Meditation, Wisdom, and Self-Concept

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Acknowledgements

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Abstract
This study investigated the effects of meditation on personal and transpersonal self-concept as well as three dimensions of wisdom. It was predicted that meditation experience would be related to increased development in personal and transpersonal self-expansiveness identification. It was also predicted that meditation experience would be related to increased development in reflective, affective, and overall dimensions of wisdom. Meditators \((n=77)\) and non-meditators \((n=30)\) were compared on the Self-Expansiveness Level Form and Three-Dimensional Wisdom Scale. The hypotheses on personal self-expansiveness and transpersonal self-expansiveness were not supported. Hypotheses on reflective, affective, and overall dimensions of wisdom were supported.
Meditation, Wisdom, and Self-Concept

The term meditate derives from the Latin root meditatum, meaning to ponder (Bailey, 1773). Meditation can be defined as “a family of practices that train attention in order to heighten awareness and bring mental processes under greater voluntary control” (Walsh, 1983, p.19). Since western civilization has been introduced to eastern meditative practice, meditation has become increasingly integrated with traditional psychotherapies for use in clinical settings (Kabat-Zinn, Lipworth, Burney, & Sellers, 1986; Shapiro, 1982). Research for treating disorder with meditative exercises looks promising, yet Shapiro, Walsh, and Britton (2003) suggest expanding research to include not only symptom reduction for disorders but also problem prevention and health enhancement as well. In this spirit of studying exceptional health this study will assess the relationship between meditation, self-concept, and wisdom.

Meditation and Self-Concept

Self-concept is a cognitive construct measuring beliefs, attitudes, and opinions about one’s sense of self or “who I am” which can be falsified or verified (Friedman, 1983). According to Friedman (1983), self-concept can be differentiated into three levels: the personal, middle or interpersonal, and transpersonal (See Figure 1). The personal level relates to identification with elements of reality traditionally understood as a part of a person’s self concept (MacDonald, Gagnier, & Friedman, 2000). This level roughly equals various conceptions of positive mental health (Friedman, 1983). The middle/interpersonal level represents an expansion of identification on temporal and spatial dimensions to include social-relational, ecological, biological, and temporal aspects as part of the self-concept (Pappas & Friedman, 2007). The transpersonal level is
a further expansion of identification on temporal and spatial dimensions. Friedman (1983) describes it as, “extension of the self-concept sufficiently beyond the here-and-now, such that there is a dissolution of the individual’s perception of self as an isolated biosystem existing only in the present time” (p.39). In other words, the transpersonal level is identification with parts of reality outside what is normally conceived to be part of the individual.

Past research has studied the effects of meditation on one level of self-concept. At the conclusion of an intensive seven-day Vipassana meditation retreat, participants reported improvements at the personal self-concept level. “…The TSCS [Tennessee Self-Concept Scale] scores of meditators underwent transformation with those attending the retreats showing increases in overall self-esteem, feelings of worth, benevolence, and self-acceptance” (Emavardhana & Tori, 1997, p.200). Other psychological studies suggest meditation encourages self-actualization (Hjelle, 1974; Nidich, Seeman, & Dreskin, 1973; Seeman, Nidich, & Banta, 1972) and based on a meta-analysis, Alexander, Rainforth, & Gelderloos (1991) ascertained a link between self-actualization and self-transcendental [transpersonal] experiences.

Other previous research has focused on the relationship between meditation practice and combinations of the three levels of self-concept. Nystul and Garde’s (1977) results indicate meditators judge their relationship to themselves [personal], others [interpersonal], and God [transpersonal] more positively compared to non-meditators. Results of Turnbull and Norris’ (1982) study indicate that with meditation practice, people’s self concept was more likely to be in line with what they want to be like [personal] and how they perceive others [interpersonal]. A recent study conducted by
Haimerl and Valentine (2001) investigated the effects of Buddhist meditation on intrapersonal, interpersonal, and transpersonal levels of self concept in non-meditators, beginning meditators, and advanced meditators. As was reported, “…it might be concluded that Buddhist meditation is an effective tool for developing self-control with respect to one’s life goals [intrapersonal], social skills [interpersonal], and increased freedom from self-orientation [transpersonal]” (Haimerl & Valentine, 2001, p.47). Thus it seems a pattern emerges between meditation and the positive link with the three levels of self-concept.

