

ASERS

Journal of Environmental Management and Tourism

Quarterly

Volume XII

Issue 8(56)

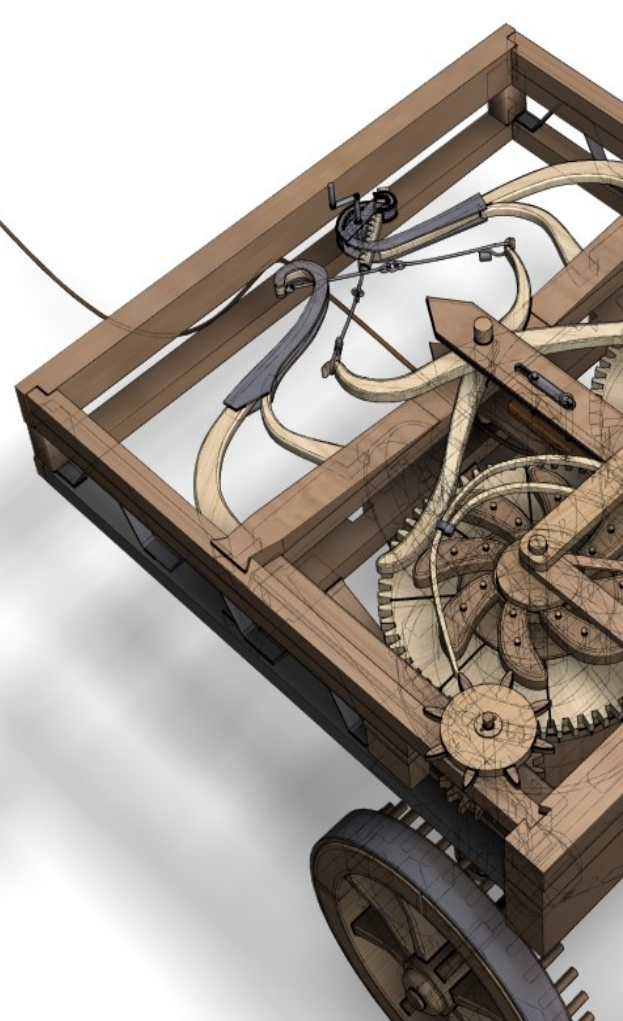
Winter 2021

ISSN 2068 – 7729

Journal DOI

<https://doi.org/10.14505/jemt>

 **ASERS**
Publishing



Editor in Chief

Ramona PÎRVU

University of Craiova, Romania

Editorial Advisory Board

Omran Abdelnaser

University Sains Malaysia, Malaysia

Huong Ha

University of Newcastle, Singapore,
Australia

Harjeet Kaur

HELP University College, Malaysia

Janusz Grabara

Czestochowa University of Technology,
Poland

Vicky Katsoni

Techonological Educational Institute of
Athens, Greece

Sebastian Kot

Czestochowa University of Technology,
The Institute of Logistics and International
Management, Poland

Nodar Lekishvili

Tbilisi State University, Georgia

Andreea Marin-Pantelescu

Academy of Economic Studies Bucharest,
Romania

Piotr Misztal

The Jan Kochanowski University in
Kielce, Faculty of Management and
Administration, Poland

Agnieszka Mrozik

Faculty of Biology and Environmental
protection, University of Silesia, Katowice,
Poland

Chuen-Chee Pek

Nottingham University Business School,
Malaysia

Roberta De Santis

LUISS University, Italy

Fabio Gaetano Santeramo

University of Foggia, Italy

Dan Selişteanu

University of Craiova, Romania

Laura Ungureanu

Spiru Haret University, Romania

Table of Contents:

1	The Cerro Azul Fisherman's Wharf, Peru: Revaluation and Tourism Promotion Kerby Gilberto WONG ORMEÑO, Nestor CUBA CARBAJAL, Manuel Enrique CHENET ZUTA, Enaidy REYNOSA NAVARRO, Judith Soledad YANGALI VICENTE	2031
2	Leading Directions of Tourism Development in Ural Region Tatyana Yurievna KSENOFONTOVA, Natalya Petrovna TARKHANOVA, Tatyana Nikolaevna KOSHELEVA, Alexander Alexandrovich VORONOV, Roman Sergeevich LUCHANINOV	2038
3	Evaluation of Walking Street Market and Improvement Plans for Tourism Promotion. A Case Study of Thanon Pha Kram Niyomkar PIM-AMORN, Prongmanee NUTTHACHAI	2045
4	The Effect of Service Quality in the Involvement of Participants in Leisure Dance Activity Kyriaki SAVVIDOU, Dimitris GOULIMARIS, George KOSTA, Eyaggelos MPEMPETSOS, Efi TSITSKARI	2059
5	Leading Attraction to "Visit of East Kalimantan". Prospects of Pampang Cultural Village, Samarinda Saida Zainurossalamia ZA, Irsan TRICAHYADINATA, Syarifah HUDAYAH, Aprilya MUSTARI	2067
6	Cultural Heritage in Peja and Turkish Denominations Leonora HUSAJ, Valdrin HUSAJ	2074
7	A Cluster Study of Community-Based Tourism Terminology Dietermar SAY	2082
8	The Historical Development of the Tourism Criminal Law Abdullah AI KHSSELLAT	2095
9	Evaluation of Customer Experience and Satisfaction in Luxury Resort Hotels of the Maldives Lyudmila POPP, Zamira MUKHAMBETOVA, Botagoz MATAYEVA, Gulzhan KUNAFINA, Almagul NURGALIYEVA, Vera VOLOKHINA, Ayagov ZHANSAGIMOVA	2099
10	Economic Analysis and Factors Influencing the Development of Tourism Zubaira TEMIRALIYEVA, Karlygash ABDYKULOVA, Gulnara BAIBASHEVA, Zhassulan SADYKOV, Gulmira NAKIPOVA, Layly TOKAEVA	2109
11	Prospects for the Development of Domestic Gastronomic Tourism in Conditions of Restrictions Caused by the COVID-19 Pandemic Antonina Pavlovna SOKOLOVA, Roman Viktorovich SERYSHEV, Maya LIVSON, Ekaterina A. BARANOVA, Viktoria Viktorovna ZUNDE	2121
12	Tourist Behavioral Intentions during the Covid-19 Pandemic. The Role of Reactance, Perceived Risk and Protection Motivation Robert BĘBEN, Sylwia KUCZAMER-KŁOPOTOWSKA, Anna MŁYNKOWIAK-STAWARZ, Izabela PÓŁBRAT	2129
13	The Impact of the COVID-19 Pandemic on the Development of Internal Tourism in the Russian Federation: A Statistical Analysis Elena Evgen'evna KABANOVA, Ekaterina AI. VETROVA, Tatiana A. EVSTRATOVA, Tatiana Vyacheslavovna BOGACHEVA, Elena Ivanovna KUBASOVA	2148

Editor in Chief

Ramona PÎRVU

University of Craiova, Romania

Editorial Advisory Board

Omran Abdelnaser

University Sains Malaysia, Malaysia

Huong Ha

University of Newcastle, Singapore,
Australia

Harjeet Kaur

HELP University College, Malaysia

Janusz Grabara

Czestochowa University of Technology,
Poland

Vicky Katsoni

Techonological Educational Institute of
Athens, Greece

Sebastian Kot

Czestochowa University of Technology,
The Institute of Logistics and International
Management, Poland

Nodar Lekishvili

Tbilisi State University, Georgia

Andreea Marin-Pantelescu

Academy of Economic Studies Bucharest,
Romania

Piotr Misztal

The Jan Kochanowski University in
Kielce, Faculty of Management and
Administration, Poland

Agnieszka Mrozik

Faculty of Biology and Environmental
protection, University of Silesia, Katowice,
Poland

