

# Hiking as a wellness activity – an exploratory study of hiking tourists in Portugal

Journal of Vacation Marketing  
16(4) 331–343  
© The Author(s) 2010  
Reprints and permission:  
sagepub.co.uk/journalsPermissions.nav  
DOI: 10.1177/1356766710380886  
jvm.sagepub.com



**Áurea Rodrigues and Elisabeth Kastenholtz**

DEGEI, University of Aveiro, Portugal

**Apolónia Rodrigues**

Genuineland, Portugal

New forms of tourism are gaining ground throughout the world. Nowadays, successful tourism destinations must offer variety and new tourism products, addressing special interest niches. One increasingly popular tourism product is health and wellness tourism. The wellness concept typically integrates physical activity combined with relaxation of the mind and intellectual stimulus, enhancing well-being through a balance of the body, mind and spirit. Promoting well-being is a relevant motive of most tourists and should be regarded in any tourism marketing strategy. Hiking is an appropriate activity to integrate in a wellness tourism context, being since long a strategically developed recreational and tourism activity in many European countries. In the present study we show the results of an exploratory survey of hikers in Portugal and discuss possible implications on planning and management of rural tourism destinations, with emphasis on the creation of integrated wellness products. Results were used for developing a more holistic tourism offer within *the European Network of Village Tourism*.

## Keywords

hiking, *Genuineland*, Portugal, rural tourism, wellness tourism

## Introduction

According to the European Landscape Convention (Council of Europe, 2000) 'landscape contributes to the formation of local cultures and . . . is a basic component of the European natural and cultural heritage, contributing to human well-being and consolidation of the European identity being a key element of individual and social well-being'. The relevance of landscape within tourism is related to the pleasure sought in the experience associated to nature and landscape, a dimension that has become more central in the 20th century forms of tourism (Terkenli, 2004). This outstanding role of landscape for quality tourism experiences becomes particularly evident in the development and success of specific types of tourism like rural tourism. Here, the rural becomes a refuge from urban life, a place to engage in recreation and

actually 'heal' from urban misery escaping to the rural idyll, as expressed in the romantic period (Daughstad, 2008).

Many regions in Europe are developing rural tourism. Whatever the overall relevance of rural tourism for each country, it is acknowledged as an alternative form of income for European rural areas, being furthermore financially supported by several funding schemes, which naturally leads to an increasing number of new rural tourism destinations (Hegarty and Przezborska, 2005). Rural tourism destinations have to compete with this increasing number of alternatives,

---

## Corresponding author:

Áurea Rodrigues, DEGEI, University of Aveiro, Campus de Santiago, 3810-193 Aveiro, Portugal  
Email: aurea@ua.pt

making the identification of particular, distinctive features of the rural destination product and the unique experience provided, the only possible avenue of success, in a context in which it is critical for destinations to portray a unique identity (Novelli et al., 2006). There are many tourist activities that can be promoted in rural spaces, including the active experience of nature through outdoor sports, either challenging or, rather, calm and contemplative in nature. Hiking is, in this context, one of the most popular forms of enjoying an active nature experience in Europe (Zins, 2006).

In a study undertaken by Chen et al. (2008) relaxation, pursuing multiple activities, recreation and enjoying nature are identified as the top four motivations when travelling to a wellness destination. Correspondingly, and given the before-mentioned health-enhancing qualities of landscape and nature experiences, hiking is an activity that may be successfully integrated in an appealing wellness supply, particularly in rural areas.

In this article we present a strategy used by the European Network Village Tourism for promoting a wellness enhancing rural tourism experience, by stimulating the tourist use of walking trails developed in the natural setting surrounding the villages. The strategy was developed making use of scientific evidence on health benefits of the nature experience as well as the results of an exploratory study directed at tourists hiking in Portugal. More specifically, results show that, while hiking must be recognized as a relevant health promoting activity, well fitted into a wellness tourism product, different hiking experiences and preferences amongst potential rural tourists must also be understood to successfully develop this facet of an enriched rural tourism supply. In this context, this study analyses differences between the domestic and international market of hikers in Portugal permitting the development of a differentiated offering in the nature and rural tourism context.

### **Therapeutic benefits of nature**

The World Health Organization defines health as 'a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity' (WHO, 1946). The broad definition of the WHO related to health shows that a wellness lifestyle has to imply physical, mental and social well-being.

In the last few years there has been an increasing attention placed on the benefits of physical activity for people's health and well-being (Verheij and Maas, 2007; Oguma et al., 2002; Pate et al., 1995; Rutten, 2001; Scully et al., 1998). There is also a growing evidence of a positive relation between health and the amount of green space in people's environment (Maas et al., 2006). Considering this positive relation of both physical activity and the nature experience with health, it seems only logical that the combination, namely physical exercise in nature, like hiking in natural landscapes, should be most beneficial.

The links between landscape and health have been researched for a very long time in different cultural and social contexts (Cooper and Barnes, 1999; Ulrich, 2002; Velarde et al., 2007). Particularly in the last three decades research has generated a relatively rich literature to explain the ways in which natural environments positively impact on health. There are several research approaches in various fields of science (health, leisure and geographical science, environmental psychology, landscape architecture and urban planning, amongst others) that focus on this subject as shown by the table 1.

According to Maas and Verheij (2007), nature, apart from having positive effects on stress reduction and attention restoration, might also influence the amount of physical activity. Natural environments are generally perceived as more attractive than built environments (van den Berg et al., 2003, 2007). Therefore, green areas, particularly if perceived as aesthetically attractive (Burton and Craik, 1969), may act as an incentive for people to undertake healthy physical activities such as walking or cycling.