Meditation and Wisdom

In their article “Meditation: Royal Road to the Transpersonal,” Walsh and Vaughan (1993, p.51) discuss various qualities cultivated by the practice of meditation. One of these qualities is wisdom. Not to be confused with knowledge which is impersonal and detached, wisdom is spiritual in nature, deeply personal, and experientially based (Ardelt, 2000). Ardelt (2003) defines wisdom as a combination of three dimensions: cognitive, affective, and reflective. The cognitive dimension refers to an individual’s ability to understand the significance and deeper meaning of life’s events. The reflective dimension is characterized by consideration of life’s events from many perspectives. The affective dimension is a sense of sympathy or acts of kindness towards others.

One study (Kurtzman, 2005) compared meditator and non-meditator scores on Ardelt’s Three-Dimensional Wisdom Scale (2003). Scores significantly differed in reflective and affective domains as well as overall wisdom, meditators scoring a higher mean compared to non-meditators.
Hoffman (2007) developed and validated a scale based on the Buddhist concept of non-attachment, partially based on Ardelt's (2003) Three-Dimensional Wisdom Scale. The results of the study indicated “...it is more than just aging that cultivates wisdom, but having a long standing meditation practice increases the cultivation of overall wisdom.” It is expected old age alone would not be a predictor of wisdom.

In a study by Levenson, Jennings, Aldwin, & Shiraishi (2005), self-transcendence is defined as equivalent to wisdom. Results of 351 individuals tested on the Adult Self-Transcendence Inventory indicated, “... that meditation practice is related to self-transcendence.” Their results show that meditation is positively related to self-transcendent wisdom.

Literature on the relationship between meditation and wisdom remains sparse. Shapiro, Walsh, and Britton (2003) noted, “Few researchers have examined meditation’s original purpose as a self-liberation strategy to enhance qualities such as… wisdom” (p.71). The terms meditation and wisdom are often paired together yet so far minimal research has been conducted on their shared relationship.

Objectives of the Present Study

The aims of this study are to extend insight into the effects of meditative practice on intrapersonal and transpersonal levels of self-concept and cognitive, reflective, and affective dimensions of wisdom. This study extends current literature by taking into account not only how many years one has been practicing meditation but also the length of time spent meditating per week. This is important because length of time spent meditating per week better measures the rigor of one’s practice, a variable different from the years of meditation variable. For example two people may have meditated for one
year but one person may dedicate six hours a week to practicing while another may only dedicate one hour a week to meditation practice. It would be expected that more time spent practicing per week would be related with stronger associations with dependent variables. A longitudinal aspect is also included to help extend the literature. By averaging across measures over a two month period, more stable scores can be obtained. If only measured once, participant scores may reflect environmental effects not intended by the participant.

Hypotheses

Existing research shows a trend between meditation and improved self-concept on the three levels: personal, interpersonal, and transpersonal. One hypothesis is meditation will be positively associated with personal and transpersonal self-concept scores. No hypothesis was formulated for interpersonal scores due to measure limitations. The Middle level (interpersonal self-concept) has not been formally developed conceptually on the Self Expansiveness Level Form so no hypotheses were predicted for this level of self-concept. Another hypothesis is meditation will be positively associated with reflective, affective, and overall wisdom scores as shown by Kurtzman (2005).

Methods

Participants

The meditation group consisted of 77 adult participants. Sample age of participants was 7.8% age 19 or younger, 33.8% 20-29 years old, 10.4% 30-39 years old, 14.3% 40-49 years old, 14.3% 50-59 years old, 16.9% 60-69 years old, and 2.6% 70+ years old. Gender was 55.8% female, 36.4% male, 7.8% did not report. Sample race was 83.1% White/Caucasian, 16.9% Other.
The non-meditation group consisted of 30 adult participants. Sample age of participants was 33.3% age 19 or younger, 60% 20-29 years old, and 6.7% 40-49 years old. Gender was 80% female, 20% male. Sample race was 73.3% White/Caucasian, 26.7% Other.

