# Changes in tourists' perception of well-being based on their use of emotion regulation strategies during vacation

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## **Abstract:**

Based on the theoretical foundation of emotion regulation, this exploratory study aimed to examine changes in tourists' perceived well-being and to determine whether these changes were due to use of emotion regulation strategies (ERSs) during their vacation. This study used travel diaries to record tourists' use of ERSs on a daily basis, and also measured tourists' perceived well-being one day before and after their vacation. Results indicated that tourists had significantly higher perceptions of well-being after vacation, and those who used ERSs were more likely to indicate a higher sense of well-being after vacation. The results provide new insight into which aspects of tourists' subjective and psychological well-being can be boosted by taking vacations and how these aspects may be enhanced by using different ERSs.

**Keywords:** Well-being | happiness | emotion | emotion regulation strategies | vacation | tourist behavior | intervention | souvenirs | travel diary | travel experience

#### **Articles:**

#### Introduction

Tourism researchers who have studied how emotions fluctuate throughout the tourism experience have adopted the perspective that emotions should be viewed as passions that come and go, more or less of their own accord (Gilbert & Abdullah, 2004; Lin, Kerstetter, Nawijn, & Mitas, 2014; Nawjin, 2010; Nawjin, Mitas, Lin, & Kerstetter, 2013; Solomon, 1976). Most of their research has been built on the underlying belief that emotions are static and can be captured at multiple points in time during a vacation (Lin et al., 2014; Nawijn, 2010; Nawjin et al., 2013), which ignores the variability and dynamicity of emotions. Being able to account for the generative process of emotions throughout the course of an experience is very important in advancing the study of tourists' experiences (Coghlan & Pearce, 2010).

In addition to being variable and dynamic, emotions are short-lived and subjective (Beedie, Teery, & Lane, 2005) and, according to Gross (1998a), can be controlled using a wide range of strategies. This notion, referred to as emotion regulation, highlights the variable and dynamic nature of emotions and suggests that emotions can be regulated at separate points during the generative process (Gross, 1998a, 2001). Individuals use their cognitive resources to appraise emotional stimuli and move the emotional transformation of the response in a more positive direction by successfully using emotion regulation strategies (ERSs) (Gross, 2013). However, it is unclear how individuals use ERSs during pleasurable experiences such as a vacation and whether doing so positively impacts their perceived well-being after these pleasurable experiences. Despite substantial literature that has sought to connect tourists' emotions and experiences to their well-being and quality of life (e.g. Gilbert & Abdullah, 2004; Nawijn, 2010), to our knowledge researchers have not examined the impact of using ERSs to positively impact tourists' well-being. Documenting the impact of using ERSs in a vacation context will not only provide additional evidence of the relationship between tourism, emotions, and well-being (Gilbert & Abdullah, 2004; Lazarus, 1991), but will also broaden our understanding of tourists' psychological and emotional states beyond issues of satisfaction and motivation that formed the thrust of earlier research (Pearce & Lee, 2005).

The purpose of this study was to examine changes in tourists' perceived well-being and to determine whether these changes were due to the use of ERSs during their vacation. The results of this study are expected to contribute to the travel and tourism literature by (1) introducing the construct of emotion regulation; (2) advancing knowledge about emotion regulation as a factor that contributes to well-being; and (3) contributing to the burgeoning emotion research in tourism by accounting for emotions' transient nature, dynamicity, and variability throughout a vacation. This study is also expected to contribute to the affective science literature by documenting the relationship between emotion regulation and well-being in a tourism context.

#### Literature review

## **Tourism and well-being**

Tourism researchers have linked individuals' travel experience to their perceived well-being (also referred to as "quality of life (QOL)," "life satisfaction," "mental health," and "happiness" in the travel and tourism literature). In 2004 Neal, Sirgy, and Uysal encouraged researchers to conduct more QOL studies in tourism to evidence the link between tourism satisfaction and general life satisfaction. In the same year Gilbert and Abdullah, who operationalized QOL as positive affect, negative affect, and life satisfaction, documented small increases in vacationers' sense of well-being compared with non-vacationers. Focusing on happiness rather than QOL, Nawijn, Marchand, Veenhoven, and Vingerhoets (2010) examined whether a holiday trip boosts happiness. They found that vacationers reported a higher degree of pre-trip happiness than non-vacationers. However, the long-term effects of this boost in happiness tend to be small and short-lived (De Bloom, Guerts, & Kompier, 2012; Nawijn, 2011a).

Recognizing that vacations may impact satisfaction with different aspects of life (as opposed to general life satisfaction), Sirgy, Kruger, Lee, and Yu (2011) challenged researchers to consider

life satisfaction as a hierarchical construct, that is, life satisfaction is influenced by satisfaction with life domains such as family, which are influenced by lower levels of life concerns such as social events related to a vacation. Sirgy et al. (2011) also identified specific sources of positive (e.g. being away from daily routine) and negative (e.g. feeling tired traveling from one place to another) affect that significantly influence tourists' well-being. Dolnicar, Yanamandram, and Cliff (2012) further demonstrated that vacations were weighed as core to their perceived QOL, compared with other life domains that were considered as enhancement aspects of QOL.

Although the majority of research in tourism and well-being has focused on understanding how tourism influences QOL (measured predominantly as satisfaction with life) and happiness, evidence from a number of studies (e.g. Compton, Smith, Cornish, & Qualls, 1996; King & Napa, 1998; McGregor & Little, 1998; Ryan & Deci, 2001) have indicated that well-being is best conceived as consisting of hedonic (i.e. subjective well-being) and eudaimonic (i.e. psychological well-being) dimensions. The hedonic dimension focuses on happiness, defined as the presence of positive affect, and the absence of negative affect (Deci & Ryan, 2008; Ryan & Deci, 2001), while the eudaimonic dimension considers well-being to consist of more than just happiness, and is concerned with meaningfulness (Ryan & Deci, 2001) and living well or in a fully and deeply satisfying way (Deci & Ryan, 2008). Despite these distinctions, evidence has shown a high level of statistical covariance between the experience of hedonia and eudaimonia, suggesting substantial overlap between the two dimensions of well-being (Bauer, McAdams, & Pals, 2008; Waterman, Schwartz, & Conti, 2008). Moreover, experiencing eudaimonia necessarily results in experiencing hedonic enjoyment, but not all hedonic enjoyment is derived from eudaimonia (Ryan & Deci, 2001; Waterman, 1993; Waterman et al., 2008). Recognizing that much of the recent research on emotions and well-being in a travel context has primarily focused on the hedonic or subjective dimensions of well-being only, this study incorporated both hedonic and eudaimonic dimensions in order to obtain a more holistic understanding of travelers' well-being.

