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Enhancing wellbeing with psychological tasks along forest trails

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Highlights

- We investigated the role of awareness-enhancing tasks in nature experiences.
- We found no country differences in the restorative experiences after forest walks.
- Satisfaction with the tasks was linked to restorative change and mood enhancement.
- Nature-connectedness did not moderate either outcome.

Abstract

The purpose of the study was to investigate whether deliberate psychological tasks, intended to focus people's attention on the interaction between themselves and natural surroundings, are linked with mood enhancement and self-reported restoration. In four European countries (Finland, France, Luxembourg, Sweden), we surveyed the experiences of volunteers (N = 299) who walked forest trails and carried out psychological tasks printed on the signposts along them. We investigated the similarities and differences of the trail experiences between the countries. Via multigroup modeling, we further examined the moderating role of nature-connectedness in relationships between satisfaction with the contents of the psychological tasks, mood enhancement, and restorative benefits. The results showed that, independent of age and gender, participants were more satisfied with the trails in Sweden and Luxembourg than in Finland. We detected no reliable differences in the restorative experiences or willingness to recommend the trail for others. In the moderation model, satisfaction with the signposts' contents was connected to positive restorative change and mood enhancement. The moderator effects of nature-connectedness were not significant for either outcome. Thus, it is likely that satisfactory tasks will work equally well for people varying in nature-connectedness. This is a promising prospect for public health promotion. The fairly high level of nature-connectedness among the participants limits the generalizability of our results. Conclusions concerning the role of nature-connectedness should be made with caution due to the limited coverage of the concept in our measure. Future studies that separate the effect of psychological tasks from the restorative effects of nature itself are needed.

Keywords: engagement; psychological tasks; forest trail; mood; restoration; nature-connectedness

Introduction

Links between nature and wellbeing, and particularly benefits to mood, stress reduction and attention restoration, are well-explored in the literature within environmental psychology (see Hartig, Mitchell, de Vries, & Frumkin, 2014, for a review). However, it is not reliably known whether deliberate tasks intended to focus people's attention to the interaction between themselves and natural surroundings can enhance mood and restoration from stress. Such an engagement-based approach has been used, however, in two studies (Duvall, 2011, 2013). To test whether conscious engagement strategies enhance the benefits of nature walks, Duvall (2011) conducted a two-week walking experiment with two treatment conditions: "schedule setting" and "awareness plans". All participants were given the goal of taking at least three 30-minute outdoor walks during each of the subsequent two weeks. The schedule setting group identified the days and times they intended to walk whereas those who were assigned to the engagement group were instructed to focus on awareness plans during their walks. These awareness plans instructed the participants to focus on the surrounding physical environment in a variety of ways, such as focusing on their senses or taking on a new role (e.g., imagining you are an artist looking for inspiration). The results showed that using awareness-enhancing tasks increased satisfaction and self-reported attentional functioning, and decreased feelings of impatience and irritation. This suggests that directing attention and interaction consciously in everyday nature experiences might promote well-being.

To investigate the potential of awareness-enhancing tasks in nature experiences, we undertook an international project together with participants from Finland, France, Luxembourg, and Sweden during 2012-2013 (Savonen & Korpela, 2013). Signposts with psychological guidance for perceiving the surroundings, stress-alleviation, and restoration were put up along the forest trails in the four countries. Our rationale was that if restoration from stress can be enhanced with psychological tasks along forest trails, such interventions could be carried out on a larger scale to benefit public health promotion in an attempt to reduce the accumulation of stress cost-effectively. Scientific investigations about the effectiveness of such trails are nonexistent except for a preliminary user survey of the Finnish trail (Vattulainen et al., 2011). In that survey, 69% of the participants reported that they were calmer, more alert and more away from everyday worries than

before walking. Seventy-three percent of the visitors were very or quite satisfied with the trail they walked (Vattulainen et al., 2011).

