nNSE	42	42.48	11.39	36.95	11.72	-5.52	0.33	-8.76 -2.29	-3.45	p=.001	-13.02	-0.48

Table 10 (cont). Emotion measures for Cohort 1 (4-month) categorized by degree and type of non-symbolic experience

			Pre-test		Post-test								
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
PERMA-Positive Emotion													
	All participants	369	6.58	1.93	7.91	1.7	1.33	-0.23	1.17, 1.50	15.67	p<.001	20.21	0.73
	Location 1	122	6.42	1.89	7.94	1.39	1.53	-0.50	1.24, 1.81	10.57	p<.001	23.68	0.92
	Location 2	71	7.03	1.55	8.76	1.08	1.72	-0.47	1.34, 2.09	9.15	p<.001	24.61	1.30
	Location 3	36	7.98	1.59	9.17	0.68	1.19	-0.91	0.72, 1.66	5.11	p<.001	14.91	0.97
	Location 4	18	7.74	1.82	9.24	0.7	1.5	-1.12	0.72, 2.27	4.09	p<.001	19.38	1.09
	tNSE	78	5.83	1.98	6.94	1.93	1.11	-0.05	0.72, 1.50	5.69	p<.001	19.04	0.57
	nNSE	44	6	1.85	6.61	1.88	0.61	0.03	0.10, 1.10	2.45	p=.019	10.17	0.33
PERMA-Loneliness													
	All participants	369	3.18	2.75	1.71	2.27	-1.47	-0.48	-1.73, -1.21	-11.22	p<.001	-46.23	-0.58
	Location 1	122	3.47	2.8	1.55	2.02	-1.92	-0.78	-2.36, -1.47	-8.56	p<.001	-55.33	-0.79
	Location 2	71	2.82	2.76	1.08	1.64	-1.74	-1.12	-2.35, -1.11	-5.57	p<.001	-61.70	-0.77
	Location 3	36	1.86	2.49	0.7	1.55	-1.16	-0.94	-2.071, -0.24	-2.57	p=.015	-62.37	-0.56
	Location 4	18	2.06	2.29	0.81	1.79	-1.24	-0.50	-2.29, -0.18	-2.48	p=.024	-60.68	-0.61
	tNSE	78	3.62	2.63	2.62	2.53	-1.00	-0.10	-1.51, -0.48	-3.84	p<.001	-27.62	-0.39
	nNSE	44	3.75	2.74	2.77	2.96	-0.98	0.22	-1.78, -0.17	-2.44	p=.019	-26.13	-0.34

Table 10 (cont). Emotion measures for Cohort 1 (4-month) categorized by degree and type of non-symbolic experience

			Pre-test		Post-test								
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T-stat	p-value	% Change	Effect size Cohen's d
Perceived Stress Scale (PSS)													
	All participants	365	20.11	8.31	13.39	7.99	-6.72	-0.32	-7.50, -5.94	-17.01	p<.001	-33.42	-0.82
	Location 1	124	20.87	8.29	13.13	7.04	-7.74	-1.25	-9.02, -6.46	-11.96	p<.001	-37.09	-1.01
	Location 2	67	18.67	7.97	9.88	6.29	-8.79	-1.68	-10.99, -6.59	-7.97	p<.001	-47.08	-1.22
	Location 3	38	14.53	7.13	8.42	4.92	-6.11	-2.21	-7.92, -4.29	-6.83	p<.001	-42.05	-1.00
	Location 4	18	15.94	8.93	7.06	4.72	-8.89	-4.21	-12.57, -5.21	-5.10	p<.001	-55.71	-1.24
	tNSE	76	22.53	7.62	17.79	7.86	-4.74	0.24	-6.40, -3.08	-5.69	p<.001	-21.04	-0.61
	nNSE	42	22.64	7.76	19.05	8.94	-3.6	1.18	-5.62, -1.57	-3.58	p<.001	-15.86	-0.43

Table 11. Emotion measures for Cohort 2 (6-week) categorized by degree and type of non-symbolic experience

