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Review

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FROM RECREATION TO ELITE SPORT: CYCLING AS A LIFESTYLE AND ITS IMPACT ON HEALTH, WELL-BEING, AND SOCIAL CONNECTEDNESS

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Abstract: The purpose of this article is to examine cycling as a lifestyle, from leisure to competitive levels, with a focus on the effects it has on people's physical and mental health as well as their social connections within communities. The objective is to investigate the health advantages of regular cycling, such as the prevention of chronic illnesses, the increase of cardiorespiratory endurance, and the strengthening of the musculoskeletal system, by means of a review of pertinent research and the literature currently in publication. Both psychological effects—like stress reduction, improved subjective well-being, and boosted self-confidence—and social aspects—like how cycling contributes to the development of sports culture, community, and social capital—are given special consideration. Examples of cycling competitions, such as the Tour de France, are also analyzed as global sporting events that influence the popularization of cycling and its integration into different spheres of social life. The paper seeks to demonstrate how cycling, in all its forms, represents a powerful instrument for promoting an active and healthy lifestyle.

Keywords: cycling, lifestyle, health, well-being, social connectedness

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Introduction

One of the earliest and most well-liked types of physical exercise and mobility is cycling, which has developed throughout time from a straightforward mode of transportation into a complicated phenomena with important social, cultural, and health ramifications. People of various ages, genders, and physical abilities may participate in it because to its accessibility, affordability, and wide range of applications. Cycling is now more than just a sport or leisure activity; it's a way of life that incorporates exercise into everyday routines, shapes individual and societal identity, and promotes sustainability and health consciousness.

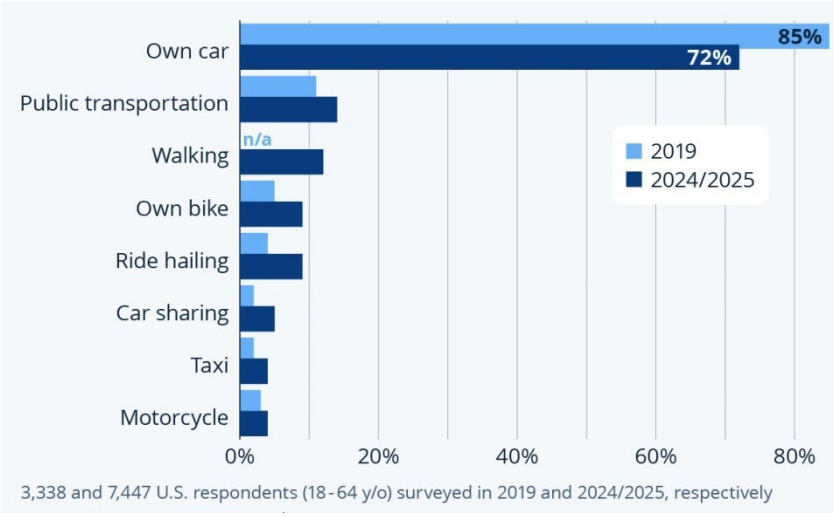
Regular cycling provides physical benefits, including strengthening the cardiovascular system and reducing the risk of chronic diseases (Schwarz et al., 2024). Psychological benefits include stress reduction and improved mental health, as confirmed by the causal link between commuting by bicycle and lower prescription rates for antidepressants and anxiolytics (Berrie et al., 2024). Cycling also provides both health and climate benefits, such as prevented deaths and reduced CO_2 emissions (Schwarz et al., 2024). Active commuting (cycling or walking) is associated with a significantly lower risk of mental and physical illnesses, as well as reduced mortality (Friel, Walsh, & Whyte, 2024).

The social dimension of cycling includes the potential for building and strengthening social ties (Ilievska Kostadinović & Kostadinović, 2025). Group rides, cycling clubs, and local initiatives encourage cooperation, exchange of experiences, and a sense of community belonging (Heeremans et al., 2022). Mass sporting events and prestigious cycling races, such as the Tour de France, represent not only the pinnacle of sporting achievement but also cultural manifestations that inspire millions of people worldwide. These events promote values of perseverance, teamwork, and fair play, while simultaneously raising awareness of the importance of physical activity in everyday life (Dašić, 2024).