Chuen-Chee Pek

Nottingham University Business School,
Malaysia

Roberta De Santis

LUISS University, Italy

Fabio Gaetano Santeramo

University of Foggia, Italy

Dan Seligșteanu

University of Craiova, Romania

Laura Ungureanu

Spiru Haret University, Romania

ASERS Publishing

<http://www.asers.eu/asers-publishing>

ISSN 2068 – 7729

Journal DOI: <https://doi.org/10.14505/jemt>

- | | | |
|----|--|------|
| 14 | <p>Analysis of Financial and Economic Aspects of Company Functioning and Their Influence on the Tourist Cluster</p> <p>Adeliya YELCHIBAYEVA, Alma-Gul RYSKULOVA, Mayrash BAIMURATOVA, Gulnara KAPANOVA, Gulnazym SHARIPOVA, Ainura MAKSTOVA</p> | 2157 |
| 15 | <p>The Relationship between Academic Performance and Environmental Sustainability Consciousness: A Case Study in Higher Education</p> <p>Kevin FUCHS</p> | 2168 |
| 16 | <p>Geriatric Problems in Medical Tourism</p> <p>Mikhail A. OSADCHUK, Maxim V. TRUSHIN, Karina S. SOLODENKOVA, Natal'ya V. KIREEVA</p> | 2177 |
| 17 | <p>Recovery Policy and Proper Management of Mangrove Forests to Preserve Environmental Sustainability and Ecotourism in Bangkalan Indonesia</p> <p>Bambang Eko TURISNO, Iga Gangga Santi DEWI, Siti MAHMUDAH, Amiek SOEMARMI</p> | 2188 |
| 18 | <p>Endowment Funds as an Effective Form of Partnership between the Business Sector and the Higher Education System: Case of Training Specialists in the Tourism Industry</p> <p>Zhibek KHUSAINOVA, Maral ASANOVA, MARDANOVA, Gulvira AKYBAYEVA, ABAUOVA</p> | 2194 |
| 19 | <p>Tourism After Lockdown: Will Business Travel Maintain Popularity?</p> <p>Tatiana Viktorovna UKHINA, Yulia Petrovna MAIDANEVYCH, Almakul Shakirbekovna ABDIMOMYNOVA, Diana Igorevna STEPANOVA, Gulmira Kairbaevna ZAMBINOVA</p> | 2217 |
| 20 | <p>The Impact of COVID-19 on the Finances of the Tourism Industry in Indonesia</p> <p>Wastam Wahyu HIDAYAT, Cahyadi HUSADHA</p> | 2224 |
| 21 | <p>Kabankalan City Accommodation Industry: Sustainable Business Attitudes and Practices</p> <p>Kimberly A. ALFARAS, Riza Stephanie A. ALFARAS</p> | 2232 |
| 22 | <p>Competitiveness Analysis of the Tourism Sector in Azerbaijan and the Clustering Problem</p> <p>Fariz AHMADOV, Gulnar MIRZAYEVA, Ilkin MAMMADOV</p> | 2240 |
| 23 | <p>The Impact of COVID-19 Pandemic on Egypt's Tourism. New Challenges for Media Houses to Make Awareness for Safety to Travel</p> <p>Miral Sabry ALASHRY, Majid ALKHUDARI</p> | 2251 |
| 24 | <p>Environmental Conservation and Socio-Cultural Preservation Manifestations in Tourism Policy Development in Bali</p> <p>Ni Luh Gede HADRIANI, I Putu GELGEL, I Putu Sastra WIBAWA</p> | 2263 |
| 25 | <p>Potency and Development Strategy of Sungai Bersejarah Mangrove Ecotourism, Siak Regency</p> <p>Irwan EFFENDI, Nursyirwani NURSYIRWANI, Warren Pangihutan PANJAITAN, Dessy YOSWATY, Musrifin GHALIB, Muhammad Rizal RAZMAN, Andrizal ANDRIZAL</p> | 2272 |

Call for Papers Spring Issues 2022 Journal of Environmental Management and Tourism

Journal of Environmental Management and Tourism is an interdisciplinary research journal, aimed to publish articles and original research papers that should contribute to the development of both experimental and theoretical nature in the field of Environmental Management and Tourism Sciences.

Journal will publish original research and seeks to cover a wide range of topics regarding environmental management and engineering, environmental management and health, environmental chemistry, environmental protection technologies (water, air, soil), pollution reduction at source and waste minimization, energy and environment, modeling, simulation and optimization for environmental protection; environmental biotechnology, environmental education and sustainable development, environmental strategies and policies, etc. This topic may include the fields indicated above, but are not limited to these.

Authors are encouraged to submit high quality, original works that discuss the latest developments in environmental management research and application with the certain scope to share experiences and research findings and to stimulate more ideas and useful insights regarding current best-practices and future directions in environmental management.

Journal of Environmental Management and Tourism is indexed in SCOPUS, RePEc, CEEOL, ProQuest, EBSCO and Cabell Directory databases.

All the papers will be first considered by the Editors for general relevance, originality and significance. If accepted for review, papers will then be subject to double blind peer review.

Deadline for submission:	1 st of February 2022
Expected publication date:	March 2022
Website:	https://journals.aserspublishing.eu/jemt
E-mail:	jemt@aserspublishing.eu

To prepare your paper for submission, please see full author guidelines in the following file:
[JEMT Full Paper Template.docx](#), then send it via email at jemt@aserspublishing.eu.



DOI: [https://doi.org/10.14505/jemt.12.8\(56\).16](https://doi.org/10.14505/jemt.12.8(56).16)

Geriatric Problems in Medical Tourism

Mikhail A. OSADCHUK

Federal State Autonomous Educational Institution of Higher Education I.M. Sechenov First Moscow State Medical University of the Ministry of Health of the Russian Federation - Sechenov University, Russia
osadchuk.mikhail@yandex.ru

Maxim V. TRUSHIN

Kazan Federal University, Russia
mtrushin@mail.ru

Karina S. SOLODENKOVA

Federal State Autonomous Educational Institution of Higher Education I.M. Sechenov First Moscow State Medical University of the Ministry of Health of the Russian Federation - Sechenov University, Russia
ksolodenkova@mail.ru

Natal'ya V. KIREEVA

Federal State Autonomous Educational Institution of Higher Education I.M. Sechenov First Moscow State Medical University of the Ministry of Health of the Russian Federation - Sechenov University, Russia
kireeva_nat@inbox.ru

Suggested Citation:

Osadchuk, M.A., Trushin, M.V., Solodenkova, K.S., Kireeva, N.V. (2021). Geriatric Problems in Medical Tourism. *Journal of Environmental Management and Tourism*, (Volume XII, Winter), 8(56): 2177 - 2187. DOI:[10.14505/jemt.v12.8\(56\).16](https://doi.org/10.14505/jemt.v12.8(56).16)

Article's History:

Received 27th of August 2021; Received in revised form 19th of September 2021; Accepted 22nd of October 2021; Published 27th of December 2021. Copyright © 2021 by ASERS® Publishing. All rights reserved.

Abstract:

Tourism activities have become an important part of daily life worldwide, with tourism turning into one of the largest global industries. Despite this wide recognition, tourism and tourist travels of old people as health preservation factors did not receive sufficient coverage in academic research on aging. However, it should be noted that tourism is a pivotal healthcare activity that improves the wellbeing of old people and promotes healthy aging. This is why health tourism for aged people will eventually become an essential aspect of healthy aging and an attractive tendency of the tourism industry (and medical tourism in particular) in the following decades. Tourism gives people the opportunity to take a break from everyday routine, improve their health and establish a restorative social environment, so aged people tend to associate tourism with quality of life. People who travel both online and offline do not simply learn to use these technologies: they learn to live in those two realms. Thus, engagement in tourism is an important healthcare activity that improves the wellbeing of old people and effectively promotes healthy aging.

Keywords: aging; tourism; health tourism; nature tourism; digital tourism.

JEL Classification: I10; Z32.

1. Geriatrics as a Global Issue

The demographic situation worldwide is going through concerning social changes, such as the aging of the population. The United Nations (UN) forecasts that by 2050, the global population will reach 10 billion people, with about twenty percent of them being at least 60 years of age (United Nations 2015a). The 2019 report published by the European Commission provides evidence that the number of European Union (EU) citizens aged 65 or more will grow from 101 million in 2018 to 149 million in 2050. It is estimated that during this period, the number of EU

citizens aged 75-84 and 65-74 will increase by 60.5% and 17.6%, respectively. By 2050, the number of EU residents under 50 will drop 9.6% (Strandell and Wolf 2019).

Aging is a natural process that involves physical, psychological, and social transformations; it is a global issue that requires coordinated efforts on international, national, regional, and local levels, as well as profound economic and social restructuring (Álvarez-García *et al.* 2018). According to A. Walker (2009), active aging has been considered the principal global strategy and a response to population aging.