In the present study, we survey the experiences of the volunteers who walked the forest trails and carried out the psychological “tasks” along them. At this point, we were not able to set up an experimental design to tease out the effects of completing the tasks versus walking the trails without them. However, by comparing the survey answers from the different countries our first aim is to investigate whether different trails – with different types of forests and landscapes and culturally different participants – produce similar experiences. Similarities in experiences might arise from the fact that all participants carried out the same psychological tasks while walking on the trails.

The contents of the tasks were planned according to an attention restoration theory (ART) by the Kaplans (1989) and stress reduction theory (SRT) by Ulrich (1983). Both mood benefits and restorative changes after nature exposure are well-documented in the current literature (Bratman, Hamilton & Daily, 2012; Hartig et al., 2014). A consistent finding in experimental studies is that even passive viewing of urban parks or woodlands (compared to built urban environments) after negative antecedent conditions, such as attentional fatigue (Kaplan & Kaplan, 1989) and psychophysiological stress (Ulrich et al., 1991), produces greater physiological changes toward relaxation, greater changes to positively-toned self-reported emotions, and faster recovery of attention-demanding cognitive performances (Hartig et al., 1991; Parsons, et al., 1998; Tsunetsugu et al., 2013; Tyrväinen et al., 2014; Ulrich et al., 1991). Evidence of improved attentional functioning, emotional gains, lowered blood pressure, and salivary cortisol has also been reported in field experiments using actual walks in urban parks or woodlands and repeated measures of physiological, emotional, and attentional outcomes (Hartig et al., 1991, 2003; Park et al., 2010).

In planning the order of the tasks, we paid attention to the current knowledge of the order of appearance of the restorative outcomes. The timeline of the appearance of restorative, non-stressing outcomes after the exposure (watching or walking) to the natural environment (park, forest) follows the physiological and cognitive response patterns reported for stress-related changes: a decrease in heart rate, muscle tension and skin conductance within four to seven minutes (Ulrich et al., 1991), lower blood pressure and improved mood after 20 minutes (Hartig et al., 2003; van den Berg et al., 2003), and better attentional performance after 10-55 minutes (Berman et al., 2008; Hartig et al., 2003; Faber Taylor & Kuo, 2009). According to ART, a person may pass through successive levels of the restorative experience (Kaplan & Kaplan, 1989). The first level involves ‘clearing the head’, leading to increased directed attention capacity. The second entails facing accumulated matters on one’s mind. The third is reflection on one’s priorities, prospects, actions, and goals in life.

In addition to restoration theories, we utilized environmental self-regulation theory based on favourite place studies (Korpela, 1989) in developing the tasks. Favourite places are places to which people are emotionally attached and, for example, in Finland, 40% - 48% of adults who live in cities have reported that their everyday favourite or positive places are in natural settings (Korpela et al., 2001; Kytä et al., 2013). Favourite places are sought out for restorative and self-regulatory benefits in the service of coping with everyday stress and personal worries arising from, e.g., social, financial or work-related matters (Korpela et al., 2010).

There is evidence that self-reported “connectedness with nature” influences the process whereby nature affects mood and restorative outcomes (Capaldi, Dopko, & Zelenski, 2014). We took this as a second focus of our study. Connectedness with nature (Mayer & McPherson Frantz, 2004) or nature relatedness (Nisbet, Zelenski, & Murphy, 2009) can be defined as people’s interest in and desire for nature contact; a trait-like or state-like subjective connection to nature or feeling in community with nature (for a review, see Capaldi et al., 2014). Experimental studies have found that increases in emotional well-being through nature exposure are partially due to increased state-like nature connectedness, indicating a mediation effect (Mayer, McPherson Frantz, Bruehlman-Senecal, & Dolliver, 2009). Conversely, some studies have found that exposure to nature increases positive affect which mediates the increase in state-like nature connectedness (Nisbet & Zelenski, 2011). However, the effect of contact with nature on wellbeing (positive affect and feelings related to elevation) has not been moderated by trait-like nature connectedness in an experimental study (Passmore & Howell, 2014). Thus, there is limited knowledge about whether connectedness with nature is the primary cause or a moderating or a mediating factor in the process through which nature affects mood and restorative outcomes (Bratman et al., 2012). More research on mediation and moderation by nature connectedness has been explicitly called for (Capaldi et al., 2014). Our interest in this study is in the moderating role of nature-connectedness which seems to be non-existent according to a previous, experimental study (Passmore & Howell, 2014). We want to know whether nature-connectedness moderates mood enhancement differently from other restorative experiences (relaxation, attentional and cognitive restoration). We want to know whether the potential restorative and mood enhancing effects of the psychological tasks along the trails that are intended for the general public are heavily dependent on nature-connectedness. This might mean that only people with a strong interest in and desire for nature might benefit from such tasks and the trails might not serve the general public as widely as would be desirable.

