

CASE REPORT OPEN ACCESS

Building Therapeutic Nature Ecotourism Camps for Cancer Patients in Iran A New Approach to Health Tourism Focusing on Lorestan Province

Babak Abdolkarimi^{1*} | Niki Panahi²

¹Associate Professor of Pediatric hematology Oncology department, Hakim children's hospital, Tehran University of Medical Sciences, Tehran, Iran

²Scientific secretary of Iranian pediatric independent neuron-oncology consortium (IPINOC)

***Correspondence:** Babak Abdolkarimi, Associate Professor of Pediatric hematology Oncology department, Hakim children's hospital, Tehran University of Medical Sciences, Tehran, Iran, E-mail: b.abdolkarimi@yahoo.com

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Abstract

Health tourism is a rapidly growing sector that aims to improve physical and mental well-being by combining medical services with natural and cultural resources. This study assesses the feasibility of establishing therapeutic ecotourism camps for cancer patients in Lorestan Province, Iran, and proposes a locally adapted model for their development. Drawing on successful international examples from Thailand, Malaysia, India, and Jordan and on Iran's rich natural and cultural assets, the proposed model integrates clinical care, psychosocial rehabilitation, and nature-based interventions. Methods included a mixed-methods approach with a literature review, comparative analysis, site evaluation (waterfalls, lakes, hot springs, and alpine meadows), and a conceptual operational design that covers accommodation, on-site medical and psychological services, telemedicine links to specialists, structured rehabilitation programs (e.g., nature walks, meditation, music therapy), and health outcome assessment using established instruments such as the Karnofsky Performance Status and quality-of-life measures. Expected benefits include reduced anxiety and stress, improved psychological well-being and functional status among participants, and regional socio-economic gains through sustainable tourism and job creation. The paper concludes with policy recommendations for pilot implementation, cross-sector collaboration, and the development of a regulatory framework to scale therapeutic ecotourism in Iran.

Introduction

In recent decades, health tourism has emerged as one of the fastest-growing sectors in the global tourism industry. It represents a multidisciplinary field that integrates medicine, tourism, and environmental studies, emphasizing not only economic outcomes but also the physical and psychological well-being of individuals [1].

Iran, endowed with highly qualified medical professionals, affordable healthcare services, and remarkable ecological diversity, possesses strong potential for the expansion of health tourism. However, therapeutic ecotourism-the direct combination of medical treatment with the tranquility and healing properties of nature-has not yet been institutionally developed in the country.

Among cancer patients, who often experience psychological stress, anxiety, and depression during their treatment journey, interaction with natural environments can play a vital role in facilitating recovery and enhancing emotional resilience. Establishing Healing Camps in Iran's natural settings, therefore, offers an innovative approach to improving the quality of life of these patients.

This study explores the feasibility of creating therapeutic ecotourism camps in Lorestan Province, leveraging its rich natural resources, cultural heritage, and moderate climate. The research aims to present a localized, evidence-based model that aligns with global best practices while being adapted to Iran's unique socio-environmental context.

Literature Review

Global studies have consistently demonstrated that exposure to natural environments exerts significant positive effects on human physiology and psychology, reducing stress levels and enhancing immune system functioning [2, 3]. The concept of the “Healing Landscape” posits that natural settings can act as therapeutic agents, helping to balance cognitive, emotional, and physiological processes in humans.

International Experiences

Successful global models of therapeutic ecotourism can be observed in several countries:

- Thailand: Development of “Wellness Retreats” integrating massage, meditation, and nature-based therapy.
- India: Ayurvedic resorts in Kerala combining herbal medicine, yoga, and traditional dietary regimens.
- Malaysia: Integrated health camps along the beaches of Langkawi, offering medical consultation and herbal therapy.
- Jordan: Utilization of the Dead Sea’s mineral-rich environment for dermatological and respiratory treatments.

These examples highlight how nations have capitalized on their natural and cultural endowments to establish healing destinations that attract both domestic and international patients.

Context of Iran

Iran similarly possesses vast and underutilized therapeutic natural resources, such as the hot springs of Sarein, the waterfalls and springs of Lorestan, the forests of the northern provinces, and the Zagros mountain ranges. Despite these resources, systematic efforts to tailor these assets for the needs of patients with chronic or critical illnesses, such as cancer, remain limited.

The current research thus fills a crucial gap by proposing a structured framework for therapeutic ecotourism in Iran, grounded in international evidence yet aligned with local ecological, medical, and cultural realities.