			Pre-test		Post-test								
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
CES-D Questionnaire													
	All participants	244	12.14	8.43	7.45	6.92	-4.69	-1.51	-5.64, -3.68	-9.11	p<.001	-38.63	-0.61
	Location 1	105	11.49	7.82	6.48	6.32	-5.01	-1.50	-6.63, -3.37	-6.09	p<.001	-43.60	-0.70
	Location 2	35	9.31	9.14	3.82	4.64	-5.49	-4.50	-7.94, -3.02	-4.53	p<.001	-58.97	-0.76
	Location 3	11	11.2	7.86	2.27	2.45	-7.87	7.94	-14.23, -3.76	-3.84	p=.003	-79.73	-1.53
	Location 4	8	7.25	4.13	3.50	2.67	-3.75	4.23	-7.29, -0.21	-2.51	p<.001	-51.72	-1.08
	tNSE	61	14.82	8.51	10.60	7.25	-4.22	-1.26	-6.3, -2.11	-4.02	p<.001	-28.48	-0.53
	nNSE	24	14.37	9.07	12.79	7.28	-1.58	-1.79	-4.68 1.51	-1.05	p=.30	-11.00	-0.19
PERMA-Negative Affect													
	All participants	241	3.5	1.88	2.45	1.74	-1.05	-0.14	-1.22, -0.79	-8.46	p<.001	-30.0	-0.58
	Location 1	105	3.32	1.92	2.19	1.67	-1.13	-0.25	-1.54, -0.70	-5.34	p<.001	-34.04	-0.63
	Location 2	35	3.53	1.80	1.80	1.14	-1.73	-0.66	-2.35, -1.07	-5.43	p<.001	-49.01	-1.15
	Location 3	11	3.12	1.62	1.00	-2.12	-2.12	-3.74	-3.19, -1.04	-4.39	p<.001	-67.95	-1.12
	Location 4	8	2.00	1.27	1.13	0.64	-0.87	-0.63	-1.84, 0.17	-1.74	p=.12	-43.50	-0.87
	tNSE	59	3.9	1.77	3.26	1.70	-0.64	-0.07	-1.03, -0.24	-3.21	p=.002	-16.41	-0.37
	nNSE	23	3.94	2.06	3.73	1.95	-0.21	-0.11	-0.74, 0.33	-0.77	p=.44	-5.33	-0.10

Table 11 (cont). Emotion measures for Cohort 2 (6-week) categorized by degree and type of non-symbolic experience

			Pre-test		Post-test								
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
STAI –State Anxiety (Y-1)													
	All participants	226	34.78	9.90	29.74	10.31	-5.04	0.41	-6.39, -3.75	-7.33746	p<.001	14.49	-0.50
	Location 1	100	34.85	8.67	27.40	7.43	-7.45	-1.24	-9.25, -5.62	-8.14	p<.001	-21.38	-0.92
	Location 2	33	30.03	8.86	25.06	6.78	-4.97	-2.08	-7.54, -2.39	-3.92	p<.001	-16.55	-0.63
	Location 3	11	28.18	5.72	22.82	2.63	-5.36	-3.09	-8.43, -2.29	-3.89	p<.001	-19.02	-1.20
	Location 4	7	31.57	7.93	23.14	1.95	-8.43	6.40	-14.46, -2.54	-3.48	p<.001	-11.88	-0.65
	tNSE	54	38.07	11.22	35.63	11.74	-2.44	0.52	-5.11, .217	-1.84	p=.07	-6.41	-0.21
	nNSE	21	37.195	11.09	39.48	14.02	1.29	14.17	-5.10, 8.15	0.48	p=.63	6.14	0.18
STAI –Trait Anxiety (Y-2)													
	All participants	226	39.47	9.77	32.97	10.26	-6.50	0.50	-7.86, -5.32	-10.26	p<.001	-16.47	-0.65
	Location 1	100	38.91	8.92	30.59	8.19	-8.32	-0.73	-10.08, -6.55	-9.36	p<.001	-21.38	-0.97
	Location 2	33	35.67	10.23	27.91	7.09	-7.76	-3.14	-10.71, -4.80	-5.34	p<.001	-21.75	-0.88
	Location 3	11	35.55	8.25	24.27	2.94	-10.23	8.33	-17.01, -5.53	-4.37	p<.001	-31.73	-1.82
	Location 4	7	35.14	4.67	23.86	3.85	-11.29	6.29	-17.10, -5.46	-6.39	p<.001	-32.10	-2.64
	tNSE	54	42.65	10.77	39.72	10.32	-2.93	-0.45	-5.33, -0.52	-2.43	p=.01	-6.87	-0.28
	nNSE	21	43.48	8.80	42.57	10.9	-0.91	2.10	-6.85, 5.04	-0.32	p=.75	-2.09	-0.09

