Fitter and healthier but happier? Assessing psychological wellbeing as the outcome of a wellness vacation using Self-Determination Theory

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**Fitter and healthier but happier? Assessing aspects of psychological wellbeing (affect, happiness and vitality) as the outcome of a wellness vacation using Self-Determination Theory**

**Introduction**

An already robust billion dollar subsector, wellness tourism is projected to exceed tourism growth over the coming years (Global, 2014). Wellness tourism is defined in terms of the pursuit and enhancement of wellbeing as a primary focus and outcome of travel (Smith & Kelly, 2006). For wellness destinations, the demonstrated ability to enhance wellbeing over the course of a vacation may thus be considered a core competency. Understanding the manner and extent to which wellbeing is enhanced is, by extension, a key consideration in critically evaluating this subsector. Thus the purpose of the current study was to consider the role of a wellness facility in contributing to wellbeing.

As Smith and Kelly (2006) noted, wellbeing primarily reflects a psychological state. In the wellness tourism literature, however, research centered on aspects of psychological wellbeing as these relate to a stay at a wellness facility has been lacking and enhanced psychological wellbeing assumed rather than assessed (Voigt, 2013).

In order to address this gap, Self-Determination Theory (SDT) was used as a theoretical framework to assess characteristics of a wellness facility that may enhance aspects of psychological wellbeing. An organismic theory of human motivation, SDT highlights external conditions that support the fulfilment of three fundamental needs which in turn are viewed as direct precursors to psychological wellbeing (Deci & Ryan, 2000). Under development since the 1970s, SDT has consistently demonstrated empirical support for key tenets (Vansteenkiste, Niemiec & Soenens, 2010); even daily variations in need fulfillment have demonstrated corresponding variations in subjective wellbeing (Baard, Deci & Ryan, 2004).

The purpose of the study was to empirically assess aspects of psychological wellbeing as the immediate outcome of a stay at a wellness facility. The following questions were considered:

1. Does a stay at a wellness facility enhance relevant aspects of psychological wellbeing?
2. What characteristics of a wellness facility contribute to the enhancement of relevant aspects of psychological wellbeing?

**Literature Review**

Research studies assessing the impact of leisure travel have not provided sufficiently rigorous criteria by which to assess the wellness tourism subsector. Leisure travel is typically regarded as an individual good (Weaver, 2012) with suggested benefits ranging from stress recovery to improved personal relationships (Mcabe & Johnson, 2013). Others point to the rejuvenating potential of travel due to a change of scene (Henderson & Bialeschki, 2008), feelings of anticipation, enjoyment in activities and skill acquisition, as well as pleasant post-trip memories and an enhanced world view (Nawijn, 2012).
Studies that have measured wellbeing as the outcome of travel, however, are typically data driven rather than grounded in theory. Following an extensive search of academic and non-academic sources, Chen and Petrick (2013), for example, identified 98 articles in tourism, organizational, and health sciences which have considered health and wellness benefits of leisure travel. They noted that only a few specified a theoretical framework (e.g. spill-over theory); rather that quality-of-life indicators were most often used to assess the impact of leisure travel (Chen & Petrick, 2013).

Quality-of-life indicators, however, assess aggregate changes in satisfaction rather than direct precursors to psychological wellbeing (Dolnicar, Yanamandram, & Cliff, 2012). Dolnicar et al. (2012) noted that it thus remains unclear whether it is travel or leisure that contributes to quality-of-life. Mcape and Johnson (2013), for example, considered the relationship between vacations and quality-of-life using a pre and post study that measured only aggregate changes in reported satisfaction within life domains. They also noted a lack of specification regarding contextual characteristics or activities undertaken while on vacation (Mcape & Johnson, 2013).

