



# Article Involvement, Social Impact Experiences, and Event Support of Host Residents Before, during, and after the 2021 UCI Road World Championships

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**Abstract:** Host residents' support is of paramount importance for the success of spectator sports events. Factors influencing event support have been investigated in past research, but usually in isolation. The current study includes multiple factors by analysing the relationship among involvement, social impact experiences, and event support. Data were collected online four and six months before, during, and two months after the 2021 UCI Road World Championships from 3219 from residents, representative for the city of Leuven (Belgium). The 2021 UCI Road World Championships offered a unique context, as it was the first large spectator sports event organised in Flanders since COVID-19. The event had a limited social impact, but this increased over time (e.g., community spirit and event support). Social impact experiences mainly exerted a significant influence on event support rather than attitudinal and behavioural involvement factors. The results of this study inform national and local policymakers to attract events, event organisers to achieve impact and legacy, and other scholars to improve the understanding of spectator sports event research.

**Keywords:** online survey; COVID-19; MANCOVA; structural equation modelling; non-mega sports events; Belgium; Flanders; cycling; intangible impact; repeated cross-sectional

# 1. Introduction

While the battle for rights to host mega sports events has decreased dramatically, cities are still interested in hosting publicly funded, non-mega spectator sports events (SSEs [1]). Local municipalities legitimise public expenditure on these events based on the expectation that these major non-mega sports events bring positive economic and social outcomes to the host community. However, the post-event effects are not always rosy [2]. In addition, the money that is spent on publicly funded SSEs cannot be allocated to other more pressing civic matters (such as health care, infrastructure, etc.), also known as the 'opportunity cost' of sports events. The opportunity cost is particularly large for developing countries where many basic needs are still underfunded (e.g., [3]). As such, not all residents benefit from or are supportive of hosting large publicly funded SSEs.

However, the support of residents (before, during, and after the event) is of utmost importance for the success of publicly funded SSEs [4–6]. Factors explaining event support have been studied in the past, but there are shortcomings. First, research showed that social impact perceptions are related to event support [4,5,7,8]. However, studying perceptions instead of actual social impact experiences implies an overestimation of the impact and thus event support [9–12]. Therefore, considering social impact experiences over perceptions seems to be more relevant to measure impact and predict event support. Moreover, studies that focused on experiences have done so by comparing social impacts during and after the



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**Copyright:** © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/). event [11] or before and after the event [9,12] but have yet to investigate changes in experiences before, during, and after the event. Second, different studies have investigated other influencing factors to predict event support, such as attitudinal [3,11] and behavioural [13] involvement. However, these involvement factors were mostly studied in isolation, rather than considering multiple factors simultaneously. For instance, Bursa and Mailer [13] investigated differences in various impact perceptions and event support between spectators and non-spectators but did not consider other influencing factors, such as attitudinal involvement. Additionally, Ribeiro et al. [3] examined the relationship between perceived legacy outcomes and event support with the perception of community sports participation as a mediating factor but did not consider other factors, such as behavioural involvement. In short, involvement in sport and sports events is known to be an important contributor of SSE support [9]. Since sports involvement can take many forms, it is relevant to consider these different appearances in one model. Lastly, most research on event support is focused on mega sports events such as the Olympic and Paralympic Games (e.g., [4,7]) or the FIFA World Cup (e.g., [5,14]). Research focusing on non-mega sports events investigating event support is limited, as it rather focused on social impact perceptions (e.g., [15,16]), revisit intention (e.g., [17]), or willingness to host the event the year afterwards (which can be seen as a proxy for event support, e.g., [18]). Therefore, the purpose of this study is to (1) examine the variation of social impact experiences of a publicly funded, non-mega SSE over time (i.e., before, during, and after the event) and (2) investigate how social impact experiences and various forms of sport and event involvement influence event support for a non-mega sports event. The 2021 UCI Road World Championships hosted in Flanders (Belgium) offers a unique context for the study, as it was the first large spectator sports event organised in Flanders since COVID-19.

Knowledge of a broad(er) range of factors, such as sports involvement, event involvement, and social impact experiences explaining varying support towards sports events, will assist SSE organisers and local administrations to make decisions and plan for specific event outcomes (e.g., generating social impact and support [19]). This will allow for more specific strategies to be developed to promote the event and foster support among residents [16]. Thus, the study extends the current knowledge on (1) the variation of social impact experiences of an SSE over time and (2) the multitude of factors influencing event support in the context of a non-mega sports event.

#### 2. Literature Review

#### 2.1. Spectator Sports Events

Spectator sports events (SSEs) are distinctly different from participatory sports events (PSEs). For instance, participatory sports events (PSEs) are 'open-entry events' [20] (p. 149) with a particular focus on 'promoting participation rather than the significance of the sporting outcome' [21] (p. 25). Although elite athletes are allowed to partake in PSEs, most participants are non-elite. In contrast, in spectator sports events (SSEs), the athlete's physical fitness is a prerequisite for participation. Participants are elite or professional athletes (with the exception of lesser-known or fewer mediatised sports where athletes are not paid for their sports performances). In addition to differences regarding the types of participants, many SSEs are publicly funded for a large share of their total budget as opposed to most PSEs that receive no or limited funding (e.g., [22,23]). As shown, both types of sports events can be very diverse in nature. Other ways to differentiate both types of events include, among others, frequency (cyclical or one time), duration (one day to several weeks), scope (local, regional, national, or international), location (same or multiple), generated economic activity, organiser (local sports association, regional sports federation, local sports authority, or commercial event organiser), etc. [24,25]. The UCI Road World Championships, selected for the purpose of this study, is a high-profile, international, one-time, multi-day cycling event. While the event was hosted in multiple cities, only the competition days in the city of Leuven were considered in this study.

#### 2.2. Support for Spectator Sports Events

One of the most important stakeholder groups in publicly funded SSEs is hosting residents [26–28]. When organising these SSEs, residents can and should be involved at different stages (e.g., preliminary phases, during the event, and/or after the event) and with different intensities. Residents of the host city or region can set up preparatory supporting activities before the event, provide volunteering support or interactions with spectators during the event, and use the built infrastructures after the event [29]. Therefore, it has been frequently cited in previous research that resident involvement and support is necessary to achieve an event's success [4–6]. In contrast, a lack of resident involvement or support at any stage (before, during, or after the event, for instance, in terms of negative referenda) can result in the withdrawal of event bids or a failure to reach the event's objectives [4,30,31].

Resident event support can vary over time [32,33]. For instance, support among residents of Rio was found to decrease during the 2016 Olympic Games in Rio and two years after the event compared to the situation (four and two years) before the event [34] mainly because of a failure to deliver legacies. Similarly, Twynam and Johnston [35] found decreasing event support after the 1995 Nordic World Championships in Canada as well (compared to the situation before the event). Mihalik and Simonetta [36] even found decreasing event support among residents in the run-up to the 1996 Olympic Games in Atlanta between 1992 and 1995. Other studies have shown increased event support over time. For example, Hiller and Wanner [37] investigated event support in the context of the 2010 Winter Olympic and Paralympic Games in Vancouver. The authors found that resident support increased during the three-week event because of infrastructural transformations in the city and/or social opportunities. Waitt [33] also found an increase in resident support during the two-year period leading up to the 2000 Olympic and Paralympic Games in Sydney. Thus, there is no consensus on how event support changes overtime. Variations in influencing factors could potentially help understand the fluctuations seen in event support overtime, which will be further investigated in this study.

Indeed, event support can also differ due to microenvironment factors and the different socioeconomic contexts of host cities or host regions [8,34,38]. For instance, conclusions of research executed on events in developed countries (e.g., [33]) cannot be generalised to events in developing countries (e.g., [8]). In addition, each event needs to be considered in its unique cultural and economic context [38,39]. Hence, the context of the event under investigation needs to be clearly understood (see below).

It is important for event organisers to acquire a greater understanding of (changing) support and its antecedents [4,34]. This contributes to the event's success and helps organisers to intervene in a timely manner when event support declines [34]. In addition, high levels of event support (partly) justify the large public expenditures on bidding for and hosting SSEs. When investigating event support, two research streams can be found in the literature, namely studying the support for one specific event (e.g., [34]) or the support for future events (e.g., [3]). The current study will focus on the former, as this is the most relevant for local authorities to justify the expenses that are allocated to event bids that have already been won. The following paragraphs elaborate on the factors that influence event support.