### **Wellness tourism**

According to Smith and Puczkó (2008), the concept of wellness means different things in different contexts and countries. The age-old tradition of enjoying thermal waters in Europe is far removed from traditions of Asia, and again from more modern forms of wellness, such as in the context of occupational psychology, workshops or cosmetic surgery. For example, the authors refer to the case of Malaysia, where local people associate with personal well-being and lifestyle a form of stress reduction for working people in urban areas and new forms of tourism activities for foreign visitors. In this context,

**Table 1.** Research approaches about positive effects of nature on humans

Theory	Authors	Concepts
Stress Recovery Theory	Ulrich (1984, 1999); Ulrich et al. (1991); Korpela et al. (2007)	Assumes a negative antecedent condition of psychological stress, defined as a process of responding emotionally to a situation in which well-being is challenged. Consequences of stress include negative emotions and heightened autonomic arousal. Ulrich predicts that natural scenes tend to reduce stress, whereas settings in the built environment tend to prevent recovery from stress.
The concept of healing gardens	Ulrich (1984); Stigsdotter & Grahan (2005); Sherman et al. (2005)	Suggested in the leisure context, healing gardens are, among other things, designed to make people feel safe, less stressed and more comfortable.
Attention restoration theory (ART)	Kaplan & Kaplan (1989)	Emphasizes the recovering aspects of places, which allow people to distract, to relax, to free their minds and to distance themselves from ordinary aspects of life. According to ART, four components of environments account for their restorative value: being-away, fascination, extent and compatibility.
The concept of therapeutic landscapes	Milligan & Bingley (2007); Gesler (1992, 1993, 2005); Williams (1999)	Gesler's concept of the Therapeutic landscape is now well embedded in the lexicon of health geography. His suggestion that certain "natural" and built environments can promote mental and physical well-being is based on an understanding of the ways in which environmental, societal and individual factors can work together to preserve health and well-being. Within this framework, place is understood as being relational, influenced by the physical environment, the human mind and material circumstances.

wellness products seem to have a distinct meaning when targeted to the resident population, solving basic stress-reducing needs, when compared to the foreign tourist market, involving the development of a variety of new, eventually more sophisticated products and services.

On the other hand, in Scandinavia there is a large emphasis on outdoor recreation, such as Nordic walking, cross-country skiing and lake swimming, revealing the relevance of active nature experiences amongst this population and its visitors.

In Germany, Austria and Switzerland wellness tourism is considered extremely important but this is combined with other principles of optimum wellness, such as a healthy and holistically balanced lifestyle, including healthy eating, rest and relaxation and some forms of spiritual activity, such as yoga and meditation. There is further an increasing shift towards self-responsibility, e.g. a global change in values and lifestyle. According to Turismo de Portugal (2006), Germany is the main market of wellness tourists in Europe with a percentage of 3.7% of

consumers in relation to the total of German tourists. This country further concentrates 63% of the total wellness travel undertaken by all European consumers.

There is, indeed, no consensus about the definition of wellness tourism (Smith and Kelly, 2006). Wellness can be defined as the balanced state of body, spirit and mind, including such holistic aspects and dimensions as self-responsibility, physical fitness/ beauty care, healthy nutrition, relaxation, mental activity and environmental sensitivity as fundamental constitutional elements (Kulczycki and Lück, 2009; Müller and Lanz-Kaufmann, 2001, cited by Weiermair and Steinhauser, 2003; Schobersberger et al., 2004) (see Figure 1). In Europe, wellness first was adopted as a new perspective of tourism pursuits and quickly became a new, specialized market segment (Nahrstedt, 2004).

In a study undertaken by Turismo de Portugal (2006), the market of international trips with the main purpose of a wellness vacation comprises three million trips with a minimum of one night stay. This represents approximately 1.2% of the

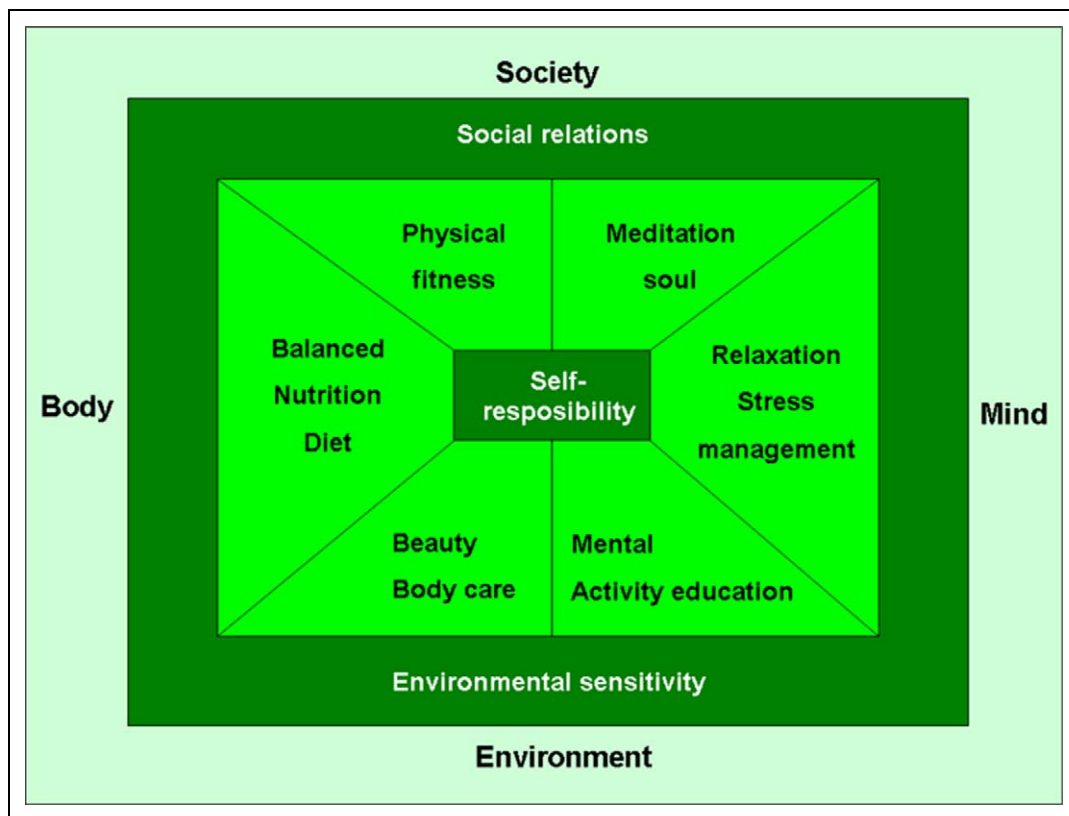


Figure 1. Elements of High-Level Wellness (source: Narrstedt, 2001, 2004)

total of leisure trips of European tourists. According to professionals of the tourism sector, interviewed for that study, this market is expected to grow in the coming years between 5% and 10% per year. Following this pattern, it is estimated that within 10 years the market will almost double, reaching a volume close to six million trips annually. The secondary market of wellness tourism refers to tourists who travel for other motivations and occasionally demand a wellness product at the destination. According to the European Travel Monitor (2004, cited by Turismo de Portugal, 2006), it is estimated that about seven million trips have a complementary component of wellness. This data shows the potential associated with wellness products for destinations aiming at enhancing their attractiveness.