In addition to a lack of well-defined theoretical constructs in research streams, the nature of wellness tourism itself indicates a need to establish a relationship between destination management and enhanced wellbeing as the subsector is premised on this pursuit and outcome (Smith & Puczko, 2009). That is, while the individual services and activities at a wellness destination are included for this purpose, the overall experience should clearly demonstrate benefits to psychological wellbeing. Chen, Liu and Chang (2013), for example, list (1) Health promotion treatments, (2) Mental learning, (3) Experience of unique tourism resources, (4) Complementary therapies, (5) Relaxation, (6) Healthy diet and (7) Social activities as typical. Kelly (2010) described a typical retreat as including: (1) Yoga, (2) Massage, (3) Meditation, (4) Personal development/ counseling/ coaching/ confidence-building, (5) Nutrition, (6) Education/philosophy, (7) Healing, (8) Spirituality, (9) Nature/outdoor activities, (10) Stress relief, and (11) Leisure activities.

**Theoretical framework**

SDT postulates three fundamental and universal human needs, namely: (1) Autonomy defined as personal volition or following the dictates of an authentic self, (2) Competence described as a need to be effective in one’s environment and attain valued outcomes within it, and (3) Relatedness which refers to the human desire to feel connected to and engage with others (Deci & Ryan, 2000).

With regard to domain specific tasks or activities (e.g. diet and exercise) Autonomy is defined as Autonomous Self-Regulation (ASR) (Deci & Ryan, 2000). That is, ASR corresponds with goals, drives and motivations that are inherent or fully internalized and thus reflect an individual who is behaving autonomously (Deci & Ryan, 2000). ASR is thus evidenced as those tasks or behaviors which are voluntary even enthusiastically undertaken, although SDT suggests that ‘ambient supports’ may foster the internalization where activities are not considered inherently appealing - such as an exercise routine (Deci & Ryan, 2000). Conversely, externally mandated behaviors have
a negative relationship to wellbeing and external conditions that are less than optimal may actually forestall the internalization process (Deci & Ryan, 2000).

Mindfulness was also included in the current study. Derived from Buddhist philosophy, mindfulness is “the state of being attentive to and aware of what is taking place in the present” (Brown & Ryan, 2003, p. 822). In SDT, Mindfulness, is described as an engaged but objective state free of discriminatory ‘filters’ and is associated with optimal experience or so-called ‘flow’ (Brown & Ryan, 2003; Brown, Ryan, & Creswell, 2007). Mindfulness is also viewed as enhancing Autonomy or one’s ability to make choices consistent with personal needs, values and interests (Brown, Ryan, & Creswell, 2007). Finally, empirical research has also demonstrated a direct and positive relationship between mindfulness and wellbeing (Brown, Ryan, & Creswell, 2007).

In the current study, psychological wellbeing was measured in terms of affect, happiness and vitality. Psychological wellbeing has been operationalized across studies in a variety of ways, although Bradburn’s (1969) early and influential two-factor affect scale remains one of the most frequently employed (Ma, Tan & Ma, 2012). In the current study, a revised version of Bradburn’s scales were used, namely the Positive and Negative Affect Schedule (PANAS) (Watson, Clark & Tellegen, 1988). Positive and negative affect represent two distinct dimensions of wellbeing; viewed as orthogonal factors, these have even been used independently of each other in prior studies as the presence or absence of one does not impact the psychometric properties of the other (Pressman & Cohen, 2005).

Two additional measures of psychological wellbeing were employed. Ryan and Deci (2001) noted that psychological wellbeing is generally understood to concern optimal experience and functioning although it has been premised on two divergent orientations in research streams. The first is hedonic wellbeing, commonly termed happiness, and it is one that reflects a positive psychological state with strong associations to leisure pursuits including travel (Lu & Hu, 2005; Nawijn, 2011; Ryan & Deci, 2001). In the current study, the Subjective Happiness Scale (SHS) was included to capture this dimension of wellbeing. The second, eudaimonic wellbeing, is conceptually distinct from happiness and reflects a deeper state of wellbeing or authenticity (Ryan & Deci, 2000). Ryan and Deci (2001) postulate that external controls deplete enthusiasm or energy available to the self but not activities which align with an authentic self. Thus vitality is “considered an aspect of eudaimonic well-being as being vital and energetic is part of what it means to be fully functioning and psychologically well” (Ryan & Deci, 2001). The Subjective Vitality Scale (SVS) was included in this study as a state level assessment to capture this aspect of wellbeing (Ryan & Frederick, 1997). The measure was also intended to reflect the immersive environment of a wellness vacation with a pronounced emphasis on exercise and self-development as described above (Ryan & Deci, 2000). Finally, these two measures also span the range of motivations for engaging in wellness as defined by Voigt et al.’s (2011) using Stebbin’s spectrum of leisure activities ranging from casual (hedonistic) to serious (eudemonic) pursuits.

