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Health tourism destinations as therapeutic landscapes: Understanding the health perceptions of senior seasonal migrants

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ABSTRACT

Health-driven seasonal tourism has become a new way of providing for the aged, which demonstrates a profound relationship between place and health. Therapeutic landscapes strongly suggest a causal relationship between health tourism destination and individual health. However, the quantitative validation of such relationship remains neglected and possible mechanisms underlying the relationship lack a strong theoretical basis. Based on therapeutic landscape theory and the REPLACE framework, this study quantitatively examines health promotion mechanisms of health tourism destinations by using data collected in Sanya, China, in January 2019. The effect of personal traits of dispositional optimism on health perceptions is also considered. The results show that physical, social, and symbolic landscapes positively influence health perceptions through restorative experiences. Social landscapes, symbolic landscapes and dispositional optimism positively affect health perception, while physical landscapes do not directly have a significant impact on health perception. It is expected that this study will fill the knowledge gap and advance our knowledge of therapeutic landscapes by exploring how they can influence health.

1. Introduction

With increased personal mobility and improved living standards, health-oriented seasonal mobility has become a common phenomenon throughout the world, and a new way of providing for the aged (Wu et al., 2018). It has also spawned a number of specific health tourism destinations with health-conducive natural environments, greater leisure opportunities, and special experiences that provide health-related benefits for seniors and demonstrate a profound relationship between place and individual health (Kou et al., 2018). It is worth noting that the health benefits for senior migrants are subject to their perceptions, because places in themselves are not intrinsically healing (Conradson, 2005), and people in destinations cannot directly experience the biomedical health benefits (Chang and Beise-Zee, 2013).

The therapeutic landscape, as a fundamental concept in health geography, offers a perspective from which to construct a relationship between the place and a subjective health experience (Kearns and Milligan, 2020). A therapeutic experience is socially constructed with the physical and psychological results of one's integration into a specific social, natural, and physical environment (Buzinde and Yarnal, 2012). On this basis, therapeutic landscape theory forms a systematic analysis framework of the three basic aspects of landscapes, namely, physical, social, and symbolic landscapes (Kearns and Milligan, 2020). This has been used to explain how tourists obtain therapeutic experiences from tourism destinations (Huang and Xu, 2018; Zhou et al., 2017).

Although studies on therapeutic landscapes suggest a causal relationship between local environmental factors and individual health, some research gaps can still be identified. Firstly, the therapeutic benefits of place can be the result of the aggregation of material, emotional, and social enabling resources (Duff, 2011). However, these results lack a strong theoretical or empirical basis for explaining the mediating role of enabling resources in the effect of place on health promotion (Cummins et al., 2007). In addition, prior studies on therapeutic landscapes usually emphasize a broad, qualitative description of local environmental elements, using extensive information to show how certain places contribute to health (Kearns and Milligan, 2020). Quantitative examination of a particular place as a therapeutic landscape and the quantitative validation of the effect of a place on health remains neglected, although Cummins et al. (2007) noted the need for further empirical research to test the health-related theoretical framework.

To address these gaps, the REPLACE (resource-exchange place) framework proposed by Rosenbaum et al. (2017) is introduced in order

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to theoretically explain the mediating role of resource enablement. It describes the types of resources available for consumers to exchange with other entities in the consumption environment, and highlights the value of these resources in terms of well-being and place attachment. In seasonal migration, the enabling resources beneficial for therapeutic effects can refer to restorative experiences. Through cross-local mobility, seniors who suffer from at least one long-term or chronic health disease tend to obtain certain restorative experiences as a psychological adjustment to actively deal with their own diseases (Simpson et al., 2015).

Additionally, personal characteristics and the contexts (and places) are always closely related (Cummins et al., 2007). It is inappropriate to consider only external factors in exploring therapeutic landscapes (Zhou et al., 2017). Thus, the internal psychological characteristics of dispositional optimism is further considered in this study, to comprehensively analyze the health benefits of therapeutic landscapes.

Based on the above discussion, this study's broad objectives are (1) to demonstrate the promoting effect of physical, social, and symbolic landscapes in health tourism destinations on health perception; (2) to examine the mediating role of restorative experiences; (3) to test the influence of dispositional optimism on health perception. To achieve these goals, this study draws on two theoretical frameworks, namely, therapeutic landscapes and REPLACE, and conducts an empirical study using the quantitative data collected in Sanya, China. To the best of our knowledge, this study is the first attempt to quantitatively verify and strengthen the causal inferences of therapeutic landscapes on health benefits. The personal traits and mediation effects of restorative experiences on health perception are explored. Thus, this study aims to advance our knowledge of therapeutic landscapes by exploring how they can influence health; this is a response to the call for research on causal mechanisms in place and health research (Macintyre et al., 2002).

2. Literature review and conceptual framework

2.1. Recent debates on place and health

Health is defined as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO, 2020, p.7). Place plays an essential role in addressing the issue of health, and recent studies are increasingly recognizing the vital links between place and health. They pay particular attention to describing and theorizing the role of local context in influencing health in terms of contextual and compositional effects (Prior et al., 2019).

In the study of contextual effects, a pivotal achievement is the theorization of the therapeutic landscape. A therapeutic landscape is defined as an environment in which "physical and built environments, social conditions, and human perceptions combine to produce an atmosphere which is conducive to healing" (Gesler, 1996, p. 96). Discussions on therapeutic landscapes were initially restricted to particular places with a healing reputation; however, as this concept was further extended to include common spaces in daily life (Rodiek and Fried, 2005; Rosenbaum et al., 2020) and landscapes (e.g. hot springs, health resorts, spiritual retreats, etc) specifically designed for tourism and hospitality (Zhou et al., 2017), the wider range of physical, psychological, and social settings contained in a therapeutic landscape have provided a broad space for its interpretation and application (Kearns and Milligan, 2020). Obviously, the therapeutic landscape provides a theoretical basis for the study of the relationship between health tourism destinations and health perceptions.

In addition to the local context, there has been a surge of interest in process issues, focusing on theorizing and testing plausible pathways that link places and health benefits (Prior et al., 2019). The relational thinking of 'place' provides a processual understanding of the causal pathways of a place on individual health (Prior et al., 2019). In relational understanding, place does not refer to a spatial sense of location or containment, but rather to various social relationships established by

innumerable individual actors, both human and non-human, interacting with the space (Latour, 2005). In dynamic and lasting network interactions, social, material, emotional, and symbolic elements in place can be combined and recombined to generate local enabling resources (Duff, 2011). The unique therapeutic encounters in enabling places are acquired by promoting the production and circulation of enabling resources for the ongoing mediation of health and well-being (Duff, 2011). Such arguments does point to the role that resource enablement may play in promoting health and well-being. However, these discussions are still limited to "typical" enabling places.

In the field of management and marketing, Rosenbaum et al. (2017) offered a revised resource-based conceptualization of place which is referred to as the REPLACE framework (see Fig. 1). The REPLACE framework revises the assumption that a place is merely a physical place or a geographical location, supporting the conception of place as an integral part of consumers' life experiences and recognizing the particularity of place as a lived experience. The REPLACE framework clarifies this conceptualization of place by arguing that a place "represents a repository of resources" (Rosenbaum et al., 2017, p. 281), and specifying six types of resources that consumers can potentially obtain through exchange processes that take place in the consumption environment. Of these exchangeable resources, relational resources, social support resources, and restorative resources, representing a "pool" of non-material exchange resources, are original to the REPLACE framework (Rosenbaum et al., 2017). Further, the REPLACE framework verifies the particularity of places in life experiences by linking places with public health and expanding our understanding of place attachment in the consumption environment, with the assumption that the exchange processes as well as the complexity of the resources provided influence consumers' relationships between a place and their well-being (Rosenbaum et al., 2017). This allows REPLACE to extend resource-based health-promoting mechanisms to ordinary places of consumption.