Methodology

Type of Study

This research is applied–developmental in nature and employs a mixed-methods approach, combining qualitative and quantitative elements. The study integrates documentary research, comparative analysis, and conceptual modeling to design a localized framework for therapeutic ecotourism in Iran.

Research Stages

Stage 1: Theoretical and Documentary Review

This stage involved the analysis of international literature on therapeutic ecotourism and health tourism [4-8], as well as the current state of health tourism in Iran based on official data from the Ministry of Health and the Iran Tourism Organization.

Stage 2: Identification of Natural and Climatic Potentials in Lorestan

The selected natural sites included Bisheh Waterfall, Gahar Lake, Ab Sefid Waterfall, Nojian Waterfall, and the Valley of Inverted Tulips. These sites were evaluated according to criteria such as accessibility, safety, biodiversity richness, and climatic suitability.

Stage 3: Design of the Operational Model for the Camps

The proposed Healing Camp Model consists of the following components:

- Therapeutic Accommodation Units: Utilizing eco-friendly nomadic tents and locally inspired wooden cottages equipped with modern sanitary facilities.
- Medical Services: On-site presence of a general practitioner, nurse, and clinical psychologist, with telemedicine connections to specialized physicians.
- Psychological Rehabilitation Programs: Including music therapy, guided nature walks, meditation, and group counseling sessions for emotional support.
- Health Evaluation System: Using the Karnofsky Performance Status (KPS) scale to measure patients’ functional capacity before and after participation.

Stage 4: Comparative Analysis with International Cases

The study compared the proposed Iranian model with successful implementations in Thailand, Malaysia, India, and Jordan. Findings indicated that these nations achieved substantial foreign exchange income through joint government–private investment in therapeutic ecotourism, suggesting similar feasibility for Iran with localized adaptations.

Stage 5: Assessment of Expected Outcomes

Expected health and social impacts were assessed through established indicators such as Quality of Life (QoL) and General Health Questionnaire (GHQ) scores, measuring improvements in patients’ psychological and physical conditions after their engagement in natural therapeutic environments.

Expected Results

Implementation of the proposed therapeutic ecotourism camps in Lorestan Province is anticipated to generate a range of positive outcomes across three levels–individual, regional, and national:

Individual Level

- Reduction of anxiety and psychological distress among cancer patients through direct exposure to natural and tranquil environments.
- Enhanced hope and life satisfaction, leading to improved emotional stability during treatment.
- Improved psychosomatic performance through engagement in physical and mental rehabilitation activities such as walking, yoga, and meditation.

Regional Level

- Promotion of regional health tourism by transforming Lorestan into a destination for therapeutic travel.
- Job creation and income generation for local communities through the development of related infrastructure and service sectors.
- Strengthening of local tourism infrastructure, including transportation, eco-lodges, and health service facilities, contributing to sustainable regional growth.

National Level

- Development of a localized model of health tourism that can be replicated in other provinces such as Gilan, Mazandaran, Kurdistan, and East Azerbaijan.
- Enhancement of Iran's position in the regional health tourism market through the integration of natural, medical, and cultural assets.
- Contribution to sustainable development, combining healthcare advancement with environmental conservation and community empowerment.

Overall, the findings emphasize that therapeutic ecotourism can simultaneously support patient well-being, economic growth, and environmental sustainability, establishing Iran as a pioneer in nature-based medical tourism within the Middle East.

Discussion

In recent decades, health tourism has become one of the most dynamic sectors of the global tourism industry. According to the World Tourism Organization (WTO), this field generates more than USD 100 billion annually, with countries such as Thailand, India, Malaysia, Jordan, and Dubai adopting targeted strategies to leverage this potential for economic growth, employment, and health diplomacy. Comparative analysis of these nations and Iran reveals fundamental differences in policy orientation, institutional structure, and implementation of health-centered tourism programs.

In Southeast Asian countries, therapeutic ecotourism has evolved into a core branch of health tourism. Governments in these regions have developed “health camps” or “wellness retreats”, where patients receive specialized medical and psychological care in natural, serene, and culturally immersive settings. For example:

Thailand: The Chiang Mai region has become a global hub for forest therapy and yoga retreats, combining medical care with traditional Thai massage and Buddhist meditation to promote harmony between mind and body.

India: Ayurvedic resorts in Kerala successfully integrate herbal medicine, meditation, and diet-based therapies, serving as internationally recognized models of nature-based healing.

