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Research Article

Daily Walking Improves Living Standards, Health, and Quality of People's Lives

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Abstract

The current paper aims to show the benefits of walking in daily life. The analysis examines indexes of the way and hours of walking. Also, walking has extra benefits when accompanied by good living standards, healthy, and suitable development. The purpose is to export the results of the inhabitants of the towns. The methodology is based on the use of a questionnaire, theoretical and methodology research. The statistics answer five questions about the type, tempo, hours, pedestrian conditions, and the increase in living lives. The daily walk improves the cardio rate, the stamina of the human organization, the mentality, the body, and physical balance. It is a way and technique to build and keep good physical condition. Finally, walking evokes a sense of harmony among the individual or group of individuals walking with the world. People perceive changes, feelings, behaviors, and communication with each other when they walk in a central square, on a street, or in a running race. The policy-making receives decisions for a greener, brighter, low-carbon, healthy, sustainable future on the planet.

Introduction

The planning decisions affect walking conditions ("walkability") and walking activity. They identify various economic impacts of walking [17]. Walking is an action that becomes a daily habit, especially in early and middle adult life. We have much to learn about living in harmony with each other [23]. Walking is a factor in social life, as well as meeting people. Walking gives a sense of change in the roads and squares, energy, and attractiveness in urban life.

The current research examines the dimensions of walking in the inhabitants' economic, social, environmental, and urban planning lives. The towns are a cell of demography. The towns have a daily dialogue between the business stakeholders, citizens, and tourists. In the towns, they coexist with all ages, sexes, and nationalities. This dialogue is personal and internal to each individual but also between the individual and the world. For example, when a person or a group of people crosses a central city square, they interact with music, natural beauty, living conditions, and fashion trends.

Many counties are now focusing on walking policies. The Ireland Walking Strategy and Action Plan 2017-2020, for instance, has been identified to potentially contribute to four of Ireland's National Strategic Outcomes [26]. However, to fully realize the benefits of walking, a multidisciplinary approach is crucial. This approach, which involves professionals from various fields such as policymaking, tourism planning, regional development, and landscape and urban planning, is necessary to create strategies for sustainable walking cities [25]. It is also essential to update walking-related policy with embedded evaluation and governance mechanisms in all local walking systems.

Walking and Healthy Benefits

Walking exercise is the most effective noninvasive therapy for improving walking ability in peripheral artery disease (PAD). This evidence regarding the effects of walking exercise on lower extremity skeletal muscle in PAD [22]. Also, the 2-km test was repeatable,

the most preferable subjectively, and the most accurate in predicting V̇O2max. A fast 2-km walk supplemented with simple measurements is a feasible and accurate alternative for determining the cardiorespiratory fitness of healthy adults [27].

The 24-week exercise program showed that body fat had a significant negative correlation and VO2 max had a significant positive correlation with HMW adiponectin. Among obese middle-aged women, regular exercise increases cardiorespiratory fitness and HMW adiponectin expression [13]. In conclusion, backward locomotion elicits a greater metabolic demand and cardiopulmonary response when walking at a given speed than forward locomotion [1].

Walking and Sustainable Development

Walking is an action that covers sustainable development in the towns. Mainly due to the Nation Union website *https://sdgs.un-.org/2030agenda*

i. Goal 3 Ensure healthy lives and promote well-being for all at all ages,

ii. Goal 11 Make cities and human settlements inclusive, safe, resilient and sustainable,

iii. Goal 16 Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels,

iv. Goal 17 Strengthen the means of implementation and revitalize the global partnership for sustainable development.

Walking is an action that involves healthy living and peaceful examples of life. It is an experience [18]. Towns need to become safer, with great green public spaces. For instance, a group of people who run in the city creates positive emotions, cultivates dialogue, and creates friendships.

Walkable communities, by reducing the need for driving and improving residents' health, offer a promising solution to cut greenhouse gas and other emissions. Urban environments play a significant role in promoting active living and encouraging walking, and this potential can be optimized to create healthier and more sustainable communities [4].