On average, meditators and non-meditator groups differed significantly in gender, $t(65.57) = 2.06, p<.05, r=.25$, and in age, $t(103.59) = -7.20, p<.01, r=.58$, but not in race, $t(45.75) = -1.06, p>.05, r=.15$.

**Measures**

*Self-Expansiveness Level Form* (SELF; Friedman, 1983). The SELF is an 18 question scale measuring level of expansion of self-concept on spatial and temporal dimensions (See Figure 1). Two levels of self-concept measured include the Personal level and the Transpersonal level. The Personal level assesses identification with one's thoughts, feelings, behaviors and physical body in the present. An example of a Personal level item is, “My emotions and feelings as experienced in the present.” The Transpersonal level assesses identification with parts of reality normally thought to be beyond the boundaries of the individual organism. An example of Transpersonal level item is, “The entire universe beyond time which is me in an ultimate sense.” Response of willingness to identify with an item is made on a five-point scale (1 = “Not at all Willing” to 5 = “Very Willing”). Higher scores are associated with greater level of identification. Test-retest correlations range from .34 to .83 across two week and twelve week retest intervals (Friedman, 1983; MacDonald, Tsagarakis, & Holland, 1994). In the present sample, a test-retest correlation for time one Personal level scores ($M = 4.16, SD=.81$) and time two Personal level scores ($M = 4.33, SD=.65$) was $.68, p<.01$. Time one
Transpersonal level scores ($M = 3.40, SD=.95$) and time two Transpersonal level scores ($M = 3.45, SD=.91$) had test-retest correlation of .64, $p<.01$. In terms of convergent validity, Friedman (1983) found the Transpersonal subscale significantly correlated with the Mystical Experiences Scale (Hood, 1975, $r = .32, p < .005$) and the Personal subscale significantly correlated with the Tennessee Self-concept Scale (Fitts, 1965). MacDonald et al. (2000) reported Cronbach’s alpha coefficient of .79 for the Personal level and .75 for the Transpersonal level in a sample of 938 undergraduate students. In the present sample, Cronbach’s alpha coefficient was .87 for Personal level and .83 for the Transpersonal level at time one. At time two, Cronbach’s alpha coefficient was .85 for Personal level and .81 for the Transpersonal level.

*Three-Dimensional Wisdom Scale* (3D-WS; Ardelt, 2003). This 39 question scale measures three component dimensions of wisdom: cognitive, reflective, and affective. The cognitive dimension is evaluated by items that assess understanding of life or desire to know the truth. An example of the cognitive component is, “It is better not to know too much about things that cannot be changed.” The reflective dimension is evaluated by an individual’s ability to view events from various perspectives without projection. An example of the reflective component is, “When I look back on what has happened to me, I can’t help feeling resentful”. The affective dimension assesses altruistic emotions and behavior, a sample being, “Sometimes I feel a real compassion for everyone.” Response of agreement with items are made on a five-point scale (1 = “Strongly Agree” to 5 = “Strongly Disagree”). Items are reversed appropriately and item ratings are averaged by dimension so that higher scores indicate presence of cognitive, reflective, and affective wisdom characteristics. A final wisdom score is obtained by averaging the three
dimensions of wisdom together. Again, higher scores are associated with greater level of wisdom. In the present sample, test-retest correlation indicated time one cognitive scores ($M = 3.89, SD=.43$) and time two cognitive scores ($M = 3.81, SD=.51$) was $.73, p<.01$. Time one reflective scores ($M = 3.59, SD=.46$) and time two reflective scores ($M = 3.92, SD=.48$) had test-retest correlation of $.69, p<.01$. Time one affective scores ($M = 3.55, SD=.43$) and time two affective scores ($M = 3.77, SE=.43$) had test-retest correlation of $.78, p<.01$. Time one wisdom scores ($M = 3.68, SD=.35$) and time two wisdom scores ($M = 3.84, SD=.39$) had test-retest correlation of $.75, p<.01$. Kurtzman (2005) reported cognitive, reflective, and affective dimensions to have a Cronbach’s alpha of .72, .74, .77, respectively and overall wisdom having an alpha level of .76. In the present sample, Cronbach’s alpha coefficient was .69 for cognitive dimension, .78 for reflective dimension, and .74 for affective dimension, with overall wisdom having an alpha level of .73 at time one. At time two, Cronbach’s alpha coefficient was .81 for cognitive dimension, .80 for reflective dimension, and .72 for affective dimension, with overall wisdom having an alpha level of .75.