Cycling also plays an important role in sustainable mobility. As an environmentally friendly mode of transportation, it reduces harmful gas emissions, improves air quality, and lowers noise levels in urban environments. The development of cycling infrastructure—bike lanes, parking facilities, and safety systems—contributes to greater traffic safety and encourages more people to incorporate this mode of movement into their daily activities. In many cities around the world, cycling is integrated into urban planning strategies as a key element of sustainable development and public health improvement. June 3 has been recognized as World Bicycle Day by the United Nations, a celebration that highlights the advantages of

bicycles as a healthy, affordable, and environmentally friendly means of transport. On this day, people are encouraged to leave their cars and commute by bike. However, in the United States, this remains relatively rare despite its health and traffic benefits. According to Statista Consumer Insights, 72% of Americans commute by car, 14% by public transport, and only 9% by bicycle. Although alternatives to cars have been on the rise since 2019, automobiles still dominate (Figure 1). The low use of bicycles is largely due to the long distances Americans typically travel and the lack of bike-friendly urban planning. Only two U.S. cities are ranked among the world's top 50 for cycling in terms of infrastructure, safety, and riding conditions.

Figure1. Cars Still Dominate the American Commute



Source: Richter, F. (2025). Statista

The multifaceted influence of cycling—from individual health benefits, through psychological well-being and social integration, to ecological advantages and cultural affirmation—makes it a unique activity that transcends the boundaries of sport.

Literature Review

Cycling is becoming more and more acknowledged in the scientific literature of today as an essential component of a healthy lifestyle, with a multifaceted effect on social connectedness, psychological well-being, and physical health. With substantial potential to avoid chronic illnesses and encourage healthy lifestyle choices, the fundamental premise is that frequent riding, whether for leisure or competition, enhances the quality of life for both individuals and communities.

In a narrative review, Logan et al. (2023) analyzed the benefits, risks, barriers, and facilitators of cycling. The authors emphasized that the most significant health benefits include improved cardiorespiratory endurance, reduced risk of cardiovascular disease, and overall enhancement of physical fitness. At the same time, psychological gains such as stress reduction and improved mood were observed, as well as social effects through strengthened community ties and mutual support.

Similarly, Berrie et al. (2024) investigated the effect of daily bicycle commutes on the risk of mental illnesses using an instrumental variable approach. According to their findings, those who frequently ride their bikes to work had a significantly lower chance of experiencing mental health problems, supporting the idea that riding a bicycle has important psychological benefits in addition to its physical ones.

Additional support for these findings is provided by Friel et al. (2024), who, using data from the Scottish Longitudinal Study, determined that walking and cycling as means of daily commuting significantly contribute to the improvement of public health. The authors highlight that such activities should not only be viewed as forms of mobility but also as a daily "dose" of physical activity necessary for the prevention of chronic diseases and the promotion of overall well-being.

In their study, Prince et al. (2025) examined how the improvement of bicycle infrastructure affected the frequency of leisure cycling. According to their findings, expanding bike lanes and enhancing safe riding conditions directly inspire more individuals to include cycling in their free time, which in turn promotes improved health and stronger social relationships.

Lastly, the degree to which recreational cycling might impact modifications in everyday mobility practices was investigated by Sabogal-Cardona et al. (2025). According to the findings, engaging in leisure cycling activities, such as amateur races, may result in cycling being a permanent mode of transportation, which would have long-term beneficial consequences on environmental sustainability and human health. Based on a summary of these findings, it can be said that the scientific community is strongly in agreement about the many advantages of cycling. It becomes clear that it is an activity that can greatly improve mental health, social integration, and individual and group health when supported by social promotion and appropriate infrastructure. As such, it deserves a prominent position in public health plans and sustainable urban development.

Methodology

This research takes the form of a review-analytical study based on the analysis and synthesis of relevant scientific literature, as well as the application of comparative and descriptive-statistical methods. The primary objective is to present cycling as a lifestyle and to assess its impact on physical health, psychological well-being, and social connectedness through the integration of findings from existing empirical and theoretical studies.

The analytical method was employed to systematically examine the content of scientific sources and to identify key concepts and findings related to the health, psychological, and social effects of cycling. Descriptive statistics were used to present quantitative data drawn from relevant studies, with the aim of providing a clearer picture of the prevalence of cycling, the estimation of health benefits, and the assessment of social impacts, without conducting primary field research. This methodological framework enables a comprehensive and well-founded review of existing scientific knowledge, accompanied by a critical reflection and comparison of findings across different research contexts.