Urban planners and architects have extensively researched walkability: what it means and how it correlates with urban design and the locals' quality of life [7]. Improving walkability, increasing walking activity, and creating more walkable communities provide various economic, social, and environmental benefits. Decision-makers increasingly want more comprehensive evaluation considering a wider range of planning objectives and impacts [17].

Types of Questionnaires

Some consider responding to survey questions a sophisticated cognitive process whereby respondents go through, often iterative, steps to process the information provided by questions and response options [16]. Questionnaires offer an objective means of collecting information about people's knowledge, beliefs, attitudes, and behavior [3].

Every method of data collection has its unique strengths and weaknesses. It is crucial to consider those specific to questionnaires before researching.

This understanding empowers researchers to make informed decisions about their research methods. The importance of stating a priority number of factors expected in a prototypic measure is also emphasized, guiding researchers in their approach [28]. Sometimes, questionnaire research aims to test a hypothesis, further underscoring the need for a thoughtful, strategic approach. This strategic approach, which keeps researchers focused and purposeful, is a recurring theme in the text, as noted by *Patten* (2016) [24].

Questionnaire and Participants

The questionnaire was emailed to students of Georgiou Laboratory *https://www.georgiouacademy.eu/* and the adult inhabitants of many towns in planet. The target group is women and men of all ages (20-70 years old), university students, early professionals, employers. The questions refer to the topics relative to suitable walking, the free and public spaces, the daily hours, the benefits of walking, and the possibility of systematic running. For instance, adult life has many obligations, and systematic walking is a beat of these ages. The question of whether or not the participants would like to run in a race event 5km answers this question. The results of the theoretical and methodological approach are presented in charts.

Research Methodology

The research aims to export results about daily walking, systematic running, and how people approach walking. The pillars of the research are:

1. Sending the questionnaire via email,
2. To create the target group,
3. To collect the data,
4. Express my gratitude to the participants,
5. To analyze the answers,
6. To export results,
7. To present the results

The progress has three levels of design. Each level contains the pillar of the project planning.

(Table 1)

Results

The questions build on the following points. The questions cover the mosaic of the central ideas: sustainable development, the pillar of health, systematic running and walking, and urban conditions.

Questions

1. How many hours do you walk on the day?
2. Walking is done in good conditions (Pedestrian Roads, Green Spaces)?
3. What are the benefits of walking for you?

4. Would you like to participate in a 5 km race?

5. Is walking supposed to contribute to a better standard of living?

Table 1:

Level 1	Level 2	Level 3
Questionnaire	**Participants**	**Results**
Send via email	Create Target Group	Collect the data
Answer the questions	Includes various ages and sexes, nationalities	Analyze the data
Express my gratitude	Participants in the many towns	Classification
	Participants in the many professions	Create Charts

Question 1

Walking is a popular activity among all age groups. The walking offers simple equipment with other activities [9]. The hours of walking per day depend on the distance from school and university at a young age, the job hours, the health conditions, the mentality of people, the allocation of green areas, and the weather. Walking is an activity outdoors and indoors. The activity may take place in the gym or on a close campus. The study of *Macpherson, C., Purcell, C., & Bulley, C*. suggests that walking 10,000 steps slowly may achieve 150 kcals of energy expenditure. While more than 30 min is spent on this task, the intensity is less likely to reach recommended levels. Promotion of graded increases in walking speed may be beneficial [19].

The walking hours per day are the question of the participants.

Question 2

Walking is an outdoor mobility [11]. Supportive neighborhood walking conditions are essential for older people as they age and who, as a group, prefer walking as a form of physical activity [8]. Socially active urban squares and pedestrian streets are highly stimulating. Head movements increase by 71%, and looking down decreases by 54%, compared to environments designed for cars. Underpasses are the least stimulating. Head movements drop by 64%, and time looked down increases by 164% in an underpass, compared to the busiest urban square [11]. The everyday practices of walking vary in purpose, pace, and rhythm and nurture more or less creative and more or less critical relationships to urban space. Walkscapes are rhythmic. Walking practices are constitutive of 'place-ballets.' [21]. The environment plays a vital role in facilitating physical activities and helping to address sedentary behaviors. Walking in greenspaces may offer a more sustainable option, as the primary reward is enhanced emotional well-being through exposure to nature and participation in exercise (*Barton, J., Hine, R., & Pretty, J.* 2009).