This approach is in line with the therapeutic landscape literature, which supports the view that place-based well-being encounters are best considered as something produced by complex transactions between a person and his/her broader social context (Conradson, 2005). In a later study, Rosenbaum et al. (2020) applied therapeutic landscape theory to the REPLACE framework, connecting the therapeutic landscape with a place of consumption, and proving, through empirical research, that a place of consumption is an important space to promote consumers' therapeutic experiences. The REPLACE framework can be applied in this study, as health-oriented seasonal tourism refers to consumption activity (Chen and Bao, 2020; Xu et al., 2018). Health tourism destinations are typical places of consumption in which senior migrants, as consumers, engage with actors to obtain beneficial health promotion resources.
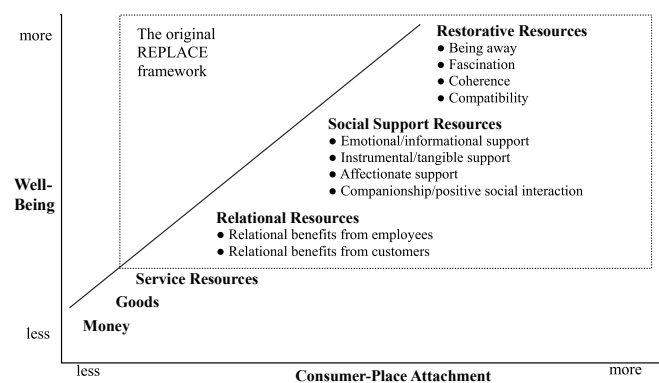

Fig. 1. The REPLACE framework (Rosenbaum et al., 2017).

2.2. Conceptual framework and hypothesis

2.2.1. Perceived landscapes and health perception

Human beings, embedded in the landscape, are active parts in the process of co-creating the landscape. Their mental and physical health depends and relies on their perception of a landscape through their whole body (Menatti and Casado da Rocha, 2016); that is, health is experienced when a person's perceptions associated with a particular place interact positively with the physical, social, and symbolic factors of that place (Oster et al., 2011), and the potential causal explanations for the health impacts of a landscape are mostly supported by evidence from experimental studies or surveys.

A physical landscape is the space in which individuals seek to experience therapeutic effects by interacting with natural and built environments (Oster et al., 2011). Natural environments have traditionally been considered to contribute to perceptions of health through healthy food, fresh air and water, and beautiful scenery (Huang and Xu, 2018). In addition, pollution-free natural environments and the availability of public spaces make physical activities (such as spa activities, yoga, and tai chi) and informal nursing support possible, which is conducive to seniors' health perceptions (Buzinde and Yarnal, 2012; Huang and Xu, 2018). One experimental study demonstrated this potential health benefit; for example, walking in a natural environment lowers blood pressure better than in an urban environment (Hartig et al., 2003).

A social landscape refers to the space generated by social interaction among people, and higher levels of social interaction are associated with improved health status in seniors (Zhou et al., 2017). Health tourism destinations can offer a wider range of green or blue spaces and provide seniors with more opportunities for meaningful social interaction with other visitors or local residents (Cattell et al., 2008). This is helpful in overcoming seniors' sense of social isolation and exclusion in non-local spaces, thereby directly or indirectly promoting seniors' health perceptions (Milligan et al., 2004).

A symbolic landscape refers to an individual's perception of a place and the symbolism associated with that place (Zhou et al., 2017). Any concrete or simple symbol is an expression of cultural values, social behavior, and individual behavior toward a particular area over a period of time (Cattell et al., 2008). In seasonal migration, seniors constantly perceive, evaluate, and ascribe specific symbolic meanings to events or situations in health tourism destinations, strengthening their beliefs about local healing characteristics and thus acting on their health experience (Huang and Xu, 2018). For example, Wang et al. (2018) argued that the physical pain in sand therapy is explained through the cultural symbols associated with Chinese health culture of the balance between Yin and Yang, resulting in a specific therapeutic experience.

Based on the above, the following hypotheses are proposed:

H1: Perceived (a) physical, (b) social, and (c) symbolic landscapes have a significantly positive influence on the health perceptions of seniors.

2.2.2. The mediation of restorative experiences

Restoration refers to the renewal or recovery of adaptive resources or capabilities that have been exhausted to meet everyday living demands (Collado et al., 2017). According to the REPLACE framework, there are four types of restorative resources: fascination, being away, coherence, and compatibility (Rosenbaum et al., 2017).

In seasonal migration, seniors can temporarily escape from dull routines and stress, and return to or immerse themselves in nature, satisfying their needs for fresh air, water, and food (Huang and Xu, 2018). Fascinating, tranquil, and attractive aesthetic landscapes will also contribute to restorative experiences in that they delight seniors' senses and allow them to rest (Kirillova and Lehto, 2016).

In interacting with social landscapes in a health tourism destination, senior migrants can engage in greater social interactions without being constrained by their socio-economic status, and develop new social relationships in a new environment (Gustafson, 2002). Social interaction

in a space can provide people with relief from their daily lives and lift their spirits, which is crucial to relieving the pressure in their daily lives (Cattell et al., 2008).

In a health tourism destination, the symbolic landscape may be related to local health-related myths, sacred places (Gesler, 1993), or specific symbols of health (Huang and Xu, 2018), as well as symbolic realities such as the way diseases are described, diagnosed, and treated (Gesler, 1993). These symbolic landscapes are inherently fascinating, attracting senior migrants to travel to places that are perceived or acknowledged to be therapeutic, and engaging in symbolic activities to help them recover (Huang and Xu, 2018). For example, in Bama, known as the "hometown of longevity", seniors often visit centenarians, who are regarded as cultural symbols, to learn more about their lives and explore the secrets of their longevity (Huang and Xu, 2018).

Therefore, the following hypotheses are proposed:

H2: Perceived (a) physical, (b) social, and (c) symbolic landscapes significantly and positively influence restorative experiences in seniors.

Health is achieved through many processes, while the general process at the individual level involves restoration, such as the activation of physical and mental capacities (Collado et al., 2017). Through relieving stress, restorative experiences have been shown to significantly improve emotional and cognitive functions (Hartig et al., 2003) and psychological health (Van den Berg et al., 2003). Fritz and Sonnentag (2006) also predicted that restorative experiences, including psychological alienation, restful experiences, challenging experiences, and perceptual control during vacations, may have positive effects on perceived health.

Therefore, this study proposes the following hypothesis:

H3: Restorative experiences significantly and positively affect health perceptions of seniors.

In a therapeutic landscape, the concept of 'landscape' refers to a complex cognitive entity composed of material and non-material elements interacting in a network of energy, substance, and information (Farina et al., 2007). Obviously, in health tourism destinations, destination landscapes reflect the interaction between seniors and environments at a destination (Terkenli, 2002). As well, the REPLACE framework describes the process by which consumers obtain specific resources through interaction and exchange with the consumption environment to perceive a promotion of health, and one important resource is the restorative experience (Rosenbaum et al., 2017).