Table 11 (cont). Emotion measures for Cohort 2 (6-week) categorized by degree and type of non-symbolic experience

			Pre-test		Post-test								
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
PERMA-Positive Emotion													
	All participants	244	6.34	1.85	7.38	1.93	1.04	0.08	0.81, 1.25	9.18	p<.001	16.40	0.55
	Location 1	105	6.59	1.69	7.84	1.47	1.25	-0.22	0.92, 1.59	7.40	p<.001	18.97	0.79
	Location 2	35	7.06	1.97	8.47	0.93	1.41	-1.04	0.85, 1.97	5.12	p<.001	19.97	0.92
	Location 3	11	6.73	1.83	9.18	0.60	2.45	-1.23	1.33, 3.12	5.34	p<.001	36.4	1.80
	Location 4	8	7.63	0.90	8.38	0.91	0.75	1.51	-0.51, 2.01	1.41	p=.20	9.83	0.83
	tNSE	61	5.35	1.72	6.10	2.13	0.75	0.41	0.10, 1.05	2.48	p=.016	14.02	0.39
	nNSE	24	5.56	1.95	5.79	2.08	0.23	0.13	-0.45, 0.92	0.83	p=.48	4.14	0.11
PERMA-Loneliness													
	All participants	242	3.01	2.62	2.25	2.55	-0.76	-0.07	-1.11, -0.52	-5.48	p<.001	-25.25	-0.29
	Location 1	106	2.96	2.47	2.14	2.53	-0.82	0.06	-1.33, -0.31	-2.74	p<.001	-27.70	-0.33
	Location 2	35	2.83	2.71	1.37	1.73	-1.46	-0.98	-2.06, -0.84	-4.86	p<.001	-51.59	-0.64
	Location 3	11	1.91	1.7	0.45	0.68	-1.46	-1.02	-2.37, -0.53	-3.52	p<.001	-76.44	-1.13
	Location 4	8	2.63	2.39	0.88	0.99	-1.75	1.58	-3.07, -0.43	-3.13	p<.001	-66.54	-0.96
	tNSE	59	3.46	2.76	2.794	2.74	-0.67	-0.02	-1.09, 0.07	-1.73	p=.08	-19.25	-0.24
	nNSE	23	3.91	3.07	3.87	2.83	-0.04	-0.24	-0.80, 0.72	-.118	p=.91	-1.02	-0.01

Table 11 (cont). Emotion measures for Cohort 2 (6-week) categorized by degree and type of non-symbolic experience

		Pre-test			Post-test							
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
Perceived Stress Scale (PSS)													
	All participants	217	21.09	7.94	15.72	8.19	-5.37	0.25	-6.41, -4.39	-10.55	p<.001	-25.46	-0.67
	Location 1	99	20.49	7.17	14.29	7.60	-6.20	0.43	-7.65, -4.75	-8.49	p<.001	-30.26	-0.84
	Location 2	31	20.03	8.9	12.12	6.60	-7.91	-2.30	-10.36, -5.44	-6.56	p<.001	-39.49	-1.01
	Location 3	11	14.82	6.61	9.36	4.73	-5.46	-1.88	-9.50 -1.40	-3.00	p<.001	-36.84	-0.95
	Location 4	6	17.83	3.29	9.33	3.67	-8.53	0.38	-14.46, -2.53	-3.66	p=.015	-47.67	-2.44
	tNSE	50	23.48	8.44	20.22	8.18	-3.26	-0.26	-5.94, -1.61	-2.92	p<.001	-13.88	-0.39
	nNSE	20	24.15	7.68	22.55	6.26	-1.60	-1.42	-5.56, 2.43	- 0.83	p=.42	-6.63	-0.23