**Hypotheses**

In order to assess aspects of psychological wellbeing the following hypotheses were proposed:

\( H_1: \) A stay at a wellness facility significantly increases guests’ happiness.
H2: A stay at a wellness facility significantly increases vitality.
H3: A stay at a wellness facility significantly increases positive affect.
H4: A stay at a wellness facility significantly decreases negative affect.

Direct precursors to psychological wellbeing as defined in SDT were also considered in the context of a wellness facility.

The following hypotheses were proposed:

H5: Autonomous Self-Regulation positively and significantly impacts Wellbeing
H6: Competence positively and significantly impacts Wellbeing
H7: Guest Relatedness positively and significantly impacts Wellbeing
H8: Mindfulness positively and significantly impacts Wellbeing

Methods

A survey study was conducted on-site at a destination spa or lifestyle retreat in the Southeast region which is representative of wellness facilities in the U.S. The key criteria for selection was that wellbeing as an outcome among guests might be reasonably expected. In operations for 38 years, the facility enjoys a strong reputation both nationally and internationally as evidenced by reviews on their website, independent travel sites, and recommendations and media coverage in national and global media outlets.

Guest participation was solicited by staff at an initial screening, during which a pre-survey was administered measuring constructs associated with psychological wellbeing. A second survey measuring the same constructs was later administered to participants during a mandatory information session at the conclusion of their stay. Each guest stay is at least 6 days long. Participants’ pre and post-visits surveys were matched using a 3 digit code that was recorded on the surveys by facility staff.

Survey scales, including the Mindful Attention Awareness Scale (MAAS), were downloaded from the SDT website and adapted for the study. Enhanced Competence was assessed at the global level (e.g. Following a stay at the health resort, I am more capable of handling life’s challenges). ASR was measured with respect to focal activities, namely diet and exercise (e.g. Assuming that you intend to permanently improve your diet or to maintain a healthy diet going forward, how true are the following statements: I now feel capable of maintaining a healthy diet); and Relatedness with respect to other guests (e.g. I consider the other guests to be my friends).

Paired sample t-tests were then conducted on measures of Wellbeing to examine the extent to which these were enhanced over the course of a stay at a wellness facility.

Pre and post surveys were matched (N=192) to conduct the t-tests. Additional post-visit surveys (N=204) were included in the structural equation model (SEM) as sample size was a consideration; however, small sample sizes are far less problematic where models are simple, variables are reliable and effects are strong (Iacobucci, 2010 p. 92).
Data was screened and SEM used to model precursors to Wellbeing. Omissions appeared random and missing values were substituted with scale item means (Kline, 2011). Data was screened for skewness (>3) and kurtosis (>10) (Kline, 2011). Item responses were checked based on the above criteria both before and after composite scores were generated. Items measuring negative affect (NA) were consistently low which is unsurprising given the context (e.g. items measuring hostile, jittery and afraid). As reverse coded NA items also had low factor loadings, the scale was excluded from further analysis (Kline, 2011). Data was also screened for outliers. For continuous variables, standardized scores greater than +/- 3.29 which are disconnected from other z-scores are considered outliers (Tabachnik & Fidell, 2007). As the overall number of outliers was small, extreme scores were converted to the next closest score within three standard deviations of the mean (Kline, 2011).

Scale reliability was assessed using Cronbach’s Alpha (α) (Kline, 2011) with all reliability coefficients exceeding .80 which is to be expected for well validated scales. All items also loaded on a single factor except for a reverse coded item measuring Guest Relatedness which also demonstrated a low factor loading and thus was eliminated from analysis.