Therefore, the following hypotheses are proposed:

H4: Restorative experience mediates the positive effects of perceived (a) physical, (b) social, and (c) symbolic landscapes on health perceptions of seniors.

2.2.3. Dispositional optimism and health perception

Dispositional optimism, a positive psychological trait, is associated with self-rated good health, although health may be influenced by complex factors such as socioeconomic status, social support, and physical illness (Smith et al., 2004). Dispositional optimism can help seniors get away from the stresses of daily life, improve their physical health (Levy et al., 2019), and lead them to seek social interaction (Ziegler and Schwanen, 2011), thereby fulfilling their social roles and maintaining their inner spiritual and emotional health (Metz, 2000).

Therefore, the following hypothesis is proposed:

H5: Dispositional optimism significantly and positively influences health perceptions of seniors.

Notably, it takes a long time for senior migrants to adapt to a new environment, establish social relationships, and accumulate memories related to the place (Wiles et al., 2009), but spending time in a relaxed environment helps them get away from the stresses of daily life (Bloom et al., 2009). The duration of a stay may therefore influence seniors' health perceptions. Furthermore, seniors with different health statuses may have different health perceptions (Chang and Beise-Zee, 2013). Therefore, health status and duration of stay are added to the model as control variables.

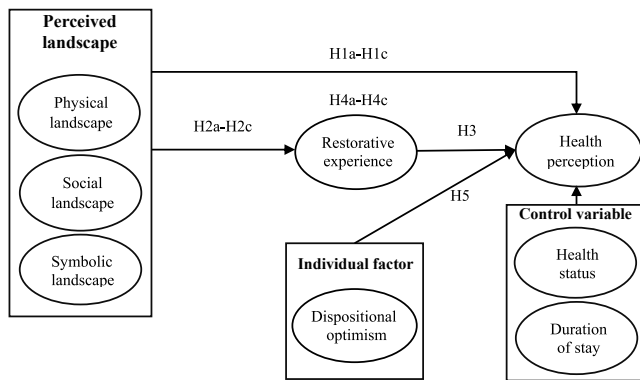Finally, the conceptual model in this study is constructed as shown in

Fig. 2. Conceptual model.

Fig. 2.

3. Methodology

3.1. Senior seasonal migrants

In recent years, China has seen a new wave of seasonal migration from the north to southern cities as the country deepens its economic and social reforms (Chen and Bao, 2020). Seniors are one of the most important groups of seasonal migrants (Zhou et al., 2017). Most senior migrants take temporary trips back and forth between their permanent residence and distant destinations along with seasonal change, and these people are often referred to as 'snowbirds' (Houniao) (Chen and Bao, 2020).

Notably, seasonal travels by seniors are usually aimed at improving their health and longevity (Zhou et al., 2017). Severe cold weather in some areas in winter can take a toll on the seniors' health, and therefore, seniors, especially those afflicted with poor health (such as rheumatism, asthma, cardiovascular diseases, etc.) tend to move to warmer places, which has led to the growth in seasonal mobility among seniors for therapeutic purposes (Gustafson, 2001; Xu and Wang, 2019). As well, such seasonal migration is an important form of mobility associated with tourism (Williams and Hall, 2000), and thus senior seasonal migrants are often regarded as health tourists.

3.2. Description of the case

Sanya, located at the southernmost tip of Hainan Island, is the only city in China renowned for a tropical climate. Commonly referred to as the "Oriental Hawaii," Sanya is the most popular destination for senior seasonal migrants in China (Kou et al., 2017). Senior seasonal migrants first appeared in Sanya in the late 1990s, and their numbers have since grown rapidly owing to the emergence of Hainan Island as an internationally famous seaside tourism destination (Xu and Wu, 2016). Most senior seasonal migrants are from the northeastern region of China, making Sanya the "second home" of many people from northeastern China (Kou et al., 2017; Wu et al., 2015; Xu and Wu, 2016). They tend to visit Sanya in October or November to escape the cold winters in their hometowns and return in April or May the following year (Kou et al., 2017, 2018).

Senior seasonal migrants also view Sanya as a popular health tourism destination (Kou et al., 2018). It should be clear that health tourism destinations are not merely those with medical products or services, but are considered as being the sum of all the relationships and phenomena arising from travel and residence by people whose primary motivation is to maintain or promote their health (Mueller and Kaufmann, 2001). Destination landscapes, as collections and reflections of the relationships and phenomena at a destination as well as an important geographical medium for the relationship between people and place

(Terkenli, 2002), should become an important factor for understanding the role of local health promotion.

Rather than relying on scientific health cues (e.g., medical products or services) to infer health benefits, senior migrants tend to experience therapeutic benefits through perceiving better natural and social landscapes with more leisure opportunities and special lifestyles. For example, Sanya's warm climate, coastal resources, clean environment, and scenic beauty attract many seniors, who maintain a seasonal flow to Sanya and stay there for extended periods of time to improve their mental and physical health. In addition, most migrants with similar lifestyles gradually form their own social circles in Sanya. Also, interacting with similar people is being increasingly viewed as a way for senior migrants to deal with health challenges (Zhou et al., 2017).

3.3. Measurement

Therapeutic landscape theory was used to build the framework to measure destination landscapes with three dimensions, i.e., physical, social, and symbolic, and the measurements for physical, social, and symbolic landscapes were derived from Huang and Xu (2018), Wang et al. (2018), and Zhang and Xu (2019). Among them, symbolic landscape refers to the reputation and symbols pertaining to Sanya, such as 'winter resort' and 'seasonal migration'. A second order CFA for perceived landscape was first conducted, and items TPY7, TPY8, and TPY9 were deleted because SFL (standard factor loading) was lower than the thresholds of 0.5. At last, 15 items (in Appendix A) were used to measure perceived landscape.

Restorative experience is what helps to recover from mental fatigue and meet the daily demands. The measurement scale was adopted from Korpela et al. (2001), Korpela et al. (2008), and Von Lindern (2015), and the participants responded to statements related to relaxation, sense of being away, self-meditation and so on.

Health perception is expressed as the subjective experience of health or disease in view of an individual's assessment of his or her feelings and behaviors (Yamada et al., 2011). Health perception scale was derived from Ware's (1976) general health perception scale which included eight dimensions (current health, prior health, susceptibility, health outlook, health worries, sickness orientation, rejection of sick role, and attitude about going to the doctor). In order to reduce the measurement variable to a smaller set of composite components and to get as much information from as few components as possible (Brown, 2012), we selected two closely related dimensions (current health and health outlook) to examine senior migrants' psychological assessment of their current and future health after arrival in Sanya. Besides that, specific physical health was supplemented as one dimension according to teams' research experience.

Dispositional optimism is the general expectation of future positive events. The scale was derived from the revised Life Orientation Test consisting of items expressed in a positive direction, in a negative direction, and in a general way (Scheier et al., 1994). As this study emphasized optimism attitude, the negative items were transformed into positive ones, and the general items were removed.

The specific items for all scales are listed in Appendix A. They were assessed on a five-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). All items were first translated from English to Mandarin and then back into English, and the wording of some items was adapted with regard to Sanya, given the contextual nature of the landscape. Variables such as health status and duration of stay were also measured as control variables. The demographic variables of the respondents, such as age, gender, income, education levels, and times of visits, were also included in the questionnaire.