Table 12. Self-transcendence measures for Cohort 1 (4-month) categorized by degree and type of non-symbolic experience

			Pre-test		Post-test								
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
Mysticism Scale-Total													
	All participants	359	117.97	32.71	130.52	29.24	12.55	-3.47	10.07, 15.01	9.97	p<.001	10.64	0.41
	Location 1	122	112.11	32.92	129.66	23.89	17.55	-9.03	13.44, 21.66	8.45	p<.001	15.65	0.61
	Location 2	69	126.84	29.44	146.22	16.7	19.38	-12.74	13.44, 25.31	6.51	p<.001	15.28	0.81
	Location 3	37	140.73	20.98	152.81	10.23	12.08	-10.75	6.55, 17.61	4.43	p<.001	8.58	0.73
	Location 4	18	140.06	19.07	144.22	16.38	4.17	-2.69	-4.67, 13.01	0.99	p=.33	2.97	0.23
	tNSE	74	111.76	31.08	118.53	32.52	6.77	1.44	0.92, 12.62	2.31	p=.02	6.06	0.21
	nNSE	39	100.67	35.64	100.69	35.63	0.03	-0.01	-7.40, 7.45	0.01	p=.99	0.02	0.001
Mysticism Scale-Extrovertive													
	All participants	359	26.55	10.46	30.68	9.54	4.11	-0.92	3.30, 4.97	9.74	p<.001	15.56	0.41
	Location 1	122	24.66	10.54	30.03	8.47	5.37	-2.07	3.95, 6.78	7.51	p<.001	21.78	0.56
	Location 2	69	29.12	10.13	35.03	7.05	5.91	-3.08	3.87, 7.96	5.77	p<.001	20.3	0.68
	Location 3	37	34.22	6.14	37.57	3.94	3.35	-2.2	1.64, 5.06	3.98	p<.001	9.79	0.65
	Location 4	18	33.50	6.67	35.33	5.56	1.83	-1.11	-1.46, 5.12	1.18	p=.25	5.46	0.30
	tNSE	74	24.14	9.92	27.49	10.24	3.35	0.32	1.33, 5.37	3.31	p=.001	13.88	0.33
	nNSE	39	21.97	10.57	22.36	11.25	0.38	0.68	-2.14, 2.91	0.31	p=.76	1.78	0.04

Table 12 (cont). Self-transcendence measures for Cohort 1 (4-month) categorized by degree and type of non-symbolic experience

			Pre-test		Post-test								
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
Mysticism Scale -Introvertive													
	All participants	359	44.79	13.16	49.50	11.25	4.71	-1.91	3.61, 5.82	8.37	p<.001	10.52	0.39
	Location 1	122	42.85	13.56	49.66	9.22	6.8	-4.34	4.867, 8.74	6.95	p<.001	15.89	0.59
	Location 2	69	47.68	12.21	55.38	6.37	7.7	-5.84	5.26, 10.14	6.29	p<.001	16.15	0.79
	Location 3	37	52.49	9.29	57.27	5.06	4.78	-4.23	2.38, 7.18	4.04	p<.001	9.11	0.64
	Location 4	18	53.72	6.73	54	7.3	0.28	0.57	-3.19, 3.75	0.17	p=.87	0.52	0.04
	tNSE	74	42.47	12.8	45.08	12.56	2.61	-0.24	-0.032, 5.25	1.97	p=.05	6.15	0.21
	nNSE	39	38.69	13.83	37.56	13.48	-1.13	-0.35	-4.58, 2.33	-0.66	p=.51	-2.92	-0.08
Mysticism Scale Interpretive													
	All participants	359	46.64	11.54	50.34	10.51	3.7	-1.03	2.80, 4.59	8.13	p<.001	7.93	0.34
	Location 1	122	44.59	11.68	49.97	8.75	5.38	-4.34	3.84 6.92	6.92	p<.001	12.07	0.52
	Location 2	69	50.04	10.22	55.81	5.41	5.77	-5.84	3.58, 7.95	5.27	p<.001	11.53	0.71
	Location 3	37	54.03	7.5	57.97	3.42	3.95	-4.23	1.69, 6.20	3.55	p=0.001	7.29	0.68
	Location 4	18	52.83	7.11	54.89	4.86	2.06	0.57	-1.48, 5.59	1.23	p=.23	3.9	0.34
	tNSE	74	45.15	10.92	45.96	12.32	0.81	-0.24	-1.27, 2.89	0.78	p=.44	1.79	0.07
	nNSE	39	40	13.14	40.77	13.33	0.77	-0.35	-1.57, 3.10	0.67	p=.51	1.93	0.06