Research hypotheses

H1: Cycling as a lifestyle has a significant positive impact on physical health, reducing the risk of chronic diseases and improving overall physical fitness.

H2: Regular engagement in cycling contributes to increased psychological well-being and strengthened social connectedness, regardless of whether it is practiced for recreational or competitive purposes.

Discussion

Implications for Health, Social Connectedness, and the Development of Sports Culture

Cycling is promoted as a vital tool for enhancing sustainable urban mobility, lowering pollution, and enhancing public health. Systematic infrastructure investment alters mobility culture and promotes stronger social connectivity, as evidenced by European city experiences. The primary barriers to cycling's broader adoption are cultural and political rather than technological. Discourses that place more emphasis on user responsibility than on establishing safe riding circumstances have drawn the most

criticism. To sum up, cycling is a resource that is both accessible and ecologically sustainable, and it has the potential to create a society that is more physically active, healthier, and more equitable (Walker, 2017).

One of the main topics of current social and scientific discussions is the effects of sport on social cohesion, health, and the formation of sports culture. It has been demonstrated that regular sports involvement improves psychological well-being, boosts immunity, and helps avoid chronic illnesses, all of which have a good impact on physical and mental health. Sport has a significant impact on fostering social relationships and fostering chances for collaboration, connection, and community growth at levels beyond the individual (Zubić & Milenković, 2024). At the same time, sport fosters values such as discipline, fair play, and tolerance, thereby contributing to the broader cultural and educational context. In this sense, the development of a sports culture is not only a matter of recreation but also an important component of social progress that connects health, social inclusion, and cultural practices into a comprehensive whole (Dašić, 2023c).

Sport engagement is continuously linked to major health and psychosocial consequences, according to research (Jovanović et al., 2023; Čekić, 2024). Regular participation in sports enhances mental health, lessens the symptoms of anxiety and depression, and fortifies social bonds through group activities and mutual support, according to a systematic study by Eather, Wade, Pankowiak, and Eime (2023). This implies that sports are a valuable social resource in addition to being a way to get exercise. One of the most thorough attempts to investigate, in a more global setting, how learning to ride a bicycle affects lifestyle and subsequent patterns of physical activity is the research of Estevan et al. (2025). Conducted as a pooled data analysis across eight countries, the research employed a person-centered approach that allowed the identification of different participant profiles. Key findings highlight that learning to ride a bicycle in childhood is not merely a technical skill but a significant factor in shaping identity and lifelong habits. Participants who mastered this skill earlier demonstrated greater tendencies toward regular cycling, both recreational and utilitarian. In addition, the study emphasized psychological benefits such as self-confidence, autonomy, and social integration, as cycling often serves as an activity that connects individuals within their communities.

Furthermore, a comparative study by Shao (2025) in China and Malaysia confirms that engagement in outdoor sports is a powerful motivational factor driving both health and social interaction. Participants in such activities showed higher levels of social inclusion as well as more positive attitudes toward the shared use of public

spaces. This suggests that sport can be viewed as an instrument for strengthening public health and social capital.

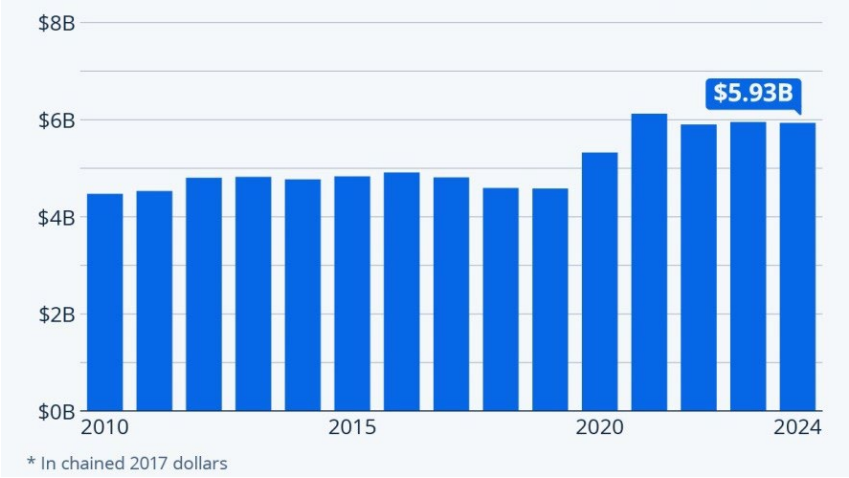
Of particular significance is the study by Osborne (2025), which analyzed a program led by the Māori in New Zealand. The e-bike initiative not only promoted physical activity but also affirmed cultural values and collective identity. This example demonstrates how sport and recreation can be integrated into broader cultural strategies that support social connectedness and the preservation of tradition.