Various researchers have promoted models to comprehensively measure the construct of well-being. The two primary models include PERMA and DRAMMA. Seligman (2011) introduced PERMA, which promotes measurement of positive emotion (P), engagement (E), positive relationships (R), meaning (M), and accomplishment (A). Saunders, Laing, and Weiler (2014) and Filo and Coghlan (2016) recently applied PERMA to the study of long-distance walkers and charity sport events, and both their results indicated that long-distance walking and participating in charity sport events facilitated the development of five domains in the PERMA model. DRAMMA, which was developed by Newman, Tay, and Diener (2014), addresses both hedonic and eudaimonic dimensions of well-being by measuring detachment—recovery (DR), autonomy (A), mastery (M), meaning (M), and affiliation (A). Laing and Frost (2017) applied both models in their study of female tourists' narratives about their travel experiences in Italy, and their findings were related to most domains from these models. Since the emotion is included as a domain in the well-being models, the following section reviews how the tourism literature has evidenced on emotions and well-being.

## Well-being and emotions in tourism research

In order to address the question of whether a link exists between well-being and emotions, Nawijn (2010) collected data on travelers' daily mood and general life satisfaction during a holiday. This research revealed a Holiday Happiness Curve that changes over the course of the holiday. However, because Nawijn (2010) failed to recruit the same group of participants and monitor their mood change to construct the Curve, there was a large variance in the Curve. Recognizing this flaw, Mitas, Yarnal, Adams, and Ram (2012) examined daily positive emotion development before, during, and after a leisure travel experience. They used a developmental within-participants design to determine if Nawijn's (2010) Holiday Happiness Curve provided a plausible account of positive emotion development associated with leisure travel at the individual level. Consistent with Nawijn's (2010) model, they found that positive emotions overall, and joy and interest in particular, increased before leisure travel, were elevated during travel, and declined post travel.

Additional studies have been conducted to examine the determinants of travelers' daily happiness on vacation. For example, (Nawijn, 2011b) used an Affect Balance Score to measure travelers' hedonic level of affect, and found that travelers were generally high on the hedonic level of affect. Holiday stress and attitude toward the travel party were found to be the most important determinants of daily affect balance, indicating that holiday trips or vacations are not always pleasant. Other researchers have come to the same conclusion. They have reported travel-related health problems such as homesickness (Kop, Vingerhoets, Kruithof, & Gottdiener, 2003; Pearce, 1981; Van Heck & Vingerhoets, 2007; Vingerhoets, Sanders, & Kuper, 1997); worrying during trips (Larsen, Brun, & Ogaard, 2009); relational problems (Ryan, 1991); as well as culture shock (Pearce, 1981). Hence, it is plausible that experiencing a holiday with unpleasantness or stress may lead to lower feelings of happiness (Nawijn, 2011b; Nawijn et al., 2010). There is no research to our knowledge that has addressed how travelers cope with such holiday unpleasantness or stress, which might be a source of travelers' negative emotions.

Considering the short-lived nature of emotions (Beedie et al., 2005), researchers have used a variety of methods to measure emotions and well-being. Nawijn et al. (2013) used a diary method to track individuals' daily emotions during their vacation. Their results revealed the important relationship between fluctuations in emotions and length of vacation, indicating that vacationers on an 8- to 13-day trip experienced significant changes in the balance of their emotions over the course of their trip. Lin et al. (2014) further examined changes in specific positive and negative emotions during a vacation, and found that travelers were high in both positivity and arousal. In general, travelers reported feeling more positive at the beginning of their vacation rather than at the end of their vacation.

In general, studies on pleasure travel, emotions, and well-being report that people have an increased sense of well-being either before or after traveling compared with those who do not travel. There is also evidence of "peak" fluctuations of emotions during a trip (Lin et al., 2014; Mitas et al., 2012; Nawijn, 2010; Nawijn et al., 2013). However, most existing studies have been built on the underlying belief that emotions are static and, in some cases, that individuals can recall their emotions after their travel experience (Sirakaya, Petrick, & Choi, 2004). They have

failed to take emotions' dynamic performance into account. Hence, we examined traveler's emotions and well-being from a dynamic perspective by accounting for their ERSs.

# **Emotion Regulation Strategies**

In this study emotion regulation was conceptualized as a process that involves initiating, inhibiting, or modulating a person's state of mind or behavior in a given situation (Gross & John, 2003). A core feature of emotion regulation is the activation of a goal to up- or down-regulate either the magnitude or duration of the emotional response (Gross, Sheppes, & Urry, 2011). For example, people may try to increase positive emotions such as love, interest, and joy (Quoidbach, Berry, Hansenne, & Mikolajczak, 2010), while they also try to decrease negative emotions such as anger, sadness, and anxiety (Gross, Richards, & John, 2006). The up- or down-regulation process activates the goal either in oneself (i.e. intrinsic emotion regulation) or in someone else (i.e. extrinsic emotion regulation). Intrinsic emotion regulation refers to situations when individuals regulate their own emotions, while extrinsic emotion regulation represents instances when individuals regulate another person's emotions (Cole, Martin, & Dennis, 2004; Gross, 1998b). Infrequently, both intrinsic and extrinsic emotion regulation co- occur, that is, when persons regulate others' emotions (i.e. extrinsic regulation) in order to calm themselves down (i.e. intrinsic regulation).

Whether driven by intrinsic or extrinsic goals, people do many different things to regulate their emotions (Parkinson & Totterdell, 1999). To understand their array of regulation activities, Gross (1998a, 2001) proposed the process model of emotion regulation, which treats each step in the emotion-generative process as a potential target for regulation. The model highlighted five points at which individuals can regulate their emotions. Each of these five points represents a family of ERSs: (1) situation selection, (2) situation modification, (3) attentional deployment, (4) cognitive change, and (5) response modulation. Because each family of ERSs has different consequences, Gross (2013) modified the model to further distinguish between antecedent-focused and response-focused strategies. The first four families of regulation strategies (i.e. situation selection, situation modification, attentional deployment, cognitive change) are antecedent-focused, and the fifth one (i.e. response modulation) is response-focused. The antecedent-focused strategies refer to things a person can do before the emotion response has become fully activated and changed behaviors, while the response-focused strategy focuses on things a person can do once an emotion response has already been generated and is underway (Gross, 2001).

Recent research has indicated that collecting souvenirs and/or photos might be another ERS. Collecting may extend tourists' travel experience by allowing individuals to remember the best moments and/or relive a positive experience (Quoidbach, Mikolajczak, & Gross, 2015). It may also provide tourists with a tangible biography by associating objects with experiences (Winget, 2011). Hence, Quoidbach et al. (2015) suggest that researchers consider collecting as an additional ERS that allows individuals to regulate their emotions through reminders of the self through time (e.g. a present focus of involvement, previous mementos and souvenirs, and pointers to future goals) or their valued relationships.

The emotion regulation questionnaire (ERQ) is a common emotion regulation measurement used by psychologists (e.g. Balzarotti, John, & Gross, 2010; Gross & John, 2003) to measure ERSs. The ERQ consists of two scales corresponding to two families of ERSs, that is, cognitive reappraisal and expressive suppression. The item, "I control my emotions by changing the way I think about the situation," represents a cognitive reappraisal strategy and the item, "I control my emotions by not expressing them," denotes an expressive suppression strategy.