Table 12 (cont). Self-transcendence measures for Cohort 1 (4-month) categorized by degree and type of non-symbolic experience

			Pre-test		Post-test								
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
Nondual Embodiment Thematic Inventory-Modified (MNETI)													
	All participants	359	60.45	14.13	75.37	15.75	14.92	1.62	13.73, 16.12	24.54	p<.001	24.68	1.00
	Location 1	122	55.8	11.06	73.02	10.41	17.22	-0.65	15.36, 19.09	18.27	p<.001	30.86	1.60
	Location 2	69	65.39	12.1	85.61	9.35	20.22	-2.75	17.07, 23.36	12.82	p<.001	30.92	1.87
	Location 3	37	75.97	12.57	91.43	10.46	15.46	-2.11	11.84, 19.08	8.67	p<.001	20.35	1.34
	Location 4	18	78.11	11.99	94.89	11.06	16.78	-0.93	12.38, 21.17	8.06	p<.001	21.48	1.46
	tNSE	74	55.62	10.92	64.95	13.52	9.32	2.60	7.05, 11.60	8.18	p<.001	16.77	0.76
	nNSE	39	52.54	13.42	60.15	15.37	7.62	1.95	4.68, 10.55	5.26	p<.001	14.48	0.53

Table 13. Self-transcendence measures for Cohort 2 (6-week) categorized by degree and type of non-symbolic experience

			Pre-test		Post-test								
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
Mysticism Scale-Total													
	All participants	201	109.92	23.58	123.55	30.75	13.63	7.17	11.09, 16.19	10.50	p<.001	12.40	0.50
	Location 1	87	114.08	19.7	129.67	22.88	15.59	3.18	11.91, 19.25	8.45	p<.001	13.67	0.73
	Location 2	33	117.58	21.73	135.82	26.33	18.24	4.60	12.64, 23.84	6.64	p<.001	15.51	0.76
	Location 3	9	116	26.65	139.22	31.4	23.22	4.75	12.67, 33.77	5.07	p<.001	20.02	0.80
	Location 4	5	111	22.86	133.6	24.58	22.6	1.72	4.89, 40.30	3.54	p=.002	20.36	0.95
	tNSE	48	105.71	24.03	115.35	31.03	9.64	7.00	4.50, 14.78	3.77	p<.001	9.12	0.35
	nNSE	19	85.05	25.23	84.84	36.29	-0.21	11.06	-11.87, 11.45	-0.04	p=.97	-0.25	-0.007
Mysticism Scale-Extrovertive													
	All participants	201	25	7.48	28.63	9.67	3.63	2.19	2.79, 4.46	8.58	p<.001	14.52	0.42
	Location 1	87	26.33	6.77	30.38	7.83	4.05	1.06	2.70, 5.39	5.98	p<.001	15.38	0.55
	Location 2	33	26.82	6.9	32.45	7.90	5.63	1.00	3.92, 7.34	6.73	p<.001	20.99	0.76
	Location 3	9	27.78	7.61	34.44	9.18	6.66	1.57	3.95, 9.38	5.66	p<.001	23.97	0.79
	Location 4	5	25	7.45	29.6	7.77	4.6	0.32	-4.29, 13.49	1.44	p=.22	18.40	0.60
	tNSE	48	23.79	7.34	26.31	10.05	2.52	2.71	0.93, 4.12	3.18	p=.002	10.59	0.29
	nNSE	19	17.47	7.57	16.79	9.93	-0.68	2.36	-3.56, 2.19	-0.50	p=.62	-3.89	-0.08