Procedure

The primary investigator recruited meditators from various meditation groups around Gainesville, through the Shambhala meditation group online forum, and at Tushita Meditation Center in Dharamsala, India. No compensation was provided for participating. Non-meditators were recruited from undergraduate classes in exchange for extra credit. Interested persons shared e-mail contact information with the investigator and the survey was sent by e-mail twice (panel data; once immediately and once again after a two month period; second survey response rate of 56%). The last thirty-six
recruited participants were asked to complete the second e-mail survey at six to seven weeks after completion of the initial survey due to time constraints.

**Analysis**

All statistical analyses were performed using SPSS 19 for Windows. This study utilized t-tests, correlation, and regression analyses to assess differences in variables between meditators (years of meditation > 0; \( n=77 \)) versus non-meditators (years of meditation = 0; \( n=30 \)), two year threshold meditators (years of meditation ≥ 2; \( n=59 \)) versus non-two year threshold meditators (years of meditation < 2; \( n=48 \)), and two hours per week threshold meditators (hours of meditation per week ≥ 2, \( n=53 \)) versus non-two hours per week threshold meditators (hours of meditation per week < 2; \( n=54 \)). The two year threshold variable and the two hour per week threshold variable were both used to better balance group size and to assess if length of time practicing meditation or if intensity of practice were related to the hypotheses. Normality was assessed prior to calculations. Higher personal and transpersonal scores were expected to be associated with meditation. Higher affective, reflective, and overall wisdom scores were expected to be associated with meditation.

**Results**

**Assumptions**

A Kolmogorov-Smirnov test was used to test normal distribution. Scores for meditators on the time one-time two combined SELF Personal subscale, \( D_{(76)} = .19, p < .05 \), were significantly non-normal. A visual inspection for this subscale indicates what looks like a strong right skew (See Figure 2). Other scores for meditators and non-meditators were normal.
Homogeneity of variance was assessed for meditators and non-meditators to rule out possible effect that gender, age, and race had on the tests. Using Levene’s test for meditators on the time one-time two combined cognitive scale, variances were significantly different between male and female genders, $F(1, 68) = 4.05, p<.05$. Time one- time two combined reflective scores were significantly different for meditators of different ages, $F(1, 68) = 2.93, p<.05$. All other variances for meditators and non-meditators were equal.

*Meditators Versus Non-Meditators*

*SELF Personal Subscale.*

Using a T-test, results did support the hypothesis; meditators scored lower on the trend level SELF Personal subscale compared to non-meditators. There was a negative correlation on SELF Personal subscale scores between meditators and non-meditators at the trend level for the t-test but no relationship was found in a bivariate correlation. Controlling for age, gender, and race, scores were insignificant.

*SELF Transpersonal Subscale.*

Results partially support the hypothesis that meditators would score higher on SELF Transpersonal subscale than non-meditators. Meditators scored higher at the trend level compared to non-meditators. Controlling for age, gender, and race, scores were insignificant.

*3D-WS Cognitive Subscale.*
Meditators scored significantly higher than non-meditators on the 3D-WS Cognitive subscale. Controlling for age, gender and race, scores remained significant.

*3D-WS Reflective Subscale.*

Results do not support the hypothesis that meditators would score higher on 3D-WS reflective subscale than non-meditators. There was no significant difference on 3D-WS reflective subscale scores between meditators and non-meditators. Controlling for age, gender, and race, scores remained insignificant.

*3D-WS Affective Subscale.*

Results do support the hypothesis that meditators would score higher on the 3D-WS affective subscale than non-meditators. Meditators scored significantly higher than non-meditators. Controlling for age, gender, and race, scores remained significant.