# 2.3. Factors Influencing Event Support

#### 2.3.1. Social Impact

Generally speaking, large-scale, one-off spectator sports events are accompanied by high levels of economic impact and media attention [24]. Past research mainly focused on the economic impact of these types of major sports events (e.g., [40]), partially because economic aspects are more tangible and therefore easier to measure [41,42]. It is, however, also known that large scale, one-off SSEs are often accompanied by negative economic consequences and opportunity costs [2]. These negative economic outcomes have shifted the attention from organisers, public authorities, and researchers towards social impacts and legacies from these types of events (e.g., [43]), partly shaped by the pressure and

associated investments from governments. Indeed, research on the social significance of sports events [42,44] has gained traction as events and social interaction (between people) are inextricably connected, creating the potential for events to yield a social impact [45].

Scholars have tried to develop scales to measure social impacts from events (e.g., [10,46,47]). Until today, there is no uniform and accepted scale to measure this impact [10]. Most scales measuring social impact include different constructs that capture different aspects of social impact. In addition, a distinction can be made between positive and negative social impacts [4,5,7,11,18]. Often, social capital, social cohesion, community spirit, sports participation, and community involvement are defined as positive social impact constructs. Negative social impact constructs include conflicts and feelings of (un)safety.

Consistent with previous research, this study proposes that exchanges (e.g., economic, social, etc.) occur between residents and organisers of SSEs [5,7,34]. According to the social exchange theory [48], individuals tend to assign weights to benefits and costs. Residents are more likely to support the event when they perceive the obtained benefits are greater than the costs [34]. Past research found a positive relationship between positive social impact constructs and event support before [5,7,8,16,34], during [4,8], and after [3,5,8,16] the event, with or without a mediating factor (such as overall satisfaction with the quality of life or overall attitude [5,7]). Further, a negative relationship between negative social impact constructs and event support was found before [7], but not during or after the event. However, all of these studies mainly focused on social impact perceptions rather than experiences. The only study investigating the relationship between social impact experiences and event support found a positive relationship between positive constructs (community spirit and social capital) and event support before the event and positive constructs (community spirit, sports participation, and physical activity) and event support after the event [12]. It should be noted, however, that the social impact experience scores were rather low and mostly below the mid-point on a 7-point Likert scale. Moreover, a 'during' event measurement was missing.

#### 2.3.2. Attitudinal and Behavioural Involvement

Involvement in sport and sports events can take many forms and is known to be a important contributor of SSE support [18]. Largely, a distinction can be made between attitudinal involvement (e.g., fandom towards the sport or affect towards the event) and behavioural involvement (e.g., sports behaviour or event visitation). The overall attitude towards the event was found to positively influence event support prior to the 2012 London Olympic Games [7]. Furthermore, by dividing older residents in clusters by means of support for the Vuelta (i.e., Cycling Tour of Spain), Vegara-Ferri et al. [16] identified a positive relationship between an interest in sport and cycling and event support before and during the event. Nevertheless, a relationship between actual sport and physical activity behaviour and event support was not found among the sample of older residents. In addition, Ribeiro et al. [3] argued that sports participation could be identified as a mediator in the relationship between legacies and event support among local residents, albeit five years after the 2016 Rio Olympics. Therefore, it is assumed that more positive feelings towards sports events are experienced by a representative sample of residents who are more involved in sport. Further, differences can be found in event support according event attendance. In the context of the 2018 UCI Road World Championships in Tyrol, Bursa and Mailer [13] found a more positive influence on sportive behaviour and higher levels of event support among spectators after the event occurred. Lastly, Parra-Camacho et al. [15] concluded that residents who were more favourable towards the Formula E Grand Prix of Santiago de Chile 2018 were more interested in the event and showed higher attendance levels as well as support towards the event. In past research, involvement was often not (or very seldomly) captured in research on support of SSEs and was therefore highlighted as a limitation of prior studies [3,4,7,9,11]. The current study fills this gap by including various involvement factors affecting event support.

# 2.4. Factors Influencing Social Impact Experiences

There are reasons to believe that social impact experiences function as the most dominant factor in explaining event support. As indicated earlier, they are often associated without other disturbing variables [8,34]. In addition, social impact constructs have high explanatory values towards event support [12]. Therefore, it is hypothesised in the context of the current study that social impact experiences function as mediating factors between attitudinal and behavioural involvement and event support.

## 2.4.1. Time

As evidenced in past research, social impact perceptions towards sports events can vary over time. Some social impact perceptions were found to be higher during the event (e.g., community spirit, conflict, and community involvement [33]), whereas others were found to decrease after the event (e.g., social problems or traffic congestion [32]). To the best of the authors' knowledge, merely three studies were identified that focused specifically on the varying social impact experiences of sports events by analysing these effects over time [9,11,12] (see Table 1). The 2016 Olympic and Paralympic Games were studied during and six months after the event [11], and the 2019 Rugby World Cup was studied three months before and four months after the event [9,12]. The constructs social cohesion, feelings of unsafety, and sports participation decreased in these studies after the event (compared to before or during the event). Community involvement decreased after the event, compared with during the 2016 Olympics and was not measured in the context of the 2019 Rugby World Cup. Social capital and disorder and conflict decreased after the event as well, compared to the period before the 2019 World Cup and was not measured in the context of the 2016 Olympics. Lastly, community spirit was found to increase after the 2019 Rugby World Cup (compared to the period before the event) and was found to decrease after the 2016 Olympics (compared to the period during the event), suggesting this construct is high during the event. Thus, there is no consistent indication of varying social impact experiences of residents, and none of these studies considered all three critical time periods, namely before, during, and after a non-mega sports event. Therefore, the current study specifically collected data before, during, and after the event.

Study	Reference	Event (Type)		Time Frame		
			Pre	During	Post	
<i>MSE</i> Taks et al. (2020) Taks and Rocha (2022)	[10] [11]	2020 Olympic and Paralympic Games 2016 Olympic and Paralympic Games	Yes (2y) No	No Yes	No Yes (6 m)	Yes No
<i>NMSE</i> Oshimi et al. (2021, 2022)	[9,12]	2019 Rugby World Cup	Yes (3 m)	No	Yes (4 m)	Yes
Current study		2021 UCI Road World Championships	Yes (4–6 m)	Yes	Yes (2 m)	Yes

<b>Fable 1.</b> Overview of studies studying social impact exper
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MSE: Mega sports event; NMSE: Non-mega sports event.

# 2.4.2. Attitudinal and Behavioural Involvement

Although it has not yet been the focus of research in detail, there are leads on the relationship between social impact perceptions and experiences, on the one hand, and attitudinal and behavioural involvement, on the other. Taks and Rocha [11] found evidence for the relationship between attitudinal involvement with the 2016 Olympic and Paralympic Games and different social impact experiences among Rio residents during but not after the event. In addition, residents of Kaohsiung City (Taiwan) who were more positive towards the impacts of the 2009 World Games (both before and after the event) showed higher interest towards the event [49]. Further, in addition to the involvement with or interest towards the event, the involvement with a particular sport was associated with social impact perceptions. Inoue and Havard [50] identified a positive relationship between a golf involvement and the perceived impact of the FedEx St. Jude Classic (which is an event

part of the PGA Tour). Moreover, Vegara-Ferri and colleagues [16] in the context of the Vuelta of 2019, segmented older residents of host locations in three distinct clusters based on their level of event support (positives, moderates, and haters). The authors concluded that both in the pre- and during-event phase, older residents who showed more event support also had more positive impact perceptions. However, residents with more positive impact perceptions did not show higher levels of sport and physical activity behaviour. Lastly, Oshimi et al. [9] found a relationship between expected social impacts and viewing behaviour. Residents of Tokyo who rated the expected impacts of the 2019 Rugby World Cup on sports participation and on community spirit higher were more likely to have watched the event on TV. Although viewing behaviour and event attendance are not the same, it is assumed that both are related. Thus, attitudinal and behavioural involvement have been the subjects of various studies but in isolation. Hence, both were included here simultaneously.

## 2.5. Hypothesised Framework

To better understand the underlying relationship among social impact experiences, attitudinal and behavioural involvement, and event support in the context of publicly funded, non-mega sports events, we took a similar approach as Rocha's [34] work on the temporal variation in the relationship between legacies and support in the context of the 2016 Rio Olympic Games. Based on the above literature review, this paper proposes the following research hypotheses:

Hypothesis 1 (H1). Social impact experiences over time.

**Hypothesis 1a (H1a).** Social capital will be lower after the event compared to before the event.

**Hypothesis 1b (H1b).** Sports participation and physical activity will be lower after the event compared to before or during the event.

**Hypothesis 1c (H1c).** Social cohesion will be lower after the event compared to before or during the event.

**Hypothesis 1d (H1d).** *Community spirit will be higher during and after the event compared to before the event.* 

**Hypothesis 1e (H1e).** Disorder and conflict will be lower after the event compared to before the event.

**Hypothesis 1f (H1f).** *Community involvement will be lower after the event compared to during the event.* 

**Hypothesis 2 (H2).** Factors influencing social impact experiences.

**Hypothesis 2a (H2a).** Attitudinal involvement will positively influence positive social impact experiences and negatively impact negative social impact experiences before, during, and after the event (direct effect).

