

Article

Nature-Based Wellness Micro-Interventions as Experience-Based Service Innovation in Coastal Resorts: A Modified SERVPERF Study of Quality, Satisfaction, Added Value and Recommendation Intention

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Highlights

What are the main findings?

- In a four-group randomised service-evaluation study, cloud-noticing and forest-therapy-elements conditions received more favourable immediate guest evaluations than active control and standard stay.
- Cloud noticing had the highest mean perceived innovativeness score, whereas forest therapy elements showed consistently high evaluations across experience quality, satisfaction, added value, recommendation intention, and the overall score.

What are the implications of the main findings?

- Destination-specific natural resources may be configured as structured, low-infrastructure guest experiences, but the present evidence concerns immediate perceived service value in one resort.
- Multi-site and longitudinal research is required before conclusions can be drawn about actual recommendation behaviour, repeat visitation, willingness to pay, loyalty, or destination competitiveness.

Abstract

Experience has become a central source of competitiveness in wellness tourism, yet natural features in resorts often remain passive scenery rather than deliberately designed service content. This prospective, four-group randomised controlled service-evaluation study examined whether brief nature-based wellness micro-interventions developed from natural elements already present in a coastal health and wellness resort were associated with more favourable immediate evaluations of experience quality, satisfaction, perceived innovativeness, added value, and recommendation intention. Of 120 adult hotel guests randomly allocated in equal proportions to cloud noticing, forest therapy elements, active control, or standard stay, 114 completed the final evaluation. A contextually adapted 22-item instrument based on service-performance logic and tourism-experience research was used. The forest-therapy-elements and cloud-noticing conditions showed the most favourable overall evaluation profiles, followed by active control and standard stay. The clearest differentiation concerned perceived innovativeness, while recommendation intention was most strongly associated with perceived added value and satisfaction. These findings are relevant to wellness-tourism development because they indicate that natural elements

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already present in a resort may acquire additional perceived service value when translated into structured, facilitated, and place-sensitive guest activities. Because outcomes were immediate self-reports obtained in a single resort and participants and facilitators could not be blinded, the findings should not be interpreted as proof of lasting behavioural effects. They suggest a promising low-infrastructure service-development pathway whose effects on actual recommendation, repeat visitation, willingness to pay, loyalty, and destination outcomes require confirmation in multi-site and longitudinal research.

Keywords: tourism experience; wellness tourism; experience-based service innovation; nature-based micro-interventions; SERVPERF; experience quality; satisfaction; perceived value; recommendation intention; destination competitiveness; sustainable tourism

1. Introduction

In coastal health and wellness resorts, guests rarely judge a single procedure or facility in isolation. Their evaluation is formed across the whole stay, including organisation, safety, staff conduct, atmosphere, personal relevance, novelty, and the ease with which the experience can later be described to others. Service quality in this setting is therefore not only a question of technical correctness; it also concerns how a resort turns its place, resources, and staff-mediated encounters into an experience that guests perceive as reliable, meaningful, and worth recommending (Oliver, 1997; Baker & Crompton, 2000; Chen & Chen, 2010).

Classical service-quality research is rooted in the comparison between expectations and perceptions, most prominently in the SERVQUAL tradition (Parasuraman et al., 1988; Babakus & Boller, 1992). For brief and unfamiliar wellness activities, however, expectations may be weakly formed before participation. A guest who has never joined a sky-focused noticing activity or a guided sensory activity in a forested resort area may not possess a stable prior standard against which the offer can be judged. The performance-only logic of SERVPERF is therefore useful because it focuses on how the service is actually experienced and evaluated after participation (Cronin & Taylor, 1992).

Performance alone does not exhaust the question. In experience-based tourism, guests also assess whether an activity feels credible, distinctive, appropriate to the place, valuable in relation to the stay, and easy to recommend. The present study consequently uses SERVPERF as a service-performance foundation but connects it with experience quality, satisfaction, perceived innovativeness, perceived added value, and recommendation intention (Zeithaml, 1988; Fornell et al., 1996; Oh, 1999; Zeithaml et al., 1996; Prebensen et al., 2013; Han & Hyun, 2015).

Coastal resorts frequently incorporate the sea, sky, vegetation, horizon, light, and quietness into destination imagery, spatial ambience, and brand identity. Their presence or promotional visibility does not necessarily mean that they have been operationalised as deliberately designed service encounters. A natural feature becomes service content only when it is translated into a recognisable activity with a defined purpose, sequence, mode of facilitation, safety framework, and basis for guest evaluation.

This distinction identifies a more specific research gap than the broad proposition that nature is insufficiently used in tourism. Nature-based visitor experiences have received substantial attention, yet experience design remains conceptually fragmented and systematic approaches to the monitoring and measurement of designed nature-based experiences remain incompletely developed (Mandić & McCool, 2023). The unresolved issue is therefore not whether natural environments contribute to tourism appeal, but

how existing natural assets can be configured and evaluated as repeatable components of hospitality-service performance.

A substantial body of nature-exposure research examines stress recovery, mood, attention restoration, subjective well-being, connectedness to nature, and physiological functioning (Ulrich, 1983; R. Kaplan & Kaplan, 1989; S. Kaplan, 1995; Ulrich et al., 1991; Bratman et al., 2012; Hartig et al., 2014; Frumkin et al., 2017). These literature address a different analytical question from tourism-service evaluation. Restorative potential does not establish whether an activity is clearly organised, professionally facilitated, safe, appropriate to the destination, valuable in relation to the stay, or worthy of recommendation. Conversely, favourable immediate service evaluations do not demonstrate clinical or lasting health effects.

The selection of cloud noticing and forest therapy elements reflected both the characteristics of the study site and the theoretical logic of the design. The resort contained a forested or park-forest area suitable for slow, multisensory engagement and a forest-edge location that opened towards the sea-facing horizon and provided a broad view of the sky, clouds, light, spatial depth, and atmospheric change. The two formats represented contrasting organisations of attention: predominantly visual, distal, and sky-focused engagement versus predominantly proximal, multisensory, and bodily anchored forest engagement.

The sea was part of the spatial context of the cloud-noticing condition but was not operationalised as a separate water-based intervention. The study was not intended to compare all possible coastal natural resources. Direct shoreline or water-based formats would introduce different safety, accessibility, equipment, sea-state, and physical-capacity requirements. They remain important candidates for future comparative research.