*3D-WS Overall Wisdom.*

Results do support the hypothesis that meditators would score higher on 3D-WS overall wisdom than non-meditators. Meditators scored significantly higher than non-meditators. Controlling for age, gender, and race, scores remained significant.

Two Year Meditation Threshold

*SELF Personal Subscale.*

Using a T-test, results do not support the hypothesis that threshold meditators would score higher than non-threshold meditators on the SELF Personal subscale, and in fact the opposite occurred. Threshold meditators scored
significantly lower than non-threshold meditators on the SELF Personal subscale. Controlling for age, gender, and race, the negative relationship remained significant.

*SELF Transpersonal Subscale.*

Results partially support the hypothesis that threshold meditators would score higher than non-threshold meditators on the SELF Transpersonal subscale. Threshold meditators scored higher at the trend level compared to non-threshold meditators. Controlling for age, gender, and race, scores were insignificant.

*3D-WS Cognitive Subscale.*

Threshold meditators scored significantly higher than non-threshold meditators on the 3D-WS cognitive subscale. Controlling for age, gender, and race, scores remained significant at the trend level.

*3D-WS Reflective Subscale.*

Results do support the hypothesis that threshold meditators would score higher than non-threshold meditators on the 3D-WS reflective subscale. Threshold meditators scored significantly higher than non-threshold meditators. Controlling for age, gender, and race, scores were insignificant.

*3D-WS Affective Subscale.*

Results do support the hypothesis that threshold meditators would score higher than non-threshold meditators on the 3D-WS affective subscale. Threshold meditators scored significantly higher than non-threshold meditators. Controlling for age, gender, and race, scores remained significant at the trend level.

*3D-WS Overall Wisdom.*
Results do support the hypothesis that threshold meditators would score higher than non-threshold meditators on 3D-WS overall wisdom. Threshold meditators scored significantly higher than non-threshold meditators. Controlling for age, gender, and race, scores were insignificant.

Two Hours Per Week Meditation Threshold

**SELF Personal Subscale.**

Using a T-test, results do not support the hypothesis that threshold meditators would score higher than non-threshold meditators on the SELF Personal subscale, and in fact the opposite occurred. Threshold meditators scored significantly lower than non-threshold meditators. Controlling for age, gender, and race, the negative trend remained significant.

**SELF Transpersonal Subscale.**

Results do not support the hypothesis that threshold meditators would score higher than non-threshold meditators on the SELF Transpersonal subscale. There was no significant difference in scores between threshold and non-threshold meditators. Controlling for age, gender, and race, scores remained insignificant.

**3D-WS Cognitive Subscale.**

Threshold meditators scored significantly higher than non-threshold meditators on the 3D-WS cognitive subscale. Controlling for age, gender, and race, scores remained significant.

**3D-WS Reflective Subscale.**

Results partially support the hypothesis that threshold meditators would score higher than non-threshold meditators on the 3D-WS reflective subscale.
Threshold meditators scored higher than non-threshold meditators at the trend level. Controlling for age, gender, and race, scores were insignificant.

3D-WS Affective Subscale.

Results partially the hypothesis that threshold meditators would score higher than non-threshold meditators on the 3D-WS affective subscale. Threshold meditators scored higher than non-threshold meditators at the trend level. Controlling for age, gender, and race, scores were insignificant.

3D-WS Overall Wisdom.

Results do support the hypothesis that threshold meditators would score higher than non-threshold meditators on 3D-WS overall wisdom. Threshold meditators scored significantly higher than non-threshold meditators. Controlling for age, gender, and race, results were insignificant.

Other Results

Further inspection of data revealed significant correlation between 3D-WS overall wisdom scores and SELF Transpersonal subscale scores. Results are reported below as well as how age, gender, and race demographics each factor into this relationship.

Overall Wisdom and Transpersonal Subscale

Although no prediction was made, results indicate 3D-WS overall wisdom and SELF Transpersonal scores were significantly correlated, \( r = .27, p < .01 \). Controlling for age, gender, and race, correlation remained significant, \( r = .21, p < .05 \).