In sum, we aim to investigate the similarities and differences of the trail experiences between the countries. Our second aim is to investigate relationships between nature-connectedness,

satisfaction with the signpost contents, mood enhancement, and restorative benefits. We investigate whether nature-connectedness moderates the effects of satisfaction with the signpost contents on both mood and restorative change.

Method

Sample and procedure

The study was conducted in different years as a survey study in Finland, Sweden, Luxembourg, and France near the well-being trails (Table 1).

Table 1 here

The first well-being trail was opened in May 2010 in Finland. The trail follows hiking tracks and narrow countryside roads in a forest, along lakeside and in a cultural landscape. It includes a pleasant view from a high cliff, overlooking a lake bay. The well-being trail in Luxembourg was opened in April 2013. The trail goes along the already existing, well-established hiking trails in spruce and beech forests, and leads to a small village road opening onto a view of nearby fields. The Swedish well-being trail was opened in September 2012. It is located in spruce and birch forests, where it follows a skiing track used for walking only in a limited period outside the skiing season. The French trail was established into the variable coniferous and deciduous forests in September 2013. The trail follows narrow countryside roads and forest paths, and has pleasant, open views over agricultural land.

The questionnaires were available at the nearby camping/community/spa reception desks or, in Finland, in the boxes in the beginning and end of the trail. In addition to the variables reported in this paper, the questionnaire included open-ended questions about place of residence, reasons to visit the trail, a signpost remembered well, and situations where the tasks might suit a person best. The participants filled in the questionnaire immediately after the walk. A total of 299 people participated in the study. The number of participants in the four countries were 164 in Finland, 54 in Sweden, 65 in Luxembourg and 16 in France; in all four countries, more females than males completed the survey (Table 2).

Table 2 here

Well-being trails in each of the countries contained the same nine signposts, set up at intervals and referring to rehearsal tasks to be undertaken along the trail. The first and the last rehearsals

contained self-rated items about restorative experiences (see Measures). Rehearsal two dealt with relaxing and letting the environment fascinate the walker. The following is a short example of the beginning of the instructions for the relaxation task: “Breathe slowly and let your shoulders relax. Take a look around you and let your mind be attracted by some pleasant spots or details on the ground, in the woods or in the sky...”. At signpost three, the walker was encouraged to observe nature and one’s mood and feel it improve. An extract from the mood instruction is: “Let the scenery affect your mood. Listen to the sounds of nature or the silence and let your mind drift away from the everyday cares/hassles...”. Rehearsal four dealt with finding a quiet place in the surroundings. Rehearsals five and six were related to favourite places. The walker was urged to find a favourite place and then to share it with others or, if alone, to try to form a clear mental image of the place to be remembered in the future. Rehearsal seven dealt with observing and recognizing current mood. At rehearsal signpost eight the walker was urged to observe surroundings and find a metaphor that captured their current life situation. To enhance the potential wellbeing effects, the language used on all of psychological signposts was suggestive and in five signposts contained phrases such as “Feel your mind and body becoming calm” and “Feel your mood improve” (Sinclair, Soldat & Ryan, 1997; Wilson & French, 2014; Wiseman & Greening, 2005).