Walking is done in good conditions (Pedestrian Roads, Green Spaces)?

Question 3

Whether for transportation or leisure, men and women who walk regularly will likely differ from those who do not. One way in which they differ may be concerning other lifestyle habits. Intuitively, those who walk regularly for leisure will likely have healthier habits [15]. Among adult diabetics, walking at least 2 hours per week was correlated with lower all-cause mortality (39%) and cardiovascular mortality (34%) over eight years of follow-up. However, when isolated from overall physical activity, walking showed no significant association with either mortality or CVD [5,6]. Walking is a low-cost activity associated with a reduced occurrence of obesity, type-2 diabetes, cancer, osteoporosis, cardiovascular diseases, and musculoskeletal disorders, and with improved health outcomes for those who experience these conditions [10].

What are the benefits of walking for you?

Question 4

The transition from daily walking to running 5km or even a marathon is steady progress. The benefits of transforming walking into running in a race are impressive. It is safer to run the race at 5km and 10km in the early beginning. The change of emotions, the internal dialogue with the towns during the race, the implant action, and the healthy competition of runners are some elements of the running race.

Systematic participation in gymnastics training during the early-school period could increase the ability to coordinate and regulate body posture [14]. Some methods to increase systematic athletics and gain wins are methods of strength development, the method of unsatisfactory efforts with a normalized number of repetitions, the method of unsatisfactory efforts with the maximum number of repetitions, the method of dynamic efforts, the shock method, the method of static efforts, the static-dynamic method, the method of circular training, the game method has a beneficial effect on the development of all physical qualities [20].

Would you like to participate in a 5 km race?

Question 5

Urban quality indicators are a helpful tool for city planners and policymakers when planning sustainable neighborhoods. The "A Square in each neighborhood" program in Lisbon City Hall provides good walking environments, appropriate pedestrian infrastructure, green areas, and access to commercial retail and transport hubs to favor liveable, healthy, and sustainable cities. (*Santos, T., et. al*. 2022) Individual responsibility for the environment was set in the Swedish political agenda in 1986. The environmental policy developed according to 'the empty slogan of an "ecological restructuring of industrial society" [12]. The practices of pedestrians within ur-

ban environments can shed light on the current walking status in everyday travel and suggest opportunities for transformative, walkable urban futures [2].

Is walking supposed to contribute to a better standard of living?

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Summary

The purpose of this paper is to teach people about Geography and Geographic Information Systems. The objectives are to construct interactive online maps in a WebGIS environment. Learners have the ability to know, learn, and understand the science of Geographic Information Systems and construct their own maps.

The target group is people of different backgrounds, of many age groups, with or without previous experience with G.I.S. Their subjects vary according to the previous level of education, the type of education and the characteristics of the learner.

The end result of the work is the WEB GIS Mapping tutorial.

Creating Web GIS (Geographic Information Systems) Mapping is one of the most dynamically evolving areas of geoinformatics, offering possibilities for analyzing, visualizing and sharing geographic data over the Internet. This technology allows users to access and interact with geospatial data without the need for specialized software or powerful computing systems.

a) Teaching for G.I.S

It is for learners to learn and know Geographical Information Systems. The tools, such as spatial analysis, digitization, visualization, data modeling.

b) Teaching with G.I.S

It is the main interest of the article. Universities and schools have been engaged in learning GIS for about 2 decades. Teaching with Geographic Information Systems covers public health, transport, immigration. It is a pedagogical tool that cultivates spatial thinking.