The wellbeing of aged people is determined by their social and economic status; promoting their occupational engagement is an effective way to ensure their financial stability and establish a favorable environment for sustainable national development (Carmichael and Ercolani 2015; Finch 2014). Besides, thanks to healthy lifestyle achievements, as well as scientific and technological breakthroughs, people who in their 60s are no longer considered “old” and can fully participate in professional activities (Nagarajan and Sixsmith 2021). However, helping aged people to maintain their occupational pursuits can be a challenging task, as they often suffer from health problems and lack technological skills (Nagarajan *et al.* 2019). Nevertheless, in most countries with an aging population, the OECD (Organisation for Economic Co-operation and Development), the World Bank, the World Health Organization (WHO), and the UN focus on developing and implementing policies that extend the working life (OECD 2018a; OECD 2018b; OECD 2018c). As the current number of people aged 65 and above is unprecedented, increasing the employment rate within this group is a global political task of utmost importance.

Meeting the demands of the aging population includes preventing diseases and maintaining wellbeing by expanding social contacts, providing access to qualified medical assistance, facilitating digital healthcare methods, and supporting individual and social independence. This proactive, user-based system helps citizens and their informal custodians take more responsibility for health and wellbeing and get more information and healthy lifestyle guidelines to help people remain active and healthy as long as possible (Hossin, Björk and Koupil 2020; Tziraki *et al.* 2020).

2. Relevant Issues of Tourism Activities Among Aged People

The growing number of old people leads to an increase in the number of aged tourists. As of now, aged people comprise a large share of international tourists; the World Tourism Organization estimates that by 2030, the number of international tourists of old age will reach 300-600 million people (Tung and Ritchie 2011). This steady growth demonstrates that tourism activities help aged people maintain complete physical and mental comfort, expand their knowledge, and effectively manage their leisure time.

As we study the main issues of tourism activities among old people, we must note that this age group is going through numerous changes in their mobility skills, related to their lifestyle and health status in the first decades of their lives (Strandell and Wolf 2019). Aging always causes the decrease of muscular weight, mainly due to physical inactivity. It is harder for old people to adapt to external factors, especially stressful ones, and it takes longer for them to regain their homeostasis. Other typical changes are related to blood chemistry, arterial pressure, and body temperature. Transformations in the nerve system functioning include emotional lability, memory deterioration, reduced ability to focus, and general mental health deterioration; these factors must be taken into account when providing healthcare guidelines to old people (Osiński 2003; Paterson, Jones and Rice 2007).

Well-timed preventive measures, including health tourism as physical activity, are effective against early disabilities of aged people or deterioration of already existing issues. Some studies show that physical activity can significantly decrease the risk of death (Lee 2020; Ramakrishnan *et al.* 2021), given that low mobility is a risk factor for the population in general (van der Ploeg *et al.* 2012). This is important because physically prepared aged people are more independent, self-sufficient, and capable of functioning unassisted by social workers or family members (Drygas *et al.* 2013; Ignasiak *et al.* 2017).

Upholding a stable level of coordination and balance reduces the risk of falls - the factor that poses the greatest threat to old people both in everyday life and during their travels. If they are fit enough, aged people can continue their daily activities, go hiking and engage in various types of health tourism (Kupczyk 2015; Umiastowska and Kupczyk 2020). Overcoming physical inactivity can increase global life expectancy by 0.68 years (Lee *et al.* 2012). Thus, developing optimal programs to sustain independence and safe mobility has become one of the main healthcare initiatives, especially for aging and old people (Benjuya, Melzer and Kaplanski 2004; Rogers 2003). Physical preparedness is one of the principal measures that should be taken to improve the quality of life of aged people, making them capable of independent mobility regardless of their place of residence (Kasović, Štefan and Zvonar 2020).

Scientific literature provides numerous evidence that tourism has a positive impact on life satisfaction, physical and mental wellbeing (Chen and Petrick 2013). Tourism offers a distraction from mundane routine and

allows trying out something new and establishing a restorative social environment (Sirgy *et al.* 2011). The systemic review of 363 articles made by B.D. Newman *et al.* (Newman, Tay, and Diener 2014) distinguishes five main psychological mechanisms that can help sustain the wellbeing of aged people: detachment, relaxation, autonomy, mastery, meaning, and affiliation. It is also assumed that aged people may have a unique set of motives for travel that include nostalgia, friendship, learning, escapism, consciousness, status improvement, and physical stimulation (Cleaver and Muller 2002). Some studies demonstrate a strong functional correlation between the traveling experience of aged people, their quality of life (Kim, Woo, and Uysal 2015; Woo, Kim, and Uysal 2016), and self-assessment of health (Gu *et al.* 2016). Besides, preference for group travels, travel insurance, and loyalty to the destination give tourists a feeling of security that lowers old people's concerns about traveling activities (Kock *et al.* 2020).

Thus, tourism activities have become a major part of daily life worldwide, with tourism turning into one of the largest global industries (Feng and Wang 2020). Despite this wide recognition, tourism and tourist travels of old people as health preservation factors did not receive sufficient coverage in academic research on aging (Ferrer *et al.* 2016; Hsu, Cai, and Wong 2007; Kim, Woo, and Uysal 2015).

3. General Problems of Medical Tourism and Potential for Development

Healthcare is an important area of the economy, with health tourism as its principal component being rapidly developed in Europe. Health tourism is directly related to personal wellbeing, individualization of medical services, and services meeting situational healthcare demands (Lindner *et al.* 2021; Osadchuk *et al.* 2021; Osadchuk *et al.* 2020a; Osadchuk *et al.* 2020b).

The increase of aged tourists is associated with post-retirement financial stability, improved quality of life, and better medical assistance to persons with chronic diseases (Flaherty *et al.* 2018; Ramos-Sesma, Górgolas-Hernández Mora, and Ramos-Rincón 2018). However, this tendency causes a higher load on medical workers and agencies providing tourist services. Meanwhile, the deteriorating quality of life of old people, caused by social isolation and challenges in multiple-organ pathology treatment, becomes a significant healthcare challenge (especially during the ongoing COVID-19 pandemic) that requires further assessment (De Luca *et al.* 2021; Iaccarino *et al.* 2020). Thus, the UN 2030 Sustainable Development Goals (United Nations 2015b) call for forming a global alliance to address major social issues, emphasizing healthcare and professional training as ways to combat inequality constraining global development. According to the UN Decade of Healthy Aging concept, life expectancy should be increased by promoting a healthy lifestyle, tackling social isolation, and creating comfortable living conditions for aged people and society in general (WHO Executive Board 2019). The WHO One Health initiative aims to improve healthcare, environment protection, education, science, and professional training, uniting them in a four-step innovation spiral: governments, scientific research and academic communities, industry, and civil society (Acharya, Lin, and Dhingra 2018; Borrmann *et al.* 2020).

The Chinese national strategy, stipulated by Healthy China (2019-2030) program (World Bank and WHO 2019), provisions the smart geriatric care structure that consists of three aspects: smart care for physical wellbeing, smart care for mental health, and smart care for aged people in their lives (Tang *et al.* 2019). Remote, real-time monitoring of aged people's health status can become the technology that will enable smart care for their physical and mental wellbeing in their everyday lives and during travels, especially long-term ones. Smart measures like voice notifications on medications to be administered, animated guides for self-care, and a "one-button" call for assistance will be available at any time to help aged people get back to normal living conditions, upkeep physical wellbeing, and maintain constant control over chronic diseases (Li and Tang 2020).

Many aged tourists suffer from at least one chronic non-infectious disease that requires permanent supervision (LaRocque *et al.* 2012). These pathologies include arterial hypertension, hyperlipidemia, diabetes, and COPD; these diseases are often competitive and require a combined intake of several medications (Eperon and Chappuis 2015). Polymedication during travels can become a challenge, especially due to changes in time zones and any unplanned circumstances (Han and Flaherty 2015). Geriatric tourism should take into consideration the mutual correlation between mental and physical wellbeing: health problems lead to subjective wellbeing deterioration that in its turn further worsens physical health and reduces life expectancy (Diener *et al.* 2017; Martín-María *et al.* 2017). Meanwhile, social isolation and loneliness aged people often have to deal with factors that significantly increase the risk of chronic non-infectious diseases, may cause progression of existing ailments, and limit the effectiveness of therapeutic assistance and preventive measures, including health tourism (Eperon and Chappuis 2015; Malcolm, Frost and Cowie 2019). It is well-known that social isolation and detachment affect the death rate, especially among old people, and pose an even greater risk for them than smoking (Holt-Lunstad *et al.* 2015).