Measures

Restorative change. Restorative change was measured with four items tapping relaxation, energy, and attentional and cognitive restoration in accordance with the previous measures and findings of restorative outcomes (Hartig, Lindblom, & Ovefelt, 1998; Kaplan, Bardwell & Slakter, 1993; Korpela, Ylén, Tyrväinen & Silvennoinen, 2008; Staats, Kieviet, & Hartig, 2003). The items (“I’m feeling calm and relaxed”, “I’m alert and focused”, “I’m enthusiastic and energetic”, “All my everyday concerns and worries are away”) were printed on the signposts at the start and in the end of the trail. The participants were asked to rate their restorative experiences on five-point Likert scales (1 = not at all, 2 = a little, 3 = quite much, 4 = very much, 5 = fully) and to calculate the sum of their assessment and to write it down. At the end of the trail they were asked to evaluate their experience again with the same items and procedure and report the extraction of these two sums (end – beginning). The extraction represents the change in the restorative experience, negative values representing worsening and positive values representing improvement of restoration.

Mood enhancement. Mood enhancement was asked with a single item (“To what degree was your mood enhanced after walking the well-being trail?”) with a 5-point response scale (5 = very much, 4 = rather/quite much, 3 = moderately, 2 = not very much, 1 = not at all).

Satisfaction with the contents, location and number of the signposts and with the trail overall.

Satisfaction was asked with single items (“How satisfied are you with the contents / location / number of the psychological rehearsals along the trail / with the trail in all?”). Satisfaction with contents and location was assessed with 5-point response scales (5 = very satisfied, 4 = quite satisfied; 3 = moderately satisfied; 2 = not very satisfied, 1 = unsatisfied). Satisfaction with the number of signposts was assessed with a 3-point scale (1 = I would prefer fewer signposts, 2 = this was a suitable number of signposts, 3 = I would prefer more signposts).

Willingness to revisit and recommend to friends. These were asked with single items (“How willingly would you visit and walk the trail again?”, “Would you recommend the trail to your friends and acquaintances?”) and responded with 5-point scales (1 = not at all, 2 = not very willingly, 3 = moderately willingly, 4 = quite willingly, 5 = very willingly).

Nature connectedness. As our questionnaire in field conditions had to be brief we developed a nature connectedness scale for the purposes of this study in line with earlier studies on place attachment, connectedness or relatedness with nature (cf. Kyle, Mowen, & Tarrant, 2004; Mayer & McPherson Frantz, 2004; Nisbet et al., 2009; Tyrväinen et al., 2007), and urban-related identity (Lalli, 1992). Nature connectedness was measured with three items selected for the present study (“I prefer to be physically active outdoors in nature“, “I sometimes feel a compelling urge to get to nature”, “I prefer to spend my free time in parks and green spaces rather than in the urban (built) environment”) and were rated on a five-point Likert scale (1=Totally disagree, 2=Disagree quite much, 3=Neither disagree nor agree, 4=Agree quite much, 5=Totally agree; Cronbach’s alpha = .80 in Finland, .71 in Sweden, and .55 in Luxembourg). We used the mean summary score of the scale in ANOVAs.

Age and gender. Age (“My age is...”) was asked open-endedly and gender with two options (male/female).

Statistical analyses

One-way ANOVAs and ANCOVAs were used for comparisons between Finland, Sweden and Luxembourg. France was excluded from these analyses due to small sample size. We calculated the sample size with Gpower (version 3.1.9.2, Faul, Erdfelder, Lang, & Buchner, 2007) using the effect size of .31 reported by McMahan & Estes (2015) for positive affect after nature exposure. For one-way ANCOVA with three countries and two covariates, the required sample size for detecting

group differences at a .05 risk level and with .95 power is 164. For post hoc comparisons, we used Bonferroni test and with unequal variances Dunnett's T3 test.