In Europe, some lodging establishments tend to use wellness as a new frontier of trade so as to position themselves as a rejuvenating retreat, integrating the perspectives of body, mind and spirit (e.g. wellness centres, wellness hotels, and wellness resorts). What has been augmented in these businesses' service scope is the introduction of experience elements enhancing

the individual's physical and psychological vigour, with the new lines of services and experiences provided in the wellness market being rather comprehensive and demanding (Chen et al., 2008).

### Hiking as a relevant wellness activity – the case of 'wellness walks' promoted by *Genuineland*

The European Network of Village Tourism/*Genuineland*, involving 10 European regions from Portugal, Italy, Finland, Greece, Poland, Romania, Belgium and Slovenia was founded in 1999 and may be considered a pioneering experience in the implementation of sustainability principles at the levels of small, geographically dispersed but interlinked destinations, which aim at making the best use of and setting into value local endogenous resources as the basic tourist attractors (Rodrigues and Rodrigues, 2007).

Although these regions are clearly distinct in terms of geographic, cultural and social characteristics, they have in common the fact that most of them are located in European rural marginal areas facing great limitations in terms of development,

caused isolation, decline of economic activities and the consequent high rate of unemployment (Piorr and Müller, 2009). In addition these regions are suffering from the phenomena of an aging population and human desertification, as well as other factors that influence negatively their development process (Geist, 2005). Many of those born in these regions are unwilling to remain, which results in migration of the inhabitants to the larger urban centers (Berg et al., 2007). Since it is further difficult to attract new residents, a growing depopulation is the consequence, leading even to the disappearance of some village communities (Christensen and Levinson, 2003). In order to stem this tendency, initiatives are needed that contribute towards the sustainable development of these regions. Despite many constraints, these regions assume an important and increasingly recognized role of environmental and cultural (particularly ethnographic) preservation, as well as corresponding potential to use these resources for developing integrated and increasingly demanded rural tourism products enhancing the areas' aforementioned sustainable development.

It is in this context that the European Network of Village Tourism has been developed, using tourism as a catalyst for integration and sustainability, by promoting endogenous tourism development in the villages involved and by creating a sustainable structure for European cooperation in this domain. The partnership working approach is based on a solid networking system, not only at the international but also at the regional level, combined with a bottom-up approach in the development of the activities with the communities involved.

Since the endogenous development within these regions cannot be achieved without a profound knowledge of the local realities, the elaboration of Village Plans (Local Development Plans) was considered essential for the activities to be developed in each village integrated into the network. Additionally, a tourism activity plan for the network was developed to consolidate this new tourism product as well as to establish an information and promotion strategy. Training, professional qualification and best possible use of knowledge available was also considered most important, increasing the community's human capital and knowledge base. This permits, among other aspects, a systematic development and continuous improvement of tourism offerings according to registered trends in the market, as well as based on studies relevant for the

product-market in question and continuous evaluation of client satisfaction.

The project seeks the development of the concepts of 'Village Tourism' and 'Tourism of the Imagination'<sup>1</sup> (OECD, 2009), as main themes of the tourism activities in the regions involved. 'Tourism of the Imagination' was used as the basis for developing the intangible cultural heritage dimension of the rural tourism experience. Walking trails were, in this context, used to combine culture with nature experiences, developing another dimension, namely an additional wellness component. Given the before presented benefits of nature experiences for health and well-being and the recognized trend towards wellness tourism in the market, the members of the village tourism network intended to create their own offer of wellness activities using as main resources the natural surrounding of the villages, namely by promoting hiking experiences.

Several studies reveal the benefits of hiking for health and both physical and mental balance. Hiking tones muscles, contributes to loss of weight, reduction of stress, improvement of both sleep and mental alertness (Hansmann et al., 2007; Herzog et al., 1997). It has shown the lowest dropout on injury rates of exercise programs (Pollock et al. 1994, 1998), being easy to execute, even by untrained persons. Additionally, walking trails are infra-structures that are less expensive to develop than alternative wellness facilities, e.g. SPAs, and more appropriate to be integrated in the rural tourism context, also given the possibility of combining within the hiking experience cultural and nature experiences (Rodrigues et al., 2009).

The use of the walking trails as a wellness offer directed to rural tourists was based on three main arguments:

- The above-mentioned results of the studies, from many fields, that show benefits related to walking and nature experience;
- The tendencies of the tourist market that showed important growth perspectives for the wellness market (e.g. Turismo de Portugal, 2006, suggesting an annual growth rate of 11%); and
- The results of an exploratory study directed at hiking tourists in Portugal (Kastenholz and Rodrigues, 2007; Rodrigues, 2004; Rodrigues and Kastenholz, 2007), where environmental preferences, environmental sensitivity, the factors restraining respondents from hiking and satisfaction derived

from the activity were analyzed. The latter will be next presented in further detail.

### *Methodology of the exploratory study*

A survey was administered to 100 'non-hiking' Portuguese, 100 Portuguese hikers and 100 hikers from other nationalities with the main aim of assessing respondents' environmental perceptions, ecological sensitivity and factors restraining them from hiking. For interviewing hikers, respondents were addressed on several walking trails located in geographical areas with different landscapes in the North, Center and South of the country, namely in the Gerês National Park (North), the Serra da Estrela Natural Park, São Jacinto, Buçaco (Center) and in Borba (the Alentejo). Responses were obtained through direct administration of questionnaires at the presence of an interviewer. In an attempt to avoid biases there was a concern for diversifying the walking trails included in the approach, trying to interview all hikers that were encountered on specific days on these trails. The approach may thus be considered a cluster sampling procedure, with clusters defined by space and time, which may be considered an appropriate approach for sampling tourists and visitors, given the lack of prior statistical information about the universe under study (Kastenholz, 2002).