Several studies demonstrate that the most common causes of death among tourists traveling abroad are heart diseases, malignant tumors, and injuries, with infectious diseases comprising only 10% (Brunette 2017; Connolly *et al.* 2017). This calls for a differentiated approach to potential old-aged travelers, who suffer from non-infectious diseases, and making optimal decisions before their journey abroad begins. On the other hand, aged travelers are less adaptable to physiological changes, more vulnerable to extreme climate conditions, and have a slower immune response; these factors may cause a progression of chronic diseases and lower the immune response to vaccines required for traveling (Darrat and Flaherty 2019; Izaks and Westendorp 2003).

It should be noted that at least 30-50% of international tourists of all age groups get an accidental injury or request medical help during their travels (Hill 2006). Tourists traveling to developing countries get twice as many injuries (often fatal) in road accidents, compared to domestic tourists (Behrens and Carroll 2012; Stewart *et al.* 2016). Meanwhile, the medical insurance for aged tourists is more expensive than for other groups due to more health complaints and higher medical expenses. This may dissuade older tourists from getting insurance and consequently damage their health during their journeys (Lee *et al.* 2017).

The prospective cohort study from China and its assessment give evidence that aged people, who traveled at least once in the past two years, demonstrated a lower death rate regardless of the cause of death after the data have been adjusted considering factors like age, sex, residence, family status, lifestyle, smoking, alcohol consumption, regular physical exercises, leisure, diet, BMI, depression, cognitive disorders, chronic diseases (arterial hypertension, diabetes, arthritis, heart diseases, and strokes), oncology, maxillofacial diseases that occurred more than once for the past 6 months, and socioeconomic status (Du *et al.* 2021; Zeng *et al.* 2017). The studies show that upon estimating demographic, socioeconomic, and health behavior variables, it turns out that aged people, who traveled once or several times for the past two years, had 20% fewer cases of health deterioration (odds ratio: 0.80, $P < 0.01$) (Gu *et al.* 2016). Sufficient physical activity is a safeguard against mortality among aged people (China Statistics 2020; Kobayashi *et al.* 2021). This is why old people with some experience in natural tourism are more prone to physical and psychological comfort. A meta-analysis claims that greenery has a positive effect on reducing the general risk of death (RR: 0.99, 95% CI: 0.97–1.00) (Partridge, Deelen, and Slagboom 2018). A Chinese study of 23 mainland provinces, adjusted by main demographic characteristics, lifestyle, health factors, and socioeconomic status, reveals that upon adjusting all the covariates, older tourists have a 27% lower risk of death compared to aged people with no tourist experience (Du *et al.* 2021). Furthermore, aged tourists have the lowest risk of death among their age group, regardless of regular physical exercise and leisure. This proves that regular tourism helps reduce mortality rates among aged people.

Thus, tourism is a pivotal healthcare activity that improves the wellbeing of old people and promotes healthy aging. Health tourism for aged people will become an integral aspect of healthy aging and an attractive tendency of the tourism industry (and medical tourism in particular) in the following decades.

4. Nature Tourism for the Aged People

The whole point of tourism is to give people the opportunity to interact with nature. Urbanization, exploitation of natural resources, and lifestyle changes harm the quality of life (Capaldi *et al.* 2015; Pitkänen, Lehtimäki, and Puhakka 2020). Besides, the ongoing COVID-19 pandemic deteriorates physical, mental, and financial wellbeing; society is dealing with increasing health problems, behavioral disorders, and consequences of substance abuse because extreme and stressful factors always lead to mental issues (Fiorillo and Gorwood 2020). Mankind will eventually get over the pandemic but its detrimental effects on health and wellbeing will remain for long (Prime, Wade and Browne 2020).

Nature tourism is a major part of the global tourism industry (Gu *et al.* 2021). More and more people feel the intuitive need to become the one with nature, to heal their body and mind, as the COVID-19 infection remains a global crisis (Cao 2020). Restoring physical, mental, and social health with the help of natural factors, that were depleted in confined spaces, is described as the global "recovery" concept (Hartig *et al.* 2014; Qiu, Sha and Scott 2021). Scientific literature provides substantial evidence that engagement in nature tourism is an invigorating way to improve the autonomic nervous system functioning among aged people (Chang 2014). The most profound preventive effect can be achieved by interacting with the "unspoiled" colorful nature that helps improve cognitive functions and facilitate post-stress recovery (Bell *et al.* 2018). Green and blue vegetation have demonstrated the most positive effect on health and wellbeing recovery (Bell *et al.* 2018).

Physical activity and the environment incentivize body protection against tumors and oxidants (Cho *et al.* 2018; Malkov *et al.* 2005), improve the lipid panel (Ou *et al.* 2017), increase sensitivity to insulin (Ryan 2010), and reduce muscle inflammation (Aguirre and Villareal 2015). Aged tourists differ from people not engaged in tourism activities by multiple factors: they have a lower percentage of smokers or alcohol consumers, higher socioeconomic

status, normal BMI, compensated chronic disorders, and lower depression rates. Meanwhile, for old people, physical and mental status is one of the main obstacles to engaging in tourism activities (Rowiński *et al.* 2017). In theory, when it comes to regaining strengths, preserving inner resources, and reducing stress levels, tourism can become a major factor that can promote relaxation, detachment, autonomy, and mastery, thus greatly improving the subjective wellbeing and health condition of an aged person (Chen, Petrick, and Shahvali 2016).

It is worth noting that in 2019 alone, over 8 billion people visited nature reserves to relax and recuperate, generating an approximate revenue of 600 billion dollars (Lu *et al.* 2020). However, the data on destination and visitor types demonstrate that usage of nature areas and access to them are largely associated with socioeconomic factors and depend on individual circumstances. Many tourists, including aged people, consider resorts and hot springs to be a perfect destination for improving and maintaining physical health and psychological comfort (Chan, Chiu, and Marafa 2017). The focus on mental recovery is especially important to old people and proves that as the discretionary income of visitors is on the rise, they tend to shift their expectations from material benefits to a more personalized experience (Chen, Huang, and Zhang 2017).

5. Digital and Virtual Tourism for the Aged

Engagement in traditional tourism activities is often constrained by a lack of financial resources and poor health conditions (Hsu *et al.* 2015). Immersive virtual reality (VR) can become the software solution that provides leisure tourism opportunities to such people. VR involves digital modeling that enables old people to interact with the computer-generated artificial environment with the help of special devices (Huang *et al.* 2013). The development of digital tourism changed the perception of the modern world: the real and virtual environments are now equal, and it has become harder to give preference to any of the two. People who travel both online and offline do not simply learn to use these technologies; they learn to live in those two realms ('IT: Tencent 2019 Digital Life Report [EB/OL], 23 May 2019' 2019).

The digital space imitates the real environment, immersing its participant into telepresence and cognitive imagery, free from physical or geographical boundaries (Bogicevic *et al.* 2019). VR technologies enable its users to get the tourism content and feel at one with the virtual environment (Flavián, Ibáñez-Sánchez, and Orús 2019). Digital innovations helped create the so-called "Virtual reality triangle" of immersion, interaction, and imagination related to the digital environment (Rebelo *et al.* 2012). With its help, people can visit museums and various cultural landmarks online (Anderson *et al.* 2016; Subramanian *et al.* 2017) and receive enhanced visual, aural, and contextual signals (Bordnick *et al.* 2005). Thus, digital media helps to successfully make artificial replicas of the real environment.

The regular growth of the aged population leads to the fact that more and more old people live in a collective environment (Statistics Canada 2017a), including nursing homes, long-term care facilities, and facilities offering combined services (Statistics Canada 2017b). Long-term leisure and relaxation programs, implemented in these institutions, are intended to help aged people maintain active learning and social interaction processes that are essential for satisfaction with life and wellbeing in old age (Fiocco *et al.* 2021; Narushima, Liu and Diestelkamp 2018).