Moderation analyses were conducted using Mplus version 7 with WLSMV estimator that allows the estimation of ordered categorical outcomes. To examine country-level differences, we first tested multigroup models with all paths separately estimated in each country. Then, the paths were constrained to equal across countries, one at a time, until all paths were the same in each country and a single model instead of a multigroup model was specified. The moderation model that had the best overall fit with the data (based on χ^2 difference tests) was interpreted. However, the first (with three separate moderations in each country) and the final (single) models were saturated, that is, their degrees of freedom was 0, and no fit indices could be calculated for them (Bollen, 1989). The other models were considered acceptable if they satisfied the following criteria: the χ^2 test (Bollen, 1989), Comparative Fit Index (CFI) with values greater than .95, Root Mean Square Error of Approximation (RMSEA) with values smaller than .05, and the absolute values of the correlation residuals smaller than .10 (Kline, 2016).

For the analyses, two cases were deleted due to extreme restorative changes, from not feeling restored at all by any of the indicators to feeling completely restored by all the indicators (or vice versa) which we found implausible. Mood enhancement, being measured with a 5-point scale, was specified as an ordered categorical outcome in moderation analyses. In moderation analyses, nature-connectedness and satisfaction with the signposts' contents were centered so that their interaction could be examined. In the final model, we interpreted estimates and their 95% bootstrapped confidence intervals.

Results

The means of the outcome variables were compared between Sweden, Luxembourg and Finland (Table 3). ANOVA revealed significant F-test values in the change in restorative experiences, overall satisfaction with the trail, willingness to recommend the trail to friends, and satisfaction with the number of the signposts. Although the overall ANOVA was significant in the restorative change and willingness to recommend the trail to friends, according to the Dunnett's test (Bonferroni in the latter) pairwise comparisons between the countries did not reach statistical significance. However, participants from Finland rated the overall satisfaction lower than Sweden

and Luxembourg. Finnish and Luxembourgish participants were, on average, satisfied with the current number of the signposts whereas Swedish participants were inclined toward a smaller number of signposts, a significant difference between the countries. All these results were precisely replicated with ANCOVA using age and gender as covariates.

Table 3 here

As our moderation model used ordinal variables, we calculated Spearman correlations (Table 4).

Table 4 here

Table 4 shows that the satisfaction with the contents (but not the number) of the tasks correlated significantly and positively with restorative change and mood enhancement but also with overall satisfaction and willingness to revisit and recommend the trail. Nature-connectedness also had significant associations with all the respective variables but they were less than half in size (in comparison to the satisfaction with the contents) except for mood enhancement ($\rho = .32$ for satisfaction vs. $.22$ for nature-connectedness). Nature-connectedness was also moderately associated with satisfaction with the contents of the tasks.

For the moderation models, all tested models showed good fit with the data but the χ^2 difference tests consistently favoured models with more equal paths between the countries. For example, the last multigroup solution where all paths were constrained to equal across countries showed good fit ($\chi^2 = 5.8$, $df = 12$, $p = .92$; RMSEA $< .001$; CFI = 1.00) Thus, there were no reliable country-level differences in the relationships between the measures. Therefore, the final model that was interpreted was a single model (Figure 1). However, this single-level model was saturated and thus, the χ^2 -test or the fit indices could not be calculated (Bollen, 1989). The final moderation model explained 6.5% of the variation in restorative change and 12.3% in mood enhancement.

Figure 1 here

In the moderation model, satisfaction with the task contents was connected to positive restorative change and mood enhancement (Figure 1). Nature-connectedness was linked to mood enhancement but not to restorative change. The moderator effects were not significant for either outcome.

Discussion

We observed that, independent of age and gender, participants were more satisfied with the trails in Sweden and Luxembourg than in Finland. We detected no reliable differences between countries in terms of restorative experiences or willingness to recommend the trail for others, although such tendencies were observed. We are inclined to conclude that the result is due to the more scenic trails in Sweden and Luxembourg – they did not include any unaesthetic sections (an expert evaluation by the first author) like sandpits or untidy house yards as in Finland. Based on the results it would seem that people who have walked one of the well-being trails have fairly similar experiences regardless of the country they live in or their age and gender. However, this conclusion is restricted by our samples being self-selected and, even though sufficient for statistical power, very small in relation to national populations. Moreover, all the well-being trails were located in European countries and the results of this study cannot be generalized outside the countries involved.