The study therefore asks a focused service-research question: can two place-congruent nature-based micro-interventions become measurable components of experience quality and added value in a health and wellness resort? Nature is treated not only as a possible restorative resource but also as a service resource whose perceived value depends on design, facilitation, safety, interpretation, and fit with the destination. The study does not test clinical effectiveness and does not assume that nature-based content is inherently superior to other forms of wellness innovation.

2. Theoretical Framework and Research Logic

2.1. From Service Quality to Experience-Based Service Value

SERVQUAL and SERVPERF offer related but analytically different approaches to service evaluation. SERVQUAL conceptualises perceived quality through the relationship between expectations and subsequent perceptions of performance (Parasuraman et al., 1988). This approach is valuable when customers possess sufficiently developed expectations regarding an established service. In brief or unfamiliar wellness activities, however, expectations may be weak, unstable, or formed only after the activity has been explained. Under such conditions, the expectation–performance gap may reflect uncertainty about the service category as much as the quality of delivery.

SERVPERF addresses this difficulty by focusing directly on experienced performance (Cronin & Taylor, 1992). Its performance-only logic is suitable for evaluating how clearly, reliably, safely, and professionally an unfamiliar activity was delivered. Nevertheless, performance quality alone does not fully explain the experiential value of tourism services. A technically competent activity may still be perceived as generic, poorly connected with the destination, or insufficiently meaningful, whereas a distinctive activity remains dependent on consistent and credible delivery. The hierarchical service-quality perspective similarly indicates that broader judgements emerge from interacting aspects of service performance rather than isolated technical attributes (Brady & Cronin, 2001).

Tourism-experience research extends evaluation beyond operational performance by examining how an experience is interpreted, valued, and incorporated into the overall stay. Experience quality, satisfaction, perceived value, and behavioural intention are related but not interchangeable constructs (Baker & Crompton, 2000; Oh, 1999; Chen & Chen, 2010; Zeithaml et al., 1996). Experience quality concerns how the encounter was organised and experienced; satisfaction represents an immediate evaluative response; perceived value concerns whether the experience was considered worthwhile in relation to the stay; and recommendation intention is a prospective attitude rather than verified behaviour.

The relationships among these constructs are context-dependent. High performance may contribute to satisfaction without necessarily producing distinctiveness or added value. Novelty may attract attention, but novelty without coherence, credibility, or personal relevance may remain a temporary curiosity. Satisfaction may coexist with limited willingness to recommend when an activity is pleasant but difficult to describe or poorly integrated into the wider destination experience. The present study therefore retains the five dimensions as analytically distinct and interprets their relationships as associations rather than a confirmed causal sequence.

2.2. Nature-Based Interventions and the Service-Evaluation Gap

Nature-based intervention research provides evidence that contact with natural environments may be associated with stress reduction, attention restoration, mood, subjective well-being, and other psychological or physiological outcomes (Lee et al., 2009; Li, 2010; Tyrväinen et al., 2014; Hansen et al., 2017). Tourism and hospitality research requires an additional level of analysis: the presence of a potentially restorative environment does not itself establish that an activity based on that environment constitutes a high-quality or valuable tourism service.

The two research traditions, therefore, address related but non-equivalent questions. Nature- and health-oriented studies primarily examine change in the individual. Service and experience research examines whether an encounter is clearly designed, consistently delivered, appropriate to the destination, credible to the guest, and sufficiently valuable to become part of the perceived quality of the stay. A nature-based activity may possess a plausible restorative rationale but fail as a service because of unclear instructions, weak facilitation, poor timing, or limited integration into the resort programme. Favourable service evaluation, in turn, does not demonstrate clinical effectiveness.

This intersection provides the theoretical basis of the study. Existing nature-based research does not establish whether brief guided engagement will be recognised as added service value. At the same time, conventional service-quality models do not explain whether the natural and place-specific content of an activity contributes beyond general organisation and facilitator attention. The inclusion of both active control and standard stay was intended to address that distinction.

2.3. Conceptual Origin and Service-Level Innovation of Cloud Noticing

Cloud noticing, as used in this study, should not be interpreted as a newly invented psychological or therapeutic technique. Its attentional foundation was conceptually informed by the Noticing Nature Intervention developed by Passmore and Holder (2017), which invited participants to notice ordinary natural elements and attend to the emotions evoked by those encounters. The conceptual importance of that work lies in showing that engagement with nature may be cultivated through the quality of attention directed towards natural phenomena already present in everyday surroundings.

The present activity was not a direct replication of the original two-week intervention. Its central attentional principle was contextually adapted into a brief, facilitator-led resort

activity focused on the sky, clouds, light, horizon, atmospheric change, and the relationship among these elements, the sea-facing openness, and the observer's position within the setting.

Cloud noticing overlaps with mindfulness, nature awareness, and guided observation insofar as each may involve deliberate direction of attention. The terms are not interchangeable. The activity was not presented as a comprehensive mindfulness programme or evaluated as a clinical intervention. General nature awareness may occur informally, whereas the present activity was temporally bounded, facilitator-led, and integrated into a defined resort-service sequence. Guided observation describes a delivery mode but does not by itself specify the conceptual basis, destination fit, or service-evaluation framework.

The innovation claimed in this study is therefore located primarily at the level of tourism-service configuration rather than the invention of a new attentional mechanism. Perceived innovativeness refers to the degree to which participants experienced the activity as novel and distinctive relative to wellness content they ordinarily associated with a resort stay. It does not establish historical originality or universal superiority over other wellness formats.

2.4. Resource-Congruent Nature-Based Micro-Interventions

A micro-intervention is defined here as a brief, low-intensity, organisationally feasible activity that uses natural elements already present in the destination. Its service contribution does not depend on technology or new construction, but on a different organisation of existing space and attention. The common principle is not the use of one particular natural element, but the translation of a place-specific resource into a clear, facilitated, and evaluable guest experience.

Nature-based service design should follow a principle of resource congruence. Forest-focused programming is credible only where a suitable forested, wooded, or park-forest environment is genuinely available and can be accessed safely and responsibly. Other accommodation settings may be better suited to garden-, sky-, horizon-, shoreline-, marine soundscape-, wind-, light-, or other green- and blue-space formats. The activity should follow the authentic ecological and spatial characteristics of the property rather than be imposed on a destination that lacks the relevant resources.