**Hypothesis 2b (H2b).** Fandom will positively influence positive social impact experiences and negatively impact negative social impact experiences before, during, and after the event (direct effect).

**Hypothesis 2c (H2c).** *Participation in cycling will positively influence positive social impact experiences and negatively impact negative social impact experiences before, during, and after the event (direct effect).* 

**Hypothesis 2d (H2d).** Event attendance will positively influence positive social impact experiences and negatively impact negative social impact experiences before, during, and after the event (direct effect).

Hypothesis 3 (H3). Factors influencing event support.

**Hypothesis 3a (H3a).** *Positive social impact experiences will positively influence event support before, during, and after the event (direct effect).* 

**Hypothesis 3b (H3b).** *Negative social impact experiences will negatively influence event support before, during, and after the event (direct effect).* 

**Hypothesis 3c (H3c).** Attitudinal involvement will positively influence event support before, during, and after the event (direct effect).

**Hypothesis 3d (H3d).** *Fandom will positively influence event support before, during, and after the event (direct effect).* 

**Hypothesis 3e (H3e).** *Participation in cycling will positively influence event support before, during, and after the event (direct effect).* 

**Hypothesis 3f (H3f).** Event attendance will positively influence event support before, during, and after the event (direct effect).

**Hypothesis 4 (H4).** Social impact experiences will function as a mediating factor between event support, on the one hand, and attitudinal involvement, fandom, participation in cycling, and event attendance, on the other hand, before, during, and after the event (indirect effects).

The hypothesised model is shown in Figure 1.



Figure 1. Hypothesised model (age, gender, and education are control variables).

# 2.6. Event Context

The spectator sports event of interest is the 2021 UCI Road World Championships, hosted in Flanders (Belgium) in September 2021. The event was awarded to the region in 2018 and was symbolic because for this centennial edition, the championships were organised in a country where cycling is culturally embedded and reigns as a participant and spectator sport. Historically, cycling and cycling events have been very popular in Flanders; as many people in the region are active cyclists [51], there is a strong tradition of recreational and professional cycling among Flemish residents [52]), and cycling events, such as the Tour of Flanders, have high ratings [53]. For the first time in its history, the UCI Road World Championships were organised by a region instead of one city, allowing to spread impact and nuisance. The time trails took place between Knokke-Heist and Bruges (19–22 September), and the road races took place between and in Antwerp and Leuven

(24–26 September). The current study focuses on the impacts that were realised in the city of Leuven.

The local effects of the 2021 UCI Road World Championships in Leuven appeared to be, given the context, very special and probably unique worldwide. From December 2019 onwards, the world has been faced with a huge health crisis. The World Health Organization announced on 11 March 2020 that COVID-19 could be characterised as a pandemic [54]. This resulted in local governments taking measures to stop the spread of the virus. These measures included, among others, prohibition of most activities of sports clubs and health and fitness centres, a cancellation of all sports events (both participatory and spectator events), and limiting the number of individual contacts (see also [51,55,56]). COVID-19 measures were loosened during the summer of 2020 with some small sports events being organised again, but the measures were tightened for a second time from October 2020 onwards. At the beginning of 2021, there were strict conditions for grocery stores, and people were not allowed to leave their homes at night. In early March 2021, some measures were loosened, but were strengthened again quite quickly. People were showing corona fatigue, and, finally, from early June 2021, the Belgian government announced a summer plan with a relaxation of most COVID-19 measures. Nearly all activities were allowed again in public life during the 2021 UCI Road World Championships, resulting in a unique context, even worldwide, as people saw this event as conquering COVID-19 [57]. Combined with sunny weather and nice temperatures, the event was experienced as a national celebration, potentially stimulating high levels of social impact experiences (after the event, from October onwards, COVID-19 numbers went wrong again in Belgium. The general mouth mask mandate came back, with additional stricter measures). This makes the event very attractive for this study. Moreover, the timing of the study allowed to investigate social impact experiences before, during, and after the event and to collect data from representative samples of residents. As such, the study of this event overcame shortcomings from various previous studies, which either only studied two variations in time and/or lacked representative study samples (see Table 1).

# 3. Materials and Methods

# 3.1. Study Procedure

The current study used a quantitative approach, with a particular focus on the residents of the city of Leuven. Data were gathered by means of online surveys at four different times: two times before the event (April 2021—PRE1 and June 2021—PRE2, so 6–4 months before), during the event (DURING—end of September 2021), and after the event (POST—November and December 2021, so 2 months after). There is no consensus about the time frames for event-related data collection. Various studies apply different time gaps. For example, Balduck et al. [58] collected data one week before and one week after a major cycling event (i.e., arrival of a 2007 Tour de France stage). Destadli and Solberg [59] executed their data collection three weeks before, three weeks after, and one year after a large cycling event (i.e., 2017 UCI Road World Championships). Oshimi et al. [9] considered 3 months before and 4 months after a large rugby event (i.e., 2019 Rugby World Cup). In this study, we opted for a 6- to 4-month period before the event to allow for sufficient distance and dissociation from the event. The 2-month POST event time frame was determined by the end date of the research project (i.e., December 2021) but left, nevertheless, sufficient time for the event euphoria to diminish.

Data collection for the pre- and post-measurements lasted four weeks, whereas the measurement during the event lasted only four days (the four days that the championships were held in Leuven, 23–26 September; although the event took place between 24 September and 26 September, recreational cyclists were able to cycle their own world championships on the official course on 23 September). The online questionnaire was disseminated among residents of the city of Leuven through different channels to reach as many inhabitants as possible: (i) through the Leuven city magazine (which is distributed monthly); (ii) through mailing and social media of different city services and associated advisory councils and

local associations; (iii) through the Leuven Hoplr community (a social network for the neighbourhood; https://www.hoplr.com/city/leuven; last accessed on 12 December 2021); and (iv) through other social media that unite inhabitants (e.g., Facebook). Responses were recorded using the Qualtrics software.

#### 3.2. Instrument

*Event support* was measured by using three statements "I think it is good that the city of Leuven has financially supported the UCI Road World Championships cycling", "I think it is important that large international sports events are organised in Leuven" [7,9,10,60], supplemented with "If the UCI Road World Championships had been cancelled, I would have regretted it". The statements were measured on a 7-point Likert scale (ranging from 1—strongly disagree to 7—strongly agree [61]) and show acceptable internal reliability ( $\alpha$  ranges from 0.917 to 0.934 [9]).

*Social impact experiences* were measured using an existing social experience impact scale, which was validated in various contexts (e.g., the 2016 Rio Olympic and Paralympic Games, [11,61]; the 2020 Tokyo Olympic and Paralympic Games, [10]; and the 2019 Rugby World Cup in Tokyo, [9,12]). The scale consists of 23 items representing seven constructs (see also Table S1). One construct, namely feelings of unsafety (with three items), was not included to limit the length of the questionnaire and because it was less relevant in the current context, leaving 20 items representing six constructs. All items were self-referenced (i.e., using wording in terms of "me" and "I"), measured on a 7-point Likert scale (ranging from 1—strongly disagree to 7—strongly agree), and framed in the associated tense (future for measurements before the event, present for the measurement during the event, and past for the measurement after the event [12]).

Attitudinal involvement with the event was measured by using eight semantic differential items, measured on a 7-point Likert scale (see also Table S2 [62]). Fandom with cycling was measured by using five statements measured on a 7-point Likert scale (ranging from 1—strongly disagree to 7—strongly agree) that measure fandom (see also Table S3 [63]). Participation in sport was measured by considering the frequency of sports participation/active forms of movement during spare time in the twelve months before data collection (5 times a week or more/3 to 4 times a week/1 to 2 times a week/1 to 3 times a month/less than once a month/never). Cycling participation was measured by considering the frequency of cycling participation during spare time in the twelve months before data collection (5 times a week or more/3 to 4 times a week/1 to 2 times a week/1 to 3 times a month/less than once a month/never). Event attendance was measured by considering the frequency of cycling participation during spare time in the twelve months before data collection (5 times a week or more/3 to 4 times a week/1 to 2 times a week/1 to 3 times a month/less than once a month/never). Event attendance was measured as the intention to follow or visit the event (before the event) or the actual visiting or following the event (during and after the event) (visited/followed on television, radio, newspaper, or social media/ not visited or followed or don't know [64]).

Three key *demographic variables:* (i) gender (male/female/other), (ii) age (birth year), and (iii) highest level of education (primary education or no education/secondary education/higher education) were also included to achieve representativeness of the samples [65]. These variables also served as control variables in the analyses as sociodemographics are known to affect lifestyle and preferences [66], including sports involvement and associated social impact experiences.