Age Relation to Wisdom and Transpersonal Subscale
Results indicate age was significantly correlated to 3D-WS overall wisdom, $r=.30, p<.01$ and SELF Transpersonal scores, $r=.29, p<.01$. Controlling for meditation experience, significant correlation remained for Transpersonal scores, $r=.23, p<.05$, and at the trend level for overall wisdom, $r=.18, p<.1$.

**Gender Relation to Wisdom and Transpersonal Subscale**

Results indicate gender was insignificantly correlated with 3D-WS overall wisdom, $r=-.13, ns$, and SELF Transpersonal scores, $r=.02, ns$. Controlling for meditation experience, results were insignificant.

**Race Relation to Wisdom and Transpersonal Subscale**

Results indicate race was significantly correlated with 3D-WS overall wisdom, $r=.45, p<.01$, but not SELF Transpersonal scores, $r=.08, ns$. Controlling for meditation experience, significant correlation remained for overall wisdom, $r=.45, p<.01$.

**Discussion**

Cognitive, affective, and overall wisdom variables correlate with all three independent test conditions (Meditate at all, Two year threshold, and two hours per week threshold). Personal, transpersonal, and reflective variables correlate with two of the three independent test conditions.

**SELF**

Significant negative correlation of meditation and the SELF Personal subscale scores in two year meditation threshold and two hours per week meditation threshold conditions was opposite the hypothesized prediction. The SELF Personal subscale is suggested to be roughly equal to various conceptions of mental health and previous
research indicates increased intrapersonal functioning with meditation practice (Nystul & Garde, 1977; Turnbull & Norris, 1982; Emavardhana & Tori, 1997). According to Friedman (1983) the SELF personal subscale is significantly correlated with Fitt’s (1965) Tennessee Self-concept Scale, a scale intended to summarize an individual’s feelings of self-worth and self-esteem. This apparent contradiction can perhaps be resolved by differentiating between actual intrapersonal functioning and self-identification with that functioning. For example, a meditator may be aware of his or her “thoughts and ideas as experienced in the present moment,” which would be a component of healthy intrapersonal functioning, however the SELF personal subscale measures identification with these “thoughts and ideas…” which a meditator may not be likely to identify with because meditation usually involves observing various thoughts and feelings that arise without identifying with them. Results suggest the more experienced and rigorous meditators are likely to show this effect of non-identification. Research needs to continue on the relationship between levels of intrapersonal health and meditator’s identification with these processes.

Correlation between meditation and transpersonal scores was found at the trend level for meditators and two year threshold meditators. One explanation for the weak correlation is potential confounding variables. Indeed age was found to be a significant predictor of transpersonal scores, even when controlling for meditation experience. Further research needs to be conducted to better understand variables associated with transpersonal scores.

3D-WS
The cognitive wisdom component refers to an individual’s ability to understand meaning in life’s events. No predictions were made for the 3D-WS Cognitive subscale because previous research (Kurtzman, 2005) suggested cognitive wisdom is not associated with meditation experience. Results of this study however indicate highly significant correlations in the three independent test conditions. This disparity may be mitigated by a confounding variable. Although Ardelt (2003) did not find a strong correlation between education and wisdom in an older adult sample, further research showed a significantly greater score on the cognitive dimension of wisdom for college-educated older adults in comparison to older adults without a college education (Ardelt, 2010). Participant education was not assessed for this study and could be a potential factor. Mentioned earlier, minimal research exists on relationship between meditation and wisdom and potential confounding variables such as education cannot be ruled out until further research is conducted to understand the relationship between meditation and the cognitive component of wisdom.

Positive association between meditation and the reflective component of wisdom was predicted and supported by the two year meditation threshold and two hours per week meditation threshold conditions. Results indicate length of time practicing meditation is significantly correlated with reflective scores; time spent per week was partially correlated with reflective wisdom. Ardelt (2003) states on the reflective component of wisdom, “one needs to engage in reflective thinking by looking at phenomena and event from many perspectives to develop self-awareness and self-insight” (p.278). Developing awareness and perspective taking are components of
Meditation which, practiced over time, would help explain the relationship between meditation and the reflective component of wisdom.