Bartlett’s Test of Sphericity and Kaiser-Meyer-Olkin’s (KMO) Measure of Sampling Adequacy were also performed with the former being significant in each case and a ratio exceeding 0.80 in the latter (Kaiser, 1974). Multicollinearity, error terms and modifications were also considered and were within acceptable boundaries for conducting SEM analysis (Kline, 2011). Results of the analysis are included below.

To optimize the number of indicator variables and improve item to subject ratio, items for Autonomous self-regulation (6 items), Mindfulness (15 items) and Guest Relations (6 items) were randomly assigned to parcels (Cunningham, Shahar and Widaman, 2002; Little, Rhemtulla Gibson & Schoemann, 2013).

**Results**

In terms of guest demographics, guests at the facility under study were comparable to those reported in prior studies: predominantly female (72%), well-educated with 74.4% holding a post-secondary degree, and affluent with 71% reporting an annual income with 82% reporting an annual income over $150,000 (Gustavo, 2010; Kelly, 2012; Mak et al., 2009; Smith & Puckzo, 2009). In terms of age, over the time period in which data was collected, the youngest wellness guest was 16 and the oldest was 84 with the majority (32%) between the ages of 51 and 60.

Paired-sample t-tests were (N = 192) conducted on pre and post-visit scores of wellbeing and all measures were significant at the p < .05 level (see Table 1). Thus study hypotheses 1 through 4 were supported. This provides empirical support for enhanced wellbeing as the outcome of a stay at this facility. Effect size was also considered. Based upon Cohen’s (1988) suggested thresholds for small (.2), medium (.5), and large (.8) effect sizes, results are interpreted as exhibiting a medium effect size for Positive Affect and Vitality and small effect size for Happiness (see Table 2).
<table>
<thead>
<tr>
<th>Post - Pre Visit</th>
<th>Mean Diff.</th>
<th>Std. Dev</th>
<th>SE Mean</th>
<th>95% CI of Difference</th>
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<tr>
<td>Positive Affect</td>
<td>.974</td>
<td>1.098</td>
<td>.079</td>
<td>.817 to 1.130</td>
<td>12.289</td>
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<td>Vitality</td>
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<td>1.395</td>
<td>.101</td>
<td>.938 to 1.334</td>
<td>11.288</td>
<td>191</td>
</tr>
<tr>
<td>Happiness</td>
<td>.412</td>
<td>1.266</td>
<td>.091</td>
<td>.232 to .592</td>
<td>4.507</td>
<td>191</td>
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</tbody>
</table>

Table 1: Paired Sample T-tests

<table>
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<tr>
<th>Measures</th>
<th>Mean Diff.</th>
<th>Std. Dev</th>
<th>t</th>
<th>df</th>
<th>Cohen’s D</th>
<th>Effect size (r)</th>
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</thead>
<tbody>
<tr>
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<td>1.098</td>
<td>12.289</td>
<td>191</td>
<td>1.7784</td>
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<td>1.395</td>
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<td>191</td>
<td>1.6335</td>
<td>0.6325</td>
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<tr>
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<td>1.266</td>
<td>4.507</td>
<td>191</td>
<td>0.65223</td>
<td>0.3100</td>
</tr>
</tbody>
</table>

Table 2: Effect Size Paired Sample T-tests

In terms of the study model (see Figure 1), each of the parameter estimates were significant at the p < .05 level thus hypotheses were again supported. For the dependent variable (Wellbeing), .56 in variance explained is also a noteworthy result (Mehmetoglu, 2011).

Chi-square, however, was significant (Kline, 2011) but as this index is sensitive to sample size additional fit indices were considered (Tabachnick & Fidell, 2006). Incremental fit indices CFI, NFI, and IFI ideally have values of ≥.95 for good model fit (Byrne, 2011; Weston & Gore 2006). GFI and AGFI ideally have values of ≥.90 for acceptable fit and ≥ .95 for good fit (Schermelleh-Engel, Moosbrugger & Müller, 2003). RMR has a suggested upper bound of 0.08 (Schreiber et al., 2006). RMSEA is ideally < .06 with a confidence interval approaching 0 on the low end and > .08 on the upper end (Schermelleh-Engel et al., 2003). The study model may thus be described as demonstrating adequate rather than good fit overall. The absolute fit (GFI and AGFI) indices which summarize variance explained in the model overall (Weston & Gore, 2006) were, however, problematic with lower than desirable values by the above criteria.
Conclusion and Discussion

Study results demonstrated that wellbeing is enhanced to a significant extent over the course of a vacation with respect to Vitality (associated with feelings of aliveness), and Positive Affect (associated with enthusiasm, energy and engagement). Happiness, defined as a global, dispositional state was not as impacted.