This article deals with tourism geography. Geographic Information Systems is considered as a pedagogical tool. Also what are the differences between ArcGIS Desktop and Web G.I.S, what is the impact on students, How does this help improve spatial awareness.

c) The differences between ArcGIS Desktop and Web G.I.S

Despite the similarities, there are many differences between desktop GIS and web GIS other than the delivery medium (desktop applications or web browsers). while office-top GIS is described as fully functional, Web GIS usually refers to limited functions in terms of mapping and spatial analysis that weaken the performance of Web GIS specialized geospatial analysis.

d) Students' spatial perceptual abilities

Spatial thinking skills are directly related to geospatial technologies such as GIS and are the primary concerns of geography teachers and researchers (Marsh et al., 2007). In its report, Learning to Think Spatially, National Research Council (2006) defines spatial thinking as a constructive amalgam of knowledge that contains three aspects, namely the nature of space, methods of representing spatial information—and processes of spatial reasoning.

The Basic Components of Web GIS

Creating a Web GIS involves multiple components that work together in harmony:

1. Data Collection and Preparation: The initial phase involves the collection of geographic data from various sources, such as satellite imagery, GPS data, and spatial databases. This data often needs processing and cleaning to be compatible with Web GIS applications.

2. GIS Software and Development Tools: There are many platforms and tools for building Web GIS applications, such as ArcGIS Online, QGIS, and open source solutions such as Leaflet and OpenLayers. These tools enable the creation of interactive maps and data integration.

3. Server and Database Infrastructure: Powerful servers and databases are required to store and manage the data. Technologies such as PostgreSQL with the PostGIS extension are widely used to store geospatial data.

4. Web Mapping Platforms: These platforms allow the distribution of maps over the internet. Popular platforms include the Google Maps API, Mapbox, and Esri's ArcGIS Online. These platforms provide tools for embedding maps into websites and applications.

5. Online Map Servers (Map Servers): These servers, such as GeoServer and MapServer, provide map services over the Internet. They support protocols such as WMS (Web Map Service) and WFS (Web Feature Service) for distributing cartographic data.

Creating a Web GIS Application

Developing a Web GIS application involves the following steps:

1. Definition of Requirements: The needs of the end users and the types of data to be used are defined. This includes analyzing the functional requirements and characteristics of the application.

2. Database Design: A database is created to store the geographic data. This database must be designed to support rapid data retrieval and analysis.

3. Mapping Platform Selection: The appropriate mapping platform is selected based on the application requirements and available resources.

4. Development of Maps and Applications: Interactive maps are created and integrated into web applications. This may include developing custom widgets, filters, and analysis tools.

5. Testing and Validation: The application is tested to ensure that it works properly and meets user requirements. This includes performance, usability and security testing.

6. Distribution and Maintenance: The application is made available to end users over the internet. Ongoing maintenance is necessary to troubleshoot problems, update data, and add new features.

Benefits and Challenges

Web GISs provide multiple benefits, such as the ease of accessing geographic data from anywhere, the ability to collaborate in real time, and enhancing decision making through data analysis. However, there are also challenges, such as the need for specialized knowledge to develop and manage systems, data security issues, and dependence on internet availability and speed.

Conclusion

Creating Web GIS Mapping is a complex process that combines geoinformatics, software technology and data management. With the continuous advancement of technology and the growing demand for geographic information, Web GIS applications are expected to play an even more important role in our daily lives, offering new possibilities for understanding and analyzing the world around us.