Thus, innovative VR technologies establish an engaging tourism environment that allows users to get a three-dimensional experience of the computer-generated environment. VR tourism is of all-encompassing importance, as it removes any physical, financial, or geographic boundaries that prevent old people from lifelong participation in tourism activities.

Conclusion

Participation in tourism activities is an essential healthcare activity that improves the wellbeing of old people and promotes healthy aging. The health tourism market is becoming an integral part of healthy aging and will evolve into an attractive tendency of the tourism industry, particularly medical tourism, in particular) in the following decades.

References

- [1] Acharya, S., Lin, V. and Dhingra, N. 2018. The role of health in achieving the sustainable development goals. *Bulletin of the World Health Organization*, 96(9): 591-591A. DOI: <http://doi.org/10.2471/BLT.18.221432>
- [2] Aguirre, L. E., and Villareal, D. T. 2015. Physical Exercise as Therapy for Frailty. *Nestle Nutrition Institute Workshop Series*, 83: 83–92. DOI: <http://doi.org/10.1159/000382065>

- [3] Álvarez-García, J. et al. 2018. Active Ageing: Mapping of Scientific Coverage. *International Journal of Environmental Research and Public Health*, 15(12): E2727. DOI: <http://doi.org/10.3390/ijerph15122727>
- [4] Anderson, R. et al. 2016. Jump: Virtual reality video. *ACM Transactions on Graphics*, 35(6), 198: 1-13. DOI: <http://doi.org/10.1145/2980179.2980257>
- [5] Behrens, R. H., and Carroll, B. 2012. Travel trends and patterns of travel-associated morbidity. *Infectious Disease Clinics of North America*, 26(3): 791–802. DOI: <http://doi.org/10.1016/j.idc.2012.05.002>
- [6] Bell, S. L. et al. 2018. From therapeutic landscapes to healthy spaces, places and practices: A scoping review. *Social Science and Medicine*, 196: 123–130. DOI: <http://doi.org/10.1016/j.socscimed.2017.11.035>
- [7] Benjuya, N., Melzer, I., and Kaplanski, J. 2004. Aging-induced shifts from a reliance on sensory input to muscle cocontraction during balanced standing. *The Journals of Gerontology. Series A, Biological Sciences and Medical Sciences*, 59(2): 166–171. DOI: <http://doi.org/10.1093/gerona/59.2.M166>
- [8] Bogicevic, V. et al. 2019. Virtual reality presence as a preamble of tourism experience: The role of mental imagery. *Tourism Management*, 74: 55–64. DOI: <https://doi.org/10.1016/j.tourman.2019.02.009>
- [9] Bordnick, P. S. et al. 2005. Virtual reality cue reactivity assessment in cigarette smokers. *Cyberpsychology and Behavior: The Impact of the Internet, Multimedia and Virtual Reality on Behavior and Society*, 8(5): 487–492. DOI: <http://doi.org/10.1089/cpb.2005.8.487>
- [10] Borrmann, M., et al. 2020. Strategy for Deployment of Integrated Healthy Aging Regions Based Upon an Evidence-Based Regional Ecosystem-The Styria Model. *Frontiers in Medicine*, 7: 510475. DOI: <http://doi.org/10.3389/fmed.2020.510475>
- [11] Brunette G. W. 2017. *CDC yellow book 2018: Health information for international travel*. Oxford University Press.
- [12] Cao, X. 2020. COVID-19: Immunopathology and its implications for therapy. *Nature Reviews. Immunology*, 20(5): 269–270. DOI: <http://doi.org/10.1038/s41577-020-0308-3>
- [13] Capaldi, C. A. et al. 2015. Flourishing in nature: A review of the benefits of connecting with nature and its application as a wellbeing intervention. *International Journal of Wellbeing*, 5(4): 1–16. DOI: <https://doi.org/10.5502/ijw.v5i4.449>
- [14] Carmichael, F., and Ercolani, M. G. 2015. Age-training gaps across the European Union: How and why they vary across member states. *The Journal of the Economics of Ageing*, 6: 163–175. DOI: <https://doi.org/10.1016/j.jeoa.2015.04.002>
- [15] Chan, C.-S., Chiu, H. Y., and Marafa, L. M. 2017. The Mainland Chinese market for nature tourism in Hong Kong. *Tourism Geographies*, 19(5): 801–822. DOI: <http://doi.org/10.1080/14616688.2017.1360387>
- [16] Chang, L.-C. 2014. The relationship between nature-based tourism and autonomic nervous system function among older adults. *Journal of Travel Medicine*, 21(3): 159–162. DOI: <http://doi.org/10.1111/jtm.12108>
- [17] Chen, C.-C., and Petrick, J. F. 2013. Health and Wellness Benefits of Travel Experiences: A Literature Review. *Journal of Travel Research*, 52(6): 709–719. DOI: <http://doi.org/10.1177/0047287513496477>
- [18] Chen, C.-C., Petrick, J. F., and Shahvali, M. 2016. Tourism Experiences as a Stress Reliever: Examining the Effects of Tourism Recovery Experiences on Life Satisfaction. *Journal of Travel Research*, 55(2): 150–160. DOI: <http://doi.org/10.1177/0047287514546223>
- [19] Chen, G., Huang, S. (Sam), and Zhang, D. 2017. Understanding Chinese vacationers' perceived destination restorative qualities: Cross-cultural validation of the perceived destination restorative qualities scale. *Journal of Travel and Tourism Marketing*, 34(8): 1115–1127. DOI: <http://doi.org/10.1080/10548408.2017.1298494>
- [20] Cho, J. et al. 2018. Physical activity and all-cause mortality in Korean older adults. *Annals of Human Biology*, 45(4): 337–345. DOI: <http://doi.org/10.1080/03014460.2018.1478448>
- [21] Cleaver, M., and Muller, T. E. 2002. I Want to Pretend I'm Eleven Years Younger: Subjective Age and Seniors' Motives for Vacation Travel. *Social Indicators Research*, 60(1): 227–241. DOI: <http://doi.org/10.1023/A:1021217232446>