3.4. Data collection and descriptive analysis

The research objects in this study were senior seasonal migrants. There is no generally accepted age classification for seniors within

society, and many times the definition is linked to the transition in livelihood which become the basis for the definition of seniors, which occurs between the ages of 45 and 55 years for women and between the ages of 55 and 75 years for men (Thane, 1978). For this study, seniors are defined as those aged 45 years or older in order to include men and women.

The research team went to Sanya to conduct a field study to look for potential respondents. The team's past research experience in Sanya helped to identify certain communities with large numbers of seasonal migrants, which were distributed around popular coastal scenic spots including Dadonghai Beach, Yalong Bay, and Sanya Bay, since migrants in Sanya tend to be gregarious and prefer to live near the beach. Questionnaires were collected around these communities from January 14th to January 24th, 2019, lasting 11 days. Several well-trained students were instructed to approach seniors passing by or resting on the beach or around the community. Non-local accents and the characteristics of the senior would be used as clues for judging potential seasonal migrant groups. In addition, seniors were also interviewed before completing the questionnaire; for example, asking them if they were migrants who had come to Sanya for a period of time, and whether they come for health-related purposes.

Questionnaires were filled out on-site and collected immediately. It took an average of 5–10 min to complete each questionnaire, because seniors tend to read items slowly, and for some with poor vision, the students would read questions aloud to obtain the information. Thanks to a series of procedures, including asking seniors for their consent, handing questionnaires out to the seniors one-on-one, and then waiting nearby for them to fill out the questionnaire, the investigation had a high response rate of 98.7%. Of 400 questionnaires distributed, 395 were returned, and after eliminating missing data, 359 were used for the data analysis. The 359 respondents were all Chinese, among whom 59.6% were female, 63.4% were 45–60 years old, and 8.8% were older than 70; 70.8% held a high school and higher degree; 50.8% had an monthly income of 3001–5000 RMB and 20.7% had an income of 5001–7500; 46.2% had stayed in Sanya for over three months; and 30.9% suffered from chronic or severe illnesses.

It needs to be clarified that the seniors in this study include those who are between 45 and 55 years old. It is because that these middle-aged people are already retired within Chinese retirement system. The legal retirement age is between 50 and 60. The state stipulates that people can also apply for early retirement if they report physical unfitness. With the rising income, more and more seniors choose to retire early to enjoy the leisure life. In addition, there are also some middle-aged people who lost their jobs move to Sanya seasonally for health sake with the support of their families. Thus, there are middle-aged people in the sample.

According to the People's Government of Hainan Province (http://www.hainan.gov.cn/zxtadata-7371.html, 2017), the senior seasonal migrants to Hainan had an average monthly income of 3896.94 RMB, with 69.7% graduating from high school or above. In addition, previous studies did not show a significant difference between male and female respondents in quantity. Therefore, it indicated that the samples collected in this study were representative compared with the whole.

3.5. Data analysis

A structural equation model (SEM) was used to verify the structural relationships among all constructs. In the model, health perception was analyzed as a second-order latent variable with three sub-dimensions, namely, current health perception, health outlook, and specific physical health, and other constructs were tested as first-order latent variables. Before analysis, determining an appropriate sample size is a key issue in SEM. A generally accepted rule of thumb is to set a lower limit with 10 observations per indicator variable (Nunnally, 1967); however, others have argued that the optimal sample size may depend on the number of indicators per latent variable, and more observed indicators

per factor could compensate for a small sample size, with a sample size of N = 50 sufficient for a CFA model with 6–12 indicators per latent variable (Marsh et al., 1998). Further, refer to Appendix A, more than 360 cases would be needed. Despite the lack of one observation, we consider that the valid sample size of 359 is still adequate for the analysis in this study.

4. Results

4.1. Normality testing

The Mardia standardized coefficient was used to test the multivariate normal distribution of the data. The Mardia standardized coefficient using Amos 22.0 was 124.02 (higher than 5), indicating that the data were not multivariate normally distributed. Therefore, an maximum likelihood method (MLM) estimation was used to perform the CFA and SEM in Mplus 7.0 (Wang and Wang, 2019). The S–B χ^2 statistic obtained is described as being capable of estimating the maximum likelihood parameter with standard errors and a mean-adjusted χ^2 test statistic that are robust to non-normality (Wang and Wang, 2019).

4.2. Confirmative factor analysis

RMSEA, SRMR, CFI, TLI and χ^2/df were used to evaluate the model. According to Hair et al. (2010), χ^2/df of 3 or less and RMSEA or SRMR of 0.08 or less were good model fit. The CFI and TLI with a value of 0.90 or more can be considered as good fit. In addition, the indexes close to the criteria for a good fit would be regarded as marginal, for example, a value of $0.8 \leq$ CFI/TLI ≤ 0.9 can be considered as marginal fit (Hair et al., 2010).

CFA for each constructs was conducted and the results were shown in Table 1. Overall, the model of health perception had a good fit, while the model of perceived landscape, restorative experience, and dispositional optimism had a marginal fit. The CFI and TLI in these three model are acceptable. The RMSEA and SRMR in these three models are within the scope of the marginal. Even though the χ^2/df ratio in the model of restorative experience is much higher than 3, Kline (2015) has recommended that χ^2/df ratio should have no role in model fit testing because there were little statistical foundation for it. In addition, χ^2 values are sample size dependent, thus, for restorative experience with 7 items, a large sample size of 359 could make χ^2/df ratio higher.

In addition, CFA for the overall measurement model including all constructs has been widely used to test the model (Pérez-Arechaederra et al., 2014; Olya & Al-ansi, 2018). While the CFA results for each constructs indicated a marginal (or good) fit, the CFA results (in Table 1) for overall measurement model showed a good fit with χ^2 = 1957.72, df = 884, χ^2/df = 2.214, RMSEA = 0.058, SRMR = 0.060, CFI = 0.91, and TLI = 0.90. Therefore, it was reasonable to say that the factorial structure of the model was valid for the population and it could be passed on further analysis.

Then, the reliability and validity of the overall measurement model

Table 1
The results of the measurement model fit.

Measurement Models	χ^2/df (ratio)	RMSEA	SRMR	CFI	TLI	Conclusion
Perceived landscape	358.66/87 (4.12)	0.093	0.064	0.90	0.89	Marginal fit
Restorative experience	185.69/14 (13.26)	0.185	0.086	0.87	0.80	Marginal fit
Health perception	270.26/116(2.33)	0.061	0.032	0.96	0.95	Good fit
Dispositional optimism	18.72/5 (3.74)	0.087	0.034	0.99	0.98	Marginal fit
All constructs included	1957.72/884(2.21)	0.058	0.060	0.91	0.90	Good fit

were analyzed. As shown in Table 2, Cronbach's alpha values for all constructs were above 0.7 and the composite construct reliability (CR) estimates were all greater than 0.7. These results suggested a sufficient internal consistency and a good measurement reliability. The factor loadings of all items were greater than 0.5. The average variances extracted (AVE) of all latent constructs exceeded the threshold of 0.5, except for those of health perception (0.49). Therefore, the convergent validity for the measurement model was established. The results in Table 3 showed that the square root of AVE for the latent constructs on the diagonal exceeded each correlation coefficient. Therefore, the discriminant validity of all measures in the overall model was supported.

