



# Older adults at nature-tourism sites: Experiments with aging suits

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## ARTICLE INFO

Editor: Fu Xiaoxiao

### Keywords:

Older adults

Aging

Nature-tourism sites

Aging suits

Experiments

Universal design

## 1. Introduction

Our research question was: How can Aging suits (Fig. 1) help improve managers' and planners' understanding of the experiences of older adults at nature-tourism sites? The two main goals were: a) Educational – To increase the understanding of and empathy for the older population; and b) Practical – To affect the planning of nature-tourism sites for older adults.

By 2050, the world's 65+ population is expected to double to 1.5 billion. The aging of the world's population is one of the most significant social transformations of the twenty-first century, impacting all sectors of society. In this new reality, it has become increasingly important to consider the needs of older adults in all realms of life, and tourism, recreation, and nature activities are no exception (Patterson & Balderas, 2020).

As our primary goal was to impact tourism managers' perceptions of older adults, we chose to study managers wearing suits, as opposed to actual older adults. Our specific research questions were: How do nature-tourism site managers experience the site while wearing suits?; Is there a difference in the managers' perception before and after wearing the suits?; and What on-site infrastructure and services can be better adapted for older-adult visitors?

## 2. Literature review

Excursions to nature-tourism sites such as reserves, national parks,

and forests play a vital role in improving the well-being of senior citizens, stemming from the positive relationship between nature visitation and physical, mental, and emotional well-being (Sugiyama, Thompson, & Alves, 2009). This "healing effect" is reflected in the reduction of cortisol levels, anxiety, and irritability (Rodiek, 2002). Nature visitation is also important according to the "activity theory of aging," which holds that activity in old age is essential for achieving high levels of satisfaction in life (Havighurst, 1963).

Studies have found that older adults have unique needs and wishes at parks and nature-tourism sites, arising from their physical, social, and psychological circumstances, and that in order to facilitate enjoyable visits and encourage revisits, these needs and wishes must be incorporated into planning (Wen, Albert, & Von Haaren, 2018). This issue is part of a broader approach to current social planning known as "universal design," which asserts that products and environments should be designed to suit the broadest range of population without the need for special adjustments (Story, 1998). Research has also found that nature-site stakeholder and manager awareness of the difficulties and limitations of different audiences helps create better experiences for the broader population (Sisto, Cappelletti, Bianchi, & Sica, 2022).

This study proposes an innovative means of providing managers with insight into the experiences of senior citizens visiting nature-tourism sites by the use of aging simulation suits. The suits, which cover the whole body and also include binoculars, a neck brace, earmuffs, weights, and more, are designed to simulate a feeling of old age (Vieweg & Schaefer, 2020).

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<https://doi.org/10.1016/j.annale.2023.100101>

Received 6 February 2023; Received in revised form 10 June 2023; Accepted 15 June 2023

Available online 20 June 2023

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Aging suits are used for research in fields such as automobile design, medicine, and architectural design. Suits have been found to help planners, engineers, and designers, typically in their 20s, 30s and 40s, to better understand how different spaces and/or products could be more appropriately designed for older adults (Coughlin, 2017). This approach has yet to be applied to tourism planning.

### 3. Aims and methods

Seventeen managers from the Israel Nature and Parks Authority responsible for training and planning participated in the study. These managers agreed to participate after we sent out a brief statement regarding the research aims and methods. Most of them (15) were between the ages of 30 and 50, and 2 were between the ages of 50 and 60. All of the participants reported that they were in good health and that they had been working as mid-level and high-level managers for the past 10–20 years.

The participants visited the site and walked the trail in pairs while wearing aging simulation suits. Our research area, Ein Afek, is a nature-tourism reserve containing different physical elements and is described as “an easy walk” and is also located near an urban area. Despite these facts, however, it attracts only a small number of visitors over the age of 65 (5.5%). This was the main reason we chose it as our research area.

We applied a qualitative research approach using semi-structured interviews and observation (please see the supplementary material). The interviews were conducted at the entrance to/from the reserve, “before” and “after” wearing the suit. Observations were also conducted while the participants walked the trail in suits over five days in October 2021. Two researchers were involved in the entire research process in order to ensure the trustworthiness of the protocol while

conducting observations and interviews, and to analyze and present the data.

The interviews and observations were transcribed, and the texts were analyzed using “thematic analysis” (Sword, 2016). We examined the data in order to identify common themes – topics, ideas, and patterns of meaning that arose repeatedly during the six stages: Familiarization; Coding (ATLAS.ti software); Generating themes; Reviewing themes; Defining themes; Writing up.

### 4. Findings

Our analysis yielded four main themes: “senses” and “feelings” reflected in the managers’ perception, and “infrastructure” and “the route,” pertaining to physical elements of the site. The experience of visiting the site while wearing a suit was found to be both a physical and a mental one, demonstrating the complexities of old age and its impact on visits to nature-tourism sites.