- [22] Connolly, R., Prendiville, R., Cusack, D., and Flaherty, G. 2017. Repatriation of human remains following death in international travellers. *Journal of Travel Medicine*, 24(2): 82. DOI: <http://doi.org/10.1093/jtm/taw082>
- [23] Darrat, M., and Flaherty, G. T. 2019. Retrospective analysis of older travellers attending a specialist travel health clinic. *Tropical Diseases, Travel Medicine and Vaccines*, 5: 17. DOI: <http://doi.org/10.1186/s40794-019-0094-8>
- [24] De Luca, V., et al. 2021. "One Health" Approach for Health Innovation and Active Aging in Campania (Italy). *Frontiers in Public Health*, 9: 360. DOI: <http://doi.org/10.3389/fpubh.2021.658959>
- [25] Diener, E., Pressman, S. D., Hunter, J., and Delgadillo-Chase, D. 2017. If, Why, and When Subjective Well-Being Influences Health, and Future Needed Research. *Applied Psychology. Health and Well-Being*, 9(2): 133–167.
- [26] Drygas, W. et al. 2013. Epidemiology of physical activity in adult Polish population in the second decade of the 21st century. Results of the NATPOL 2011 study. *International Journal of Occupational Medicine and Environmental Health*, 26(6): 846–855. DOI: <http://doi.org/10.2478/s13382-013-0160-9>
- [27] Du, M., Tao, L., Liu, M., and Liu, J. 2021. Tourism experiences and the lower risk of mortality in the Chinese elderly: A national cohort study. *BMC Public Health*, 21(1): 996. DOI: <http://doi.org/10.1186/s12889-021-11099-8>
- [28] Eperon, G., and Chappuis, F. 2015. Elderly travellers: Review and advices. *Revue Medicale Suisse*, 11(473): 1028–1032.
- [29] Feng, W., and Wang, P. 2020. Research Upon the Relativity Between Digital Media and Tourism. In A. Marcus and E. Rosenzweig (Eds.). *Case Studies in Public and Personal Interactive Systems*, 12202: 594–607. DOI: http://doi.org/10.1007/978-3-030-49757-6_43
- [30] Ferrer, J. G. et al. 2016. Social Tourism and Healthy Ageing. *International Journal of Tourism Research*, 18(4): 297–307. DOI: <http://doi.org/10.1002/itr.2048>
- [31] Finch, N. 2014. Why are women more likely than men to extend paid work? The impact of work-family life history. *European Journal of Ageing*, 11(1): 31–39. DOI: <http://doi.org/10.1007/s10433-013-0290-8>
- [32] Fiocco, A. J. et al. 2021. Virtual tourism for older adults living in residential care: A mixed-methods study. *PloS One*, 16(5): e0250761. DOI: <http://doi.org/10.1371/journal.pone.0250761>
- [33] Fiorillo, A., and Gorwood, P. 2020. The consequences of the COVID-19 pandemic on mental health and implications for clinical practice. *European Psychiatry: The Journal of the Association of European Psychiatrists*, 63(1): e32. DOI: <http://doi.org/10.1192/j.eurpsy.2019.3>
- [34] Flaherty, G. T., Rossanese, A., Steffen, R., and Torresi, J. 2018. A golden age of travel: Advancing the interests of older travellers. *Journal of Travel Medicine*, 25(1). DOI: <http://doi.org/10.1093/jtm/tay088>
- [35] Flavián, C., Ibáñez-Sánchez, S., and Orús, C. 2019. The impact of virtual, augmented and mixed reality technologies on the customer experience. *Journal of Business Research*, 100: 547–560. DOI: <http://doi.org/10.1016/j.jbusres.2018.10.050>
- [36] Gu, D. et al. 2016. Tourism Experiences and Self-Rated Health Among Older Adults in China. *Journal of Aging and Health*, 28(4): 675–703. DOI: <http://doi.org/10.1177/0898264315609906>
- [37] Gu, X. et al. 2021. Evaluating Residents' Perceptions of Nature-Based Tourism with a Factor-Cluster Approach. *Sustainability*, 13(1): 199. DOI: <http://doi.org/10.3390/su13010199>
- [38] Han, C. T. J., and Flaherty, G. 2015. Profile of Travelers with Preexisting Medical Conditions Attending a Specialist Travel Medicine Clinic in Ireland. *Journal of Travel Medicine*, 22(5): 312–317. DOI: <http://doi.org/10.1111/jtm.12221>
- [39] Hartig, T., Mitchell, R., de Vries, S., and Frumkin, H. 2014. Nature and health. *Annual Review of Public Health*, 35: 207–228. DOI: <http://doi.org/10.1146/annurev-publhealth-032013-182443>
- [40] Hill, D. R. 2006. The burden of illness in international travelers. *The New England Journal of Medicine*, 354(2): 115–117. DOI: <http://doi.org/10.1056/NEJMp058292>

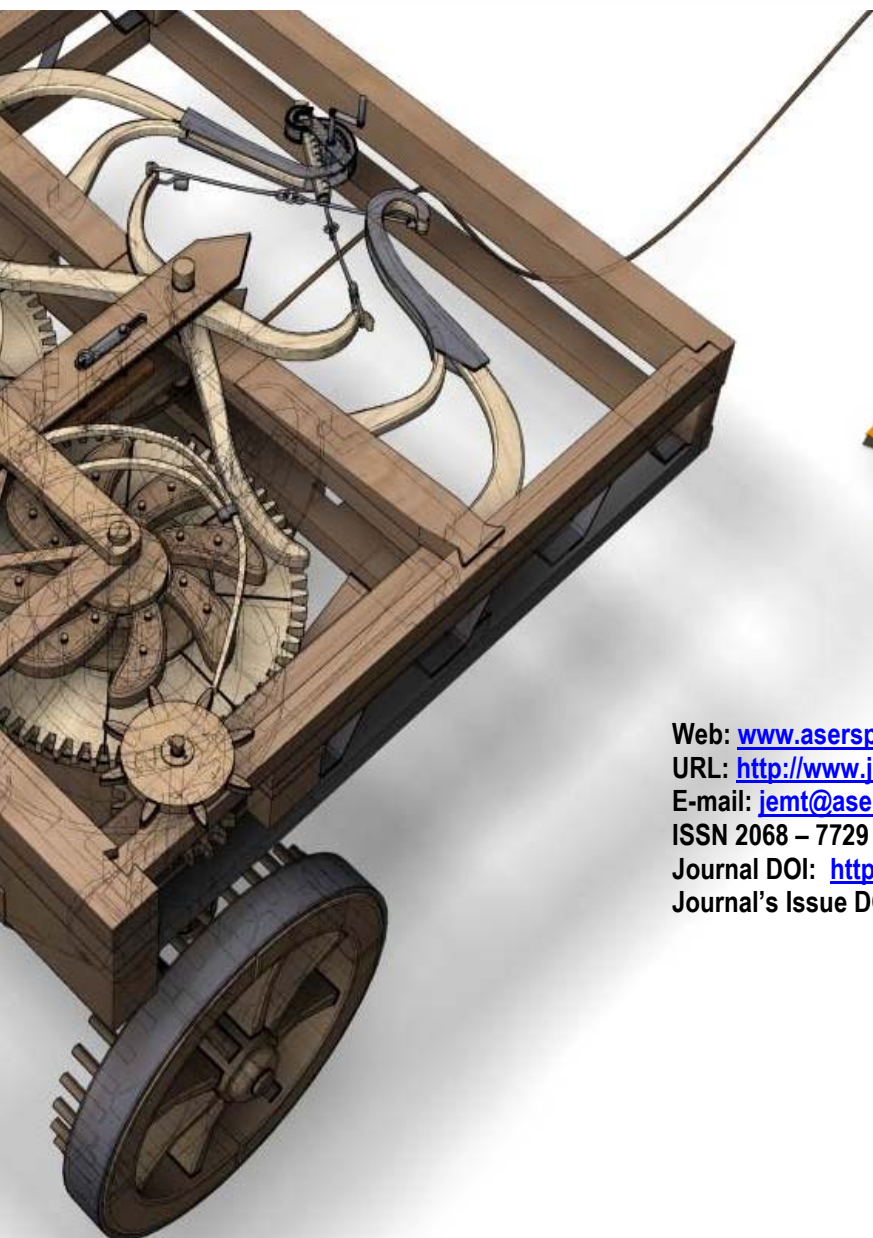
- [41] Holt-Lunstad, J. *et al.* 2015. Loneliness and social isolation as risk factors for mortality: A meta-analytic review. *Perspectives on Psychological Science: A Journal of the Association for Psychological Science*, 10(2): 227–237. DOI: <http://doi.org/10.1177/1745691614568352>
- [42] Hossin, M. Z., Björk, J., and Koupil, I. 2020. Early-life social and health determinants of adult socioeconomic position: Associations and trends across generations. *Journal of Epidemiology and Community Health*, 74(5): 412–420. DOI: <http://doi.org/10.1136/jech-2019-213209>
- [43] Hsu, C. H. C., and Kang, S. K. 2009. Chinese Urban Mature Travelers' Motivation and Constraints by Decision Autonomy. *Journal of Travel and Tourism Marketing*, 26(7): 703–721. DOI:<http://doi.org/10.1080/10548400903284537>
- [44] Hsu, C. H. C., Cai, L. A., and Wong, K. K. F. 2007. A model of senior tourism motivations—Anecdotes from Beijing and Shanghai. *Tourism Management*, 28(5): 1262–1273. DOI:<https://doi.org/10.1016/j.tourman.2006.09.015>
- [45] Huang, Y.-C., Backman, S. J., Backman, K. F., and Moore, D. 2013. Exploring user acceptance of 3D virtual worlds in travel and tourism marketing. *Tourism Management*, 36: 490–501. DOI:<http://doi.org/10.1016/j.tourman.2012.09.009>
- [46] Iaccarino, G. *et al.* 2020. Age and Multimorbidity Predict Death Among COVID-19 Patients: Results of the SARS-RAS Study of the Italian Society of Hypertension. *Hypertension (Dallas, Tex.: 1979)*, 76(2): 366–372. DOI: <http://doi.org/10.1161/HYPERTENSIONAHA.120.15324>
- [47] Ignasiak, Z. *et al.* 2017. Functional capacities of Polish adults of 60-87 years and risk of losing functional independence. *Annals of Human Biology*, 44(6): 502–509. DOI:<http://doi.org/10.1080/03014460.2017.1328071>
- [48] Izaks, G. J., and Westendorp, R. G. J. 2003. Ill or just old? Towards a conceptual framework of the relation between ageing and disease. *BMC geriatrics*, 3: 7. DOI: <http://doi.org/10.1186/1471-2318-3-7>
- [49] Kasović, M., Štefan, L., and Zvonař, M. 2020. Domain-Specific and Total Sedentary Behavior Associated with Gait Velocity in Older Adults: The Mediating Role of Physical Fitness. *International Journal of Environmental Research and Public Health*, 17(2): E593. DOI: <http://doi.org/10.3390/ijerph17020593>
- [50] Kazeminia, A., Del Chiappa, G., and Jafari, J. 2015. Seniors' Travel Constraints and Their Coping Strategies. *Journal of Travel Research*, 54(1): 80–93. DOI: <http://doi.org/10.1177/0047287513506290>
- [51] Kim, H., Woo, E., and Uysal, M. 2015. Tourism experience and quality of life among elderly tourists. *Tourism Management*, 46: 465–476. DOI: <http://doi.org/10.1016/j.tourman.2014.08.002>
- [52] Kobayashi, T. *et al.* 2021. Prospective Study of Engagement in Leisure Activities and All-Cause Mortality Among Older Japanese Adults. *Journal of Epidemiology*. DOI: <http://doi.org/10.2188/jea.JE20200427>
- [53] Kock, F. *et al.* 2020. Understanding the COVID-19 tourist psyche: The Evolutionary Tourism Paradigm. *Annals of Tourism Research*, 85: 103053. DOI: <http://doi.org/10.1016/j.annals.2020.103053>
- [54] Kupczyk, J. 2015. The Importance of Rehabilitation at Rehabilitation and Improvement Stays for the Functional Fitness of Older People. PhD diss., Academy of Physical Education Eugeniusz Piasecki, Poznań, Poland.
- [55] LaRocque, R. C., *et al.* 2012. Global TravEpiNet: A national consortium of clinics providing care to international travelers--analysis of demographic characteristics, travel destinations, and pretravel healthcare of high-risk US international travelers, 2009-2011. *Clinical Infectious Diseases: An Official Publication of the Infectious Diseases Society of America*, 54(4), 455–462. DOI: <http://doi.org/10.1093/cid/cir839>
- [56] Lee, I.-M. *et al.* 2012. Effect of physical inactivity on major non-communicable diseases worldwide: An analysis of burden of disease and life expectancy. *Lancet*, 380(9838): 219–229. DOI: [http://doi.org/10.1016/S0140-6736\(12\)61031-9](http://doi.org/10.1016/S0140-6736(12)61031-9)
- [57] Lee, J. 2020. Associations between Physical Activity and Liver Cancer Risks and Mortality: A Systematic Review and Meta-Analysis. *International Journal of Environmental Research and Public Health*, 17(23): E8943. DOI: <http://doi.org/10.3390/ijerph17238943>