The questionnaire aimed at obtaining information concerning: the respondents' socio-demographic profile (nationality, district of residence, habitat, sex, level of education, occupation); the respondents' general holiday behavior (spread of holidays along the year, activities undertaken during the holidays) and general holiday motivation; the respondents' environmental preferences and ecological sensitivity; the respondents' behavior related to specific hiking trip (motivation for hiking, main source of information for choosing a trail, main means of transportation, constitution of travel group, organization of trip, accommodation, distance of walking trail, pattern of expenditure, important features for visiting a walking trail); as well as factors restraining respondents from hiking.

The data was then analyzed with the statistical program SPSS (version 11.0). A univariate analysis was undertaken, analyzing distributions and indicators of central tendency (means and standard deviations), whenever possible. Bivariate analysis was also undertaken for identifying relations between variables, using the

following techniques: the Chi-Square test, in case of nominal variables; the non-parametric Mann-Whitney test, in case of ordinal variables. Apart from this, a principal components analysis was carried out in order to identify the underlying dimensions of a series of items used to measure environmental perception.

### *Global Survey Results*

There was an approximately balanced distribution between men and women in the sample, as expected. Respondents were in their large majority situated in an age range of between 25 and 54 years and tended to higher levels of education (63% with a higher education diploma). Main occupation groups were top or mid management (29.3%), students (19.6%) or service and industry employees (17.6 %) and 58.5% of respondents came from urban areas. Foreign hikers came basically from Europe (98%), with main nationalities being French (54%), Dutch (11%), German (9%) and English (9%) hikers. It is interesting to state that the nationality of the hikers interviewed (German, French, Dutch, and British) coincides with the main markets for wellness tourism (European Travel Monitor, 2004, cited by Turismo de Portugal, 2006), also revealing a potential proximity between hiking and interest in wellness tourism.

The main holiday motivation indicated was 'escaping daily life' (49.5%). Respondents indicated a general preference for the summer months as a holiday period, while additionally undertaking weekend-breaks all along the year.

*When hiking* respondents revealed the following behavioral patterns: Respondents based themselves on informal information sources for collecting data on walking trails, specifically 'recommendations by friends and relatives', although a large part of respondents did not undertake any previous planning of the hiking trip.

The main means of transportation used to travel to the walking path visited was the car (their own or a rented one) and hikers staying overnight (93% of the hikers interviewed) revealed a preference for camping sites. Expenditure levels were correspondingly low, with expenditure levels being mainly 'up to 10 euros' as well as varying between '10 and 25 euros' per day.<sup>2</sup> The hiking groups were mostly constituted by friends or couples.

Main motivations were linked to the enjoyment of nature: 'to observe and enjoy the

beauty of the landscape', 'to breathe pure air' and 'to get to know and interpret nature in an involving way'. These motivations reflect the generally associated 'healing' character of a nature experience, especially in the second item, but also the enjoyment of landscape beauty and of nature in an involving way reveal the well-being associated with hiking that may have therapeutic features.

Respondents tended to prefer short-range walking routes (PR).<sup>3</sup> The main aspects identified as potential obstacles were associated with safety, namely the items: 'to walk through very dangerous places', 'difficulty of assistance in case of accident' and 'lack of security of the trail'. Correspondingly when asked about factors that might be improved on a walking trail, respondents revealed a large concern about the trail's safety again, specifically reflected in the item 'in case of disorientation or accident existence of control/ security'.

Globally, respondents associated sensations such as serenity, relaxation, tranquility and fun with nature, revealing mostly positive feelings. However, some aspects revealed a more pronounced dispersion in answers, as in the case of associating enigma, suspense or even fear.

It was further possible to identify a factorial structure reflecting diverse dimensions of environmental perception, based on a Principal Components Analysis of the total of 300 responses to a series of 24 Likert-type scales, indicating diverse items of environmental perception, identified in literature about environmental psychology (Kaplan, 1982; Russel and Lanius, 1984). Results of this analysis<sup>4</sup> are presented, in a summarized version, in Table 2, showing the VARIMAX (orthogonal) rotation to facilitate interpretation, which globally led to relatively high and well associated factor loadings for each variable.

Next, we will analyze the differences between the group of Portuguese hikers and that of international hikers, aiming at understanding the potential and interest of an eventual market segmentation of visitors of Portuguese walking trails, permitting a better adaptation of the respective tourist supply to each segment. The following tables present, in a summarized manner, the main statistically significant differences, as assessed through cross-tabs, in connection with Chi-Squared tests, and through Mann-Whitney tests.

These results show that there are, indeed, differences between domestic and international

**Table 2.** Principal components analysis of aspects of environmental perception

	<i>Relaxing</i>	<i>Gloomy</i>	<i>Enigma</i>	<i>Stimulating</i>	<i>Fear</i>
<i>Serenity</i>	0.909				
<i>Relaxing</i>	0.905				
<i>Pleasant</i>	0.820				
<i>Fun</i>	0.804				
<i>Arousing</i>	0.790				
<i>Beautiful</i>	0.749				
<i>Tranquil</i>	0.734				
<i>Sensational</i>	0.719				
<i>Boring</i>		0.858			
<i>Disturbing</i>		0.854			
<i>Annoying</i>		0.834			
<i>Harassing</i>		0.809			
<i>Gloomy</i>		0.716			
<i>Anxiety</i>		0.679			
<i>Enigma</i>			0.901		
<i>Suspense</i>			0.875		
<i>Mystery</i>			0.838		
<i>Restoring</i>				0.604	
<i>Active</i>				0.591	
<i>Exciting</i>				0.484	
<i>Stimulating</i>				0.483	
<i>Fear</i>					0.854
<i>Terror</i>					0.803
<i>Apprehension</i>					0.693
<i>Cronbach</i>	0.913	0.876	0.892	0.877	0.854
<i>% accum. variance</i>	32.12	52.12	61.69	67.77	72.34

visitors of Portuguese walking trails that suggest the need of a differentiated marketing strategy when trying to develop these kind of wellness-associated products. Apparently, contact with nature is motivating for all, typically urban tourists visiting natural landscapes and associated with a healthy lifestyle that is increasingly sought. Portuguese have, further, a more pronounced tendency of perceiving boredom in the nature context. They reveal a need for a guide, reducing these feelings and helping to interpret and discover the secrets of fauna and flora, thereby additionally increasing nature awareness and interest. Boredom felt in the natural environment obviously leads to a low level of satisfaction when it comes to walking in nature (Chhetri and Arrossmith, 2004), which may restrain these visitors from repeating the activity, if not adequately integrated into a wider, more involving experience.