In the correlations and in the moderation model, satisfaction with the signposts' contents was significantly connected to positive restorative change and mood enhancement. This result speaks for the potential usefulness of awareness-enhancing tasks along nature trails. As Duvall (2011) has noted, awareness-enhancing tasks based on tuning or “manipulating” how a person perceives and interacts with the existing environments may allow even less ideal environments to be experienced in positive and stress-alleviating ways; an intriguing prospect for future studies. In the zero-order correlations, nature-connectedness was associated with mood enhancement and restorative change but in the moderation model where satisfaction with the contents of the tasks was included, only to mood enhancement, suggesting an independent contributory role for the tasks in both mood enhancement and restoration.

As expected, the moderator effects of nature-connectedness were not significant for either outcome; this conforms with a previous study where nature-connectedness moderated neither nature intervention effects on positive affect nor feelings of elevation (Passmore & Howell, 2014). Thus, there is potential that well-designed psychological tasks for mood and restoration enhancement that satisfy the users will work equally well for different people varying in nature-connectedness; a promising prospect for public health promotion.

Based on the fairly high mean level of nature-connectedness among participants of the study it seems likely that the well-being trails attract people who enjoy and value nature and the trail

visitors are a fairly homogenous group limiting the generalizability of our results. A further limitation of our study is the short length of the measure of nature connectedness; the emphasis being on preference, dependency, and frequency of use. Nisbet and colleagues (2009) proposed the construct of nature-relatedness to measure people's interest in, fascination with, and desire for nature contact. Our measure includes these aspects but we did not measure oneness with nature, awareness and understanding of all aspects of the natural world, or interconnectedness with other living things (Nisbet & Zelenski, 2013) or linking nature to one's self and identity (Clayton, 2012). It is noteworthy that all these and other major measures of nature connectedness correlate strongly with present contact with nature (Tam, 2013) which was included in our measure. However, conclusions concerning the role of nature-connectedness should be made with caution in the present study due to the limited coverage of the concept in our measure. Moreover, the measure of restorative change was calculated by the participants themselves and our other measures were single items, their reliability being unknown.

Based on these results the well-being trail seems to be a transferable innovation at least in the countries involved. However, in this study we were unable to separate the effect of the psychological rehearsals from the restorative effects of nature itself. Future experimental studies that include such control groups could shed light on this question.

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FIGURE LEGENDS

Figure 1. Moderation model with WLSMV estimator; standardised estimates and their 95% bootstrapped confidence intervals. Solid lines: estimate differs from 0.

Figure 1.