Mounting evidence suggests that emotional responses such as anger, anxiety, and depression can influence both mental and physical health (Suls & Bunde, 2005). Many mental disorders (e.g. anxiety, mood disorder) are thought to involve emotion dysregulation or misregulation, or emotion regulation failure that results in problematic emotional states (Gross & Munoz, 1995). Framing these mental disorders from an emotion regulation perspective provides potential mechanisms for underlying psychosocial interventions, such as cognitive-behavioral therapy (Goldin et al., 2012). With regard to emotional influences on physical health, specific attention has been paid to the positive relationship between negative emotions and cardiovascular disease (Suls & Bunde, 2005), leading to further studies on emotion regulation and cardiovascular outcomes (Appleton, Buka, Loucks, Gilman, & Kubzansky, 2013; Kubzansky, Park, Peterson, Vokonas, & Sparrow, 2011).

Gross and John (2003) suggested that the use of ERSs is related to a person's psychological well-being as well: reappraisal has been shown to be positively related to psychological well-being, whereas suppression has been negatively associated with well-being. Individuals who used reappraisal were found to have fewer symptoms of depression, higher levels of environmental mastery, personal growth, self-acceptance, and a clearer purpose in life, whereas individuals who used suppression were found to avoid and lack close social relationships and indicate less life satisfaction, and have lower self-esteem and a less optimistic attitude about the future (Gross & John, 2003). DeSteno, Gross, and Kubzansky (2013) found direct effects of emotion on health, depending on physiological alterations that occur with affective states. They also documented indirect effects of emotion on health, which influence individuals' decisions and behaviors such as diet, exercise, coping strategies, and seeking social support.

Recognizing the continued need for evidence of the relationship between tourism, emotions, and a holistic measure of well-being as well as emotions' transient nature, dynamicity, and variability throughout a vacation, the overall purpose of this study was to examine changes in tourists' perceived well-being and to determine whether these changes were due to use of ERSs during their vacation. To address this overall purpose, the following research questions were answered:

- 1. Do tourists perceive their sense of well-being differently before and after vacation?
- 2. Does tourists' use of ERSs explain differences in perceived well-being before and after vacation?

#### Research methods

## **Data collection**

Two phases of data collection took place during the summer of 2015. During the first phase an online survey was used to recruit participants from an online list-serv developed for a northeastern community in the United States (US). This community list-serv was selected because it represented a population that the researchers felt exhibited similar life course needs (Gibson & Yiannakis, 2002) and might have an interest in taking a summer vacation (New York Times, 2008). During the second phase individuals who met the study criteria and agreed to participate in the study completed a daily diary. The diary in this study was a small booklet. Each day individuals were "...asked to respond to four questions, which should take no more than 10 minutes to answer".

The sample of 5071 individuals was contacted via email with a formal invitation to participate in an online survey. Those who chose to participate clicked on a link that sent them to the study's home page, which described the study purpose, confidentiality, and privacy protocols. Those who agreed to participate in the study were sent to the first filter question – "Are you planning to take a vacation in the next four months (i.e. June, July, August, and September, 2015)?" If they answered "yes" or "maybe," they were asked to provide the travel dates of their next vacation and were then sent to the second filter question – "Are you willing to complete a diary during your vacation?" Participants who planned to take a vacation by September 2015 and who were willing to complete the diary were asked to continue with the survey. Participants who were not taking a vacation by September 2015 or who did not want to complete a diary exited the survey. This process resulted in a total of 592 (11.7%) responses; 551 (10.9%) individuals completed the online survey.

Of the 551 participants who indicated a willingness to complete the diary, a total of 174 (32.0%) followed through and set up a time and place to receive the daily diary package. The first two authors hand-delivered the diary package (i.e. a hard copy of the travel diary along with instructions and an addressed return envelope) to the 174 participants approximately one week prior to each study participant's vacation. A total of 152 (87.4%) travel diaries were completed and returned.

Daily diaries are an effective method for collecting structured, time dependent, on-site data (Coghlan & Pearce, 2010; Levine & Pizzaro, 2004). Lin et al. (2014) and Nawijn et al. (2013) have successfully used this method in the travel context. The diary used in this study included questions about: (1) positive (i.e. joy, excitement, pride, love, amusement, interest, surprise) and negative (i.e. anger, anxiety/fear, embarrassment/shame, guilt, disgust, sadness, loneliness) emotions; (2) ERSs (10 positive and 10 negative); (3) well-being; (4) whether they collected souvenirs or travel photos; and (5) post-travel satisfaction and intention and/or reason to return. Since collecting souvenirs/photos arguably plays an important role in individuals' emotion regulation process (Quoidbach et al., 2015), the questions about ERSs, well-being, and collection of souvenirs/photos were referenced for the purpose of this study. Individuals were asked to answer questions on well-being one day before and after their vacation, but questions on emotions and ERSs were asked every day of their vacation.

In order to address individuals' use of ERSs with their positive and negative emotions, study participants were first asked to rate their strongest experience of each emotion every day of their

vacation using a 7-point Likert scale ranging from 1 (never) to 7 (always), which was derived from the literature on emotion regulation (Heiy & Cheavens, 2014). Participants were then asked to document whether they used the 10 positive and 10 negative ERSs to regulate the emotions they experienced. They did this using a 7-point Likert-type scale anchored in 1 (strongly disagree) and 7 (strongly agree). The ERSs scale was derived from the work of Heiy and Cheavens (2014), which corresponds to the five families of ERSs in Gross' (1998a) model. The respondents' collection of souvenirs and/or photos was measured on a 3-point scale labeled as 1 (neither souvenirs nor travel photos), 2 (either souvenirs or travel photos), and 3 (both souvenirs and travel photos).

Given that evidence has suggested emotion regulation may change individuals' perception of their well-being (Gross & John, 2003), a combined measure of hedonic/subjective and eudaimonic/psychological well-being developed from two scales was included in the diary. First, the 5-item Satisfaction With Life Scale (SWLS) (Diener, Emmons, Larsen, & Griffin, 1985) was used. The SWLS has been widely adopted by travel and tourism researchers (e.g. Chen, Lehto, & Cai, 2013; Gilbert & Abdullah, 2004; McCabe & Johnson, 2013) to measure hedonic/subjective well-being. Second, because using ERSs such as reappraisal, repression, and disclosure is highly pertinent to eudaimonic well-being (DeNeve & Cooper, 1998; Gross & John, 2003; King & Pennebaker, 1998), a eudaimonic/psychological well-being scale developed by Ryff and Keyes (1995) was incorporated. This measure of eudaimonic/psychological well-being includes six statements representing autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. Gross and John (2003) have successfully utilized the scale to measure the relationship between habitual use of ERSs and their impact on well-being. Both of the measures used a 7-point Likert scale, ranging from "strongly disagree" (1) to "strongly agree" (7).