### Applying results for Genuineland

The way in which tourists seek restoring contact with nature differs amongst tourist groups, which must be considered when designing and promoting the product (Rodrigues and Kastenholz, 2007). This was done in the case of *Genuineland*, where additionally sustainable

rural development, based on endogenous resources was a major goal, as explained previously. For the Portuguese market the hiking offer was designed around thematic guided tours, with guides recruited from the community, who know well the most beautiful landscape traces and scenic places to visit. They are additionally able to relate the natural surrounding to culturally interesting topics on the relationship between Man and Nature in the particular rural area visited (e.g. use of herbs, wood, and other natural resources for rural life, etc.). These guides were further trained in environmental education, fauna and flora, as well as ecological systems, which they then should be able to explain to the interested visitor.

For other nationalities the opportunity of an unmediated contact with nature was promoted, helping visitors to develop the hiking tours themselves with the support of kits, e.g. 'Photo Safaris'. In this case, owners of the lodging units just distributed the kit to interested tourists, containing food for the tour, a map, a brochure with information about the best places for taking photos and disposal of material to prevent that tourists leave garbage on the trails.

Globally, and even if to distinct degrees for the national versus international tourist market, for

**Table 3a.** Differences between Portuguese hikers and hikers of other nationalities (Mann Whitney test)

	Mean Rank		Sig.
	Portuguese	Other nationalities	
<i>Preferred activities in destination area</i>			
Engage in beach activities	108.56	92.44	0.033
Visit places with wild nature	87.36	113.64	0
Visit historical places	91.39	109.61	0.014
<i>Environmental Perception</i>			
Relaxing	142,45	154,53	0,237
Gloomy	185,42	133,04	0,000
Enigma	167,26	142,12	0,016
Stimulating	123,51	163,99	0,000
Fear	150,29	150,60	0,974
<i>Important factors for undertaking a hike</i>			
Existence of information about the walking trails	96.65	104.35	0.294
Guide service	113.95	87.05	0.001
Interpretation	104.32	96.68	0.303
Lack of crowding	96.28	104.72	0.276
Silence	91.91	109.09	0.026
Existence of infrastructure to collect garbage along the way	91.71	109.29	0.026
Trail with a low level of difficulty	109.39	91.61	0.018
Infra-structures of support	97.72	103.28	0.475



**Table 3b.** Differences between Portuguese hikers and hikers of other nationalities (Q2 tests)

Sources of information ( $Q^2= 0.000$ )	Portuguese	Other nationalities
Travel Agency	1 (8.0) -3.6	15 (8.0) 3.6
Recommendations from friends and family	64 (47.0) 4.8	30 (47.0) -4.8
Tourist guide book	11 (23.5) -4.2	36 (23.5) 4.2
Internet	6 (11.0) -2.3	16 (11.0) 2.3
Others	18 (10.5) 3.5	3 (10.5) -3.5
Transport ( $Q^2= 0.011$ )	Portuguese	Other nationalities
Own car	39 (41.5) -0.7	44 (41.5) 0.7
Car from family and friends	51 (44.0) 2	37 (44.0) -2
Rented car without driver	7 (13.0) -3	19 (13.0) 2.5
Others	3 (1.5) 1.7	0 (1.5) -1.7
Booking ( $Q^2= 0.000$ )	Portuguese	Other nationalities
Travel agent/ Tour operator	1 (8.1) -3.7	15 (7.9) 3.7
Other	14 (9.1) 2.4	4 (8.9) -2.4
There was no previous planning	85 (82.7) 0.9	78 (80.3) -0.9
Accommodation ( $Q^2= 0.000$ )	Portuguese	Other nationalities
Hotel	5 (5.1) -0.1	4 (3.9) 0.1
Didn't stay at destination	13 (7.9) 2.9	1 (6.1) -2.9
Others	39 (23.2) 5.8	2 (17.8) -5.8
Camping	30 (50.8) -6.9	60 (39.2) 6.9
Spenditure at destination per person/ day ( $Q^2= 0.000$ )	Portuguese	Other nationalities
Nothing don't know	28 (15.0) 5.1	2 (15.0) -5.1
1 to 25 Euros	67 (71.0) -1.2	75 (71.0) 1.2
25.1 to 75 Euros	5 (11.0) 2.7	17 (11.0) -2.7
More than 75 Euros	0 (3.0) -2.5	6 (3.0) 2.5

Values represent the observed frequency, in brackets the values of the expected frequency.  
Values below represent the standardized residuals.

improving the hiking experience and associated wellness opportunities, it is desirable to invest, first of all, in the preservation of natural resources, environmental and landscape quality, which are the aspects generally most sought. But also improved tourist support infrastructures providing comfort, security and environmental protection facilities as well as additionally permitting an optimized use of regional resources

and thus the generation of income for the local population seems an important measure to take.

A comprehensive network of well-signed walking trails, using appealing interpretation techniques and providing different degrees of difficulty would permit a positive experience for diverse types of visitors, associated to distinct physical challenges and a variety of nature experiences. A system for managing visitor

flows and guaranteeing silence on the trails seems desirable, for both protecting wildlife and guaranteeing a more positive experience to tourists (particularly relevant for the international tourist hiking in Portugal). A careful design and management of walking trails would, indeed, be most important for enhancing the potential positive physical and psychological impacts of the nature experience, making use of the most appealing environmental dimensions as well as their combination to increase variety and permit the integration of diverse natural and cultural resources of the rural areas. Some trails may cross small rural localities, permit contacts between visitors and local population, if sought, enhance local commerce as well as the supply of more complex tourism products that may lead to an enriched global experience and sustainable development alike.