References

1. Adesola A M, Azeez O M (2009) Comparison of cardio-pulmonary responses to forward and backward walking and running. African Journal of Biomedical Research 12(2): 95-100.
2. Babb C (2020) What of a walkable urban future? Towards sustainable institutional design for walking. In Handbook of Sustainable Transport (pp. 100-108). Edward Elgar Publishing.
3. Boynton P M, Greenhalgh T (2004) Selecting, designing, and developing your questionnaire. Bmj 328(7451): 1312-1315.
4. Cubukcu E (2013) Walking for sustainable living. Procedia-Social and Behavioral Sciences 85: 33-42.
5. Diehr P, Hirsch C (2010) Health benefits of increased walking for sedentary, generally healthy older adults: using longitudinal data to approximate an intervention trial. J Gerontol A Biol Sci Med Sci 65(9): 982-989.
6. Distefano N, Leonardi S, Liotta N G (2023) Walking for sustainable cities: Factors affecting users' willingness to walk. Sustainability 15(7): 5684.
7. Farkic J, Peric D, Lesjak M, Petelin M (2015) Urban walking: Perspectives of locals and tourists. Geographica pannonica, 19(4): 212-222.
8. Grant T L, Edwards N, Sveistrup H, Andrew C, Egan M (2010) Inequitable walking conditions among older people: examining the interrelationship of neighbourhood socio-economic status and urban form using a comparative case study. BMC public health, 10: 1-16.
9. Hart J (2009) The health benefits of walking. Alternative and Complementary Therapies 15(1): 7-10.
10. Harries T, Rettie R (2016) Walking as a social practice: dispersed walking and the organisation of everyday practices. Sociol Health Illn 38(6): 874-883.
11. Hillnhütter H (2022) Stimulating urban walking environments–Can we measure the effect?. Environment and Planning B: Urban Analytics and City Science 49(1): 275-289.
12. Ibsen H (2013) Walk the talk for sustainable everyday life: Experiences from eco-village living in Sweden. In Environmental Policy and Household Behaviour (pp. 129-147). Routledge.
13. Kim D Y, Seo B D, Kim D J (2014) Effect of walking exercise on changes in cardiorespiratory fitness, metabolic syndrome markers, and high-molecular-weight adiponectin in obese middle-aged women. J Phys Ther Sci 26(11): 1723-1727.
14. Kochanowicz A, Kochanowicz K, Niespodziński B, Mieszkowski J, Sawicki P (2017) Effects Of Systematic Gymnastic Training On Postural Control In Young And Adult Men. Science of Gymnastics Journal 9(1).
15. Lee I M, Buchner D M (2008) The importance of walking to public health. Med Sci Sports Exerc 40(7): S512-S518.
16. Lietz P (2010) Research into questionnaire design: A summary of the literature. International journal of market research 52(2): 249-272.
17. Litman T (2017) Economic value of walking. In Walking: Connecting Sustainable Transport with Health (pp. 81-98). Emerald Publishing Limited.
18. Loo B P (2021) Walking towards a happy city. Journal of transport geography 93: 103078.
19. Macpherson C, Purcell C, Bulley C (2009) Energy expended when walking 10,000 steps at different speeds. Advances in Physiotherapy 11(4): 179-185.
20. Martynov Y, Koryukaev M, Sobolenko A (2021) Advancing physical training of students for athleticism.
21. Matos Wunderlich F I L I P A (2008) Walking and rhythmicity: Sensing urban space. Journal of urban design 13(1): 125-139.
22. McDermott M M, Dayanidhi S, Kosmac K, Saini S, Slysz J, et al. (2021) Walking exercise therapy effects on lower extremity skeletal muscle in peripheral artery disease. Circ Res 128(12): 1851-1867.
23. Pappas E, Pappas J, Sweeney D (2015) Walking the walk: Conceptual foundations of the Sustainable Personality. Journal of Cleaner Production 86: 323-334.
24. Patten M (2016) Questionnaire research: A practical guide. routledge.
25. Pileri P, Moscarelli R (2021) Cycling & walking for regional development. How slowness regenerates.
26. Power D, Lambe B, Murphy N (2023) S7-3 The contribution of walking policy in Ireland to the global sustainable development agenda. European Journal of Public Health, 33(Supplement_1), ckad 133-035.
27. Oja P, Laukkanen R, Pasanen M, Tyry T, Vuori I (1991) A 2-km walking test for assessing the cardiorespiratory fitness of healthy adults. Int J Sports Med 12(04): 356-362.
28. Rattray J, Jones M C (2007) Essential elements of questionnaire design and development. J Clin Nurs 16(2): 234-243.