2.5. Research Hypotheses and Exploratory Questions

The active-control condition was included to estimate whether additional organisation, facilitator attention, group participation, and dedicated programme time were associated with more favourable evaluations independently of explicit nature-directed content. The comparison between the nature-based conditions and active control examined whether a structured experiential core based on destination-specific natural elements contributed beyond those non-specific programme features. The following theory-informed hypotheses were used to structure the revised analytical presentation:

H1. *Guest evaluations will differ across the cloud-noticing, forest-therapy-elements, active-control, and standard-stay conditions in the overall user-evaluation score and in perceived experience quality, satisfaction, perceived innovativeness, perceived added value, and recommendation intention.*

H2. *Participants in the two nature-based conditions will report more favourable overall user evaluations than participants in the standard-stay condition.*

H3. *Participants in the two nature-based conditions will report more favourable overall user evaluations than participants in the active-control condition.*

H4. *Participants in the active-control condition will report more favourable overall user evaluations than participants in the standard-stay condition.*

H5. *Perceived experience quality, satisfaction, perceived innovativeness, and perceived added value will each be positively associated with recommendation intention.*

Two components remained exploratory because the available literature did not support sufficiently precise directional predictions:

RQ1. Do cloud noticing and forest therapy elements differ in the overall user-evaluation score or in individual dimensions of guest-perceived service value?

RQ2. What are the relative contributions of perceived experience quality, satisfaction, perceived innovativeness, and perceived added value to recommendation intention within the present sample?

These hypotheses were articulated during revision from the pre-existing theoretical rationale and are not presented as preregistered confirmatory hypotheses. They are used to organise the revised analytical presentation. They concern immediate guest evaluation within one resort and do not constitute predictions regarding clinical effectiveness, actual recommendation behaviour, repeat visitation, willingness to pay, or long-term destination loyalty.

3. Methods

3.1. Design, Study Context, and Research Stages

The study used a prospective, four-group randomised controlled service-evaluation design in a coastal health and wellness resort. Its purpose was to compare immediate guest evaluations of two structured nature-based wellness micro-interventions with an active-control activity and a standard resort stay under realistic hospitality conditions. The outcomes concerned guest-perceived service value rather than clinical efficacy, psychophysiological change, or long-term behaviour.

The resort is not named because access was granted under a context of confidentiality. The site provided both a forested or park-forest environment suitable for proximal multisensory activity and a forest-edge location with an open view towards the sky and sea-facing horizon. This enabled the two nature-based conditions to be delivered within the same resort while differing in their primary attentional stimulus.

The research proceeded through six stages. In Stage 1, adult resort guests were approached, informed about the study, and screened for eligibility. In Stage 2, eligible participants provided informed consent and completed the baseline assessment. In Stage 3, participants were randomly allocated at the individual level in a 1:1:1:1 ratio to cloud noticing, forest therapy elements, active control, or standard stay. In Stage 4, participants completed the assigned condition. In Stage 5, the final service-evaluation instrument was administered after the activity or at the end of the stay, and completion and attrition were documented. In Stage 6, reliability, group comparisons, directed contrasts, and exploratory association analyses were conducted.

The active-control and standard-stay conditions served different methodological purposes. Active control reproduced several non-specific features of receiving an additional organised programme, including scheduled time, group format, facilitator presence, and a defined beginning and end. Standard stay represented the ordinary resort experience without any additional study-organised session. Supplementary Table S1 presents the procedural characteristics of all four conditions in parallel.

3.2. Participants, Random Allocation, Sample Size, and Flow

The study included 120 adult hotel guests from one coastal health and wellness resort. Eligibility required adulthood, ability to take part in low-intensity outdoor activities, willingness to complete the final evaluation, and informed consent. Exclusion criteria were an acute health condition incompatible with outdoor participation, inability to follow basic instructions, or refusal to provide consent. The sample represents a selected group of wellness-oriented resort guests rather than a representative sample of tourists.

Following consent and baseline assessment, participants were randomly allocated at the individual level using a manual lottery. Each participant was represented by a separate card bearing an operational code derived from the room number. Where two enrolled participants occupied the same room, the suffixes “A” and “B” distinguished them; where one participant occupied a room, the suffix “A” was used. Participants sharing a room were represented by separate cards and randomised independently. The room number, therefore, functioned only as an operational identifier and was not the unit of randomisation. Allocation cards were used solely for assignment and kept separate from the anonymous questionnaire data; room-based identifiers were not included in the analytical dataset.

The cards were mixed and drawn until 30 participants had been assigned to each of the four conditions. Participants did not select their preferred condition, and allocation was not based on arrival order, previous wellness or nature-based experience, facilitator judgement, or expected responsiveness. Individual randomisation reduced the risk of systematic self-selection into a preferred activity, although participants and facilitators could not be blinded after allocation.

No formal a priori power analysis was conducted. The planned sample was determined pragmatically by the finite number of eligible and consenting guests available during the predefined field period and the requirement for a balanced four-group allocation. A target of 30 participants per condition produced a planned total of 120. A design-sensitivity calculation conducted during revision indicated that, with four groups, $\alpha = 0.05$, and $N = 114$, the final sample provided 80% power to detect an omnibus effect of approximately Cohen's $f = 0.315$, corresponding to eta squared of approximately 0.09. The study was therefore suited to detecting approximately moderate overall group effects but could not reliably exclude small differences.

Participant flow is shown in Table 1. Of the 176 contacted guests, 142 expressed initial interest, 128 entered screening, 8 were excluded before inclusion, and 120 were randomised. Six participants discontinued before completing the final evaluation: one from cloud noticing, two from forest therapy elements, and three from active control. All 30 participants in the standard stay completed the final evaluation. Participants were entitled to withdraw without providing a reason, and no withdrawal reasons were recorded. Final evaluation data were available for 114 participants, corresponding to a completion rate of 95.0%.

Baseline characteristics are presented in Table 2 for the final evaluation sample. The groups were similar in age, sex, education, previous wellness experience, previous guided nature experience, frequency of time spent in nature, principal reason for the stay, and expected usefulness. This supports baseline comparability but does not exclude unmeasured differences in motivation, novelty-seeking, destination attachment, or engagement with the assigned activity.

Table 1. Participant flow and final evaluation.

Study Phase	Number of Participants
Contacted hotel guests	176
Expressed initial interest	142
Entered screening	128
Excluded before inclusion	8
Included and randomised	120
Initially allocated to each condition	30 per condition
Completed final evaluation—cloud noticing	29
Completed final evaluation—forest therapy elements	28
Completed final evaluation—active control	27
Completed final evaluation—standard stay	30
Total included in the final analysis	114
Completion rate of the final evaluation	95.0%
Serious adverse events	0

Table 2. Baseline characteristics of participants by group.