Particularly for the domestic market a more professional offer of guided hiking tours, in a group, permitting a higher level of safety on the trail, as well as a socializing experience, is an important measure. With this professional guidance, also the health related aspects of walking may be underlined and some instructions on how to improve these effects might be provided.

Last but not least, mechanisms to guarantee and control for a positive experience in order to develop loyalty amongst visitors and enhance positive word of mouth, using, for example, on-going studies, would permit continuous improvements and consequently the consolidation of an image of a rich, varied and wellness-providing rural tourism experience at the *Genuineland* destinations.

The main goal would be to provide an enjoyable, restoring and memorable tourism experience within the natural surrounding of the villages visited, which apart from making the natural environment an additional (also culturally interpretable) attraction to be appreciated within a more holistic rural tourism product, also permits physical exercise in a nature context that has proven to add an important wellness dimension to the tourist experience (Maas et al., 2006; Nahrstedt, 2004; Smith and Puczkó, 2008).

## Conclusion

The development of integrated rural tourism, based on bottom-up network strategies and yielding community development has gained increasing popularity in recent years (Rodrigues et al., 2007). In this context, the exploitation of endogenous potentialities of the regions involved and

adapting them, whenever possible and desirable, to new (also manageable) tourism demands, has become a central issue in sustainable destination marketing (Kastenholz, 2004). Tourism in rural areas is typically offered by small enterprises that have difficulties in being competitive in the global market, where networks are powerful tools to intelligently optimize the use of scarce resources. The villages integrated in *Genuineland* tried to innovate their offer by using their cultural and natural resources to create tourism products that would improve the overall tourist experience (Rodrigues and Rodrigues, 2007; Rodrigues et al., 2007), with the wellness component being recognized as a relevant opportunity for increasing success.

Wellness tourism is, indeed, growing fast, and presents an attractive niche product that is increasingly sought in combination with other more traditional tourism offerings (Chen et al., 2008; Kulczycki and Lück, 2009; Smith and Puczkó, 2008). Most of the small rural lodging units integrated in villages do not have the resources to develop sophisticated SPA infrastructures, comparable to the facilities offered by some hotels and resorts. However, by understanding the core attractiveness of a wellness experience, they may develop a corresponding tourism offer that makes use of the natural surroundings of the villages, in specific service contexts.

Hiking should, in this context, be considered an interesting wellness providing nature experience to offer, with a well-designed system of walking trails needed as a relatively inexpensive basic infrastructure, which could also be used by the local population. In the case of *Genuineland*, the trails, corresponding infra-structure and maintenance, brochures and maps are developed by the network. Additional services, such as guided tours, meals made available, support material for tourists are provided by the local communities as a means of generating local income and additionally getting more involved in the rural tourism development process. The wellness dimension is naturally integrated and was a major concern when developing this offer. Indeed, as several studies from environmental psychology, preventive medicine and sports medicine have shown, important health benefits are associated to contact with nature and physical activity within a natural environment, such as walking in nature.

But for designing a tourism product centred on walking in nature, it is also necessary to understand the environmental perception of tourists, their landscape preferences and what

infrastructures and supports they need while they experience nature. This information is very important for successfully managing natural areas when aiming at producing the best quality user experience, while also maintaining the natural resource base. In the presented case, based on survey results obtained in Portugal, it was possible to observe differences between domestic and international hikers. The main difference was the conclusion that Portuguese hikers, in contrast to foreign visitors, apparently prefer a guided walking tour and a series of implications were derived for product development and marketing for each group, suggesting a differentiated marketing strategy.

Hiking should thus be recognized as an important recreational and tourist activity, that may provide a large potential for enhancing the rural and natural areas' attractiveness, their sustainable development, thereby fixing the population, and last but not least, contributing to nature and heritage conservation. For the urban population visiting the rural areas for recreational and tourism motives, this offer would naturally directly benefit their sense of wellbeing, enhanced by a relatively simple wellness experience in nature. These positive effects, however, depend on the destination's capacity of providing well-designed and managed walking trails, integrated in an appealing, differentiated, but still consistent overall tourism product. In the case of *Genuine-land* the walking trails are being used as a tool for developing an integrated offer related to different tourism experiences, including the cultural and wellness dimensions. However, it is necessary to engage in further research on how rural destinations could develop products related with wellness tourism using as the main basis their endogenous resources.

## Notes

1. 'Tourism of the Imagination' refers to the discovery of the territory by means of a narrative shaped by the material and immaterial culture of its people. It is a brand registered by the Região de Turismo de Évora in the context of the European Network of Village Tourism. The five regions involved explore different themes, such as Megalithism in the Alentejo, Shamanism in Lapónia, witchcraft in Trentino, the Lifetree in Lomza and Mountain Tales for the Arad Mountain. Within each theme diverse activities are developed, like the 'Mountain Trail Network of the Imagination', seminars, events, expositions, street theatre, workshops, amongst others.
2. For a more detailed discussion on this topic see Kastenholz and Rodrigues (2007).
3. Hiking trails in Portugal are divided into two types: short range (Pequena Rota –PR) and long-range (Grande Rota – GR). Short-range trails cover a distance of up to 30 km and are registered in the counties, enumerated and integrated into a county network. A long-range trail covers more than 30 km of distance and may result in a walking trip of two or more days, implying an overnight stay on the way. These trails are registered on a national level, if it only integrates national territory, being subject to European registration and enumeration, as soon as the trail is of trans-European nature, i.e. covering, apart from Portugal, the territory of three other European states (FPC, 2001).
4. The PCA presents the following features:
  - Ratio responses/variables = 12.5 (the ratio 'number of cases/number of variables' should be at least 5/1;
  - 74.585% of total variance explained (in social sciences an explained variance of at least 60% is considered desirable);
  - KMO = 0.892 (*good*);
  - Bartlett's test of sphericity = 5686.300 (sig. 0.000), leading to the rejection of the hypothesis of the correlation matrix coinciding with the identity matrix;
  - Matrix of reproduced correlations showing 83% of residuals with absolute values below 0.05;
  - MSA: vary between 0.756 and 0.953 (values above 0.50 are acceptable).