4.3. Hypothesis testing

As shown in Table 3, the control variables of both health status and duration of stay have no significant relationship with health perception; thus, they were not included in the SEM. A path analysis was performed in Mplus 7.0 with an MLM estimation. The model fit indices indicated the hypothesized structural model fitted the data very well, with $\chi^2 =$ 1959.32, df = 885, χ^2/df = 2.214, RMSEA = 0.058, SRMR = 0.061, CFI = 0.91, and TLI = 0.90.

The results of path analysis with standard path coefficients are shown in Fig. 3. Fig. 3 showed that physical, social and symbolic landscapes were significantly correlated with each other. Social landscape (γ = 0.18, p = 0.007) and symbolic landscape (γ = 0.14, p = 0.035) significantly influenced health perception, confirming H1b and H1c. As physical landscape (γ = 0.07, p = 0.294) did not significantly affect health perception, H1a was refused. Additionally, physical (γ = 0.20, p = 0.001), social (γ = 0.18, p = 0.004), and symbolic landscape (γ = 0.17, p = 0.014) significantly influenced restorative experience; thus, H2a-H2c were supported. Further, restorative experience (γ = 0.43, p =

Table 2
The overall measurement model (n = 359).

Variables/items	SFL	Cronbach's α	CR	AVE
Physical landscape (PY)		0.93	0.93	0.71
PY1	0.85			
PY2	0.89			
PY3	0.92			
PY4	0.88			
PY5	0.83			
PY6	0.65			
Social landscape (SO)		0.95	0.95	0.87
SO1	0.91			
SO2	0.98			
SO3	0.90			
Symbolic landscape (SY)		0.90	0.91	0.64
SY1	0.90			
SY2	0.95			
SY3	0.72			
SY4	0.91			
SY5	0.65			
SY6	0.59			
Restorative experience (RES)		0.93	0.93	0.66
RES1	0.72			
RES2	0.80			
RES3	0.74			
RES4	0.69			
RES5	0.90			
RES6	0.91			
RES7	0.91			
Health perception (HP)		0.94	0.74	0.49
Current health perception	0.75			
Health outlook	0.60			
Specific physical health	0.74			
Dispositional optimism (OPT)		0.90	0.90	0.66
OPT1	0.63			
OPT2	0.62			
OPT3	0.85			
OPT4	0.96			
OPT5	0.94			

0.000) and dispositional optimism (γ = 0.12, p = 0.042) significantly and positively influenced health perception, supporting H3 and H5.

A bootstrapping estimation technique (bootstrap = 2000) with a 95% bias-corrected (BC) bootstrap confidence interval (CI) was used to test the mediation model. The structural model had a marginal fit with χ^2 = 2567.56, df = 885, χ^2/df = 2.901, RMSEA = 0.073, SRMR = 0.061, CFI = 0.89, and TLI = 0.88. The results in Table 4 show that the indirect effects in the path PY→ RES → HP (γ = 0.09, CI = 0.034–0.141, SE = 0.033), in the path SO → RES → HP (γ = 0.08, CI = 0.024–0.128, SE = 0.032), and in the path SY → RES → HP (γ = 0.07, CI = 0.012–0.131, SE = 0.036) were all significant. Therefore, H4a-H4c were supported.

To sum up, the direct, indirect, and total effects in the proposed model were shown in Table 5.

5. Conclusions, contributions, and implications

5.1. Conclusions

Based on two theoretical basis, this study quantitatively examines health promotion mechanisms of health tourism destinations. Therapeutic landscape theory is used to establish the effects of physical, social, and symbolic environmental factors on health perception. The REPLACE framework is applied to explore the mediating role of restorative experiences in the effect of destination on health perception. The dispositional optimism of senior migrants is also considered to comprehensively discuss the impact of both destination and individual factors on health perception.

The results show that the social and symbolic environment of health tourism destinations directly and significantly influence senior migrants' health perception. This is because social landscapes are spaces creating interactive opportunities and providing a certain amount of social support, which have been verified in many studies to contribute to the mental and physical health of seniors. Symbolic landscapes often confer healing properties generated by the interpretation and expression of destination, which deepen seniors' belief in local healing. As Huang and Xu (2018) pointed out, it is peoples' perceptions, interpretations, and experiences in the landscape that render therapeutic benefits from a place.

The study also finds that physical landscapes do not directly influence health perception, but rather, indirectly affect health perception through migrants' restorative experiences, possibly because the perception of physical environment primarily affects migrants' aesthetic experiences (Zhang and Xu, 2019). This finding applies especially to tourism destinations. Aesthetic features serve as a diversion from people's daily lives, and the perception of compatibility with local environment satisfies tourists' aesthetic needs, and thus affects restorative experiences (Kirillova and Lehto, 2016).

This study generates fresh insight into the mediating role of restorative experiences. Consistent with the REPLACE framework of Rosenbaum et al. (2017), the results indicate that the complex environmental factors perceived by the interaction between senior seasonal migrants and health tourism destinations can indirectly influence migrants' health perception through the acquisition of restorative resources. This finding also indicates that not all health tourism destinations can produce therapeutic benefits, and what is important is to generate restorative experiences. To some extent, it validates the view of Cattell et al. (2008) that a place can be seen as promoting health if it has networks and associations that generate the resources and agencies needed to maintain health.

Finally, the results show that the dispositional optimism of seniors can positively influence their health perceptions. Optimists usually show a "general" optimism and their positive expectations are not limited to specific behavioral domains or environmental categories. Optimism, as one of the strongest predictors of active aging, is associated with health, happiness, quality of life, and physical functioning (Sulkers et al., 2013). Furthermore, a positive attitude tends to influence seniors' positive

Table 3
Correlations between constructs (n = 359).

	M	SD	1	2	3	4	5	6	7
1.PY	4.71	0.42	(.84)						
2.SO	4.31	0.56	.37**	(.93)					
3.SY	4.55	0.44	.52**	.55**	(.80)				
4.RES	4.43	0.52	.33**	.36**	.40**	(.81)			
5.HP	4.49	0.40	.30**	.38**	.40**	.44**	(.70)		
6.OPT	3.91	0.54	-.20**	.04	-.00	.08	.13**	(.81)	
7.Health status	1.70	0.73	.04	.02	.04	.14**	.06	.02	–
8.Duration of stay	2.68	1.21	-.07	-.12*	-.03	-.03	-.07	-.02	.23**

Note: **$p < 0.01$.

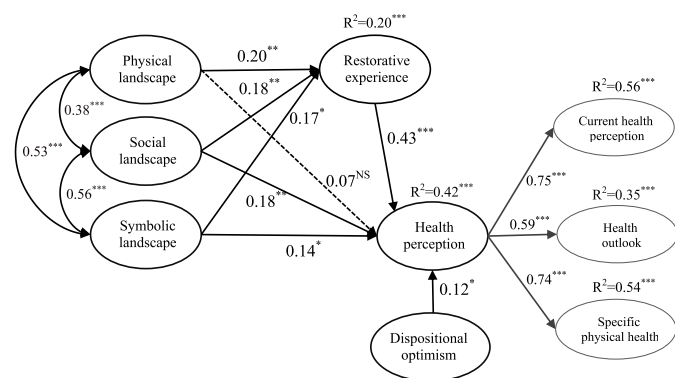**Fig. 3.** Results of path analysis.

Table 4
Results of mediating effects (n = 359).

Path	Indirect effect	SE	95 per cent CI	
			LLCI	ULCI
PY→ RES → HP	0.09	0.033	0.034	0.141
SO→ RES → HP	0.08	0.032	0.024	0.128
SY→ RES → HP	0.07	0.036	0.012	0.131

Table 5
The direct, indirect, and total effects in the proposed model.