## Statistical analysis

Prior to answering either of the research questions, principal components analysis and the varimax rotation method were used to reduce the 10 positive ERSs and the 10 negative ERSs into a set of simplified factors. Only factors with an eigenvalue equal to or greater than 1.0 were considered significant and chosen for interpretation. A variable with factor loadings equal to or greater than .40 was considered significant and included in the analysis (Hair, Black, Babin, Anderson, & Tatham, 2006; Stevens, 1992). Cronbach's alpha was employed to test the internal consistency of the resulting factors.

In order to answer the first research question (i.e. whether tourists' perception of their well-being differed before and after their vacation), paired samples *t*-tests were employed. The critical level of .05 was used to measure significance levels for the paired samples *t*-tests. Effect sizes were also reported. The second research question was answered through a series of standard multiple linear regressions. Multi-collinearity among independent variables was examined to make sure that variance inflation factor (VIF) statistics were above the conservative minimum scores (VIF > .10) and tolerance statistics were below conservative maximum scores (< 10.0) (Mertler & Vannatta, 2005). The critical level of .05 was used to measure significance levels for the regression models.

## Results

# Respondents' sociodemographic and travel behavioral characteristics

The mean age of respondents was approximately 45 years (Table 1). The majority of respondents was female (78.8%) and working full-time (93.4%), had completed a degree in higher education (86.2%), and were married or living with their partner (84.9%). In terms of their vacations, most respondents indicated that they had organized their vacation by themselves (88.7%) and traveled with their family members (80.7%). The length of their vacation ranged from five days (24.3%) to 11 days or more (14.5%).

Table 1. Sociodemographic and travel behavioral characteristics of study respondents.

	N	%
Gender (n = 151)		
Male	32	21.2
Female	119	78.8
Age (n = 149)	•	
18–39 years old	49	32.9
40–49 years old	48	32.2
50 years or older	43	28.3
Mean (in years)		(44.9)
Standard deviation		(11.2)
Education level (n = 152) <sup>a</sup>		
Some college or less	21	13.8
Bachelor's college	36	23.7
Master's degree b	43	28.3
PhD or doctorate degree	52	34.2
Occupation (n = 152)		
Full-time employees	23	15.1
Part-time employees	129	84.9
Other <sup>c</sup>	7	4.6
Marital status (n = $152$ ) <sup>d</sup>		
Single or living alone	23	15.1
Married or living with partner	129	84.9
Travel organizer (n = 151)		
Myself	134	88.7
Travel agent	6	4.0
Family, friends, or others	11	7.3
Composition of travel group $(n = 150)$		
Alone	4	2.7
Family members	121	80.7
Friends or others	25	16.7
Length of stay (n = 152)		
5 days <sup>e</sup>	37	24
6–7 days	43	28.3

8–10 days	50	32.9
11 days or more	22	14.5

<sup>&</sup>lt;sup>a</sup> Measured on a 7-point scale ranging from 1 (high school graduate) to 7 (PhD or doctorate degree). <sup>b</sup> Master's degree includes Master's and professional degree. <sup>c</sup> "Other" include retirees, independent workers, etc. <sup>d</sup> Marital status includes single, divorced, widowed, separated, married, and living with partner. <sup>e</sup> This study recruited participants who took a vacation lasting 5 days or more.

# Respondents' perceived well-being before and after vacation

Cronbach's tests showed high internal reliability between the hedonic/subjective before vacation ( $\alpha_{before} = 0.833$ ) and after vacation ( $\alpha_{after} = 0.879$ ), as well as eudaimonic/psychological after vacation ( $\alpha_{after} = 0.775$ ) dimensions of well-being (Table 2). Respondents were likely to agree with the following hedonic/subjective well-being statements: "I am satisfied with my life" ( $M_{before} = 5.8$ ;  $M_{after} = 5.9$ ) and "So far I have gotten the important things I want in life" ( $M_{before} = 5.8$ ;  $M_{after} = 5.9$ ). They had a neutral response to the hedonic/subjective well-being statement, "If I could live my life over, I would change almost nothing" (M = 4.6). In terms of the eudaimonic/psychological well-being statements, respondents strongly agreed that they perceived personal growth (M = 6.5) after vacation. They also agreed that they have positive relations with others ( $M_{before} = 5.8$ ;  $M_{after} = 6.1$ ), autonomy ( $M_{before} = 5.9$ ;  $M_{after} = 6.0$ ), self-acceptance ( $M_{before} = 5.8$ ;  $M_{after} = 6.0$ ), environmental mastery ( $M_{before} = 5.5$ ;  $M_{after} = 5.8$ ), and purpose in life ( $M_{before} = 5.6$ ;  $M_{after} = 5.7$ ).

**Table 2.** Respondents' perceived well-being before and after vacation.

	Before vacation		After vacati	on
Well-being items <sup>a</sup>	$M^a$	SD	M <sup>a</sup>	SD
Hedonic/Subjective well-being <sup>b</sup>				
1. In most ways my life is close to my ideal.	5.4	1.2	5.6	1.2
2. I'm satisfied with my life.	5.8	0.8	5.9	1.0
3. So far I have gotten the important things I want in	5.8	1.1	5.9	1.0
life.				
4. If I could live my life over, I would change almost	4.6	1.6	4.6	1.7
nothing.				
5. The conditions of my life are excellent.	5.4	1.1	5.7	1.2
Eudaimonic/Psychological well-being <sup>c</sup>				
6. Autonomy: I have confidence in my opinions,	5.9	0.8	6.0	1.0
even if they are contrary to the general consensus.				
7. Environmental mastery: In general, I feel I am in	5.5	1.1	5.8	1.1
charge of the situation in which I live.				
8. Personal growth: I think it is important to have	6.4	0.8	6.5	0.8
new experiences that challenge how you think about				
yourself and the world.				
9. Self-acceptance: I like most aspects of my	5.8	0.8	6.5	0.8
personality.				

10. Positive relations with others: People would	5.8	0.8	6.0	0.9
describe me as a giving person, willing to share my				
time with others.				
11. Purpose in life: Some people wander aimlessly	5.6	1.0	5.7	1.2
through life, but I am not one of them.				

<sup>&</sup>lt;sup>a</sup> Measured on a 7-point scale ranging from 1 (strongly disagree) to 4 (neutral) to 7 (strongly agree). <sup>b</sup> The hedonic/subjective well-being before vacation:  $\alpha = 0.833$  while after vacation  $\alpha = 0.879$ . <sup>c</sup> The eudaimonic/psychological well-being before vacation:  $\alpha = 0.574$  while after vacation  $\alpha = 0.775$ .

# Comparing respondents' perceived well-being before and after their vacation

In order to answer the first research question – "Do tourists perceive their sense of well-being differently before and after vacation?" – paired samples t-tests were conducted (Table 3). The results showed that respondents had significantly higher perceptions of hedonic/subjective well-being after their vacation than before their vacation, specifically with respect to the statements: "In most ways my life is close to my ideal" (t = -3.005; p = .003) and "The conditions of my life are excellent" (t = -2.972; p = .003). No significant findings were found with the three remaining hedonic/subjective well-being statements.