- [58] Lee, T. K. *et al.* 2017. Guidelines for the prevention of travel-associated illness in older adults. *Tropical Diseases, Travel Medicine and Vaccines*, 3: 10. DOI: <http://doi.org/10.1186/s40794-017-0054-0>
- [59] Li, S., and Tang, Y. 2020. A Simple Framework of Smart Geriatric Nursing considering Health Big Data and User Profile. *Computational and Mathematical Methods in Medicine*, 2020: 5013249. DOI:<http://doi.org/10.1155/2020/5013249>
- [60] Lindner, S., *et al.* 2021. Development of a Binational Framework for Active and Healthy Ageing (AHA) Bridging Austria and Slovenia in a Thermal Spa Region. *International Journal of Environmental Research and Public Health*, 18(2): E639. DOI: <http://doi.org/10.3390/ijerph18020639>
- [61] Lu, N. *et al.* 2020. The Possibility of Sustainable Urban Horticulture Based on Nature Therapy. *Sustainability*, 12(12): 5058. DOI: <http://doi.org/10.3390/su12125058>
- [62] Malcolm, M., Frost, H., and Cowie, J. 2019. Loneliness and social isolation causal association with health-related lifestyle risk in older adults: A systematic review and meta-analysis protocol. *Systematic Reviews*, 8(1): 48. DOI: <http://doi.org/10.1186/s13643-019-0968-x>
- [63] Malkov, S. V. *et al.* 2005. Antitumor features of *Bacillus oligonitrophilus* KU-1 strain. *Journal of Microbiology, Immunology, and Infection*, 38(2): 96–104.
- [64] Martín-María, N. *et al.* 2017. The Impact of Subjective Well-being on Mortality: A Meta-Analysis of Longitudinal Studies in the General Population. *Psychosomatic Medicine*, 79(5): 565–575. DOI:<http://doi.org/10.1097/PSY.0000000000000444>
- [65] Nagarajan, N. R., and Sixsmith, A. 2021. Policy Initiatives to Address the Challenges of an Older Population in the Workforce. *Ageing International*. DOI: <http://doi.org/10.1007/s12126-021-09442-w>
- [66] Nagarajan, N. R., Wada, M., Fang, M. L., and Sixsmith, A. 2019. Defining organizational contributions to sustaining an ageing workforce: A bibliometric review. *European Journal of Ageing*, 16(3): 337–361. DOI:<http://doi.org/10.1007/s10433-019-00499-w>
- [67] Narushima, M., Liu, J., and Diestelkamp, N. 2018. Lifelong learning in active ageing discourse: Its conserving effect on wellbeing, health and vulnerability. *Ageing and Society*, 38(4): 651–675. DOI:<http://doi.org/10.1017/S0144686X16001136>
- [68] Newman, D. B., Tay, L., and Diener, E. 2014. Leisure and Subjective Well-Being: A Model of Psychological Mechanisms as Mediating Factors. *Journal of Happiness Studies*, 15(3): 555–578. DOI:<http://doi.org/10.1007/s10902-013-9435-x>
- [69] Osadchuk, M. A. *et al.* 2020b. Rehabilitation Tourism Opportunities in the Russian Federation for Recovering COVID-19 Patients. *Journal of Environmental Management and Tourism*, 11(7): 1871–1876. DOI:[https://doi.org/10.14505/jemt.v11.7\(47\).25](https://doi.org/10.14505/jemt.v11.7(47).25)
- [70] Osadchuk, M. A., Osadchuk, A. M., Mironova, E. D., and Solodenkova, K. S. 2021. Global and Russian Reproductive Care in the Context of Medical Tourism: Ethical, Social, Economic and Political Issues. *Journal of Environmental Management and Tourism*, 12(6): 1537–1549. DOI:[https://doi.org/10.14505/jemt.v12.6\(54\).10](https://doi.org/10.14505/jemt.v12.6(54).10)
- [71] Osadchuk, M. A., Osadchuk, A. M., Solodenkova, K. S., and Trushin, M. V. 2020a. Health Medical Tourism: The Present and the Future. *Journal of Environmental Management and Tourism*, 11(4): 809–818. DOI:[https://doi.org/10.14505/jemt.v11.4\(44\).04](https://doi.org/10.14505/jemt.v11.4(44).04)
- [72] Osiński, W. 2003. *Anthropomotrics*. University of Physical Education Publishing.
- [73] Ou, S.-M., Chen, Y.-T., Shih, C.-J., and Tarng, D.-C. 2017. Impact of physical activity on the association between lipid profiles and mortality among older people. *Scientific Reports*, 7(1): 8399. DOI:<http://doi.org/10.1038/s41598-017-07857-7>
- [74] Partridge, L., Deelen, J., and Slagboom, P. E. 2018. Facing up to the global challenges of ageing. *Nature*, 561(7721): 45–56. DOI: <http://doi.org/10.1038/s41586-018-0457-8>
- [75] Paterson, D. H., Jones, G. R., and Rice, C. L. 2007. Ageing and physical activity: Evidence to develop exercise recommendations for older adults. *Canadian Journal of Public Health*, 98 Suppl 2: S69–108.