#### 3.3. Participants

Across the four data collection periods, a total of 4893 participants responded to the questionnaire. Only those who were residents of the city of Leuven and completed the questions related to gender, age, educational level, and the social impact scale (N = 3219) were included for further analyses. This resulted in a final weighted sample of 2902 residents. To achieve a representative sample, the data were weighted in terms of gender, age, and educational level based on population statistics [65,67].

The data of this study refer to 770 residents in the PRE1 measurement (six months before the event), 486 residents in the PRE2 measurement (four months before the event),

841 in the DURING measurement, and 808 residents in the POST measurement (two months after the event). In general, about the same number of men and women completed the questionnaire (Table 2). The average age of respondents ranged from 44.6 to 46.1, and just more than half of the respondents had a higher education. Before the event, just more than half of the residents indicated their willingness to visit the 2021 UCI Road World Championships. Two months after the event, almost three quarters of the residents (72.1%) indicated they had visited the event. In the last measurement, significantly more people were at least once a week active in sports in the past twelve months.

Variable	PRE1	PRE2	DURING	POST	2	Б
variable	$(N_{weighted} = 770)$	$(N_{weighted} = 486)$	$(N_{weighted} = 841)$	$(N_{weighted} = 808)$	X-	г
Gender					7.109	
Male	52.2%	53.5%	47.1%	52.0%		
Female	47.8%	46.5%	52.9%	48.0%		
Age						1.043
Mean	46.1	44.6	45.7	45.0		
Standard deviation	16.3	16.8	16.3	16.3		
Education					1.892	
Secondary education or lower	47.7%	48.8%	48.2%	45.4%		
Tertiary education	52.3%	51.2%	51.8%	54.6%		
Visited the WC					109.077 ***	
Yes	53.6% <sup>a</sup>	50.2% <sup>a</sup>	49.2% <sup>a</sup>	72.1% <sup>b</sup>		
No	46.4% <sup>a</sup>	49.8% <sup>a</sup>	50.8% <sup>a</sup>	27.9% <sup>b</sup>		
Sports participation in past 12 months					16.078 **	
Less than once a week	35.4% <sup>a</sup>	33.0% <sup>a,b</sup>	37.5% <sup>a</sup>	28.1% <sup>b</sup>		
At least once a week	64.6% <sup>a</sup>	67.0% <sup>a,b</sup>	62.5% <sup>a</sup>	71.9% <sup>b</sup>		
Cycling in past 12 months					6.206	
Less than once a week	59.6%	61.7%	65.9%	62.8%		
At least once a week	40.4%	38.3%	34.1%	37.2%		

Table 2. Sample characteristics.

Note. \*\*\* p < 0.001; \*\* p < 0.01; a,b differ significantly from one another.

#### 3.4. Data Analyses

Confirmatory factor analyses (CFAs) were executed to test the reliability of the scales. First, four CFAs were executed for the social impact scales (one for every wave of data collection). The CFAs revealed a better model fit by deleting one item of the original scale (i.e., I will be able to express my opinion about the organization of the event) to obtain acceptable indices (CFI ranging from 0.950 to 0.964; TLI ranging from 0.937 to 0.955; and RMSEA ranging from 0.078 to 0.092 [68,69]). Reliability and convergent validity were achieved (CR ranging from 0.75 to 0.97 and AVE ranging from 0.56 to 0.91 [70]). Discrimination validity was achieved, with the exception of three pairs of constructs, as squared correlations between constructs did not exceed the AVE values (between social capital/social cohesion and between disorder and conflict/community spirit in all waves and between social capital/sports participation and physical activity in wave 1 and wave 3 [70]). For those pairs, chi-squared difference tests showed significant differences indicating discriminant validity [71]. Second, four CFAs were executed for the fandom scale (one for every wave of data collection, Table S3). The CFAs revealed an acceptable model fit (CFI ranging from 0.940 to 0.956 and TLI ranging from 0.819 to 0.868). Reliability and convergent validity were achieved (CR ranging from 0.96 to 0.97 and AVE ranging from 0.83 to 0.86 [70]). Third, four CFAs were executed for the attitudinal involvement scale (one for every wave of data collection, Table S2). Shank and Beasley [62] argued both the one- and two-factor models are common. Based on the data, the CFAs provided a better model fit for the two-factor model. However, to reach complementarity with Taks and Rocha [11], the one-factor model was preferred. The one-factor model revealed an acceptable model fit (CFI ranging from 0.879 to 0.920 and TLI ranging from 0.783 to 0.855). Reliability and convergent validity were achieved (CR ranging from 0.97 to 0.98 and AVE ranging from 0.82 to 0.85 [70]). Although the factor loadings, CFI, TLI, CR, and AVE values of the fandom scale and attitudinal involvement scale are acceptable, the root mean square error of approximation (RMSEA)

values seem to exceed the proposed cut-off values [68]. In the literature, the use of RMSEA and its accompanying confidence interval has been contested as reliable models have been faced with RMSEA values above the cut-off values (e.g., [72]). This could be due to a low number of variables and thus a low number of degrees of freedom in the model [72–74]. Therefore, the authors chose to be consistent with previous research and retain the five items for the fandom scale and the eight items for the attitudinal involvement scale.

To examine the varying experienced social impact over time, Multiple Analyses of Covariance (MANCOVA) were used with the social impact experiences as dependent variables, with the time of data collection as the independent variable and gender, age, and education as covariates (hypothesis 1). To test the hypothesised model (Figure 1), path analysis was used (hypotheses 2, 3, and 4). In line with the CFAs, the results of the structural equation modeling (path analysis) show an acceptable fit (Table S4).

#### 4. Results

#### 4.1. Social Impact Experiences over Time

The results of the one-way MANCOVA show significant differences for all dependent variables among the different data collection points (Table 3). In general, the 2021 UCI Road World Championships had a limited social and sports-related impact on residents as the factors social capital, social cohesion, and sports participation and physical activity scored below the mid-point of 4, despite the fact that in the run-up to the event, residents talked more about it (significant increase over time for community involvement). In general, residents showed strong support for the event (except during the event) with an increase between the first (PRE1 4.56) and last measurement (POST 4.92). Further, the high scores for community spirit before and after the event and low scores for disorder and conflict after the event (3.68) stand out.

Factor	PRE1 (N <sub>weighted</sub> = 567)	PRE2 (N <sub>weighted</sub> = 419)	DURING (N <sub>weighted</sub> = 642)	POST (N <sub>weighted</sub> = 558)			
	M (SD)	M (SD)	M (SD)	M (SD)	F	Р	$\eta^2$
Social capital	3.01 <sup>a</sup> (0.06)	3.00 <sup>a</sup> (0.07)	2.82 <sup>a</sup> (0.06)	3.35 <sup>b</sup> (0.06)	10.194	***	0.032
Sports participation and physical activity	3.12 <sup>a</sup> (0.07)	3.12 <sup>a,b</sup> (0.08)	2.87 <sup>a</sup> (0.07)	3.41 <sup>b</sup> (0.07)	14.634	***	0.045
Social cohesion	3.21 ª (0.07)	3.27 <sup>a</sup> (0.08)	2.82 <sup>b</sup> (0.06)	3.31 <sup>a</sup> (0.07)	9.174	***	0.029
Community spirit	4.53 a (0.09)	4.42 a (0.10)	3.95 <sup>b</sup> (0.08)	5.05 ° (0.09)	17.854	***	0.054
Disorder and conflict	4.15 ° (0.07) 2.81 a	4.28 ° (0.09)	4.91 ° (0.07)	(0.07)	26.776	***	0.079
Community involvement	(0.07) 4 56 ª	4.13 (0.08) 4.58 <sup>a,c</sup>	4.20 (0.06) 3.86 <sup>b</sup>	(0.07) 4 92 s	13.993	***	0.043
Support	(0.09) 4 32 <sup>a</sup>	(0.10) 4 19 <sup>a</sup>	(0.08) 3.86 <sup>b</sup>	(0.09) 4 74 °	18.711	***	0.057
Attitudinal involvement	(0.08) 3.33 <sup>a</sup>	(0.09) 3.20 <sup>a</sup>	(0.07) 2 77 <sup>b</sup>	(0.08) 3.40 ª	15.278	***	0.047
Fandom	(0.08)	(0.08)  (0.09)  (0.08)  (0.08)  (0.08)		15.701	***	0.048	

Table 3. Descriptive statistics and MANCOVA results (controlled for gender, age, and education).