**Table 3.** Paired samples *t*-tests for respondents' perceived well-being before and after vacation.

	Statistic	al Values			
Well-being items <sup>a</sup>	M	SD	t	p-value <sup>b</sup>	Effect Size
Hedonic/subjective well-being					
1. In most ways my life is close to my ideal.	.217	.891	3.005	.003	.244
2. I'm satisfied with my life	.066	.761	1.066	.288	.087
3. So far I have gotten the important things I want in life	.138	.884	1.926	.056	.156
4. If I could live my life over, I would change almost nothing.	.033	1.209	.335	.738	.027
5. The conditions of my life are excellent.	.243	1.010	2.972	.003	.241
Eudaimonic/psychological well-bein	ng			L	1
1. Autonomy: I have confidence in my opinions, even if they are contrary to the general consensus.	.118	.829	1.706	.080	.142
2. Environmental mastery: In general, I feel I am in charge of the situation in which I live.	.191	.926	2.540	.012	.206
3. Personal growth: I think it is important to have new experiences that challenge how you think about yourself and the world.	.118	.797	1.832	.069	.148

4. Self-acceptance: I like most	.138	.755	2.256	.026	.183
aspects of my personality.					
5. Positive relations with others:	.191	.820	2.869	.005	.233
People would describe me as a					
giving person, willing to share my					
time with					
others.					
6. Purpose in life: Some people	.020	.924	.263	.793	.022
wander aimlessly through life, but I					
am not one of them.					

<sup>&</sup>lt;sup>a</sup> Measured on a 7-point scale ranging from 1 (strongly disagree) to 4 (neutral) to 7 (strongly agree). <sup>b</sup> Used the significance level at  $\alpha = .05$ .

With respect to their perceived eudaimonic/psychological well-being after vacation, respondents had significantly higher perceptions of environmental mastery (t = -2.540; p = .012), self-acceptance (t = -2.256; p = .026), and positive relations with others (t = -2.869; p = .005). No other significant findings were revealed with the remaining eudaimonic/psychological well-being statements.

# The role of tourists' use of ERSs on their well-being

In order to answer the second research question – "Does tourists' use of ERSs explain differences in their perceived well-being before and after vacation?" – an exploratory factor analysis was first performed to obtain a set of simplified factors. As shown in Table 4, two factors explaining 58.30% of the variance emerged. Bartlett's test of sphericity (with a value of 597.84, p < .001) and a Kaiser–Meyer–Olkin statistic of .86 indicated that the data were suitable for factor analysis. Principal component analysis with a varimax rotation procedure was used to identify orthogonal factor dimensions. Variables with loadings equal to or greater than .40 were included in a given factor to decrease the probability of misclassification. The communalities of the 10 variables ranged from .49 to .72, suggesting that the variances of each original variable (from 49% to 72%) were reasonably explained by the two-factor solution. Most factor loadings were greater than .60, indicating good correlations between the items and the factor groupings to which they belonged (Comrey & Lee, 1992). Cronbach's alpha tests were used to determine the internal consistency of the resulting factors. The results showed high internal reliability for the first factor ( $\alpha = .87$ ), but relatively low internal reliability with the inclusion of the regulation strategy – substance use – in the second factor. Given its low alpha coefficient and conceptual considerations, substance use was excluded from the second factor, which resulted in acceptable, but moderate internal reliability ( $\alpha = .64$ ). Thus, two factors were uncovered using nine of the 10 positive ERSs. They were labeled Cognitive Reappraisal and Emotional Sharing. Cognitive Reappraisal explained 44.32% of the variance in the model and encompassed six regulations strategies, including replaying, broadening, savoring, capitalizing, stimulus control, and othercredit. Emotional Sharing explained 13.98% of the variance in the model and was composed of the following regulations strategies: social sharing, behavioral activation, and emotional expression.

**Table 4.** Factor analysis of tourists' use of regulation strategies with positive emotions.

Items representing regulation strategies with positive emotions	Factor Loading	Commu nalities	Eigen value	Variance Explained	Cronbach's Alpha
Factor 1: Cognitive			4.432	44.324	.870
reappraisal					
1. Replaying: I replayed all the details of the event in mind	.846	.718			
2. Broadening: I thought about all the good things that were happening in my life as well	.838	.710			
3. Savoring: I tried to revel in the moment and concentrate on how good I felt	.769	.687			
4. Capitalizing: I made a plan to make the good situation happen again	.756	.635			
5. Stimulus control: I avoided all negative thoughts and emotions	.756	.612			
6. Other-credit: I thought how someone else was responsible for this good situation	.708	.524			
Factor 2: Emotional			1.398	13.975	.642
sharing	544	551			
1. Social sharing: I talked to my friends and family	.744	.571			
2. Behavioral activation: I sought out activities and socializing	.717	.604			
3. Emotional expression: I expressed my positive emotions by showing them	.525	.494			

Note: Bartlett's test of sphericity = 597.840, p < .001; Kaiser-Meyer-Olkin measure of sampling adequacy = .864; total variance explained at 58.30%

A second exploratory factor analysis was conducted with tourists' use of the 10 ERSs with negative emotions. Two factors explaining 69.98% of the variance emerged from the factor analysis (Table 5). Bartlett's test of sphericity (with a value of 1042.438, p < .001) and a Kaiser–Meyer–Olkin statistic of .89 indicated that the data were suitable for factor analysis. Principal component analysis with a varimax rotation procedure was again used to identify orthogonal factors. Factors with eigenvalues of 1.0 or greater were retained, as were factor items with

loadings greater than .40. The communalities of the 10 variables ranged from .60 to .83, suggesting that the variances of each original variable (from 60% to 83%) were reasonably explained by the two-factor solution. In this analysis all of the items had loadings greater than .70, indicating very good correlations between the items and the factors to which they belonged (Comrey & Lee, 1992). The Cronbach's alpha statistic was referenced to determine the internal consistency of the factors. The coefficients ranged from .76 (Factor 2) to .92 (Factor 1), indicating that they were internally consistent. All of the final communalities were higher than .60, indicating strong correlations between the indicators and the associated factors. The two resulting factors that represented regulation strategies with negative emotions were labeled Positive Reappraisal and Response Modulation. Positive Reappraisal explained 59.61% of the variance in the model and included seven regulation strategies, including problem-solving, positive refocusing, social support, acceptance, behavioral activation, benefit finding, and perspective. Response Modulation explained 10.38% of the variance in the model and included three of the regulation strategies used with negative emotions: rumination, substance use, and expression suppression.