- [76] Pitkänen, K., Lehtimäki, J., and Puhakka, R. 2020. How do Rural Second Homes Affect Human Health and Well-being? Review of Potential Impacts. *International Journal of Environmental Research and Public Health*, 17(18): E6748. DOI: <http://doi.org/10.3390/ijerph17186748>
- [77] Prime, H., Wade, M., and Browne, D. T. 2020. Risk and resilience in family well-being during the COVID-19 pandemic. *The American Psychologist*, 75(5): 631–643. DOI: <http://doi.org/10.1037/amp0000660>
- [78] Qiu, M., Sha, J., and Scott, N. 2021. Restoration of Visitors through Nature-Based Tourism: A Systematic Review, Conceptual Framework, and Future Research Directions. *International Journal of Environmental Research and Public Health*, 18(5): 2299. DOI: <http://doi.org/10.3390/ijerph18052299>
- [79] Ramakrishnan, R., et al. 2021. Objectively measured physical activity and all cause mortality: A systematic review and meta-analysis. *Preventive Medicine*, 143: 106356. DOI: <http://doi.org/10.1016/j.ypmed.2020.106356>
- [80] Ramos-Sesma, V., Górgolas-Hernández Mora, M., and Ramos-Rincón, J. M. 2018. The elderly traveller. *Revista Clínica Espanola*, 218(8): 426–434. DOI: <http://doi.org/10.1016/j.rce.2018.03.017>
- [81] Rebelo, F., Noriega, P., Duarte, E., and Soares, M. 2012. Using virtual reality to assess user experience. *Human Factors*, 54(6): 964–982. DOI: <http://doi.org/10.1177/0018720812465006>
- [82] Rogers, M. E. 2003. Finding the right balance. Developing falls assessment and prevention programs for the aging. *Adv. Phys. Ther. Assist*, 31: 37–39.
- [83] Rowiński, R. et al. 2017. Participation in leisure activities and tourism among older people with and without disabilities in Poland. *Archives of Gerontology and Geriatrics*, 73: 82–88. DOI: <http://doi.org/10.1016/j.archger.2017.07.025>
- [84] Ryan, A. S. 2010. Exercise in aging: Its important role in mortality, obesity and insulin resistance. *Aging Health*, 6(5): 551–563. DOI: <http://doi.org/10.2217/ahe.10.46>
- [85] Sirgy, M. J., Kruger, P. S., Lee, D.-J., and Yu, G. B. 2011. How Does a Travel Trip Affect Tourists' Life Satisfaction? *Journal of Travel Research*, 50(3): 261–275. DOI: <http://doi.org/10.1177/0047287510362784>
- [86] Stewart, B. T. et al. 2016. Road Traffic and Other Unintentional Injuries Among Travelers to Developing Countries. *The Medical Clinics of North America*, 100(2): 331–343. DOI: <http://doi.org/10.1016/j.mcna.2015.07.011>
- [87] Strandell, H., and Wolf, P. 2019. Ageing Europe—Looking at the lives of older people in the EU - Eurostat 2019 report, 157. Available at: http://www.age-platform.eu/sites/default/files/Ageing_Europe-Eurostat_report_2019.pdf
- [88] Subramanian, A., Barnes, J., Vemulapalli, N., and Chhawri, S. 2017. *Virtual Reality Museum of Consumer Technologies*. In J. I. Kantola, T. Barath, S. Nazir, and T. Andre (Eds.). Springer International Publishing.
- [89] Tang, V. et al. 2019. An IoMT-based geriatric care management system for achieving smart health in nursing homes. *Industrial Management and Data Systems*, 119(8): 1819–1840. DOI: <http://doi.org/10.1108/IMDS-01-2019-0024>
- [90] Tung, V. W. S., and Ritchie, J. R. B. 2011. Investigating the Memorable Experiences of the Senior Travel Market: An Examination of the Reminiscence Bump. *Journal of Travel and Tourism Marketing*, 28(3): 331–343. DOI: <http://doi.org/10.1080/10548408.2011.563168>
- [91] Tziraki, C., et al. 2020. Rethinking palliative care in a public health context: Addressing the needs of persons with non-communicable chronic diseases - CORRIGENDUM. *Primary Health Care Research and Development*, 21: e60. DOI: <http://doi.org/10.1017 / S1463423620000602>
- [92] Umiastowska, D., and Kupczyk, J. 2020. Factors Differentiating the Level of Functional Fitness in Polish Seniors. *International Journal of Environmental Research and Public Health*, 17(5): E1699. DOI: <http://doi.org/10.3390/ijerph17051699>
- [93] van der Ploeg, H. P. et al. 2012. Sitting time and all-cause mortality risk in 222 497 Australian adults. *Archives of Internal Medicine*, 172(6): 494–500. DOI: <http://doi.org/10.1001/archinternmed.2011.2174>

- [94] Walker, A. 2009. Commentary: The emergence and application of active aging in Europe. *Journal of Aging and Social Policy*, 21(1): 75–93. DOI: <http://doi.org/10.1080/08959420802529986>
- [95] Woo, E., Kim, H., and Uysal, M. 2016. A Measure of Quality of Life in Elderly Tourists. *Applied Research in Quality of Life*, 11(1): 65–82. DOI: <http://doi.org/10.1007/s11482-014-9355-x>
- [96] Zeng, Y. *et al.* 2017. Survival, disabilities in activities of daily living, and physical and cognitive functioning among the oldest-old in China: A cohort study. *Lancet*, 389(10079): 1619–1629. DOI:[http://doi.org/10.1016/S0140-6736\(17\)30548-2](http://doi.org/10.1016/S0140-6736(17)30548-2)
- [97] China Statistics. 2020. The People's Republic of China 2019. National Economic and social development statistical bulletin. Available at: http://www.stats.gov.cn/english/PressRelease/202002/t20200228_1728917.html
- [98] IT: Tencent 2019 Digital Life Report [EB/OL]. 2019. Available at: <http://www.199it.com/archives/880232.html>
- [99] OECD. 2018a. *Working Better with Age: Japan*. Organisation for Economic Co-operation and Development. Available at: http://www.oecd-ilibrary.org/social-issues-migration-health/working-better-with-age-japan_9789264201996-en
- [100] OECD. 2018b. *Working Better with Age: Korea*. Organisation for Economic Co-operation and Development. Available at: http://www.oecd-ilibrary.org/employment/working-better-with-age-korea_9789264208261-en
- [101] OECD. 2018c. *Ageing and Employment Policies: United States 2018: Working Better with Age and Fighting Unequal Ageing*. Organisation for Economic Co-operation and Development. Available at: http://www.oecd-ilibrary.org/employment/ageing-and-employment-policies-united-states-2018_9789264190115-en
- [102] Statistics Canada. 2017a. A portrait of the population aged 85 and older in 2016 in Canada. Statistics Canada Catalogue no. 98-200-X2016004. Available at: <http://www12.statcan.gc.ca/census-recensement/2016/as-sa/98-200-x/2016004/98-200-x2016004-eng.cfm>
- [103] Statistics Canada. 2017b. Census in brief: Dwellings in Canada. Statistics Canada Catalogue no. 98-200-X2016005. Available at: <http://www12.statcan.gc.ca/census-recensement/2016/as-sa/98-200-x/2016005/98-200-x2016005-eng.cfm>
- [104] United Nations. 2015a. *World population prospects: The 2015 revision, key findings and advance tables*. United Nations.
- [105] United Nations. 2015b. Resolution n. A/70/L.1 adopted by the General Assembly on 25 September 2015. Transforming our world: The 2030 Agenda for Sustainable Development., 35. Available at: http://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_RES_70_1_E.pdf
- [106] WHO Executive Board. 2019. Recommendation n. EB146/23. Report on the Proposal for a Decade of Healthy Ageing 2020–2030. Available at: http://apps.who.int/gb/ebwha/pdf_files/EB146/B146_23-en.pdf
- [107] World Bank and WHO. 2019. *Healthy China: Deepening Health Reform in China*. World Bank. Available at: <http://openknowledge.worldbank.org/handle/10986/31458>

ASERS



 **ASERS**
Publishing

Web: www.aserspublishing.eu

URL: <http://www.journals.aserspublishing.eu/jemt>

E-mail: jemt@aserspublishing.eu

ISSN 2068 – 7729

Journal DOI: <https://doi.org/10.14505/jemt>

Journal's Issue DOI: [https://doi.org/10.14505/jemt.v12.8\(56\).00](https://doi.org/10.14505/jemt.v12.8(56).00)