Characteristic	Cloud Noticing (n = 29)	Forest Therapy Elements (n = 28)	Active Control (n = 27)	Standard Stay (n = 30)	<i>p</i>
Age, M (SD)	47.9 (10.7)	49.2 (11.4)	48.7 (10.8)	49.8 (10.2)	0.891
Women, n (%)	18 (62.1)	17 (60.7)	17 (63.0)	19 (63.3)	0.997
Men, n (%)	11 (37.9)	11 (39.3)	10 (37.0)	11 (36.7)	0.997
Higher education, n (%)	20 (69.0)	19 (67.9)	17 (63.0)	19 (63.3)	0.940
Previous experience with wellness practices, n (%)	12 (41.4)	11 (39.3)	10 (37.0)	11 (36.7)	0.984
Previous experience with guided nature activities, n (%)	9 (31.0)	10 (35.7)	8 (29.6)	8 (26.7)	0.895
Time in nature $\geq$ once per week, n (%)	16 (55.2)	15 (53.6)	14 (51.9)	15 (50.0)	0.978
Main reason for stay: rest/wellness, n (%)	23 (79.3)	22 (78.6)	21 (77.8)	23 (76.7)	0.996
Expected usefulness of stay/programme, M (SD)	4.1 (0.6)	4.0 (0.7)	3.8 (0.7)	3.9 (0.7)	0.412

3.3. Intervention Conditions and Standardisation

The three programme conditions were delivered as scheduled: facilitator-led group activities of approximately 120 min each. The two nature-based conditions followed the same six-stage service-delivery architecture: introductory orientation and safety briefing, sensory settling, guided engagement, direct exposure, a brief reflective-expressive invitation, and final integration. A common architecture was used to maintain comparability in total duration, group format, facilitator presence, progression from orientation to engagement, and opportunity for closure while allowing the principal natural stimulus to differ.

The activities were conducted outdoors under clear and stable weather conditions. Participants received common information about voluntary participation, physical comfort, safe movement, spatial boundaries, and the option to remain seated or standing when

preferred. They were informed that there was no correct way to experience the activity and that verbal sharing was voluntary. Facilitators used a pre-specified sequence, prepared prompts, avoided therapeutic interpretation, and did not promise any particular psychological or health effects. The final questionnaire was completed only after the assigned programme or stay had ended.

3.3.1. Cloud-Noticing Condition

Cloud noticing was conducted at the edge of the forested resort area, at a location that faced the sea and offered an unobstructed view of the sky, while not being situated directly on the shoreline. The principal stimulus was the sky and changing atmospheric phenomena; trees, vegetation, bark, and forest textures were not used as the main focus of facilitator prompts.

The approximately 120 min activity comprised six phases: orientation and viewing-safety guidance (about 10 min); atmospheric and sensory settling, including awareness of air movement, temperature, ambient sound, bodily position, and spatial openness (about 15 min); guided attention to cloud shape, edges, colour, brightness, shadow, layering, movement, apparent speed, and relationship to the horizon (about 20 min); predominantly silent direct cloud observation with minimal facilitator speech (about 45 min); a brief reflective-expressive invitation focused on one cloud form, movement, contrast, or atmospheric change that retained attention (about 15 min); and voluntary group integration and closure (about 15 min). Participants were advised not to look directly at the sun and to adjust their position if prolonged upward gaze caused discomfort.

Participants were invited to observe the formation, movement, transformation, separation, or disappearance of clouds without classifying them meteorologically or assigning a predetermined meaning. The activity was a resort-based, sky-focused adaptation informed by the noticing nature principle rather than a formal mindfulness programme or a direct replication of the original Noticing Nature Intervention.

3.3.2. Forest-Therapy-Elements Condition

The forest-therapy-elements condition was conducted in the resort's forested or park-forest area. It was implemented as a brief, structured, group-based resort activity incorporating selected elements commonly used in guided forest engagement. It was not presented as a complete clinical, individually tailored, proprietary, certified, or universally standardised forest therapy programme.

The approximately 120 min activity followed the same six-stage timing: orientation, route boundaries, safety, and voluntary participation (about 10 min); multisensory settling through slower movement and attention to colour, light, natural sounds, scents, textures, shade, temperature, bodily position, and ground contact (about 15 min); a guided engagement invitation to explore one or more natural elements that attracted attention without requiring identification or evaluation (about 20 min); direct exposure involving slow movement, standing, or quiet presence within the designated area while facilitator speech was reduced (about 45 min); a brief reflective-expressive invitation concerning one element, sensation, or moment that remained noticeable (about 15 min); and voluntary group integration and closure (about 15 min).

The protocol was conceptually inspired by broadly established principles of flexible and context-responsive nature-based facilitation. It was developed for the present coastal resort, adult guest population, group-delivery format, and service-evaluation purpose, without claiming implementation of an external licenced method.

3.3.3. Active-Control Condition

Participants assigned to active control attended an additional scheduled, facilitator-led group session of approximately 120 min. It included introductory orientation, neutral informational material, quiet-seated or low-intensity participation, and a standardised closing. Its purpose was to reproduce non-specific features of an additional resort programme, including scheduled time, facilitator presence, group participation, organisational structure, and additional attention.

The session deliberately excluded the principal components of the nature-based conditions. Participants received no instructions to attend to clouds, sky, horizon, atmospheric change, vegetation, sounds, smells, textures, shade, or ground contact. It contained no guided multisensory noticing, slow forest engagement, direct nature-exposure phase, mindfulness instruction, reflective-expressive invitation, or nature-based integration. Quiet time was included as a neutral programme component rather than guided contemplative or restorative practice.

3.3.4. Standard-Stay Condition

Participants assigned to the standard stay used the resort's ordinary accommodation, wellness, leisure, and hospitality services according to their usual preferences. They did not attend an additional study-organised session and received no structured intervention, neutral control programme, study-facilitator contact, or guided attentional instructions. Routine interaction with resort staff and ordinary use of available facilities were not restricted because the purpose was to preserve the normal service context.

3.4. Instrument and Variables

The outcome measure used in this analysis was the 22-item Final Service-Evaluation Instrument, a dedicated module within a broader questionnaire package developed for related nature-based wellness research under the same ethics protocol. The broader package included consent, baseline characteristics, nature-contact and wellness profiles, repeated nature-related outcomes, and open-ended feedback. The analyses reported here were limited to the final service-evaluation module and the baseline characteristics presented in Table 2; the other modules were not analysed as outcomes in this manuscript.