**Table 5.** Factor analysis of tourists' use of regulation strategies with negative emotions.

Items representing regulation strategies with positive emotions	Factor Loading	Commu nalities	Eigen value	Variance Explained	Cronbach's Alpha
Factor 1: Positive reappraisal			5.961	59.606	.923
1. Problem-solving: I made a plan to make the situation better	.846	.825			
2. Positive refocusing: I thought of something pleasant instead of what had happened	.804	.771			
3. Social support: I found a friend or family member to talk to	.784	.625			
4. Acceptance: I accepted the situation and/or my emotions	.782	.643			
5. Behavioral activation: I found an activity to keep myself busy and distracted	.753	.668			
6. Benefit finding: I thought about how I could become stronger or learn from this situation	.736	.722			
7. Perspective: I reminded myself that things could be worse	.712	.664			

Factor 2: Response modulation			1.038	10.378	.763
1. Rumination: I thought over and over again about the situation	.846	.778			
2. Substance use: I smoked a cigarette or drank a drink or got high or exercised	.757	.598			
3. Expression suppression: I controlled my negative emotions by not showing them	.718	.705			

Note: Bartlett's test of sphericity = 1042.438, p < .001; Kaiser-Meyer-Olkin measure of sampling adequacy = .892; total variance explained at 69.98%.

A series of standard multiple linear regressions was then conducted to explore the relationship between tourists' use of ERSs and their perceived well-being. Because no significant difference was revealed between tourists' use of ERSs and the indices of two dimensions of well-being, the differences between respondents' well-being before and after vacation on the 11 well-being items were used as the dependent variables. This approach is appropriate, according to Edwards (1979), who indicated that individual variables should be examined when no significant difference is found in the dimensional variables. The factors generated from the regulation strategies used with positive and negative emotions and the indicator of souvenir/photo collection were treated as independent variables in the two regression models. Using the factors as independent variables helped to avoid multi-collinearity in the models. Including the indicator of souvenirs/photos collection was deemed appropriate given its important role in individuals' emotion regulation and well-being (Quoidbach et al., 2015).

Results showed that the four ERS factors and the indicator of souvenir/photo collection were generally good predictors of the differences between respondents' well-being before and after vacation (Table 6). Results showed that respondents who tended to use Cognitive Reappraisal to regulate their positive emotions were more likely to agree that "If [they] could live my life over, [they] would change almost nothing" ( $\beta = .178$ ; p = .029), and that they had autonomy ( $\beta = .261$ ; p = .019), environmental mastery ( $\beta = .175$ ; p = .049), self-acceptance ( $\beta = .240$ ; p < .006), positive relations with others ( $\beta = .300$ ; p < .001), and purpose in life ( $\beta = .323$ ; p < .001). Those who tended to use Emotion Sharing to regulate their positive emotions, on the other hand, were more likely to perceive that "In most ways [their] life is close to [their] ideal" ( $\beta = .176$ ; p = .047), "So far [they] have gotten the important things [they] want in life" ( $\beta = .192$ ; p = .030), "If [they] could live [their] life over, [they] would change almost nothing" ( $\beta = .260$ ; p = .001) and "The conditions of [their] life are excellent" ( $\beta = .182$ ; p = .019).

**Table 6.** Multiple linear regression on the difference between respondents' well-being before and after vacation.

	Depende	nt variabl	es (standa	rdized β aı	nd significa	ance)					
Independent variables	WB1	WB2	WB3	WB4	WB5	WB6	WB7	WB8	WB9	WB10	WB11
Cognitive reappraisal	.168	.129	.084	.178**	.144	.261**	.175**	.153	.240**	.300***	.323***
Emotional sharing	.176**	058	.192**	.260**	.182**	145	.116	.024	.042	.082	018
Positive reappraisal	075	025	040	176**	.019	084	018	.064	-0.55	038	.010
Response modulation	124	.168**	.185**	123	115	.052	079	014	072	152**	.018
Collection of souvenirs/photos <sup>a</sup>	.328***	.440***	.416***	.285***	.343***	.333**	.333***	.463***	.513***	.454***	.318**
R <sup>2</sup>	.122	.214	.197	.109	.152	.206	.126	.252	.277	.253	.378
p-value	.002	<.001	<.001	.004	<.001	<.001	.001	<.001	<.001	<.001	<.001

\*\*p < .05; \*\*\*p < .001; a Measured on a 3-point scale labeled as 1 (neither souvenirs nor travel photos), 2 (either souvenirs or travel photos), and 3 (both souvenirs and travel photos); WB1 = "In most ways my life is close to my ideal" WB2 = "I'm satisfied with my life" WB3 = "So far I have gotten the important things I want in life" WB4 = "If I could live my life over, I would change almost nothing" WB5 = "The conditions of my life are excellent" WB6 = "I have confidence in my opinions, even if they are contrary to the general consensus" WB7 = "In general, I feel I am in charge of the situation in which I live" WB8 = "I think it is important to have new experiences that challenge how you think about yourself and the world" WB9 = "I like most aspects of my personality" WB10 = "People would describe me as a giving person, willing to share my time with others" WB11 = "Some people wander aimlessly through life, but I am not one of them."

In terms of their use of regulation strategies with negative emotions, respondents who tended to use Positive Reappraisal with their negative emotions were less likely to agree that "If [they] could live [their] life over, [they] would change almost nothing" ( $\beta = -.176$ ; p = .044). Alternatively, those who tended to use Response Modulation to regulate their negative emotions were less likely to perceive that "[They are] satisfied with [their] life" ( $\beta = -.168$ ; p = .049), "So far [they] have gotten the important things [they] want in life" ( $\beta = -.185$ ; p = .024), and that they have positive relations with others ( $\beta = -.152$ ; p = .037). In addition, respondents who collected souvenirs and/or photos were more likely to agree with all 11 of the well-being items than those who did not (see Table 6).

# **Discussion and implications**

Respondents' perception of their overall well-being changed over the course of their vacation. After using ERSs with positive and negative emotions during their vacation, they reported significant changes in all five facets of hedonic/subjective well-being, which is similar to Gilbert and Abdullah's (2004) findings but challenges those of Chen et al. (2013). Chen et al. (2013) did not find that tourists agreed with the statements – "In most ways my life is close to my ideal" and "If I could live my life over, I would change almost nothing." This may be because their sample consisted solely of Chinese tourists. Diener, Oishi, and Lucas (2003) have suggested that cultural variables can not only explain differences in individuals' perceived subjective well-being, but also moderate which variables most influence their sense of subjective well-being. In the future researchers should consider conducting a comparative study between eastern and western tourists on their sense of well-being to test whether differences exist by using the same scale to measure subjective well-being.

Results also revealed a significantly higher level of psychological well-being on facets of autonomy, environmental mastery, self-acceptance, positive relations with others, and purpose in life. Tourists may have been more "connected" because they felt in charge of themselves, their lives, and their environment, appreciated most aspects of their personality, maintained positive relationships with others, and had a better life purpose. This result generally confirms Sirgy et al.'s (2011) findings that traveling influences tourists' life satisfaction through various life domains, such as social life, family life, and leisure life. However, in this study, tourists experienced higher levels of psychological well-being after their vacation, which is a new finding and, to the best of our knowledge, has not been examined in a tourism context. This finding may be explained by the fact that this study accounted for individuals' use of ERSs during their vacation. It has been well established in psychology that using ERSs is positively associated with these same facets of psychological well-being (Gross & John, 2003). Considering that a vacation creates a unique, relaxing but temporary social context where tourists can escape from their routines and experience something different (Crompton, 1979), we felt it was important to examine how tourists used ERSs in a tourism context and how emotion regulation interacts with their perceptions of psychological well-being. Future research on this topic should account for various characteristics of the tourism context (e.g. destination attributes, travel distances), and how they interact with tourists' use of ERSs. In addition, qualitative inquiry should be used to better understand how tourists interpret facets of their psychological well-being in terms of meanings and importance.