Note. Measured on a 7-point Likert scale; \*\*\* p < 0.001; <sup>a,b,c</sup> differ significantly from one another. The total number of residents could have been higher for some factors of this table. This is due to the fact that fewer people completed all items for all factors that are included in this table.

In general, lower scores are obtained during the event compared to before or after the event (i.e., social capital, sports participation and physical activity, social cohesion, community spirit, support, attitudinal involvement, and fandom) suggesting some influence of the 2021 UCI Road World Championships on residents. The significantly lower levels of attitudinal involvement and fandom DURING the event may also reflect that data were collected from a broader and more general public.

# 4.2. Factors Influencing Social Impact Experiences

The results of the path coefficients (Table 4), combined with the fit indices in Table S4 suggest a good fit of the proposed measurement model. Most social impact experiences obtained  $R^2$  values of 0.4 or above at the different measurement points suggesting a good predictive power of the predictive variables (except for community involvement mainly during and after the event).

Attitudinal involvement and fandom showed a high and significant direct influence on almost all social impact experiences for all measurement points (except for community involvement, fandom, and attitudinal involvement in wave 4 and attitudinal involvement in wave 3). In general, whether or not the resident cycles seemed to have no important direct influence, except for sports participation and physical activity, those who have cycled in the past 12 months obtained higher scores for sports participation and physical activity in all measuring points. Additionally, the willingness to visit the event (or actual visiting behaviour) was an important variable as well (particularly for social capital, sports participation and physical activity, social cohesion, community spirit, and disorder and conflict in waves 2, 3, and 4 and for community involvement in waves 1 and 2).

**Table 4.** Relationship between social impact experiences and attitudinal and behavioural involvement (controlled for gender, age, and education).

Relationship (Direct Effects)	PRE1	PRE2	DURING	POST
	Standardised Loadings	Standardised Loadings	Standardised Loadings	Standardised Loadings
Fandom $\rightarrow$ SocCap	0.204 ***	0.353 ***	0.437 ***	0.250 ***
Involvement $\rightarrow \text{SocCap}$	0.696 ***	0.546 ***	0.520 ***	0.578 ***
Cycling participation $\rightarrow$ SocCap	0.056 *	-0.009	0.043	0.046
$Visit WC \rightarrow SocCap$	0.096 *	0.217 ***	0.291 ***	0.200 ***
Gender $\rightarrow$ SocCap	0.051 *	0.120 ***	0.047	0.096 ***
$Age \rightarrow SocCap$	-0.032	0.070 *	0.002	0.009
Education $\rightarrow$ SocCap	-0.049	-0.028	0.036	0.000
Fandom $\rightarrow$ Sport	0.336 ***	0.416 ***	0.492 ***	0.335 ***
Involvement $\rightarrow$ Sport	0.576 ***	0.512 ***	0.443 ***	0.478 ***
Cycling participation $\rightarrow$ Sport	0.069 **	0.089 **	0.066 *	0.113 ***
$Visit WC \rightarrow Sport$	0.037	0.141 **	0.246 ***	0.107 ***
Gender $\rightarrow$ Sport	0.017	0.043	0.020	0.040
$Age \rightarrow Sport$	-0.162 ***	-0.068 *	-0.105 ***	-0.149 ***
Education $\rightarrow$ Sport	-0.026	-0.015	0.026	-0.003
$Fandom \rightarrow SocCoh$	0.204 ***	0.355 ***	0.455 ***	0.282 ***
Involvement $\rightarrow$ SocCoh	0.703 ***	0.582 ***	0.473 ***	0.579 ***
Cycling participation $\rightarrow$ SocCoh	0.048 *	0.003	0.041	0.037
Visit WC $\rightarrow$ SocCoh	0.175 ***	0.267 ***	0.357 ***	0.212 ***
$Gender \to SocCoh$	0.060 *	0.132 ***	0.038	0.105 ***
$Age \rightarrow SocCoh$	-0.068 **	0.027	-0.023	-0.030
Education $\rightarrow$ SocCoh	-0.025	-0.049	0.047 *	0.028
Fandom $\rightarrow$ CommSpirit	0.195 ***	0.357 ***	0.331 ***	0.281 ***
Involvement $\rightarrow$ CommSpirit	0.789 ***	0.598 ***	0.555 ***	0.689 ***
Cycling participation $\rightarrow$ CommSpirit	0.001	-0.001	0.024	-0.024
Visit WC $\rightarrow$ CommSpirit	0.248 ***	0.392 ***	0.452 ***	0.307 ***
Gender $\rightarrow$ CommSpirit	0.076 **	0.127 ***	0.090 ***	0.080 ***
$Age \rightarrow CommSpirit$	-0.065 **	-0.031	-0.022	-0.047 *
Education $\rightarrow$ CommSpirit	-0.026	-0.034	0.034	0.048 *

Relationship (Direct Effects)	PRE1	PRE2	DURING	POST
	Standardised Loadings	Standardised Loadings	Standardised Loadings	Standardised Loadings
Fandom $\rightarrow$ Conflict	-0.289 ***	-0.348 ***	-0.277 ***	-0.277 ***
Involvement $\rightarrow$ Conflict	-0.652 ***	-0.409 ***	-0.474 ***	-0.530 ***
Cycling participation $\rightarrow$ Conflict	-0.033	0.008	-0.064 *	-0.053
Visit WC $\rightarrow$ Conflict	-0.268 ***	-0.361 ***	-0.450 ***	-0.332 ***
Gender $\rightarrow$ Conflict	-0.002	-0.130 **	0.002	-0.001
$Age \rightarrow Conflict$	0.034	0.001	-0.101 ***	-0.099 *
Education $\rightarrow$ Conflict	0.057	-0.006	0.012	0.039
$Fandom \rightarrow CommInv$	0.196 ***	0.379 ***	0.126 ***	0.060
Involvement $\rightarrow$ CommInv	0.331 ***	0.275 ***	0.058	0.085
Cycling participation $\rightarrow$ CommInv	0.037	0.067	-0.006	-0.011
Visit WC $\rightarrow$ CommInv	0.273 ***	0.194 **	0.076 *	0.106 *
Gender $\rightarrow$ CommInv	-0.076 *	-0.043	0.012	-0.023
$Age \rightarrow CommInv$	-0.119 **	-0.119 **	-0.105 ***	-0.136 ***
Education $\rightarrow$ CommInv	0.101 ***	-0.018	0.049 *	0.147 ***
R <sup>2</sup> (SocCap)	0.544	0.487	0.551	0.448
R <sup>2</sup> (Sport)	0.478	0.470	0.517	0.390
R <sup>2</sup> (SocCoh)	0.578	0.555	0.564	0.475
R <sup>2</sup> (CommSpirit)	0.732	0.656	0.632	0.661
R <sup>2</sup> (Conflict)	0.585	0.436	0.519	0.482
R <sup>2</sup> (CommInv)	0.253	0.277	0.040	0.061

Table 4. Cont.

Note. \*\*\* p < 0.001; \*\* p < 0.01; \* p < 0.05; SocCap = Social capital; Sport = Sports participation; SocCoh = Social cohesion; CommSpirit = Community spirit; Conflict = Disorder and conflict; CommInv = Community involvement; Involvement = Attitudinal involvement; Visit WC = Event attendance; Measured on 7-point Likert scale (except cycling participation: 0 = no cycling in past 12 months, 1 = cycled at least once in past 12 months; visit WC: 0 = no visit of WC, 1 = visit of WC; gender: 0 = male, 1 = female; age: continuous; education: 0 = secondary education or lower, 1 = higher education).

#### 4.3. Factors Influencing Support and Social Impact Experiences as Mediating Factor

The results of the path coefficients (Table 5) combined with the fit indices in Table S4 suggest a good fit of the proposed measurement model. Event support obtained  $R^2$  values above 0.8 at the different measurement points suggesting a very good predictive power of the predictive variables.

Community spirit showed a positive, strong, and significant direct influence on support before, during, and after the event. Coherently, disorder and conflict showed a negative and significant direct influence on support before, during, and after the event as well. In addition, social capital had a positive and significant direct influence on support for the two extreme measurement points (i.e., PRE1 and POST). Further, attitudinal involvement had a significant direct influence on support before and after the event; fandom had a small and significant direct influence on support after the event, and social cohesion had a small and significant direct influence on support during the event.

As also evidenced from Table 5, fandom, attitudinal involvement, and event attendance of residents had a strong and significant positive indirect influence on support through the different social impact experiences (with community spirit as the most important contributing factor). This resulted in positive and significant total effects of community spirit, attitudinal involvement, fandom, and event attendance before, during, and after the event and a negative and significant total effect of disorder and conflict before, during, and after the event.