The instrument was grounded in SERVQUAL and SERVPERF traditions and in tourism research concerning experience quality, satisfaction, perceived value, and behavioural intentions (Parasuraman et al., 1988; Cronin & Taylor, 1992; Zeithaml et al., 1996; Chen & Chen, 2010). It was contextually adapted for evaluating brief wellness content and the standard guest experience within a resort and was not intended as a universally validated wellness-tourism scale.

Perceived experience quality was assessed with six items addressing organisation, clarity of information, safety and respectful guidance, professionalism, fit with the resort and destination, and appropriateness of pace, duration, and structure; a representative item was "The activity or stay was clearly organised." Satisfaction comprised four items, including "Overall, I am satisfied with this activity or stay." Perceived innovativeness comprised four items, including "This experience felt different from usual wellness content." Perceived added value comprised four items, including "This activity or experience increased the value of my stay." Recommendation intention comprised four items, including "I would recommend this activity or stay to others." The full item wording is provided in Supplementary Table S2.

Participants in the three programme conditions responded to the assigned activity, whereas participants in the standard stay responded to the overall resort stay. All items were rated from 1 ("completely disagree") to 5 ("completely agree"). Dimension scores were

calculated as the mean of their items, and the overall user-evaluation score was calculated as the mean of the five dimension scores so that each conceptual dimension contributed equally to the composite. High internal consistency supports item coherence in this sample but does not establish factorial validity, measurement invariance, or cross-context stability.

3.5. Statistical Analysis

The analysis was conducted on the 114 participants who completed the final evaluation. Descriptive indicators are presented as means and standard deviations. Internal consistency was assessed using Cronbach's alpha and McDonald's omega. Baseline group comparisons were used to identify major imbalances and were not treated as a substitute for randomisation.

Group differences were examined using one-way analysis of variance for the overall score and each dimension, with eta squared reported as effect size. Directed comparisons followed the following research logic: nature-based conditions versus standard stay; active control versus standard stay; nature-based conditions versus active control; and cloud noticing versus forest therapy elements. Hedges' g and 95% confidence intervals are reported because group sizes were small to moderate and slightly unequal after attrition.

Assumptions were considered at the level of the multi-item dimension scores and the overall composite, rather than at the level of individual ordinal items. Distributional shape, extreme observations, and residual behaviour were reviewed visually. The groups were closely balanced in size, but the observed standard deviations indicated some heterogeneity in variance. Conventional ANOVA results were therefore supplemented with Welch's heteroscedasticity-robust omnibus tests. Agreement between the conventional and Welch tests was used as a sensitivity check; the robust results are reported in Supplementary Table S3.

Pearson correlations and multiple regression were used exploratorily to assess associations between the four evaluation dimensions and recommendation intention. Linearity, evident residual deviations, homoscedasticity, and predictor overlap were reviewed before interpretation. Because the predictors represented related dimensions of the same immediate experience, the regression coefficients are treated as estimates of relative association within this sample rather than evidence of causal ordering or generalisable prediction.

3.6. Ethical Considerations

The study was conducted in accordance with the Declaration of Helsinki and approved by the Ethics Committee of the FoRRestMind Institute (protocol code 004-2026; approval date 15 March 2026). Participation was voluntary, and participants received information about the purpose of the research, the activities, data processing, the right to omit questions, and the right to discontinue participation without consequences or the need to provide a reason. Analytical data were processed in anonymised form. No serious adverse event was recorded.

4. Results

The service-evaluation instrument showed high internal consistency. Cronbach's alpha for the total instrument was 0.94, and McDonald's omega was 0.95. Individual subscales also showed high internal consistency (Table 3). These values support coherence in this research context but do not establish factorial validity or cross-context stability.

Table 3. Internal reliability of the user-evaluation instrument.

Dimension	Number of Items	Cronbach α	McDonald ω	Interpretation
Perceived experience quality	6	0.90	0.91	very good
Satisfaction	4	0.88	0.89	very good
Perceived innovativeness	4	0.86	0.87	very good
Perceived added value	4	0.87	0.88	very good
Recommendation intention	4	0.89	0.90	very good
Overall user-evaluation score	22	0.94	0.95	excellent

Note. Reliabilities are reported for the final evaluation sample (N = 114). The values support internal consistency in this context but do not replace future confirmatory validation.

Mean evaluations differed across the four conditions. Forest therapy elements had the highest mean scores for experience quality, satisfaction, added value, recommendation intention, and the overall score. Cloud noticing had the highest mean perceived innovativeness score and closely similar means to forest therapy elements on the remaining dimensions. Active control had higher means than standard stay across all dimensions and the overall score. Full descriptive statistics and conventional omnibus comparisons are shown in Table 4.

Table 4. User evaluation by group.

Dimension	Cloud Noticing M (SD)	Forest Therapy Elements M (SD)	Active Control M (SD)	Standard Stay M (SD)	F	p	η^2
Perceived experience quality	4.52 (0.39)	4.56 (0.37)	4.18 (0.48)	3.91 (0.55)	13.29	<0.001	0.27
Satisfaction	4.48 (0.42)	4.55 (0.38)	4.12 (0.51)	3.86 (0.58)	13.12	<0.001	0.26
Perceived innovativeness	4.63 (0.36)	4.58 (0.40)	3.82 (0.61)	3.31 (0.68)	41.81	<0.001	0.53
Perceived added value	4.50 (0.41)	4.57 (0.39)	4.05 (0.55)	3.54 (0.66)	24.92	<0.001	0.40
Recommendation intention	4.46 (0.45)	4.53 (0.42)	4.08 (0.57)	3.72 (0.63)	14.84	<0.001	0.29
Overall user-evaluation score	4.52 (0.34)	4.56 (0.33)	4.05 (0.45)	3.66 (0.54)	29.39	<0.001	0.45

Statistically significant omnibus differences were observed for the overall score and all five dimensions. The largest dimension-level effect occurred for perceived innovativeness, followed by perceived added value, recommendation intention, perceived experience quality, and satisfaction. Because the within-group standard deviations were unequal, the comparisons were repeated using Welch's ANOVA. All six Welch tests remained statistically significant at $p < 0.001$, and the substantive group pattern was unchanged (Supplementary Table S3).

Perceived innovativeness showed the largest difference at the dimension level. Cloud noticing had the highest mean on this dimension, $M = 4.63$, $SD = 0.36$, followed closely by forest therapy elements, $M = 4.58$, $SD = 0.40$. These descriptive differences do not establish the mechanisms responsible for the observed profile.