Factor analysis on the 10 ERSs with positive emotions resulted in two factors – Cognitive Reappraisal and Emotional Sharing. Cognitive Reappraisal included six ERSs (i.e. replaying, broadening, savoring, capitalizing, stimulus control, and other-credit), which corresponds to the antecedent-focused strategies in Gross' (1998a) process model of emotion regulation. They represented things that a person can do in a potentially emotion-eliciting situation in a way that helps change its emotional impact (Gross & John, 2003). Emotional Sharing included three ERSs (i.e. social sharing, behavioral activation, and emotional expression), which are about sharing or expressing positive emotions with others. The consistency on the meanings of the three strategies might explain the exclusion of substance use from this dimension, because substance use focuses on the use of a substance (e.g. smoking a cigarette, having a drink), instead of emotional sharing

and expression with others. This finding challenged existing evidence distinguishing between the two main ERSs, that is, Cognitive Reappraisal and Expressive Suppression (Gross, 1998b), but also complemented the emotion regulation literature (particularly with positive emotions) that reinforces individuals' tendency to use Emotional Sharing instead of Expressive Suppression. Although substance use was not included in either regulation factor with positive emotions in this study, it is still worth examining in the future to see whether it may be another independent regulation factor with positive emotions (Tice & Bratslavsky, 2000).

In terms of the regression results, they revealed significant relationships between the two regulation factors with positive emotions and tourists' perceived post-vacation well-being. Respondents who were more likely to use Cognitive Reappraisal were also more likely after their vacation to agree with the subjective well-being statement, "If I could live my life over, I would change almost nothing," and the psychological well-being facets of autonomy, environmental mastery, positive relations with others, purpose in life, and self-acceptance. These results support Gross and John's (2003) findings about reappraisers generally being more satisfied with their lives, but also highlight the significance of items within the subjective well-being factor. In terms of the psychological well-being facets, five of the six facets were significant for tourists who used cognitive reappraisal, which extends previous evidence on how reappraisers perceived these psychological well-being facets (e.g. Gross & John, 2003). It is worth noting that notwithstanding their greater sense of autonomy, tourists who had a higher level use of cognitive reappraisal scored higher on positive relations with others, which confirmed Gross and John's (2003) findings concerning reappraisers being positively related to their social functioning.

With regards to the second positive emotions factor, Emotion Sharing, results showed that greater use of emotion sharing led to more agreement with the subjective well-being statements – "In most ways my life is close to my ideal," "So far I have gotten the important things I want in life," "If I could live my life over, I would change almost nothing," and "The conditions of my life are excellent." It should be noted that respondents who used Cognitive Reappraisal or Emotion Sharing both experienced a higher level of agreement with the statement, "If I could live my life over, I would change almost nothing," which builds upon Gross and John's (2003) findings and generally establishes the positive role of emotion regulation in boosting tourists' subjective well-being after vacation. In particular, the statements, "In most ways my life is close to my ideal," "So far I have gotten the important things I want in life," and "The conditions of my life are excellent" were positively associated with Emotion Sharing, which might indicate the close relationship between social sharing and functioning and emotion regulation, as well as how they influence individuals' well-being together. As Gross and John (2003) claimed, interactions with others are potent triggers for emotions, and individuals often regulate emotions to achieve their social goals and maintain good relations with significant others. In turn, maintaining emotionally close relationships often gives rise both to strong emotions and to calls to share emotions, which may contribute to tourists' satisfaction with their living environment and life.

When factor analysis was conducted with the 10 ERSs with negative emotions, two factors emerged: Positive Reappraisal (i.e. problem-solving, positive refocusing, social support, acceptance, behavioral activation, benefit finding, and perspective) and Response Modulation

(i.e. rumination, substance use, and expression suppression), which generally corresponded with the antecedent-focused and response-focused strategies in Gross' (1998a) process model. However, the ERS, rumination, loaded on to Response Modulation, which differs from previous research that has treated it as an antecedent-focused strategy and a member of the attentional deployment family (Gross, 1998a). This deviation may support Gross' (2014) contention that boundaries between some ERSs are not clear. For example, the ERS of rumination was described in the diary as thinking over and over again about the situation. To some tourists this may suggest modifying a person's internal environment, which may overlap with the meanings associated with response-focused strategies. For example, a person might hate being stuck in an all-inclusive resort without opportunities for off-property adventures. It is possible that this person has already had negative emotion responses and tried to use the strategy of rumination, which makes him or her realize internally that nothing can be changed because he or she has already paid for the entire vacation. This internal process, which focuses on changing the person's negative emotion responses, generally is considered a response-focused strategy. In the future researchers might want to clearly define each strategy in the tourism context when using a quantitative approach to assess tourists' use of ERSs. However, qualitative inquiry should also be employed to examine how individuals define and interpret each emotion regulation strategy.

The regression results revealed that respondents' use of Positive Reappraisal with negative emotions was negatively related to their perceptions after vacation of the subjective well-being statement, "If I could live my life over, I would change almost nothing," as well as their use of Response Modulation being negatively related to their perception of the subjective well-being statements, "I'm satisfied with my life," and "So far I have gotten the important things I want in life," and the psychological well-being facet of positive relations with others. These findings correspond to the distinctions between the meanings of the two dimensions of well-being. Psychological well-being represents more than happiness and is concerned with meaningfulness and living well or in a fully and deeply satisfying way, while subjective well-being focuses on happiness, defined as the presence of positive affect, and the absence of negative affect (Deci & Ryan, 2008; Ryan & Deci, 2001). Hence, the tourists in this study who positively reappraised their negative emotions may have focused on the meanings of their vacations, whereas those who invested less effort into modulating their negative emotional responses likely ignored unhelpful emotions and focused on the presence of positive affect and their happiness.

In addition, the study results showed that the collection of souvenirs and/or photos is positively associated with subjective and psychological well-being, which not only confirms the significant roles they play in individuals' emotion regulation (Quoidbach et al., 2015), but importantly suggests a new intervention for enhancing tourists' well-being and happiness. Souvenirs and photos allow tourists to document important and positive vacation experience (Habermas & Paha, 2002); they also serve as reminders of an event (Pearce, 1994). In this sense, souvenirs and photos act as mirrors that reflect the status of individuals' post-vacation experience, and affect their post-travel well-being. In the future, researchers should employ mixed methods to address interactions between the accumulation of souvenirs and photos and ERSs, the influence of souvenirs and photos on tourists' perception of well-being.