Meditation and the affective component of wisdom were positively predicted and supported by all three independent test conditions. Mentioned in the previous paragraph, meditation is a method to observe internal thoughts and states. By observing the various mental states it would make sense that one can better relate to emotions when no longer exclusively identified with them. For example, familiarity and not identifying with the feeling of anger, one would have greater choice in choosing whether or not to express the emotion. In this way meditation helps regulate emotion, allowing greater opportunity to consciously cultivate positive emotions of tenderness and kindness. Results indicate the willingness to engage in this familiarization of emotion and extended practice of this type were the best predictors of affective wisdom.

Overall wisdom was predicted and supported by all three independent test conditions to be positively correlated with meditation. Previous research conducted by Levenson et al. (2005) and Kurtzman (2005) both suggest wisdom and meditation are related. At the onset of this study, though outcome of the cognitive dimension of wisdom was not predicted, it made sense that overall wisdom would be correlated with meditation if two other components of wisdom, reflective and cognitive, were correlated with meditation. Controlling for demographic variables age, gender, and race, correlations were less significant or non-significant. The results imply meditation and wisdom are related, but findings are inconclusive and a larger sample size and similar population demographics are needed for future research.

Other Findings
No predictions were made on the relationship between wisdom and transpersonal identification but results show correlation exists even when controlling for age, gender, and race demographics. These findings imply wise people have less rigid boundaries of what constitutes the self compared to less wise people. Further qualitative research could investigate why these two variables are so closely related.

Age was found to be a significant predictor of both wisdom and transpersonal identification independent of meditation experience. Are older adults wiser than college students? Ardelt (2010) suggests age is a significant predictor of overall 3D-WS scores likely because of increased learning from life experiences. Findings imply wisdom and transpersonal dimensions are complex variables in which age is an important part. Further research can investigate the role of age, meditation, and other factors in wisdom and transpersonal constructs.

Gender was not significantly correlated with overall wisdom or transpersonal self-concept. It would be expected wisdom is gender-neutral and depends on other variables. The significant relationship between race and wisdom was a surprise but the sample not identifying as White/Caucasian was limited. This finding would most likely be insignificant in a normal population.

Limitations of Research

One limitation of this research was the skewed sample. Data were not random and neither the meditation group nor the non-meditation groups were representative of normal populations. Results of the study indicate meditation correlates with personal self-concept and aspects of wisdom but as shown when controlling for demographic variables, a normal population is needed for greater clarification of these findings. Also a comparable
population of older non-meditators would contribute to further research to assess how age, meditation, wisdom, and self-concept are related.

Another limitation of the study was the length of the study. A longitudinal study measuring over a period of many months or years could better indicate how meditation affects self-concept and wisdom over time. This would be especially beneficial with a sample just beginning meditation practice.

A third limitation was failure to differentiate different styles of meditation. At least three meditation styles are recognized in the Buddhist tradition, shamatha (quieting, non-discursive meditation), vipassana (mindfulness meditation of pure observance of mental activity without reaction), and discursive meditation reflecting on a particular topic (loving-kindness, compassion, impermanence, etc.). Meditation practitioners may emphasize one meditation style over another which could affect the relationship of meditation with self-concept and wisdom. For example, perhaps we could expect to find a stronger relationship between discursive meditation and cognitive wisdom compared to shamatha or vipassana meditations.

Concluding Remarks

Though there appears to be a limited relationship between meditation and transpersonal self-concept, study findings indicate meditation loosens identification with elements traditionally believed to be part of oneself (thoughts, attitudes, emotions, etc.), an element correlated with greater mental health. Meditation is found to be significantly associated with wisdom and the various dimensions of wisdom: cognitive, reflective, and affective. Thus, meditation appears to have beneficial effects on how one perceives and interacts with his or her environment. Findings of this study are encouraging and more
research needs to be conducted on meditation and its potentially positive impact on human health and functioning.
References


Figure 1. A cartography of self-conception, including levels of self-expansiveness.