Both nature-based conditions differed substantially from the standard stay and active control on the overall score. Active control also differed from standard stay, with a smaller effect. The direct difference between cloud noticing and forest therapy elements was minimal and not statistically significant. The two nature-based formats should therefore not be ordered hierarchically based on the overall score. (see Tables 5 and 6.)

Table 5. Directed comparisons of the overall user-evaluation score.

Group Comparison	Mean Difference	Hedges g	95% CI	p
Cloud noticing vs. standard stay	+0.86	1.87	1.25–2.49	<0.001
Forest therapy elements vs. standard stay	+0.90	1.98	1.34–2.61	<0.001
Active control vs. standard stay	+0.39	0.78	0.24–1.31	0.006
Cloud noticing vs. active control	+0.47	1.17	0.59–1.74	<0.001
Forest therapy elements vs. active control	+0.51	1.29	0.70–1.87	<0.001
Cloud noticing vs. forest therapy elements	−0.04	−0.12	−0.40–0.63	0.684

Note. A positive mean difference indicates a higher value for the first-listed group. In the final row, the negative value indicates a minimally higher score in forest therapy elements. CI = confidence interval.

Table 6. Correlations among dimensions of user evaluation.

Dimension	Experience Quality	Satisfaction	Innovativeness	Added Value	Recommendation Intention
Perceived experience quality	1.00	0.68	0.54	0.61	0.63
Satisfaction	0.68	1.00	0.59	0.72	0.76
Perceived innovativeness	0.54	0.59	1.00	0.70	0.64
Perceived added value	0.61	0.72	0.70	1.00	0.78
Recommendation intention	0.63	0.76	0.64	0.78	1.00

Note. Pearson correlation coefficients are shown. All correlations were positive and statistically significant at $p < 0.001$. The matrix does not establish causal ordering, and the high correlations indicate conceptual overlap among dimensions.

Recommendation intention correlated most strongly with perceived added value and satisfaction, followed by perceived innovativeness and perceived experience quality. Table 7 presents the exploratory regression model.

Table 7. Exploratory regression model of recommendation intention.

Predictor	β	SE	p
Perceived experience quality	0.16	0.08	0.047
Satisfaction	0.34	0.09	<0.001
Perceived innovativeness	0.21	0.08	0.010
Perceived added value	0.39	0.09	<0.001

Note. Standardised coefficients and standard errors are reported. Model $R^2 = 0.64$; adjusted $R^2 = 0.62$. Coefficients estimate relative association within this sample and do not establish causal sequence or out-of-sample predictive performance.

5. Discussion

The findings contribute to tourism-service research by distinguishing the evaluation of a natural setting from the evaluation of a structured activity delivered within that setting. Participants evaluated organisation, clarity, professional delivery, distinctiveness, value, and recommendability rather than only the attractiveness or restorative reputation of the environment. This distinction is consistent with tourism research in which experience quality, satisfaction, perceived value, and behavioural intention are related but analytically separate (Baker & Crompton, 2000; Oh, 1999; Chen & Chen, 2010).

The active-control comparison is central. Active control received more favourable evaluations than standard stay, indicating that additional organisation, facilitator presence, group participation, and dedicated programme time may themselves shape evaluation.

The two nature-based conditions received more favourable evaluations than active control, a pattern consistent with the possibility that their specific experiential content contributed beyond general programme structure. The study did not isolate every possible mechanism, including expectancy, novelty, group interaction, facilitator effects, or differential engagement, and the interpretation should remain cautious.

The findings do not demonstrate that nature-based content is inherently superior to other forms of wellness programming. They indicate that, within this resort and sample, activities organised around destination-specific natural elements received favourable immediate evaluations when delivered through a defined and facilitated service structure. This is consistent with service-quality research showing that broader evaluations emerge from the interaction among delivery quality, experiential meaning, perceived value, and satisfaction, rather than from the presence of a physical resource alone.

Cloud noticing had the highest mean perceived innovativeness score. This result concerns participant-perceived novelty and distinctiveness within the resort offer; it does not establish that cloud noticing is historically unprecedented, objectively innovative across the tourism industry, or commercially viable as an independent product. One possible explanation is that deliberately structured attention to clouds, light, atmospheric movement, and horizon was less familiar than forest-related sensory activity. This explanation remains hypothetical because detailed prior familiarity with cloud-focused practices was not measured.

Forest therapy elements received consistently high ratings for quality, satisfaction, added value, recommendation intention, and overall score. The pattern may reflect correspondence between forest-related sensory engagement and established public expectations of nature-based wellness. The present data cannot determine why the pattern occurred, whether it would persist in other populations, or whether it would translate into repeated participation or market demand.

Recommendation intention was associated most strongly with perceived added value and satisfaction. This is consistent with previous tourism research showing that favourable behavioural intentions are related not only to service performance but also to whether an experience is perceived as worthwhile and satisfying (Zeithaml et al., 1996; Chen & Chen, 2010; Han & Hyun, 2015). Recommendation intention was measured immediately and should not be equated with verified word-of-mouth, online reviews, repeat visitation, or loyalty.

The main theoretical contribution lies at the intersection of nature-based intervention research and hospitality-service evaluation. Research on nature exposure examines change in the individual; service research examines how an encounter is designed, delivered, valued, and evaluated. The present findings support further investigation of the transition from natural amenity to structured service encounter through place-specific resources, organisation of attention, facilitation, safety, and guest evaluation.

To organise the implications of the observed profiles, Table 8 presents an author-derived interpretive framework. It is not an additional statistical result, a validated customer segmentation model, or evidence that individual guests can be reliably assigned to one programme. The descriptions of group profiles are empirical; the proposed service roles are theoretical propositions for future testing.

The two formats should not be interpreted as defining fixed customer types. A guest may prefer cloud noticing, forest engagement, both activities, or neither. From a service-design perspective, they may be offered as elective modules, separately, sequentially, or in combination, provided that participation is voluntary and adapted to interests, physical comfort, available time, and environmental conditions. Future studies should use prefer-

ence ranking, crossover designs, choice experiments, actual uptake, and willingness-to-pay measures rather than infer individual segmentation from group means.

Table 8. Author-derived interpretive framework for possible service roles of nature-based micro-interventions.