Relationship	PRE1			PRE2			DURING			POST		
	Standardised Loading		Star	Standardised Loading		Sta	Standardised Loading			Standardised Loading		
_	DI	ID	ТОТ	DI	ID	ТОТ	DI	ID	ТОТ	DI	ID	ТОТ
$SocCap \rightarrow Support$	0.126 *		0.126 *	0.050		0.050	-0.035		-0.035	0.081 *		0.081 *
$Sport \rightarrow Support$	-0.045		-0.045	-0.055		-0.055	0.034		0.034	0.037		0.037
SocCoh $\rightarrow$ Support	-0.092		-0.092	-0.045		-0.045	0.092 *		0.092 *	-0.045		-0.045
CommSpirit $\rightarrow$ Support	0.766 ***		0.766 ***	0.698 ***		0.698 ***	0.691 ***		0.691 ***	0.739 **		0.739 **
Conflict $\rightarrow$ Support	-0.092 *		-0.092 *	-0.187 ***		-0.187 ***	-0.232 ***		-0.232 ***	-0.112 ***		-0.112 ***
$CommInv \rightarrow Support$	-0.014		-0.014	-0.032		-0.032	-0.001		-0.001	0.014		0.014
Fandom $\rightarrow$ Support	0.016	0.165 ***	0.182 ***	0.043	0.281 ***	0.325 ***	0.010	0.336 ***	0.346 ***	0.051 *	0.260 ***	0.311 ***
Involvement $\rightarrow$ Support	0.115 *	0.657 ***	0.773 ***	0.137 **	0.458 ***	0.595 ***	0.035	0.533 ***	0.568 ***	0.093 **	0.608 ***	0.701 ***
Cycling participation $\rightarrow$ Support	-0.006	0.003	-0.003	-0.002	-0.010	-0.012	-0.032	0.036	0.004	-0.025	-0.006	-0.031
Visit WC $\rightarrow$ Support	0.021	0.205 ***	0.226 ***	0.064	0.326 ***	0.390 ***	-0.060	0.447 ***	0.388 ***	-0.017	0.276 ***	0.260 ***
Gender $\rightarrow$ Support	-0.032	0.059 **	0.027	-0.027	0.112 ***	0.085 **	-0.040 *	0.064 **	0.024	-0.040 *	0.064 **	0.024
Age $\rightarrow$ Support	0.014	-0.042 *	-0.028	-0.013	-0.012	-0.025	0.015	0.002	0.018	0.020	-0.029	-0.009
Education $\rightarrow$ Support	0.036 *	-0.029	0.007	-0.016	-0.021	-0.037	0.028	0.025	0.053 *	-0.012	0.032	0.020
R <sup>2</sup> (support)			0.855			0.813			0.803			0.855

Table 5. Relationship among support, social impact experiences, and attitudinal and behavioural involvement (controlled for gender, age, and education).

Note. DI = Direct effects; ID = Indirect effects; TOT = Total effects; \*\*\* p < 0.001; \*\* p < 0.01; \* p < 0.05; SocCap = Social capital; Sport = Sports participation; SocCoh = Social cohesion; CommSpirit = Community spirit; Conflict = Disorder and conflict; CommInv = Community involvement; Involvement = Attitudinal involvement; Visit WC = Event attendance; Measured on 7-point Likert scale (except cycling participation: 0 = no cycling in past 12 months, 1 = cycled at least once in past 12 months; visit WC: 0 = no visit of WC, 1 = visit of WC; gender: 0 = male, 1 = female; age: continuous; education: 0 = secondary education or lower, 1 = higher education).

# 5. Discussion

# 5.1. Differences in Social Impact Experiences before, during, and after the Event

Based on the results, *hypothesis 1a* cannot be accepted. Social capital was higher after the event compared to before or during the event. This is contrary to Gibson et al. [43] and Oshimi et al. [12] who both found social capital to be lower after the 2010 FIFA World Cup and 2019 Rugby World Cup, respectively, compared to before the events. In addition, hypothesis 1b cannot be accepted as sports participation and physical activity were higher after the event compared to six months before (PRE1) or during the event. Past research, however, found lower scores after the event compared to before [12] or during [11] the event. Hypothesis 1c cannot be accepted either. Social cohesion was significantly higher before and after the event compared to during the event, which contradicts previous results [11,12]. Further, hypothesis 1d can partly be accepted as community spirit was higher after but lower during the event compared to the situation before the event. The lower score during the event is remarkable as most research found feelings of euphoria to be the highest during the event (e.g., [75,76]). However, the scores did increase significantly after the event (such as [43]), indicating that, after all, residents were happy the event took place in the city. In line with Oshimi et al. [12], the factor disorder and conflict was lower after the event compared to before the event. Therefore, hypothesis 1e can be accepted. Additionally, this factor was highest during the event (4.91 on a 7-point Likert scale) indicating residents experienced nuisance because of the 2021 UCI Road World Championships, which was also evidenced in past research on the Olympic Games [33]. Finally, hypothesis 1f cannot be confirmed as community involvement was not significantly lower after the event compared to during the event. However, this could be due to the fact that in order to improve the fit of the data, one item from this factor was deleted (see Table S1).

The results show a limited experienced social and sports-related impact of the 2021 UCI Road World Championships on residents (scores below mid-point). Not unexpected, these scores are lower compared to other sources measuring social impact perceptions, which tend to overestimate social impacts (see [10] for an overview). The scores found in this study are in line with the lower experienced social impact scores found by Oshimi et al. [12], Taks et al. [10], and Taks and Rocha [11]. Furthermore, the significantly lower scores (i.e., community spirit, support, attitudinal involvement, and fandom) or conversely higher scores (i.e., disorder and conflict) on some factors during the event stand out. It seems that residents who were more involved in cycling and involved with the event were already occupied with the event before the event and were kept occupied after the event (explaining the higher scores). On the opposite, a large group of residents who were less involved were not focused on the event before or after it took place but were hyped up during the event. This is partly due to the fact that cycling is part of the cultural heritage of the Belgians [51,52,77]. The event enthralled the general population, and the study may have triggered the attention of the mass to participate during but not before or after the event. This may explain the overall lower social impact scores during the event.

Despite low absolute scores on some constructs, higher scores on most positive social impact experiences (i.e., social capital, sports participation and physical activity, community spirit, and community involvement) and lower scores on the negative social impact experience (i.e., disorder and conflict) were obtained after the event compared to before or during the event. This suggests some positive influence of the 2021 UCI Road World Championships on residents of the city of Leuven over time.

# 5.2. Relationship among Involvement, Social Impact Experiences, and Event Support before, during, and after the Event

# 5.2.1. Factors Influencing Social Impact Experiences

Based on the results, *hypothesis 2a* can be accepted for the most part. As hypothesised, attitudinal involvement had a positive direct influence on positive social impact experiences and a negative direct influence on negative impact experiences before the event. The same results were also found during and after the event (except for community involvement;

meaning residents who showed more attitudinal involvement towards the event also had more conversations about it before but not during and after the event. This partly confirms what has been found in past research. Taks and Rocha [11] found a relationship between attitudinal involvement and positive impact experiences (i.e., sports participation and physical activity, social cohesion, community spirit, and community involvement) during but not after the event. Ma et al. [49] also found a positive relationship between interest towards the event and the perceived impacts before the event. In addition, and broadly speaking similar to hypothesis 2a, hypothesis 2b can be accepted for the most part as well, as fandom positively influenced positive social impact experiences and negatively influenced negative impact experiences before, during, and after the event (except for community involvement after the event). This is in line with Inoue and Havard [50] who found evidence of the relationship between involvement in sport and the perceived impact during the event. The insignificance of community involvement is noteworthy. Note that this construct reflects 'I will discuss the organisation of the event with other people in the community' and 'I will have conversations about the organisation of the event'. Thus, this is about conversations about the event. It is not surprising that these conversations were more prominent in the period leading up to the event (especially for cycling fans). Once the event was over, these conversations faded away for both cycling fans and residents who are not cycling fans. *Hypothesis 2c* cannot be accepted. Participation in cycling has no significant direct influence on most social impact experiences before, during, or after the event. This was also evidenced by Vegara-Ferri et al. [16] before and during the event. There is, however, a direct influence of cycling behaviour on sports participation and physical activity before, during, and after the event (and a positive direct influence on social capital and social cohesion in the PRE1 measurement and a negative direct influence on disorder and conflict during the event). Not unexpected, residents who had cycled in the twelve months before the survey was taken were more positive towards the positive influence of the event on their sport and physical activity behaviour compared to residents who had not cycled. Lastly, *hypothesis 2d* can be accepted for the largest part. Event attendance positively influenced positive social impact experiences and negatively influenced negative impact experiences before, during, and after the event. This is, however, not true for sports participation and physical activity in the PRE1 measurement, possibly due to the long time period (of 6 months) before the event.