Adapted from Friedman (1981, 1983)
Figure 2. SELF Personal Histogram for meditators indicates right skew
Table 1

Correlations and Descriptive Statistics for Meditators and Non-Meditators

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Meditators (n=77)</th>
<th>Non-Meditators (n= 30)</th>
<th>t-value</th>
<th>p</th>
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<td>0.39</td>
<td>3.41</td>
<td>0.45</td>
<td>-3.21</td>
<td>0.00 0.30***</td>
</tr>
<tr>
<td>Wisdom Average</td>
<td>3.80</td>
<td>0.33</td>
<td>3.53</td>
<td>0.37</td>
<td>-3.53</td>
<td>0.00 0.33***</td>
</tr>
</tbody>
</table>

*p<.1, **p<.05, ***p <.01

*a = partial r² is controlling for age, gender, and race
Table 2
Correlations and Descriptive Statistics for Two Year Threshold Meditators and Non-Two Year Threshold Meditators

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Threshold Meditators (n=59)</th>
<th>Non-Threshold Meditators (n=48)</th>
<th>t-value</th>
<th>p</th>
<th>r²</th>
<th>partial r²</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SELF-Personal</td>
<td>4.04</td>
<td>0.97</td>
<td>4.37</td>
<td>0.45</td>
<td>2.30</td>
<td>0.02</td>
</tr>
<tr>
<td>SELF-Transpersonal</td>
<td>3.53</td>
<td>0.96</td>
<td>3.23</td>
<td>0.85</td>
<td>-1.69</td>
<td>0.09</td>
</tr>
<tr>
<td>Cognitive Wisdom</td>
<td>3.98</td>
<td>0.41</td>
<td>3.72</td>
<td>0.42</td>
<td>-3.24</td>
<td>0.00</td>
</tr>
<tr>
<td>Reflective Wisdom</td>
<td>3.78</td>
<td>0.43</td>
<td>3.57</td>
<td>0.49</td>
<td>-2.26</td>
<td>0.03</td>
</tr>
<tr>
<td>Affective Wisdom</td>
<td>3.70</td>
<td>0.38</td>
<td>3.50</td>
<td>0.45</td>
<td>-2.53</td>
<td>0.01</td>
</tr>
<tr>
<td>Wisdom Average</td>
<td>3.82</td>
<td>0.34</td>
<td>3.60</td>
<td>0.36</td>
<td>-3.31</td>
<td>0.00</td>
</tr>
</tbody>
</table>

*p < .1, **p < .05, ***p < .01

a = partial r² is controlling for age, gender, and race
Table 3
Correlations and Descriptive Statistics for Two Hours Per Week Threshold Meditators and Non-Two Hours Per Week Threshold Meditators

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Threshold Meditators (n=53)</th>
<th>Non-Threshold Meditators (n= 54)</th>
<th>t-value</th>
<th>p</th>
<th>r²</th>
<th>partial r²</th>
</tr>
</thead>
<tbody>
<tr>
<td>SELF-Personal</td>
<td>3.99</td>
<td>4.39</td>
<td>2.72</td>
<td>0.01</td>
<td>-0.26***</td>
<td>-0.27***</td>
</tr>
<tr>
<td>SELF-Transpersonal</td>
<td>3.45</td>
<td>3.33</td>
<td>-0.63</td>
<td>0.53</td>
<td>0.06</td>
<td>-0.12</td>
</tr>
<tr>
<td>Cognitive Wisdom</td>
<td>4.00</td>
<td>3.73</td>
<td>-3.47</td>
<td>0.00</td>
<td>0.32***</td>
<td>0.20**</td>
</tr>
<tr>
<td>Reflective Wisdom</td>
<td>3.77</td>
<td>3.60</td>
<td>-1.88</td>
<td>0.06</td>
<td>0.18*</td>
<td>0.00</td>
</tr>
<tr>
<td>Affective Wisdom</td>
<td>3.68</td>
<td>3.55</td>
<td>-1.69</td>
<td>0.09</td>
<td>0.16*</td>
<td>0.07</td>
</tr>
<tr>
<td>Wisdom Average</td>
<td>3.82</td>
<td>3.62</td>
<td>-2.87</td>
<td>0.01</td>
<td>0.27***</td>
<td>0.12</td>
</tr>
</tbody>
</table>

*p<.1, **p<.05, ***p <.01

*a = partial r² is controlling for age, gender, and race