Interpretive Level	Cloud-Noticing Condition	Forest-Therapy-Elements Condition	Possible Service-Design Implication
Principal destination resource	Sky, clouds, light, horizon, atmospheric movement, and spatial openness	Forested vegetation, ground, shade, sounds, smells, and textures	Existing resources may be translated into structured service content without major new infrastructure
Organisation of attention	Predominantly visual, distal, and sky-focused	Predominantly multisensory, proximal, and bodily anchored	Programme design may vary according to the intended type of environmental engagement
Observed evaluation profile	Highest mean perceived innovativeness score and otherwise highly favourable evaluations	Consistently high means across quality, satisfaction, added value, recommendation intention, and overall evaluation	The two formats may offer different and potentially complementary experiential emphases.
Possible role in the resort offer	Distinctive and place-congruent sky-focused module	Forest-focused module aligned with familiar wellness expectations	Activities may be offered separately or as complementary modules rather than mutually exclusive segments

Note. This table is an author-derived interpretive synthesis rather than a separate statistical analysis or validated segmentation model. The study did not assess whether individual guests preferred one activity, both activities, or neither activity. Proposed service roles require direct measurement of preferences and future empirical testing.

Transferability depends on resource congruence. A hotel without a suitable forested environment should not reproduce forest therapy elements merely as a branded concept. Forested resorts may be suited to guided multisensory forest engagement; coastal or island properties with open views may be suited to sky-, cloud-, light-, wind-, and horizon-focused activities; waterfront accommodation may examine shoreline, sea-air, or marine-soundscape formats; and urban hotels with gardens, courtyards, terraces, or rooftop views may investigate smaller-scale garden, seasonal, or sky-focused activities. These are propositions, not validated prescriptions.

The study contributes at the level of immediate guest-perceived service evaluation. It did not assess implementation costs, staff requirements, operational scalability, willingness to pay, price premiums, booking behaviour, repeat visitation, actual recommendation, online reviews, customer retention, or destination competitiveness. The favourable evaluations, therefore, support further testing of resource-congruent, nature-based service modules rather than claims of established commercial effectiveness.

6. Limitations of the Study

This study has several limitations. First, it was conducted in one coastal health and wellness resort among a selected sample of consenting adult guests. The findings cannot be assumed to generalise directly to other coastal destinations, continental resorts, spa institutions, boutique hotels, public programmes, clinical populations, seasons, cultures, or guest groups with different socioeconomic and motivational profiles.

Second, individual randomisation strengthened comparability across the four conditions and reduced preference-related allocation bias, but participants and facilitators could not be blinded. Participants in the programme conditions knew that they were receiving additional organised content. Hawthorne-type reactivity, perceived special attention, novelty, demand characteristics, and condition-specific expectations may therefore have influenced immediate evaluations.

Active control provided only a partial comparison for scheduled time, group structure, facilitator presence, and additional organisation. It could not eliminate differences in perceived credibility, anticipated benefit, emotional engagement, facilitator enthusiasm, or congruence with participants' ideas of wellness. General expected usefulness was measured at baseline, but expectations concerning each specific activity format were not assessed in sufficient detail.

Third, subtle facilitator effects cannot be excluded despite a pre-specified sequence and prepared prompts. Tone, pacing, enthusiasm, non-verbal communication, or interaction with participants may have influenced responses. Participants may also have inferred the study's purpose and responded consistently with what they believed was expected.

Fourth, the principal outcomes were immediate self-reports. The study did not include delayed follow-up, independent behavioural observation, actual word-of-mouth, online review behaviour, repeat visitation, booking decisions, willingness to pay, or long-term loyalty. Recommendation intention is therefore an immediate attitudinal outcome rather than verified behaviour.

Fifth, six participants discontinued before the final evaluation and attrition was unevenly distributed across conditions. Participants were entitled to withdraw without providing a reason; therefore, reasons were unavailable. Although overall attrition was limited to 5.0%, some attrition-related bias cannot be ruled out.

Sixth, sample size was determined by the finite field-recruitment opportunity and balanced allocation rather than a formal *a priori* power calculation. The achieved sample provided sensitivity to approximately moderate omnibus effects but was insufficient to exclude small differences or to support detailed subgroup, interaction, or highly parameterised predictive analyses.

Seventh, the 22-item instrument was contextually adapted. High alpha and omega coefficients support internal consistency but do not establish factorial structure, convergent and discriminant validity, measurement invariance, predictive validity, or stability across destination contexts. In addition, the object of evaluation differed between programme groups: the activity group evaluated an activity, and the standard stay group evaluated the overall stay.

Eighth, cloud noticing was a resort adaptation informed by the broader noticing nature principle rather than a direct replication of the original intervention. The forest-based condition incorporated selected forest therapy elements in a large-group resort format. It was not a complete clinical, individually tailored, proprietary, certified, or universally standardised forest therapy programme.

Finally, the study did not include a separate shoreline or water-based condition, despite the coastal setting, and it did not directly test accommodation-type or customer-segment recommendations. Future research should include multiple destinations, preregistered hypotheses, larger samples, delayed and behavioural outcomes, detailed expectancy measures, independent assessment where feasible, cost and willingness-to-pay analyses, blue-space comparisons, and direct assessment of preferences for individual or combined modules.

7. Conclusions

This study examined whether two contextually adapted nature-based wellness activities were evaluated differently from active control and standard stay. Within a coastal health and wellness resort, participants randomly allocated to cloud noticing and forest therapy elements reported more favourable immediate evaluations than those allocated to an active control or a standard stay. Cloud noticing had the highest mean perceived innovativeness score, while forest therapy elements showed consistently high means across

experience quality, satisfaction, perceived added value, recommendation intention, and the overall score.

The findings support a limited but relevant conclusion for tourism-service research. Natural elements already present in a destination may become evaluable components of a hospitality encounter when translated into structured, facilitated, safe, and place-sensitive activities. The study therefore extends consideration of nature beyond environmental ambience or possible restorative exposure and examines it as part of experience-based service configuration.

Random allocation strengthens the inference that the assigned conditions contributed to differences in immediate evaluations within this sample. It does not establish long-term effectiveness, durable memorability, actual recommendation, repeat visitation, willingness to pay, economic feasibility, customer loyalty, or destination-level competitiveness. Nor do the findings demonstrate that nature-based activities are inherently superior to other forms of wellness programming.

Cloud noticing should be understood as a sky-focused resort adaptation informed by the broader noticing nature principle rather than a newly invented psychological technique. The forest-based condition incorporated selected forest-therapy elements in a group-based resort format and was not evaluated as a complete clinical or universally standardised forest therapy programme.

The principal contribution is the identification of a promising and testable service-research pathway. Destination-specific resources such as sky, clouds, light, horizon, atmosphere, vegetation, shade, sounds, smells, ground contact, shoreline, and marine soundscapes may be studied systematically as components of guest-experience design. Their value across destinations, seasons, accommodation types, cultures, and guest preferences remains to be established.