Path	Effects	Estimate	P-Value/95 per cent CI
PY → RES	Direct effect	0.20	0.001
SO → RES	Direct effect	0.18	0.004
SY → RES	Direct effect	0.17	0.014
RES → HP	Direct effect	0.43	0.000
OPT → HP	Direct effect	0.12	0.042
PY → HP	Total effect	0.15	[0.023–0.281]
	Indirect effect	0.09	[0.034–0.141]
	Direct effect	0.07	[-.053-0.182]
SO → HP	Total effect	0.26	[0.130–0.387]
	Indirect effect	0.08	[0.024–0.128]
	Direct effect	0.18	[0.064–0.302]
SY → HP	Total effect	0.21	[0.073–0.352]
	Indirect effect	0.07	[0.012–0.131]
	Direct effect	0.14	[0.015–0.268]

behaviors in health tourism destinations, thus contributing to their health perceptions (Zhou et al., 2017).

This study attempted to ensure the representativeness of the samples to enhance the generalizability of these findings. Although the study applied the widely used convenience sampling to distribute the questionnaire, during this process, the investigators made efforts to identify respondents with different age and gender in different sites in Sanya. As mentioned above, the economic and educational level of the samples are consistent with the general situation, and the sample size is relatively

large in tourism research (Nunkoo et al., 2013). Therefore, it is reasonable to believe that, to some extent, the samples collected in this study are representative and the research findings can be generalized to the whole seasonal migrants to Sanya.

5.2. Theoretical contributions

This study focuses specifically on seniors' seasonal migrations, which is an integral part of the health tourism market. The aim of the study is to provide fresh insights into therapeutic landscape theory. We investigate the influence of both environmental factors in health tourism destinations and personal inner traits of optimism on health perception while emphasizing the mediating role of restorative experience.

This study fills the gaps in the therapeutic landscape literature by quantitatively verifying the links between perceived landscapes and subjective health perception. The relationships presented in therapeutic landscape theory have not been empirically tested in prior studies. Although existing studies on therapeutic landscapes focus on site-specific qualitative studies (Kearns and Milligan, 2020), understanding the specific mechanisms of a local impact on health and quantifying this impact is important not only to strengthen causal inference between the place and health, but also to identify possible approaches to health interventions at a practical level (Cummins et al., 2007).

It is hoped that this study will contribute to a deeper understanding of the local health promotion mechanisms with the mediating role of restorative experience by introducing the REPLACE framework. Although the relational thinking of place does imply the mediating role of enabling resources, it fails to provide a theoretical or empirical basis for explaining mediating mechanisms. From the perspective of resource exchange, the REPLACE framework is instrumental in explaining the mechanisms by which a place, created by the interaction between consumers and landscape, facilitates health perceptions via restorative resources. Such a perspective of resource exchange also matches the World Health Organization's understanding of health as "a resource of daily life … It is a positive concept emphasizing social and personal resources as well as physical capabilities (cited in Nutbeam, 1998)."

This study also makes an important contribution to the field of health tourism by analyzing a whole aspects of physical, social, and symbolic landscapes to provide an image of a health tourism destination. Although research has begun to discuss the concept of health-based tourism destinations, and regards tourism destinations themselves as an important source of health and well-being, the extant studies essentially emphasize one aspect of the physical elements, such as specific products and services including hot springs (Didaskalou and NASTOS, 2003), health spas (Rocha and Brandao, 2014), traditional Chinese medicinal products (Islam, 2014), and the like. They have, however, not taken a holistic and relational approach to tourism destinations and health. This study follows the turn of the "relational thinking of place" (Cummins et al., 2007; Duff, 2011), regards landscapes as medium to understand the place, and considers health tourism destinations in its entirety in terms of physical, social and symbolic landscape under therapeutic landscape theory. This provides an operational and practical framework for the future empirical researches on health tourism

destinations.

5.3. Practical implications

First, this study demonstrates the positive relationship between health tourism destinations and health. Therefore, destination marketers should shift their focus from health and disease-curing products to the emerging drivers of health and well-being and subsequently, destination strategies (Mueller and Kaufmann, 2001). Marketers could highlight and promote the physical and mental health benefits of health tourism destinations for senior seasonal migrants, to improve market competitiveness and prolong the lure of the destination.

The study concludes that social and symbolic landscapes have direct and positive effects on the health perception of senior migrants. Accordingly, local governments and non-governmental organizations should provide more stable social and emotional support that aids social amalgamation among senior migrants. Destination marketers should also consciously or strategically manipulate symbolic landscapes such as signs, symbols, and artifacts that carry collective social meaning, to attract seniors. Although destination managers have no right to influence symbolic meanings that are created, maintained, and changed by social groups, they can take advantage of the symbolic universe of senior groups (Berger and Luckmann, 1966) by using tags such as "second hometown" and "snowbird resort."

An important finding of this study is the mediating role of restorative experiences on local health promotion mechanisms. Therefore, destination marketers can enhance the prospect of perceived health benefits by creating a destination environment conducive to restorative experiences, which will also eventually affect tourist loyalty. In particular, marketers should pay attention to the influence of destination environments on seniors' positive emotions, the recovery of directed attention, differences in their daily living spaces, seniors' self-meditation, and so on, to guide them in shaping the destination environment. This strategy is particularly necessary for creating physical elements of the destination because physical environment can only indirectly affect health perception through restorative experiences.

This study finds that more optimistic senior adults reported greater health perceptions. To attract this subgroup, the destination can market fresh, innovative imageries such as "resort-style pensions," "migratory birds," and "active and energetic retirement." The destination health benefits that spread by word of mouth amongst aging and optimistic adults will enhance the therapeutic destinations' reputations. Destination images will become a new symbolic landscape, and, in turn, play a positive role in seniors' health perceptions. A virtuous circle that also helps destination marketing comes into play.

5.4. Limitation and future studies

This study empirically tested a hypothesis model through quantitative research; however, the reliance on results from a cross-sectional study design in its development is undoubtedly a limitation, in that these results are weak for testing the causal relationships. Therefore, such studies will be methodologically more robust if longitudinal study designs are used to analyze how perceived health will be changed in different spaces caused by migration flows, because seniors' seasonal tourism involves cross-local movements from daily living spaces to destination spaces.

Furthermore, the current study of the mechanisms mediated by restorative experience is only examined in the context of health tourism destinations. It would be beneficial to explore whether there are differences between different places. In particular, an extension of case should be examined to retest the theoretical premise that physical landscapes do not directly affect individual health.

This study independently analyzes the three local environmental factors of landscapes, namely, physical, social, and symbolic, without considering the interaction among these factors. However, the impact mechanisms of these environments can be very complex, involving many human and non-human actors. This may be one reason why physical landscapes do not have a direct effect on health in this study. The interaction between the three environmental factors should be further explored.

In addition, several items, including destination fitness spaces, healthy ingredients, and medical products, were removed from the study at the first CFA for perceived landscapes. Although this indicates that these items may not be suitable for measuring the perceived landscape of health tourism destinations in this study, as Chang and Beise-Zee (2013) put forward, health tourists do not infer health benefits by relying on scientific health cues, and medical products or services may actually drive visitors away from a destination. There is also thus a need to further explore their roles in destinations' therapeutic benefits.