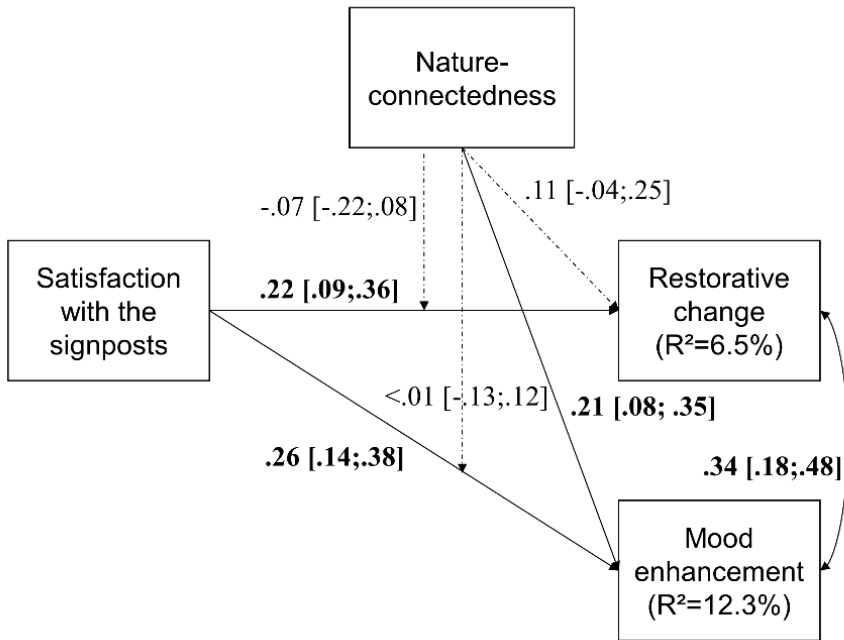


Table 1. Characteristics of the forest trails in the four countries.

Country	Area	Location	Trail length (km)	Data collection period	Participants
Finland	Pirkanmaa	Ikaalinen spa	4.4 or 6.6	Aug 2010 – Oct 2010	164
Sweden	Sunne, Värmland	Selma spa	5.0	Oct 2012 – Nov 2013	54
Luxembourg	Müllerthal region	Nommern	4.3	May 2013 – April 2014	65
France	Brouvelieures	Frémifontaine	4.7	Nov 2013 – June 2014	16

Table 2. The frequencies and percentages of the respondents' gender and the means, range, standard deviations and medians of the trail visitors' age in years by country.

	Female		Male		Total	Age, yrs			
	<i>n</i>	%	<i>n</i>	%	<i>N</i>	<i>M</i>	Range	<i>SD</i>	<i>Md</i>
Sweden	46	85.2	8	14.8	54	45.4	17-73	15.0	48.5
Luxembourg	44	67.7	21	32.3	65	48.0	13-82	14.1	49.0
France	10	62.5	6	37.5	16	59.3	23-80	17.8	65.5
Finland	120	73.2	44	26.8	164	47.4	13-66	11.1	50.0
Total	220		79		299				

Table 3. Analyses of variance (ANOVA) and post hoc pairwise comparisons in three countries (N = 283; France excluded).

	Country						ANOVA			Pairwise comparisons	
	Sweden		Luxembourg		Finland						
Scales 1-5:	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>df</i>	<i>p</i>		
Restorative change	2.42	2.07	3.02	3.41	1.76	2.20	4.47	2, 206	.042	n.s.	D
Mood enhancement	3.25	.96	3.32	.96	3.12	.85	1.26	2, 274	.287		
Overall satisfaction with the trail	4.21	.95	4.13	.85	3.80	.75	7.05	2, 274	.001	S>F .005	B
										L>F .02	B
Willingness to revisit	3.62	1.06	3.92	1.15	3.69	1.01	1.46	2, 278	.233		
Willingness to recommend	4.09	.92	3.92	1.09	3.72	1.01	3.08	2, 279	.047	n.s.	B
Satisfaction with the contents of the psychological signposts	3.53	.85	3.63	.83	3.45	.76	1.09	2, 277	.338		
Satisfaction with the number of the psychological signposts	1.83	.545	2.08	.378	2.14	.398	10.67	2, 275	<.001	F>S .001	D
										L>S .017	D
Nature connectedness (1-5)	4.16	.74	4.19	.67	4.31	.76	1.18	2, 280	.310		

Note. D = Dunnett's T3 test for unequal variances, B = Bonferroni test

Table 4. Spearman correlations (*rho*) of the study variables (n = 214-295).

	1	2	3	4	5	6	7
1. Restorative change							
2. Mood enhancement	.42**						
3. Overall satisfaction with the trail	.29**	.47**					
4. Willingness to revisit	.29**	.57**	.63**				
5. Willingness to recommend	.31**	.47**	.64**	.76**			
6. Satisfaction with the contents of the signposts	.24**	.32**	.52**	.50**	.49**		
7. Satisfaction with the number of the signposts	-.06	-.05	-.04	.002	-.03	.08	
8. Nature connectedness	.14*	.22**	.16**	.20**	.24**	.13*	-.03

Note. * $p < .05$, ** $p < .01$