All parameter estimates in the study model were significant. Thus they suggest the manner in which a wellness facilities enhances wellbeing. Of the three basic needs, Competence had the greatest impact on Wellbeing which is consistent with prior SDT studies (Ng, Ntoumanis, Thogersen-Ntoumani, Deci, Ryan, Duda, & Williams, 2012) and also echoes an earlier wellness study in which guests alluded to a heightened “ability to cope” as a primary benefit of a stay at a spa (Little, 2013). In terms of managerial implications, mastering activities such as cooking or exercise routines to enhance a sense of Competence in particular areas may be augmented by an equal emphasis on restoring emotional and spiritual equilibrium. Competence, for example, is high correlated (.43) with Mindfulness and the latter may be practiced onsite as suggested below (Brown & Ryan, 2004).

ASR also had a pronounced impact on Wellbeing. Managerial implications to encourage ASR on the part of guests at a wellness facility include creating an Autonomy supportive program (e.g. voluntary participation) and encouraging fitness and wellness instructors to foster a supportive rather than didactic or demanding attitude towards guests. Autonomy support in this context should not be confused with a lack of structure, however, as structure actually facilitates the attainment of valued goals, the integration of external values and overall Wellbeing (Jang, Reeve & Deci, 2010). A highly orchestrated schedule may also contribute to a sense of immersion and mental absorption which in turn has a regenerating effect on mental faculties (Lehto, 2013).
In terms of Relatedness, a somewhat lower parameter estimate was again consistent with results in healthcare studies (Ng et al., 2012). Nonetheless, as demonstrated in an earlier study, a salient motivation for visiting a retreat may be the social aspects or chance to interact with like-minded people or other guests (Kelly, 2012). The importance of Relatedness has also been demonstrated in terms of daily fluctuations in Wellbeing (Sheldon, Ryan, & Reis, 1996). Wellness facility guests at the study site further emphasized the enjoyment and even therapeutic value of interactions with other guests (personal communications, 2013). Thus from a management perspective, facilitating guest interactions by setting the appropriate tone in addition to family-style dining and group activities is suggested.

Mindfulness also contributed to Wellbeing confirming the role of a wellness facility as a “flight mechanism” for dealing with personal issues or difficult experiences, better understanding one’s essential nature (Smith & Puczko, 2009), or simply as a sanctuary from external stressors (Kelly, 2008). Mindfulness is furthermore associated with individuals acting in a manner that is consistent with personal values and interests and thus supports an individual’s sense of Autonomy and ASR in addition to correlating with Competence (Brown & Ryan, 2004). Managerial implications include incorporating activities that encourage Mindfulness such as meditation, journaling, time spent in nature, wellness seminars and psychological counseling.

For the study overall, limitations include the single study site. Results may not be representative of a wider spectrum of tourists or facilities as a comparison of services and characteristics across facilities was not undertaken. There was also a potential social desirability bias as data collection was conducted on-site. In addition, this study only assessed short term benefits and did not capture longitudinal effects.

Although within tolerable limits, the data also indicated problems with positive kurtosis, in other words that single item responses had a tendency of accumulating in the same place along the scale. This may reflect a degree of homogeneity within the study sample, as well as possibly the wider wellness tourism subsector. An only adequate fitting model was a further limitation which may suggest additional constructs are necessary to refine and clarify results. Along the same lines, and as with any framework, aspects of a wellness vacation that might contribute to wellbeing were limited to theoretical precepts.

Future research may validate results and incorporate additional constructs, interactions effects, and pre and post control groups. Variations across guests and primary reasons for travel may also be considered.

References