From a theoretical perspective, Merlo (2025) develops the concept of "connectedness" as a pillar of health, emphasizing that social integration is just as important as physical and mental factors of well-being. His findings indicate that sport and physical activities represent a crucial mechanism for building and maintaining these social bonds, thereby directly influencing the quality of life of individuals and communities.

Garrard et al. (2021) conclude by highlighting that cycling in urban settings is a significant cultural phenomena that creates urban identity and encourages sustainable transportation, in addition to being a way to improve public health by lowering pollutants and chronic illnesses. Their results support the notion that cycling is a cultural and health-related activity that integrates ecological, social, and personal advantages. In conclusion, all five studies emphasize the many advantages of physical activity and sport, including enhanced psychological and physical health, social bond strengthening, cultural identity affirmation, and the growth of sports culture (Dašić, Kostadinović, & Kostadinović, 2024). These results provide compelling evidence in favor of the idea that policies pertaining to sustainable development, education, and public health must all include sport. (Dašić, 2023a; Dašić, 2023b).

In the United States, a society strongly oriented toward automobiles, the bicycle plays a relatively minor role compared to much of Europe, where people are far more likely to use bicycles for everyday commuting. During the COVID-19 pandemic, however, when gyms were closed and public transport partially suspended, millions of Americans rediscovered the bicycle as a safe, socially distanced form of physical activity and transport. This "bike boom" caught retailers unprepared, as new bicycles became scarce, further exacerbated by global supply chain constraints caused by the pandemic. According to inflation-adjusted data from the U.S. Bureau of Economic Analysis, Americans spent $6.1 billion on bicycles and related equipment in 2021, nearly 30 percent more than the average of $4.7 billion spent between 2015 and 2019. The pandemic demonstrated that the "bike boom" was not merely a short-lived trend: spending on bicycles and related products remained at a higher level thereafter, averaging $5.9 billion between 2022 and 2024 (Figure 2).

Figure 2. Cycling Shifted to a Higher Gear During Covid



Source: Richter, F. (2025) Cycling Shifted to a Higher Gear During Covid. Statista.

The Role of Infrastructure, Social Initiatives, and Sporting Events in Promoting Cycling as a Lifestyle

In contemporary metropolitan settings, cycling is becoming more and more valued as a lifestyle choice, not just as a leisure activity but also as a way to improve social cohesion, lower pollution, and preserve health. The presence of suitable infrastructure, such as bike lanes, parking lots, and safe traffic solutions, which permit the safe and convenient use of bicycles in daily life, is crucial to its development. Beyond the state of the infrastructure, social initiatives—such as campaigns to educate the public, programs encouraging healthy lifestyles, and neighborhood events—are crucial in getting people to see bicycles as an environmentally friendly form of transportation and exercise. (Ratković et al., 2023). Additionally, sporting events, such as cycling races and mass recreational rides, act as powerful motivational factors, as they not only affirm cycling as a sport but also encourage wider public participation. Through the synergy of infrastructure, initiatives, and events, the foundation is created for recognizing cycling as an integral part of a healthy and sustainable lifestyle culture.

The examined literature repeatedly shows that the best way to promote cycling as a lifestyle is to combine social activities and events with infrastructure measures. According to a scoping review of European research, perceptions of traffic risk serve as deterrents to active mobility, but network connection, segregated bike lanes, and the presence of green spaces are linked to greater levels of active mobility. The co-

benefits for the environment and health (obesity, cardiovascular and respiratory outcomes, fitness) are also highlighted, and it is observed that the best outcomes happen when "hard" infrastructure is combined with marketing and education initiatives (Michel, Banwell, & Senn, 2024).