# 5.2.2. Factors Influencing Support

Based on the results, *hypothesis 3a* cannot be confirmed. In line with Oshimi et al. [12] and Prayag et al. [7], a positive direct relationship between social capital and support was found before the event. However, this only related to six months before the event (PRE1), and the relationship disappeared four months before the event (PRE2). A positive direct relationship was also found after the event, which can be seen as a contribution to the literature as this result has not yet been evidenced. Contrary to Oshimi et al. [12] and Rocha [34], no direct relationship was found between sports participation and physical activity and support before or after the event. No direct relationship was found during the event either. This finding suggests that sports participation and spectator sports are not connected, possibly due to the strong Sport for All policy in Belgium and more specifically the Flanders region [78], which strongly promotes active participation in sport and pays less attention to spectator sports. This study found a positive and significant direct relationship between social cohesion and event support during (in line with [8]) but not before and after the event (contrary to [3,7,8]). In accordance with past research, a strong and significant positive direct relationship was found between community spirit and support before, during, and after the event [3,5,7,12,34]. In addition, hypothesis 3b can be accepted. A negative and significant direct relationship between disorder and conflict and support was found before (as also evidenced by [7], but contrary to [12]), during and after (contrary to [12]) the event.

Attitudinal involvement had a positive direct relationship on support before and after, but not during the event, which may be attributed to the fact that the general population showed interest in the event at the time the event took place and that the general population was also more represented in the survey sample. Therefore, *hypothesis 3c* can only party be accepted. Parra-Camacho et al. [15] also evidenced this relationship, as they observed a relationship between attitudinal involvement (in terms of interest in the event) and support for the Formula E Grand Prix of Santiago de Chile in 2018 (which can be categorised as a non-mega SSE) after the event. Additionally, *hypothesis 3d* cannot be accepted as fandom only had a positive significant direct influence on support after the event. Contrary to past research [3,13,15], participation in cycling and event attendance showed no significant direct influence on support before, during, or after the event. Consequently, *hypotheses 3e* and 3f cannot be accepted. As indicated earlier, the absence of these links could possibly be due to the strong Sport for All policy in Belgium, and more specifically the Flanders region [78], which suggests that both sports participation and viewing behaviour are not connected to event support.

In past research on identifying predictive variables of support for SSEs, attitudinal and behavioural involvement were often not included (e.g., [3,4,7,9]). At the same time, involvement in sport and sports events were considered to be important contributors of event support [18]. Against expectations, this study evidences the limited direct influence of several involvement measures (i.e., fandom, participation in cycling, and event attendance) on event support.

#### 5.2.3. Social Impact Experiences as Mediating Factor

The attitudinal and behavioural measures that were included in this study did not exert a large direct influence on event support. Mainly attitudinal involvement was an important factor and to a lesser extent fandom. The results show, however, large and significant indirect influences of attitudinal involvement, event attendance, and fandom on event support (through different social impact perceptions and mainly through community spirit). As also evidenced by Taks and Rocha [11], this study argues that social impact experiences have an important role in evaluating the relationship between attitudinal and behavioural involvement, on the one hand, and event support, on the other hand.

#### 5.3. Implications

Cities all over the world persist in organising publicly funded, non-mega SEEs as they seem to have more potential in achieving sustainable legacies than mega SSEs [1]. Additionally, support from local residents is a decisive factor for the success of events [4–6]. This study evidenced the limited social and sports-related impact of the 2021 UCI Road World Championships on local residents when measuring experiences. On the one hand, we did expect lower social impact scores compared to the majority of social impact studies, which generally measure social impact through perceptions. It has been well-documented that measuring social impact perceptions lead to overestimation of the impact [9-12]. On the other hand, these results were disappointing as a slightly stronger impact than other studies was expected [9–12] given the strongly embedded cultural tradition of cycling among Flemish residents [52,53,77] and the very specific and unique societal context, with this event being the first significant SSE in Flanders since COVID-19. Nevertheless, despite the low absolute scores on several social impact experiences, it seemed the event showed significantly higher scores for social capital, sports participation and physical activity, community spirit, support, and attitudinal involvement after the event suggesting some positive influence on residents.

The current study has two important contributions to the literature. First, Taks and Rocha [11] highlighted the value of evaluating social impact experiences among SSEs. This article confirms this utility and shows that to explain event support, social impact experiences are of utmost importance, not only as direct predictors, but also as mediating factors (by including, for example, attitudinal and behavioural involvement factors). Second, this

article shows that the direct influence of involvement factors on event support are less important than previously suggested (e.g., [18]).

It is important for future hosts and event organisers to get the narrative right when it comes to social impact experiences and their importance. More specifically, it is correct to emphasise that the event will stimulate community spirit and to some extent community involvement, but that all other social impact variables are less relevant and should not be emphasised (i.e., scores below the indifference point). Given the important mediating role of community spirit on event support, event organisers will benefit from offering celebratory opportunities over the course the event [79].

# 5.4. Limitations and Future Research

Some limitations can be identified. First, data were gathered by means of online surveys. This data collection method yields the potential of sampling bias. By online distribution of the questionnaire, it is possible that certain (target) groups did not have the chance to complete the questionnaire (e.g., no or limited access to a computer or the internet). In addition, it is possible that certain individuals with a greater affinity to sport or events or the specific topic (i.e., social impact) are overrepresented in the response. However, the data were weighted (for gender, age, and education) by using population statistics to ensure a representative response is achieved [65,67]. Second, the cross-sectional samples across the different time periods may have caused variations, particularly for the data collected during the event, when a much larger portion of the general population engaged with the event. This may have enticed a larger portion of the general population to participate in the study during the event, while people with higher levels of involvement and interest in the event were more likely to participate in the study before and after the event. Although the four cross-sectional samples were representative for the population under investigation, following the same research participants over a longer period of time in a longitudinal approach may even shed a more accurate understanding of changes in social impact experiences over time [9]. Third, surveys can only do so much to capture social impacts. A mixed method approach, including interviews, offering residents the opportunity to talk about their social impact experiences, might enhance our understanding of the scope and meaning of the social experiences for residents. Fourth, because of privacy issues, it was not within the reach of the authors to control for people who completed the questionnaire among the different measurement points. For example, some people only completed the questionnaire once, and others completed the questionnaire at multiple measurement points. Lastly, the fit of the scales to measure fandom and attitudinal involvement was not great. Although the factor loadings, CFI, TLI, CR, and AVE values of the scales were acceptable, the root mean square error of approximation (RMSEA) values seemed to exceed the proposed cut-off values [68], which could be due to a low number of degrees of freedom in the model [72–74]. However, as the use of RMSEA has been contested in the literature [72] and to be consistent with past research [11,62,63], the scales were kept.

The current study filled the gap in the literature by investigating the social impact of a non-mega SSE among a representative city sample four to six months before, during, and two months after the event. Future research can complement the current knowledge by replicating this research in other contexts, such as examining the same event in other countries or investigating another sport in the same city context. The study pertained to a cycling event strongly embedded in the cultural context where the event took place (i.e., Flanders and Belgium). It would be interesting to repeat the study for another strongly culturally embedded sport in another society (e.g., a major hockey event in Canada). In addition, measurements with a longer time interval (e.g., one year prior to or one year after the event) would allow to determine whether changes among involvement, social impact experiences, and event support remain in effect or disappear altogether.

# 6. Conclusions

The 2021 UCI Road World Championships that were held in Flanders provided the perfect context to fill several research gaps by studying (1) the variation of social impact experiences of a non-mega SSE over time (i.e., before, during, and after the event) and (2) the influence of social impact experiences and various forms of sport and event involvement on event support among representative samples of residents residing in the city of Leuven (host city for road races).

The event had a limited social and sports-related impact on residents of the city of Leuven, but there were improvements over time (i.e., social capital, sports participation and physical activity, community spirit, support, and attitudinal involvement). Additionally, social impact experiences have an important direct influence on event support before, during, and after the event and play an important mediating role for the effect of attitudinal and behavioural involvement on event support.

**Supplementary Materials:** The following supporting information can be downloaded at: https: //www.mdpi.com/article/10.3390/su14159509/s1, Table S1. Results of the confirmatory factor analysis of the social impact scale (pre-event in future tense presented here; during event in present tense; and post-event in past tense); Table S2. Results of the confirmatory factor analysis of the attitudinal involvement scale; Table S3. Results of the confirmatory factor analysis of the fandom scale; Table S4. Fit indices of structural equation models to study the relationship among support, social impact experiences, and attitudinal and behavioural involvement (controlled for gender, age, and education).

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**Data Availability Statement:** The data presented in this study are available from the corresponding author upon reasonable request.