Finally, the therapeutic benefits of destinations are often subjective experiences of tourists, and a place may have different therapeutic effects on different tourists. Therefore, it is necessary to subdivide different groups and provide more comprehensive explanations. This study focused on "snowbirds" who stay at destinations for a long time owing to cross-regional mobility. More research is needed to determine whether and how other seasonal and even general tourists are influenced by local health promotions.

Appendix A. The measurement scale

Variables/Dimensions	Items	
Perceived landscape		
Physical landscape	PY1	Sanya has comfortable blue sky and white clouds
	PY2	Sanya has comfortable sea and beach
	PY3	Sanya has comfortable green plants
	PY4	Sanya has comfortable air
	PY5	Sanya has comfortable climate
	PY6	Sanya has comfortable sunshine
	PY7*	Sanya has places for people to exercise and have fun
	PY8*	Sanya has healthy ingredients
	PY9*	Sanya has good medical facilities
Social landscape	SO1	I could get to know migrants
	SO2	I could get along well with migrants
	SO3	I could exchange life experiences with others
Symbolic landscape	SY1	Sanya has a lot of seasonal migrations
	SY2	Sanya is a famous winter resort
	SY3	Sanya is suitable for the aged
	SY4	Sanya is the second hometown for northeast people in China
	SY5	Sanya has a lot of snowbirds

(continued)

Variables/Dimensions	Items	
	SY6	Sanya is a famous coastal tourism city
Restorative experience	RES1	Sanya could cultivate my body and spirit
	RES2	I could totally immerse in nature in Sanya
	RES3	I could experienced a sense of harmony between man and nature in Sanya
	RES4	I could get a meditation experience in Sanya
	RES5	Being in Sanya makes me feel relaxed of body and mind
	RES6	I could get away from daily life in Sanya
	RES7	I could get involved in happy things in Sanya
Health perception		
Current health perception	HCU1	my health is now excellent
	HCU2	I feel better now than before I came to Sanya
	HCU3	I don't think I'm ill
	HCU4	My health is excellent
Health outlook	HOU1	I will not probably be sick a lot in the future
	HOU2	In the near future, I expect to have better health than other people I know
	HOU3	I expect to have a very healthy life
	HOU4	I will probably have fewer health problems than Most of the people I know will in the future
Specific physical health	HSP1	My sleep is better than before
	HSP2	My weight is normal or approaching normal
	HSP3	My blood pressure is normal or approaching normal
	HSP4	My breathing became more relaxed
	HSP5	I have more energy
	HSP6	I became more physically active
	HSP7	I became more responsive
	HSP8	I look better now
	HSP9	My physical pain went away or lessened
Dispositional optimism	OPT1	In uncertain times, I usually expect the best.
	OPT2	If something can go well for me, it will
	OPT3	I'm always optimistic about the future
	OPT4	I always expect things will go my way
	OPT5	I always count on good things happening to me

Notes: Items PY7, PY8, and PY9 were deleted in the first CFA for perceived landscape.

Author statement

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References

Berger, P.L., Luckmann, T., 1966. The Social Construction of Reality. Anchor, New York.

Bloom, J. de, Kompier, M., Geurts, S., de Weerth, C., Taris, T., Sonnentag, S., 2009. Do we recover from vacation? Meta-analysis of vacation effects on health and well-being. J. Occup. Health 51, 13–25.

Brown, T., 2012. Confirmatory Factor Analysis for Applied Research. Guilford, New York, NY.

Buzinde, C.N., Yarnal, C., 2012. Therapeutic landscapes and postcolonial theory: a theoretical approach to medical tourism. Soc. Sci. Med. 74, 783–787.

Cattell, V., Dines, N., Gesler, W., Curtis, S., 2008. Mingling, observing, and lingering: everyday public spaces and their implications for well-being and social relations. Health Place 14, 544–561.

Chang, L., Beise-Zee, R., 2013. Consumer perception of healthfulness and appraisal of health-promoting tourist destinations. Tour. Rev. 68, 34–47.

Chen, J., Bao, J., 2020. Chinese 'snowbirds' in tropical Sanya: retirement migration and the production of translocal families. J. Ethnic Migrat. Stud. 1–18.

Collado, S., Staats, H., Corraliza, J.A., Hartig, T., 2017. Restorative environments and health. In: Fleury-Bahi, G., Pol, E., Navarro, O. (Eds.), Handbook of Environmental Psychology and Quality of Life Research. Springer, Cham, pp. 127–148.

Conradson, D., 2005. Landscape, care and the relational self: therapeutic encounters in rural England. Health Place 11, 337–348.

Cummins, S., Curtis, S., Diez-Roux, A.V., Macintyre, S., 2007. Understanding and representing 'place'in health research: a relational approach. Soc. Sci. Med. 65, 1825–1838.

Didaskalou, E.A., Nastos, P., 2003. The role of climatic and bioclimatic conditions in the development of health tourism product. Anatolia 14, 107–126.

Duff, C., 2011. Networks, resources and agencies: on the character and production of enabling places. Health Place 17, 149–156.

Farina, A., Scozzafava, S., Napoletano, B., 2007. Therapeutic landscapes. Paradigms and applications. J. Mediterr. Ecol. 8, 9.

Fritz, C., Sonnentag, S., 2006. Recovery, well-being, and performance-related outcomes: the role of workload and vacation experiences. J. Appl. Psychol. 91, 936.

Gesler, W.M., 1996. Lourdes: healing in a place of pilgrimage. Health Place 2, 95–105.

Gesler, W.M., 1993. Therapeutic landscapes: theory and a case study of Epidauros, Greece. Environ. Plann. Soc. Space 11, 171–189.

Gustafson, P., 2001. Retirement migration and transnational lifestyles. Ageing Soc. 21, 371–394.

Gustafson, P., 2002. Tourism and seasonal retirement migration. Ann. Tourism Res. 29, 899–918.

Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., 2010. Multivariate Data Analysis. Pearson-Prentice Hall, NJ.

Hartig, T., Evans, G.W., Jamner, L.D., Davis, D.S., Gärling, T., 2003. Tracking restoration in natural and urban field settings. J. Environ. Psychol. 23, 109–123.

Huang, L., Xu, H., 2018. Therapeutic landscape and longevity: wellness tourism in Bama. Soc. Sci. Med. 24–32.

Islam, N., 2014. Chinese Medicine as a product filling the wellness health tourism niche in China: prospect and challenges. Int. J. Tour. Sci. 14, 51–69.

Kearns, R.A., Milligan, C., 2020. Placing therapeutic landscape as theoretical development in Health & Place. Health Place 61, 1–4.

Kline, R.B., 2015. Principles and Practice of Structural Equation Modeling. Guilford publications.

Kirillova, K., Lehto, X., 2016. Aesthetic and restorative qualities of vacation destinations: how are they related? Tourism Anal. 21, 513–527.

Korpela, K.M., Hartig, T., Kaiser, F.G., Fuhrer, U., 2001. Restorative experience and self-regulation in favorite places. Environ. Behav. 33, 572–589.

Korpela, K.M., Ylén, M., Tyrväinen, L., Silvennoinen, H., 2008. Determinants of restorative experiences in everyday favorite places. Health Place 14, 636–652.

Kou, L., Xu, H., Hannam, K., 2017. Understanding seasonal mobilities, health and wellbeing to Sanya, China. Soc. Sci. Med. 177, 87–99.