A thorough review and meta-analysis of research tracking the implementation of "urban trails," or protected bike and pedestrian routes, helps to better elucidate the causal consequences of infrastructure investment. Results indicate that those who live close to recently constructed trails tend to be more physically active, but to a very small extent. However, it was challenging to reliably synchronize data on the influence on daily active travel and trail utilization since different research used different assessment techniques. Although the findings highlight the need for more accurate and consistent methodological approaches in future research, they also clearly show that safe and continuous infrastructure has the potential to promote increased engagement in active mobility (Fast et al., 2025).

A longitudinal natural experiment in Montreal that looked at the connection between self-reported cycling activity and infrastructure modifications offers an empirical perspective at the metropolitan network level. According to the study, inhabitants are more likely to use a bicycle at all if there are high-comfort cycling facilities nearby, while they are more likely to spend more time riding a bicycle recreationally if there are medium-comfort pathways nearby. According to these findings, the degree of safety and comfort provided by a path's design, as well as its spatial accessibility, affects not only whether or not inhabitants choose to bike, but also how frequently they do so (Prince et al., 2025).

However, network planning in constrained urban areas necessitates the use of instruments that balance the redistribution of traffic lanes between bicycles and automobiles. The suggested framework, which is based on linear programming, shows benefits over heuristic methods by introducing a Pareto-optimal consideration of trade-offs between automobile and bicycle traffic throughput and producing scenarios for decision-makers (Wiedemann, Nöbel, Ballo, Martin, & Raubal, 2024). This makes it possible to focus infrastructure spending where it will have the most influence on mobility patterns, equality, and coverage.

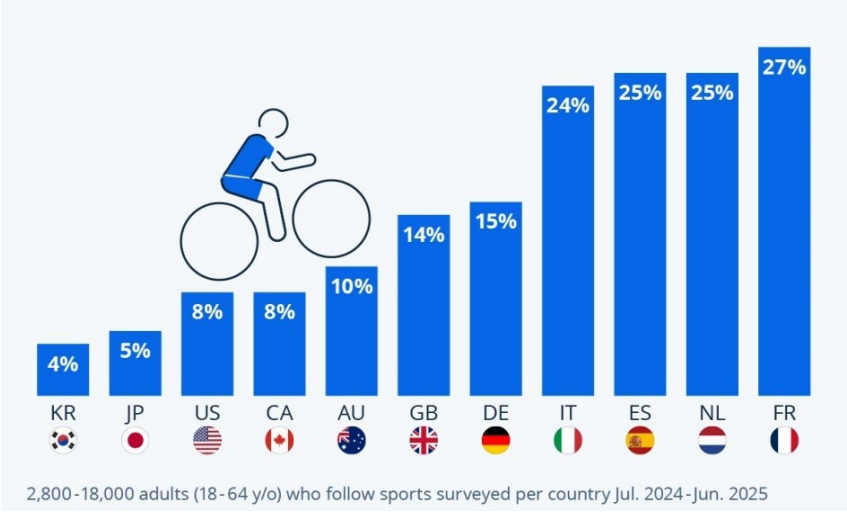
Lastly, social programs and athletic events serve as cultural change agents, normalizing cycling and enhancing emotional and motivational rewards for engagement (Toskić & Marković, 2024). An examination of a significant cycle tourism event reveals that social interaction, "contemplation," lifestyle-related motivations (Dašić & Jeličić, 2016; Dašić et al., 2021), and satisfaction prior to, during, and following the event all significantly predict repeated participation. This gives organizers and cities

the ability to develop a more sustainable participant base (Rejón-Guardia, Rialp-Criado, & García-Sastre, 2030). Events can act as a "soft launch" of habits that eventually make their way into daily life if these insights are matched with infrastructure, such as connecting large recreational rides with recently constructed high-comfort corridors.

The most dependable way for cycling to become a consistent part of urban lifestyles is through comfortable and continuous infrastructure (segregated lanes, network density, and spatial accessibility), as well as clever space planning and well-thought-out social initiatives and events. These factors have quantifiable advantages for sustainability, social cohesion, and health.

Data from Statista Consumer Insights show that interest in cycling is highest in Europe, where approximately one in four sports fans in France, the Netherlands, Spain, and Italy follow competitions such as the Tour de France, Giro d'Italia, or Vuelta, the three "Grand Tours." In the United States, that share is significantly lower—only 8 percent of sports fans, far from the era of the now-disgraced Lance Armstrong and the U.S. Postal Service team (Figure 3).