Future research should replicate the design across multiple tourism destinations, include delayed and behavioural outcomes, assess preferences for individual and combined activities, examine implementation costs and willingness to pay, and determine whether favourable immediate evaluations translate into actual recommendation, repeat visitation, or sustained destination relationships. The present findings provide a basis for that work rather than definitive evidence of long-term tourism effectiveness.

Supplementary Materials: The following supporting information can be downloaded at: <https://www.mdpi.com/article/10.3390/tourhosp7070211/s1>. Table S1, Structure and standardisation of the four study conditions; Table S2, Final Service-Evaluation Instrument; Table S3, Welch heteroscedasticity-robust omnibus analyses.

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related to the participating resort. A de-identified analytical dataset may be shared where this does not permit re-identification of the setting or participants.

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Abbreviations

CI, confidence interval; SERVPERF, service performance; SERVQUAL, service quality; SD, standard deviation.

References

- Babakus, E., & Boller, G. W. (1992). An empirical assessment of the SERVQUAL scale. *Journal of Business Research*, 24(3), 253–268. [\[CrossRef\]](#)
- Baker, D. A., & Crompton, J. L. (2000). Quality, satisfaction and behavioural intentions. *Annals of Tourism Research*, 27(3), 785–804. [\[CrossRef\]](#)
- Brady, M. K., & Cronin, J. J. (2001). Some new thoughts on conceptualising perceived service quality: A hierarchical approach. *Journal of Marketing*, 65(3), 34–49. [\[CrossRef\]](#)
- Bratman, G. N., Hamilton, J. P., & Daily, G. C. (2012). The impacts of nature experience on human cognitive function and mental health. *Annals of the New York Academy of Sciences*, 1249(1), 118–136. [\[CrossRef\]](#) [\[PubMed\]](#)
- Chen, C.-F., & Chen, F.-S. (2010). Experience quality, perceived value, satisfaction and behavioural intentions for heritage tourists. *Tourism Management*, 31(1), 29–35. [\[CrossRef\]](#)
- Cronin, J. J., & Taylor, S. A. (1992). Measuring service quality: A reexamination and extension. *Journal of Marketing*, 56(3), 55–68. [\[CrossRef\]](#)
- Fornell, C., Johnson, M. D., Anderson, E. W., Cha, J., & Bryant, B. E. (1996). The American customer satisfaction index: Nature, purpose, and findings. *Journal of Marketing*, 60(4), 7–18. [\[CrossRef\]](#)
- Frumkin, H., Bratman, G. N., Breslow, S. J., Cochran, B., Kahn, P. H., Jr., Lawler, J. J., Levin, P. S., Tandon, P. S., Varanasi, U., Wolf, K. L., & Wood, S. A. (2017). Nature contact and human health: A research agenda. *Environmental Health Perspectives*, 125(7), 075001. [\[CrossRef\]](#) [\[PubMed\]](#)
- Han, H., & Hyun, S. S. (2015). Customer retention in the medical tourism industry: Impact of quality, satisfaction, trust, and price reasonableness. *Tourism Management*, 46, 20–29. [\[CrossRef\]](#)
- Hansen, M. M., Jones, R., & Tocchini, K. (2017). Shinrin-yoku (forest bathing) and nature therapy: A state-of-the-art review. *International Journal of Environmental Research and Public Health*, 14(8), 851. [\[CrossRef\]](#) [\[PubMed\]](#)
- Hartig, T., Mitchell, R., de Vries, S., & Frumkin, H. (2014). Nature and health. *Annual Review of Public Health*, 35, 207–228. [\[CrossRef\]](#) [\[PubMed\]](#)
- Kaplan, R., & Kaplan, S. (1989). *The experience of nature: A psychological perspective*. Cambridge University Press.
- Kaplan, S. (1995). The restorative benefits of nature: Toward an integrative framework. *Journal of Environmental Psychology*, 15(3), 169–182. [\[CrossRef\]](#)
- Lee, J., Park, B.-J., Tsunetsugu, Y., Kagawa, T., & Miyazaki, Y. (2009). Restorative effects of viewing real forest landscapes, compared with urban landscapes. *Scandinavian Journal of Forest Research*, 24(3), 227–234. [\[CrossRef\]](#)
- Li, Q. (2010). Effect of forest bathing trips on human immune function. *Environmental Health and Preventive Medicine*, 15(1), 9–17. [\[CrossRef\]](#) [\[PubMed\]](#)
- Mandić, A., & McCool, S. F. (2023). A critical review and assessment of the last 15 years of experience design research in the context of nature-based tourism. *Journal of Ecotourism*, 22(1), 208–235. [\[CrossRef\]](#)
- Oh, H. (1999). Service quality, customer satisfaction, and customer value: A holistic perspective. *International Journal of Hospitality Management*, 18(1), 67–82. [\[CrossRef\]](#)
- Oliver, R. L. (1997). *Satisfaction: A behavioural perspective on the consumer*. McGraw-Hill.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12–40.

- Passmore, H.-A., & Holder, M. D. (2017). Noticing nature: Individual and social benefits of a two-week intervention. *The Journal of Positive Psychology*, 12(6), 537–546. [[CrossRef](#)]
- Prebensen, N. K., Woo, E., Chen, J. S., & Uysal, M. (2013). Motivation and involvement as antecedents of the perceived value of the destination experience. *Journal of Travel Research*, 52(2), 253–264. [[CrossRef](#)]
- Tyrväinen, L., Ojala, A., Korpela, K., Lanki, T., Tsunetsugu, Y., & Kagawa, T. (2014). The influence of urban green environments on stress relief measures: A field experiment. *Journal of Environmental Psychology*, 38, 1–9. [[CrossRef](#)]
- Ulrich, R. S. (1983). Aesthetic and affective response to the natural environment. In I. Altman, & J. F. Wohlwill (Eds.), *Behaviour and the natural environment* (pp. 85–125). Plenum. [[CrossRef](#)]
- Ulrich, R. S., Simons, R. F., Losito, B. D., Fiorito, E., Miles, M. A., & Zelson, M. (1991). Stress recovery during exposure to natural and urban environments. *Journal of Environmental Psychology*, 11(3), 201–230. [[CrossRef](#)]
- Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. *Journal of Marketing*, 52(3), 2–22. [[CrossRef](#)]
- Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1996). The behavioural consequences of service quality. *Journal of Marketing*, 60(2), 31–46. [[CrossRef](#)]

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