Regarding senses, the suit was found to create “a blur of senses” and cause a lack of balance, increasing their understanding of the physical obstacles that senior citizens encounter at the site. Limited vision, hearing, movement, and balance also created “a feeling of vigilance” (no.15) and “inner convergence” (no. 9). The walk aroused many feelings, such as a sense of identification with older adults (“I keep on thinking of my parents” (no. 3); “now I understand my grandfather” (no. 11), embarrassment, frustration, and the need for a sense of safety. The complexity of walking and visiting the site was a wholly new experience for the participants. The need to fully “concentrate on themselves” (no. 12) and the resulting reduction in enjoyment of the nature experience, changed their perception and thoughts regarding what older adults people feel and experience when visiting nature. It was regarded as an



Fig. 1. The Aging suit.

“eye-opening” (no. 1). and “life changing experiment” (no. 17). In the words of one participant: “It finally hit me when I was wearing the suit” (no. 8) and “I suddenly just realized what it means to be old” (no. 13).

The complexity of the experience surprised the managers, who said they felt “alert” (no. 4), “sensitive to surprises along the way” (no. 9) and more “focused on themselves” (no. 5) as they tried to maintain their balance and avoid falling. All these aspects affected how they experienced the trail. They described the nature, the sounds, and the sights around them as “much less present” (no. 9) and they described themselves as being left with “much less energy” (no. 2) to enjoy the trail and nature.

With regard to the physical elements, the managers paid considerable attention to infrastructure such as path diversity; the number, height, and type of seating areas; handholds; and the importance of landmarks along the route. The fourth theme pertained to the route itself: which places to walk through and whether it is worth the effort for visitors to obtain detailed information in advance to enable them to select the best route for their abilities. It also pertained to the difficulty of walking while wearing the suit, and the basic actions they were not able to perform, as reflected in statements such as “I cannot open the tourist brochure” (no. 9) and “I cannot use my phone” (no. 13). Some participants even had trouble hearing one another.

An interesting topic that arose was the question of “effort versus reward.” Several managers stated that despite the complexity of the experience, it was “worth the effort” (no. 3, 9, 17). This was said both in reference to the entire route and to specific segments, such as a steep ascent with a view at the top.

## 5. Discussion and implications

Consistent with the activity theory, which holds that activity is essential for achieving high levels of satisfaction in life (Havighurst, 1963), we see that activity and effort yielded a feeling of satisfaction among the managers, and that disappointment was greater than usual if things did not work as expected. Thus, the main insight of the managers’ experience was the tension and the need to focus on themselves, overshadowing pleasure and enjoyment. We noted the importance of manager participation in the experiment, as expanded knowledge on the subject leads to change in perception and to practical insight (Sisto et al., 2022).

Although they assumed it would be difficult, participants after the experiment said that they never expected “the level of complexity” (no. 7). or the “way everything works together to affect the entire experience” (no. 6). Comparable sensitivity to age-related disabilities after wearing such suits was also found in Schmidt et al.’s 2022 study, which examined perceptions of aging before and after wearing the suit.

Tourism managers’ and planners’ changing perception of the needs of older adults and deeper understanding of this growing population means a great deal, as the older-adult population is typically not involved in decision making and planning (Coughlin, 2017). Stepping into the shoes of target audiences for whom planning is being done, and understanding their needs first-hand makes it possible to create optimal places for a variety of populations.

In addition to increasing the managers’ awareness of the older-adult population, we identified three main needs: 1) To provide information to visitors before they come to the site; 2) To improve infrastructure at the site; and 3) Universal planning – for all. These three main implications are an outcome of the four main themes that were identified and provide answers regarding issues of “infrastructure” and “route,” as well as “senses” and “feelings.”

The first prominent issue to arise was the importance of providing as much information as possible about the route both before arriving at the site and at the site itself. Secondly, according to Sugiyama et al. (2009),

increased fear of falling among senior citizens produces a preference for the familiar and the known in open spaces. This finding highlights the need to plan and adapt sites for older adults regarding infrastructure such as the types of sidewalks needed, the location, the number and type of seating areas, the importance of handholds, landmarks along the route, and the appropriate length and duration of the walk as a whole.

The third issue to arise was the visitors’ ability to choose how they would like to visit the site, as visitors of different ages and from different target audiences require a plan that suits them. Such variety is consistent with the principle of “universal design,” which aims to meet the needs of a wide variety of people.

## 6. Conclusions

Wearing the suits helped improve understanding of the physical and sensory limitations of old age and increase empathy. In addition, it helps managers and planners identify infrastructure and services that should be adapted to older adults. We should emphasize, however, that only 17 managers participated in the study, and it therefore may be too early to draw any clear-cut conclusions.

More research in the tourism arena is undoubtedly necessary. By using the suits in this study, we combined knowledge from the fields of gerontology, planning, and tourism and found that the suits can serve not only as a planning tool but also as an educational tool.

## Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.annale.2023.100101>.

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