Malaysia: The Health Eco-Resort concept focuses on tropical forests and coastal “wellness beaches,” attracting patients from the Middle East seeking preventive and holistic care.

Jordan: The Dead Sea region has capitalized on hydrotherapy and climatotherapy for patients with skin and respiratory disorders.

A common feature of these countries is the integrated management between the health and tourism sectors, supported by government investment, regulatory oversight, and medical visa frameworks that ensure quality standards and patient trust. In contrast, although Iran possesses abundant natural, cultural, and human resources, it lacks an institutional framework specifically designed for therapeutic ecotourism. While medical tourism in fields such as cosmetic surgery and infertility treatment is expanding, nature- and psychology-based therapies for special patient groups—such as cancer patients—remain at a conceptual stage. The present study introduces an innovative initiative—the establishment of therapeutic ecotourism camps in Lorestan Province—that integrates medical treatment, environmental psychology, and local culture. Lorestan's unique natural characteristics—such as the Zagros Mountains, Gahar Lake, Nojian and Bisheh waterfalls, and its temperate climate—make it an ideal location for implementing this model.

From a psychological and psychiatric perspective, numerous studies demonstrate that contact with nature leads to:

- Reduced cortisol levels (the stress hormone),
- Increased serotonin production (associated with happiness and mood regulation), and
- Enhanced immune system performance.

For cancer patients—who often struggle with chronic fatigue, anxiety, and loss of control—such environments can provide highly effective complementary therapy.

Moreover, the concept of a “Healing Environment” emphasizes that surroundings featuring natural light, soothing sounds, green landscapes, and positive human interaction can significantly facilitate recovery. The design of the proposed camps in Lorestan embodies these principles, positioning Iran to enter a new phase of holistic health tourism, where mental and physical well-being are addressed simultaneously.

From an economic standpoint, evidence from leading countries shows that each medical tourist generates between two to five times more revenue than an ordinary tourist.

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Thus, beyond its humanistic and social benefits, this initiative could provide a substantial source of foreign exchange income for both Lorestan Province and Iran. Additionally, the development of such camps promotes local employment, rural infrastructure improvement, and environmental preservation through responsible tourism practices.

On the social dimension, the interaction of cancer patients with their families and health tourists can foster public empathy and social acceptance, transforming societal attitudes toward illness. Consequently, this plan can serve as a human-centered, decentralized model for patient care nationwide.

For successful implementation, it is crucial to establish a legal and administrative framework, foster collaboration among the ministries of health, tourism, and environment, and secure governmental and private sector investment. Without coordinated intersectoral management, the idea of therapeutic ecotourism in Iran risks remaining at the pilot or conceptual level.

Therefore, this research introduces a new paradigm in Iran's health tourism, urging universities and policymakers to cooperate in operationalizing therapeutic ecotourism camps so that Iran may enter the global health tourism market—a market in which the country's ecological diversity and rich cultural heritage grant it a natural competitive advantage.

Conclusion and Recommendations

The establishment of therapeutic ecotourism camps for cancer patients represents a significant and innovative step toward improving both physical and psychological health, alleviating treatment-related stress, and enhancing hope and quality of life.

Given Iran's abundant natural and human resources, particularly in provinces such as Lorestan, Gilan, Kurdistan, and Azerbaijan, the proposed model can serve as a national framework for localized health tourism development. The integration of healthcare, nature therapy, and community participation provides a sustainable pathway for promoting well-being while supporting regional economic and environmental goals.

To achieve practical implementation, the following recommendations are proposed:

Establish a National Task Force on Therapeutic Ecotourism within the Ministry of Health and the Iranian Tourism Organization to coordinate policy, licensing, and research efforts.

Conduct pilot implementation in Lorestan Province and scientifically evaluate the psychophysiological outcomes of participants using standardized tools.

Train local human resources in areas such as first aid, psychological support, and hospitality services tailored to health tourists.

Promote international cooperation with leading medical and academic institutions from countries experienced in health tourism

(e.g., Thailand, India, Malaysia).

Develop a comprehensive legal and regulatory framework for licensing, safety, and quality assurance of therapeutic camps in Iran. By adopting these measures, Iran can effectively harness its ecological diversity and cultural richness to establish itself as a regional hub for health and wellness tourism. This model not only supports patient recovery and community empowerment but also contributes to the nation's sustainable development and global health diplomacy

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