Table 13 (cont). Self-transcendence measures for Cohort 2 (6-week) categorized by degree and type of non-symbolic experience

			Pre-test		Post-test								
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
Mysticism Scale Introvertive													
	All participants	201	41.6	9.36	46.05	12.65	4.46	3.29	3.28, 5.63	7.47	p<.001	10.71	0.40
	Location 1	87	43.09	8	48.83	9.21	5.74	1.21	4.28, 7.18	7.85	p<.001	13.32	0.67
	Location 2	33	44.64	9.42	50.3	12.01	5.66	2.59	2.76, 8.57	3.97	p<.001	12.68	0.52
	Location 3	9	43.67	9.06	51.56	13.69	7.89	4.63	2.13, 13.64	3.16	p=.013	18.07	0.68
	Location 4	5	42.2	8.32	52.2	7.79	10	-0.53	2.92, 17.08	3.92	p=.02	23.7	1.24
	tNSE	48	39.92	9.65	41.92	13.24	2	3.59	-0.87, 4.87	1.40	p=.17	5.01	0.17
	nNSE	19	32.58	9.63	32.21	14.73	-0.37	5.1	-5.20, 4.46	-0.16	p=.87	-1.14	-0.03
Mysticism Scale Interpretive													
	All participants	201	43.32	8.84	48.87	10.67	5.54	1.83	4.55, 6.53	11.06	p<.001	12.81	0.57
	Location 1	87	44.66	7.56	50.46	8.21	5.8	0.65	4.37, 7.24	8.07	p<.001	12.99	0.74
	Location 2	33	46.12	6.76	53.06	8.61	6.94	1.85	5.02, 8.86	7.36	p<.001	15.05	0.90
	Location 3	9	44.56	10.33	53.22	9.19	8.66	-1.14	5.59, 11.74	6.50	p<.001	19.43	0.89
	Location 4	5	43.8	9.01	51.8	10.16	8	1.15	4.49, 11.51	6.32	p<.001	18.26	0.83
	tNSE	48	42	9.34	47.12	10.58	5.12	1.24	2.97, 7.28	4.78	p<.001	12.19	0.51
	nNSE	19	35	10.94	35.84	14.61	0.84	3.67	-4.13, 5.81	0.36	p=.73	2.40	0.07

Table 13 (cont). Self-transcendence measures for Cohort 2 (6-week) categorized by degree and type of non-symbolic experience

			Pre-test		Post-test								
		N	Mean	SD	Mean	SD	Diff Mean	Diff SD	CI	T stat	p-value	% Change	Effect size Cohen's d
Nondual Embodiment Thematic Inventory-Modified (MNETI)													
	All participants	212	67.52	9.4	72.75	12.13	5.23	2.73	4.27, 6.56	9.35	p<.001	7.75	0.48
	Location 1	92	68.13	7.64	74.13	9.10	6.00	1.45	4.46, 7.53	7.77	p<.001	8.81	0.71
	Location 2	32	73.78	9.71	79.12	12.33	5.34	2.62	2.22, 8.46	3.49	p<.001	7.24	0.48
	Location 3	10	72.30	8.76	89.30	7.85	17.00	-0.91	9.86, 24.13	5.38	p<.001	23.51	2.04
	Location 4	5	70	7.58	84.6	7.46	14.60	-0.11	4.04, 25.16	3.81	p<.001	20.86	1.94
	tNSE	52	64.54	9.10	67.96	10.26	3.42	1.17	1.59, 5.25	3.75	p<.001	5.30	0.35
	nNSE	20	58.24	10.35	59.86	10.12	1.62	-0.23	2.32, 5.56	0.85	p=.40	2.78	0.16