## References

- Berg L, Braun E and Meer J (2007) *National Policy Responses to Urban Challenges in Europe*. Aldershot: Ashgate.
- Burton R and Craik K (1969) *Aesthetic Dimensions of the Landscape*. California: Department of Landscape Architecture.
- Chhetri P and Arrowsmith JM (2004) Determining hiking experiences in nature-based tourist destinations. *Tourism Management* 25: 31–43.
- Chen J, Prebensen N and Huan T (2008) Determining the motivation of wellness travelers. *Anatolia* 19(1): 103–117.
- Cooper Marcus C and Barnes M (1999) *Healing Gardens. Therapeutic Benefits and Design Recommendations*. New York: John Wiley & Sons.
- Christensen K and Levinson D (2003) *Encyclopedia of Community: From the Village to the Virtual World* (Volume 1). London: Sage.
- Council of Europe (2000) The European Landscape Convention. Available at: <http://www.coe.int/t/dg4/>

- cultureheritage/Conventions/Landscape/florence\_en.asp#TopOfPage
- Daugstad K (2008) Negotiating landscape in rural tourism. *Annals of Tourism Research* 35(2): 402–426.
- FPC (2001) *Percursos Pedestres – Normas para implantação e marcação*, Ministério da Juventude e do Desporto, Centro de Estudos e forma desportiva, Lisboa.
- Geist H (2005) *The Causes and Progression of Desertification*. Aldershot: Ashgate.
- Gesler W (1992) Therapeutic landscapes: medical issues in light of the new cultural geography. *Social Science & Medicine* 34(7): 735–746.
- Gesler W (1993) Therapeutic landscapes: theory and a case study of Epidauros, Greece. *Environment and Planning D: Society and Space* 11(2): 171–189.
- Gesler W (2005) Therapeutic landscapes: an evolving theme. *Health and Place* 11: 295–297.
- Hansmann R, Hug S-M and Seelanda K (2007) Restoration and stress relief through physical activities in forests and parks. *Urban Forestry & Urban Greening* 6(4): 213–225.
- Hegarty C and Przezborska L (2005) Rural and agritourism as a tool for reorganising rural areas in old and new member states – a comparison study of Ireland and Poland. *International Journal of Tourism Research* 7(2): 63–77.
- Herzog R, Black A, Kimberlee F and Knotts D (1997) Reflection and attentional recovery as distinctive benefits of restorative environments. *Journal of Environmental Psychology* 17(2): 165–170.
- Kaplan R (1982) The Green Experience. In: Kaplan S and Kaplan R (ed.) *Humanscape: Environments for People*. Ann Arbor, MI: University of Michigan.
- Kaplan R and Kaplan S (1989) *The Experience of Nature: A Psychological Perspective*. Cambridge: Cambridge University Press.
- Kastenholz E (2002) The role and marketing implications of destination images on tourist behaviour: the case of northern Portugal. Unpublished Phd dissertation, Universidade de Aveiro, Portugal.
- Kastenholz E (2004) 'Management of demand' as a Tool in Sustainable Tourist Destination Development. *Journal of Sustainable Tourism* 12(5): 388–408.
- Kastenholz E and Rodrigues Á (2007) Analyzing expenditure levels of hiking tourists in Portugal. *Anatolia* 17(2): 5–21.
- Korpela K and Ylén M (2007) Perceived health is associated with visiting natural favourite places in the vicinity. *Health & Place* 13(1): 138–151.
- Kulczycki C and Lück M (2009) Outdoor adventure tourism and wellness. In: Bushell R and Sheldon P (eds) *Wellness and Tourism: Mind, Body, Spirit, Place*. New York: Cognizant Communication Corp.
- Maas J, Verheij R, Groenewegen P, deries S and Speeuwenberg P (2006) Green space, urbanity, and health: how strong is the relation? *Journal of Epidemiology and Community Health* 60: 587–592.
- Milligan C and Bingley A (2007) Restorative places or scary places? The impact of woodland on the mental well-being of young adults. *Health and Place* 13: 799–811.
- Nahrstedt W (2004) Wellness: a new perspective for leisure centers, health tourism, and spas in Europe on the global health market. In: Weiermair K and Mathies C (eds) *The Tourism and Leisure Industry, Shaping the Future*. New York: THHP, 181–199.
- Novelli M, Schmitz B and Spencer T (2006) Networks, clusters and innovation in tourism: a UK experience. *Tourism Management* 27: 1141–1152.
- OECD (2009) *The impact of culture in tourism*. Paris: OECD.
- Oguma Y, Sesso HD, Paffenbarger JRS and Lee IM (2002) Physical activity and all cause mortality in women: a review of evidence. *British Journal of Sports Medicine* 36: 162–172.
- Ottosson J and Grahn P (2005) A comparison of leisure time spent in a garden with leisure spent indoors: on measures of restoration in residents in geriatric care. *Landscape Research* 30: 23–55.
- Pate R, Pratt M, Blair SN, Haskell WL, Macere CA, Bouchard C, Buchner D, Ettinger W, Heath GW, King AC, Kriska A, Leon AS, Marcus BH, Morris J, Paffenbarger Jr RS, Patrick K, Pollock ML, Rippe JM, Sallis J and Wilmore JH (1995) Physical activity and public health: a recommendation from the Centers for Disease Control and Prevention and the American College of Sports Medicine. *Journal of the American Medical Association* 273: 402–407.
- Pierr A and Müller K (eds) (2009) *Rural Landscapes and Agricultural Policies in Europe*. Berlin: Springer.
- Pollock M, Braith R, Lowenthal D, Graves J and Limacher M (1994) Moderate- and high-intensity exercise lowers blood pressure in normotensive subjects 60 to 79 years of age. *The American Journal of Cardiology* 73: 1124–1128.
- Pollock ML, Gaesser GA, Butcher JD, Després J-P, Dishman RK, Franklin BA, Garber CE (1998) ACSM position stand: the recommended quantity and quality of exercise for developing and maintaining cardiorespiratory and muscular fitness, and flexibility in healthy adults. *Medicine & Science in Sports & Exercise* 30(6): 975–991.
- Rodrigues A (2004) *Trilhos pedestres e turismo: análise exploratória ao mercado dos trilhos pedestres em Portugal*. Unpublished Masters Thesis, University of Aveiro, Aveiro.
- Rodrigues A and Rodrigues A (2007) Rede de turismo de aldeia, um caso de inovação em turismo rural.