#### **Conclusions**

Overall, the results of this study provide new information regarding which aspects of tourists' subjective and psychological well-being can be boosted by taking vacations and how they may be enhanced by using different ERSs. Following are the specific contributions of the study.

The study provides a longitudinal perspective of emotions and ERSs through the use of daily diaries. Previous studies have successfully adopted this approach to address emotions in a travel context (Lin et al., 2014; Nawijn et al., 2013); this study employed the use of daily diaries to successfully document ERSs. Researchers interested in using diaries in the future should consider conducting a longitudinal study that includes multiple data collection stages, for example examining emotion regulation over the course of a year and multiple vacations for the same group of participants. Doing this would allow researchers to more deeply examine and validate emotions felt and ERSs used in a vacation context.

This study represents an early attempt to introduce and apply the construct of emotion regulation to the tourism field. By accounting for the generative process of an emotional response and introducing the theory of emotion regulation, this study takes the study of emotions a step further. Instead of recording and examining the status of emotions at a certain point in time, emotion researchers should be more concerned about the possibility of tourists manipulating the short-lived, subjective feeling that occurs in the foreground of consciousness and requires immediate attention (Scherer, 2005), and how to regulate that feeling into the highest levels of positivity. In this sense, emotion regulation is inextricably linked to positive psychology, because both fields seek to promote optimal human functioning (Tamir & Gross, 2011). In addition, with the burgeoning interest in human well-being and happiness, emotion regulation also plays a unique role in advancing our understanding of well-being by developing strategies to make the best out of positive emotions so as to achieve lasting happiness and to cope with negative emotions. Emotion regulation can be considered a preventive intervention that can be used to enhance human functioning, reduce psychological distress, and help further individuals' health and well-being (American Psychological Association, 2013). Therefore, examining tourists' use of emotion regulation is groundbreaking and meaningful for other branches of research, including the broader area of leisure studies.

Tourists showed increased perceptions of well-being on half of the psychological facets (i.e. environmental mastery, self-acceptance, and positive relations with others) after vacation, and those who used Cognitive Reappraisal to regulate their positive emotions experienced a higher level of positive perceptions of all the psychological well-being facets. Hence, this study not only provided additional insight into psychological well-being as a dimension of tourists' overall well-being, but also incorporated the theory of emotion regulation and an additional dimension of well-being (i.e. psychological well-being). Existing studies in tourism have given a great deal of attention to subjective well-being, which tends to focus on happiness (Gilbert & Abdullah, 2004; Nawijn & Mitas, 2012); however, more and more tourists are traveling to seek meaning, which is based in psychology (McCain & Ray, 2003). Researchers are advised to consider incorporating the construct of psychological well-being in their well-being studies in order to extend our understanding of tourists' overall well-being.

While this study does make several contributions to the study of emotion and emotion regulation in a vacation context, there are several limitations that must be recognized. First, missing data were found with responses to individuals' use of regulation strategies with negative emotions. One possible reason may be that respondents did not experience negative emotions every day. Another potential explanation may be linked to the design of the diary, which had positive emotions on the front and negative emotions on the back of each diary sheet for every day of the vacation. Individuals could have responded to the positive emotion and emotion regulation strategy scales on the front of the page and ignored the negative and negative regulation questions on the back of the page. Researchers interested in using the diary method are advised to clearly instruct respondents what they should do when having no negative emotions on a particular vacation day. Second, this study included an unbalanced sample of males and females who were highly educated, which might have affected the general interpretation of study results. Although results indicated the relatively important role that gender and education play in travel decision-making (Decrop, 2006; Gao, Barbieri, & Valdivia, 2014), a more balanced study is needed in the future. Third, our usable sample included 152 individuals, which was large enough to establish confidence in our sample estimates and our power to detect significant differences. However, it would be advisable to repeat this study with a larger sample to reduce any uncertainty associated with the results. In addition, it is worth looking at various roles in a travel group (e.g. trip route organizer, photographer), and how these roles interact with the gender role. More attention should also be paid to how using ERSs could be confounded with individuals' roles in planning and/or managing a vacation.

Despite the limitations of the study, we feel that there are a number of practical implications that should be addressed. For example, the travel and tourism field focuses on providing tourists with memorable experiences, something that researchers argue cannot generally be attained through the purchase of a product (e.g. buying a new car) (Van Boven & Gilovich, 2003). The results of this study suggest that the field continues to provide memorable experiences, but also publically recognizes that such experiences (particularly for individuals who use ERSs) can lead to a boost in overall well-being. Existing practices such as paid leave or national holidays are good, but in many countries like the US these are limited in time and scope (De Graaf, 2017). Thus, policymakers should pay attention to the value of vacation in individuals' lives, particularly their sense of well-being (Richards, 1999). Vacations not only serve individuals' psychological needs, such as searching for meaning and authenticity (MacCannell, 1976), but "are a necessity for a well-balanced, healthy life" (Vinocur, 2017).

The results of this study showed that vacationing enhances individuals' well-being, particularly if they use ERSs during vacation. These data should be used across the industry to promote the power of vacations. Organizations like *Take Back Your Time* have begun to do this, particularly in the overall context of leisure time, but they are in their infancy. Thus, tourism managers must build on data provided by researchers and organizations like *Take Back Your Time* to promote vacationing in general and their destinations in particular as a sphere for enhancing subjective and psychological well-being (Loffredi, 2015; Mariani, Di Felice, & Mura, 2016).

With respect to specific ERSs, the study results showed that collecting souvenirs and taking photos are positively associated with subjective and psychological well-being. Hence, both behaviors should be promoted as interventions for enhancing tourists' well-being and happiness. Tourists could be encouraged by travel destination managers and marketers to upload their photos to social media sites, develop photo books for future reference, create gifts for loved ones, and much more – activities that support the ERS of taking photos. Tourists could also be encouraged to photograph natural resources, which have been shown to enhance positive feelings toward a destination (Pan, Lee, &Tsai, 2014), and to utilize photo-taking services at a destination (e.g. photos of outdoor activities such as bungee jumping and rafting) that can serve as souvenirs and reminders of the positive feelings experienced during vacation.

Further, study results indicated that being social and sharing were ERSs used by tourists and they boosted their overall well-being. Thus, tourism professionals should consider how the experiences they offer can be modified to allow for greater socialization and connection between tourists or members of travel groups. Doing so may generate less negativity (due to tourists' ability to use ERSs to up-regulate) and greater cooperation between tourists and providers. For tourists, our study not only delivers the cheerful message that they can potentially boost their overall well-being by taking a vacation, but also provides them with strategies for emotion regulation. Perhaps information about using such strategies could be added to travel websites, provided in travel brochures, even mentioned by tour leaders. Most tourists may already understand how to experience eudaimonic well-being (i.e. happiness) through a vacation, but they may need reminding about the strategies they can use to ensure that their vacation is not only meaningful, but leads to overall well-being post vacation. As the study findings suggest, tourists who used Cognitive Reappraisal achieved higher perceptions of their psychological well-being after vacation.

#### Disclosure statement

No potential conflict of interest was reported by the authors.

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