Figure 3. Where Cycling Faces an Uphill Battle for Fans



Source: Richter, F. (2025) Where Cycling Faces an Uphill Battle for Fans. Statista

When comparing the use of bicycles for daily transportation, significant regional variations are found, influenced by a mix of socioeconomic, cultural, and infrastructure variables. For many years, Scandinavian nations have served as models for incorporating cycling into transportation networks; Denmark is a prime example,

accounting for around 15% of all travel. Long-term national policies aimed at creating protected lanes, promoting active mobility, and connecting bike routes with public transit are the cause of these outcomes, which are not accidental (Christiansen, Anderson, 2025).

The situation in Asia demonstrates a specific developmental trajectory. While in China cycling once dominated as the primary mode of transport, urban motorization has significantly reduced its share. Nevertheless, in cities such as Shanghai and Beijing, cycling still accounts for a considerable portion of daily travel, with about one-quarter of trips in Shanghai. This is supported by the development of new public bike-sharing systems, as well as policies targeting the reduction of pollution and traffic congestion (Sudmant et al., 2020). Japan, on the other hand, maintains a stable share of approximately 12% of trips made by bicycle, illustrating that in societies with high urban density, cycling can still serve as a functional, efficient, and culturally accepted mode of transportation (Belliard et al., 2025).

In contrast, in African cities cycling is largely marginalized, with participation in major urban centers such as Nairobi barely reaching 1%. Contributing factors include unsafe infrastructure, the low social prestige associated with cycling, and the dominance of motorized transport. However, examples from medium-sized Tanzanian cities such as Morogoro, where the cycling share is about 20%, demonstrate that with adequate spatial organization and social acceptance, it is possible to achieve more significant bicycle use. These differences underscore that cycling is both a transport and a cultural phenomenon, whose expansion depends on infrastructural investment, social support, and urban planning (Walk21 Foundation, 2022; Mwaura, 2023).

Conclusion

When analyzed from the perspectives of elite sport and leisure, cycling becomes a complex phenomena that incorporates the social, psychological, ecological, and physical facets of modern life. Regular cycling greatly enhances cardiorespiratory health, lowers the risk of chronic illnesses, and increases general physical fitness, according to a consistent study and synthesis of pertinent data. Furthermore, psychological benefits like lowered stress, improved subjective well-being, and boosted self-esteem are important elements that set cycling apart as a useful tool for raising quality of life.

Cycling's social component, which is demonstrated via clubs, athletic events, and group rides, highlights the activity's contribution to social capital development and

community building. For instance, mountain biking is a complicated social practice that affects the environment, the economy, and culture in addition to being a sport. Participants in this sport build communities centered around the ideals of freedom, adventure, and being near nature, creating new identities and lifestyles (Cherrington, 2023). Large-scale athletic events like the Tour de France inspire and have a powerful media impact, which encourages younger generations to take up cycling as a long-term lifestyle habit. Combined with infrastructure development and support from local initiatives, cycling transcends the framework of purely physical activity to become an important element of cultural and urban development.

Although this study is based on secondary data, the findings provide a relevant framework for formulating public health policies and strategic plans in the areas of sustainable mobility and physical activity promotion. Further research, particularly those employing primary empirical data and longitudinal methods, could contribute to a deeper understanding of the long-term effects of cycling on health and social cohesion.

Taken as a whole, cycling stands out as a universally accessible and socially beneficial activity, whose potential far exceeds the boundaries of sport, positioning it as one of the key instruments for building a healthier, more active, and more connected society.

Study Limitations

Although this study offers a concise theoretical and analytical synthesis of existing knowledge on cycling as a lifestyle, several methodological limitations should be noted. The reliance on secondary sources limits the ability to test hypotheses directly, as findings depend on the quality and scope of prior research. Furthermore, the reviewed studies differ in sample characteristics, geographic contexts, and conceptual definitions, which complicates comparison and generalization. Finally, despite recognizing the influence of major sporting events like the Tour de France on promoting cycling, few studies systematically examine their long-term effects. Nevertheless, this paper provides a valuable foundation for future empirical research employing primary data and longitudinal designs.

Author Contributions:

Conceptualization: D. D., Investigation: D. D; B. B., Theoretical framework: D. D., Datacuration: D. D., Resources: B. B.; M.S. Writing – original draft: D. D., B. B., Writing – review & editing: D.D.,

All authors have read and agreed to the published version of the manuscript

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