Kou, L., Xu, H., Kwan, M.-P., 2018. Seasonal mobility and well-being of older people: the case of 'Snowbirds' to Sanya, China. Health Place 54, 155–163.

Latour, B., 2005. Reassembling the social:An Introduction to Actor-Network-Theory. Cambridge University Press, Cambridge.

Levy, S., Heruti, I., Avitsur, R., 2019. Physical injury, stress, and health: protective role of dispositional optimism. Stress Health 35, 267–276.

Macintyre, S., Ellaway, A., Cummins, S., 2002. Place effects on health: how can we operationalise, conceptualise and measure them. Soc. Sci. Med. 55, 125–139.

Marsh, H.W., Hau, K.T., Balla, J.R., Grayson, D., 1998. Is more ever too much? The number of indicators per factor in confirmatory factor analysis. Multivariate Behav. Res. 33, 181–220.

Menatti, L., Casado da Rocha, 2016. Landscape and health: connecting psychology, aesthetics, and philosophy through the concept of affordance. Front. Psychol. 7, 1–17.

Metz, D.H., 2000. Mobility of older people and their quality of life. Transp. policy 7, 149–152.

Milligan, C., Gatrell, A., Bingley, A., 2004. "Cultivating health": therapeutic landscapes and older people in northern England. Soc. Sci. Med. 58, 1781–1793.

Mueller, H., Kaufmann, E.L., 2001. Wellness tourism: market analysis of a special health tourism segment and implications for the hotel industry. J. Vacat. Mark. 7, 5–17.

Nunkoo, R., Ramkissoon, H., Gursoy, D., 2013. Use of structural equation modeling in tourism research: past, present, and future. J. Trav. Res. 52 (6), 759–771.

Nunnally, J., 1967. Psychometric Theory. McGraw-Hill, New York, NY.

Nutbeam, D., 1998. Health promotion glossary. Health Promot. Int. 13, 349–364.

Olya, H.G., Al-ansi, A., 2018. Risk assessment of halal products and services: implication for tourism industry. Tourism Manag. 65, 279–291.

Oster, C., Adelson, P.L., Wilkinson, C., Turnbull, D., 2011. Inpatient versus outpatient cervical priming for induction of labour: therapeutic landscapes and women's preferences. Health Place 17, 379–385.

Pérez-Arechaederra, D., Briones, E., Lind, A., García-Ortiz, L., 2014. Perceived organizational justice in care services: creation and multi-sample validation of a measure. Soc. Sci. Med. 102, 26–32.

Prior, L., Manley, D., Sabel, C.E., 2019. Biosocial health geography: new 'exposomic'geographies of health and place. Prog. Hum. Geogr. 43, 531–552.

Rocha, A.S.S., Brandao, A., 2014. On developing wellness and medical tourism: the characterization of a national termal network. J. Manag. Market. Healthc. 7, 226–236.

Rodiek, S.D., Fried, J.T., 2005. Access to the outdoors: using photographic comparison to assess preferences of assisted living residents. Landsc. Urban Plann. 73, 184–199.

Rosenbaum, M.S., Friman, M., Ramirez, G.C., Otterbring, T., 2020. Therapeutic servicescapes: restorative and relational resources in service settings. J. Retailing Consum. Serv. 55, 102078.

Rosenbaum, M.S., Kelleher, C., Friman, M., Kristensson, P., Scherer, A., 2017. Re-placing place in marketing: a resource-exchange place perspective. J. Bus. Res. 79, 281–289.

Scheier, M.F., Carver, C.S., Bridges, M.W., 1994. Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): a reevaluation of the Life Orientation Test. J. Pers. Soc. Psychol. 67, 1063.

Simpson, J., Triliva, S., Thomas, C., Chatzidamianos, G., Murray, C., 2015. Living with a long term physical health condition: psychological experiences of older lifestyle migrants. Eur. Heal. Psychol. 17.

Smith, N., Young, A., Lee, C., 2004. Optimism, health-related hardiness and well-being among older Australian women. J. Health Psychol. 9, 741–752.

Sulkers, E., Fleer, J., Brinksma, A., Roodbol, P.F., Kamps, W.A., Tissing, W.J.E., Sanderman, R., 2013. Dispositional optimism in adolescents with cancer: differential associations of optimism and pessimism with positive and negative aspects of well-being. Br. J. Health Psychol. 18, 474–489.

Terkenli, T.S., 2002. Landscapes of tourism: towards a global cultural economy of space? Tourism Geogr. 4, 227–254.

Thane, P., 1978. Muddled history of retiring at 60 and 65. New Soc. 45, 234–236.

Van den Berg, A.E., Koole, S.L., van der Wulp, N.Y., 2003. Environmental preference and restoration:(How) are they related? J. Environ. Psychol. 23, 135–146.

Von Lindern, E., 2015. Setting-dependent constraints on human restoration while visiting a wilderness park. J. Outdoor Recreat. Tour. 10, 29–37.

Wang, K., Cui, Q., Xu, H., 2018. Desert as therapeutic space: cultural interpretation of embodied experience in sand therapy in Xinjiang, China. Health Place 53, 173–181.

Wang, J., Wang, X., 2019. Structural Equation Modeling: Applications Using Mplus. John Wiley & Sons.

Ware Jr., J.E., 1976. Scales for measuring general health perceptions. Health Serv. Res. 11, 396–415.

Wiles, J.L., Allen, R.E.S., Palmer, A.J., Hayman, K.J., Keeling, S., Kerse, N., 2009. Older people and their social spaces: a study of well-being and attachment to place in Aotearoa New Zealand. Soc. Sci. Med. 68, 664–671.

Williams, A.M., Hall, C.M., 2000. Tourism and migration: new relationships between production and consumption. Tourism Geogr. 2, 5–27.

World Health Organization (WHO), 2020. WHO Basic Documents, 49th edn. WHO, Office of Publications, Geneva.

Wu, Y., Hannam, K., Xu, H., 2018. Reconceptualising home in seasonal Chinese tourism mobilities. Ann. Tourism Res. 73, 71–80.

Wu, Y., Xu, H., Lew, A.A., 2015. Consumption-led mobilized urbanism: socio-spatial separation in the second-home city of Sanya. Mobilities 10, 136–154.

Xu, H., Kou, L., Wall, G., 2018. Retired Tibetan migrants' adaptation experiences in Chengdu, China. Asian Ethn. 19, 319–343.

Xu, H., Wang, Y., 2019. The impacts of gender on seasonal retirement mobility and wellbeing. Ageing Soc. 1–21.

Xu, H., Wu, Y., 2016. Lifestyle mobility in China: context, perspective and prospects. Mobilities 11, 509–520.

Yamada, N., Heo, J., King, C., Fu, Y.-Y., 2011. Urban residents' life satisfaction and cultural tourism development: The role of health perception, wealth, safety, community contentment, and cultural tourism development. J. Qual. Assur. Hosp. Tour. 12, 220–235.

Zhang, H., Xu, H., 2019. A structural model of liminal experience in tourism. Tourism Manag. 71, 84–98.

Zhou, L., Yu, J., Wu, M.-Y., Wall, G., Pearce, P.L., 2017. Seniors' seasonal movements for health enhancement. Serv. Ind. J. 38, 27–47.

Ziegler, F., Schwanen, T., 2011. 'I like to go out to be energised by different people': an exploratory analysis of mobility and wellbeing in later life. Ageing Soc. 31, 758–781.