- Congresso Internacional de Turismo da Região de Leiria e Oeste, 25 and 26 October, 2007*. Available at: [http://cassiopeia.esel.ipleiria.pt/esel\\_eventos/portal/sites/congintturismo/index.php?id=2106](http://cassiopeia.esel.ipleiria.pt/esel_eventos/portal/sites/congintturismo/index.php?id=2106) [Accessed April 2008].
- Rodrigues A, Rodrigues A and Kastenholz E (2007) Rural tourism and sustainable development: the project of The European Network of Village Tourism. In: *Proceedings of the 3<sup>rd</sup> Annual Conference on Tourism and Hospitality Research*, Dublin, Ireland, 12–13 June.
- Rodrigues A and Kastenholz E (2007) Hiking as a recreational and tourist activity – comparing Portuguese hikers with those from other nationalities. *Revista Turismo & Desenvolvimento (RT&D)* 7/8: 83–91.
- Rodrigues A, Kastenholz E and Rodrigues A (2009) Cultural events and tourism in rural communities, an opportunity for host encounters and consumer emotions. In: *Proceedings of the 3<sup>rd</sup> ATMC*, Bournemouth, UK, 6–9 September.
- Russel J and Lanius U (1984) Adaptation level and the affective appraisal of environments. *Journal of Environmental Psychology* 4: 119–135.
- Rutten A (2001) Self reported physical activity, public health and perceived environment: results from a comparative european study. *Journal of Epidemiology Community Health* 55: 139–146.
- Schobersberger W, Greie S and Humpeler E (2004) Alpine health tourism: future prospects from a medical perspective. In Weiermair K and Mathies C (ed.) *The Tourism and Leisure Industry, Shaping the Future*. New York: Haworth Press, pp. 199–209.
- Scully D, Kremer J, Meade MM, Graham R and Dudgeon K (1998) Physical exercise and psychological wellbeing: a critical review. *British Journal of Sports and Medicine* 32: 111–120.
- Sherman S, Varni J, Ulrich R and Malcarne V (2005) Post-occupancy evaluation of healing gardens in a pediatric cancer center. *Landscape and Urban Planning* 73: 167–183.
- Smith M and Puczko L (2008) *Health and Wellness*. Oxford: Butterworth-Heinemann.
- Stigsdotter UA and Grahn P (2002) What makes a garden a healing garden? *Journal of Therapeutic Horticulture* 13: 60–69.
- Terkenli T (2004) Tourism and landscape. In Lew A, Hall C and Williams A (eds) *A Companion to Tourism*. Oxford: Blackwell, 339–348.
- Turismo de Portugal (2006) *Dez Produtos Estratégicos Para o Desenvolvimento do Turismo em Portugal*. Saúde, e Bem-Estar, Lisboa: Turismo de Portugal.
- Ulrich R (1984) View through a window may influence recovery from surgery. *Science* 224(4647): 420–421.
- Ulrich, R. (1999) Effects of gardens on health outcomes: theory and research. In: Marcus C and Barnes M (eds) *Healing Gardens: Therapeutic Benefits and Design Recommendations*. New York: Wiley: 27–84.
- Ulrich R (2002) Health benefits of gardens in hospitals. Paper for conference, *Plants for People. International Exhibition Floriade*. Available at: <http://www.greenplantsforgreenbuildings.org/attachments/contentmanagers/25/HealthSettingsUlrich.pdf> [Accessed April 2008].
- Ulrich R, Simons R, Losito B, Fiorito E, Miles M, Zelson M (1991) Stress recovery during exposure to natural and urban environments. *Journal of Environmental Psychology* 11(3): 201–230.
- Van den Berg AE, Hartig T and Staats H (2007) Preference for nature in urbanized societies: stress, restoration, and the pursuit of sustainability. *Journal of Social Issues* 63(1): 79–96.
- Van den Berg AE, Koole SL and Van der Wulp NY (2003) Environmental preference and restoration: (how) are they related? *Journal of Environmental Psychology* 23: 135–146.
- Velarde M, Fry G and Tveit M (2007) Health effects of viewing landscapes – landscape types in environment psychology. *Urban Forestry & Urban Greening* 6: 199–212.
- Verheij R and Maas J (2007) Are health benefits of physical activity in natural environments used in primary care by general practitioners in The Netherlands? *Urban Forestry & Urban Greening* 6: 227–233.
- Weiermair K and Steinhauser C (2003) New tourism clusters in the field of sports and health: the case of alpine wellness. In: *12th International Tourism and Leisure Symposium*, April 2003, Barcelona. Available at: <http://bibemp2.us.es/turismo/turisonet1/economia%20del%20turismo/turismo%20de%20monta%C3%B1a%20y%20nieve/NEW%20TOURISM%20CLUSTERS%20IN%20TOURISM%20AND%20SPORTS%20ALPS%20WELLNESS.PDF> [Accessed April 2008].
- Williams A (ed.) (1999) *Therapeutic Landscapes: The Dynamic Between Place and Wellness*. Lanham, MD: University Press of America.
- World Health Organization (1946) Constitution of the World Health Organization, WHO, Geneva. Available at: W [Accessed April 2008].
- Zins A (2006) Centrality of recreation activities. In: Weiermair K, Pechlaner H and Bieger T (eds) *Time Shift, Leisure and Tourism, Impacts of Time Allocation on Successful Products and Services*. Berlin: ESV, pp. 203–221.