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# References

- Taks, M. The Rise and Fall of Mega-Sport Events: The Future Is on Non-Mega-Sport Events. In *Ethics and Governance in Sport: The Future of Sport Imagined*; Auweele, V.Y., Cook, E., Perry, J., Eds.; Routledge: London, UK, 2015; pp. 84–93.
- Késenne, S. The Economic Impact, Costs and Benefits of the FIFA World Cup and the Olympic Games: Who Wins, Who Loses? In *International Handbook on the Economics of Mega Sporting Events*; Maennig, W., Zimbalist, A., Elgar, E., Eds.; Edward Elgar Publishing: Cheltenham, UK, 2012; pp. 270–278.
- Ribeiro, T.; Calapez, A.; Cunha de Almeida, V.M. Does the Olympic Legacy and Sport Participation Influence Resident Support for Future Events? *Leis. Stud.* 2021, 41, 1–16. [CrossRef]
- 4. Gursoy, D.; Kendall, K.W. Hosting Mega Events. Modeling Locals' Support. Ann. Tour. Res. 2006, 33, 603–623. [CrossRef]
- Kaplanidou, K.; Karadakis, K.; Gibson, H.; Thapa, B.; Walker, M.; Geldenhuys, S.; Coetzee, W. Quality of Life, Event Impacts, and Mega-Event Support among South African Residents before and after the 2010 FIFA World Cup. J. Travel Res. 2013, 52, 631–645. [CrossRef]

- Zhou, Y.; Ap, J. Residents' Perceptions towards the Impacts of the Beijing 2008 Olympic Games. J. Travel Res. 2009, 48, 78–91. [CrossRef]
- Prayag, G.; Hosany, S.; Nunkoo, R.; Alders, T. London Residents' Support for the 2012 Olympic Games: The Mediating Effect of Overall Attitude. *Tour. Manag.* 2013, *36*, 629–640. [CrossRef]
- 8. Ribeiro, T.; Yoda, R.; Papadimitriou, D.A.; Correia, A. Resident Attitudes toward the Rio 2016 Olympic Games: A Longitudinal Study on Social Legacy and Support Behaviours. *J. Hosp. Tour. Res.* **2022**, *50*, 188–198. [CrossRef]
- 9. Oshimi, D.; Yamaguchi, S.; Fukuhara, T.; Taks, M. Expected and Experienced Social Impact of Host Residents during Rugby World Cup 2019: A Panel Data Approach. *Front. Sports Act. Living* **2021**, *3*, 628153. [CrossRef]
- Taks, M.; Oshimi, D.; Agha, N. Other- versus Self-Referenced Social Impacts of Events: Validating a New Scale. *Sustainability* 2020, 12, 10281. [CrossRef]
- Taks, M.; Rocha, C. Involvement, Social Impacts and Subjective Well-Being: Brazilians' Experiences from Rio 2016 Olympic and Paralympic Games. World Leis. J. 2022, 1–22. [CrossRef]
- Oshimi, D.; Taks, M.; Agha, N. Social Impact of Events: Advancing Insights on Social Impact Scales. *Eur. Sport Manag. Q.* 2022, 1–20. [CrossRef]
- 13. Bursa, B.; Mailer, M. Can Large Cycling Events Promote Active Mobility? Expectations versus Reality on the Example of the 2018 UCI Cycling World Championship. *Res. Trans. Bus. Manag.* **2021**, *40*, 100564. [CrossRef]
- 14. Heere, B.; Walker, M.; Gibson, H.; Thapa, B.; Geldenhuys, S.; Coetzee, W. The Power of Sport to Unite a Nation: The Social Value of the 2010 FIFA World Cup in South Africa. *Eur. Sport Manag. Q.* **2013**, *13*, 450–471. [CrossRef]
- 15. Parra-Camacho, D.; Duclos Bastías, D.M.; Ramírez, F.G.; López-Carril, S. Evaluation of the Perceived Social Impacts of the Formula E Grand Prix of Santiago de Chile. *Eur. J. Gov. Econ.* **2020**, *9*, 155–169. [CrossRef]
- 16. Vegara-Ferri, J.M.; López-Gullón, J.M.; Ibanez-Pérez, R.J.; Carboneros, M.; Angosto, S. Segmenting the Older Resident's Perception of a Major Cycling Event. *Sustainability* **2020**, *12*, 4010. [CrossRef]
- 17. Oshimi, D.; Harada, M. Host Residents' Role in Sporting Events: The City Image Perspective. *Sport Manag. Rev.* 2019, 22, 263–275. [CrossRef]
- 18. Oshimi, D.; Harada, M.; Fukuhara, T. Residents' Perceptions on the Social Impacts of an International Sport Event: Applying Panel Data Design and a Moderating Variable. *J. Conv. Event Tour.* **2016**, *17*, 294–317. [CrossRef]
- 19. Ritchie, B.W.; Shipway, R.; Cleeve, B. Resident Perceptions of Mega-Sporting Events: A Non-Host City Perspective of the 2012 London Olympic Games. J. Sport Tour. 2009, 14, 143–167. [CrossRef]
- Crofts, C.; Schofield, G.; Dickson, G. Women-Only Mass Participation Sporting Events: Does Participation Facilitate Changes in Physical Activity? Ann. Leis. Res. 2012, 15, 148–159. [CrossRef]
- 21. Coleman, R.; Ramchandani, G. The Hidden Benefits of Non-Elite Mass Participation Sports Events: An Economic Perspective. *Int. J. Sport Mark. Spons.* **2010**, *12*, 19–31. [CrossRef]
- 22. Fairley, S.; Tyler, B.D.; Kellett, P.; D'Elia, K. The Formula One Australian Grand Prix: Exploring the Triple Bottom Line. *Sport Manag. Rev.* **2011**, *14*, 141–152. [CrossRef]
- 23. Müller, M. After Sochi 2014: Costs and Impacts of Russia's Olympic Games. Eurasian Geogr. Econ. 2014, 55, 628–655. [CrossRef]
- 24. Gratton, C.; Taylor, P. Economics of Sport and Recreation, 2nd ed.; Spon: London, UK, 2000; ISBN 0-419-18960-2.
- 25. Vos, S.; Scheerder, J. Projecten En Evenementen in de Sport. Situering En Aandachtspunten [Projects and Events in Sport. Location and Points of Attention]. In *Management en Marketing van Sportaccommodaties en Sportevenementen. Geen Sportcultuur zonder Sportinfrastructuur [Management and Marketing of Sport Facilities and Sport Events. No Sport Culture without Sport Infrastructure]*; Scheerder, J., Vos, S., Eds.; Academia Press: Ghent, Belgium, 2015; pp. 200–223. ISBN 978-90-382-2469-5.
- Preuss, H.; Andreff, W.; Weitzmann, M. Cost and Revenue Overruns of the Olympic Games 2000–2018; Springer Gaber (open access): Berlin, Germany, 2019; ISBN 978-3-658-24996-0.
- Preuss, H.; Solberg, H.A. Attracting Major Sporting Events: The Role of Local Residents. *Eur. Sport Manag. Q.* 2006, *6*, 391–411. [CrossRef]
- 28. Sautter, E.T.; Leisen, B. Managing Stakeholders: A Tourism Planning Model. Ann. Tour. Res. 1999, 26, 312–328. [CrossRef]
- 29. Jones, C. Mega-Events and Host-Region Impacts: Determining the True Worth of the 1999 Rugby World Cup. *Int. J. Tour. Res.* **2001**, *3*, 241–251. [CrossRef]
- 30. Baade, R.A.; Matheson, V.A. Going for the Gold: The Economics of the Olympics. J. Econ. Perspect. 2016, 30, 201–218. [CrossRef]
- Kassens-Noor, E.; Lauermann, J. How to Bid Better for the Olympics: A Participatory Mega-Event Planning Strategy for Local Legacies. J. Am. Plan. Assoc. 2017, 83, 335–345. [CrossRef]
- Kim, H.J.; Gursoy, D.; Lee, S.-B. The Impact of the 2002 World Cup on South Korea: Comparisons of Pre- and Post-Games. *Tour. Manag.* 2006, 27, 86–96. [CrossRef]
- 33. Waitt, G. Social Impacts of the Sydney Olympics. Ann. Tour. Res. 2003, 30, 194–215. [CrossRef]
- Rocha, C.M. Temporal Variations in the Relationship Between Legacies and Support: A Longitudinal Case Study in Rio 2016 Olympic Games. J. Sport Manag. 2020, 34, 130–146. [CrossRef]
- 35. Twynam, G.D.; Johnston, M. Changes in Host Community Reactions to a Special Sporting Event. *Curr. Issues Tour.* **2004**, *7*, 242–261. [CrossRef]
- 36. Mihalik, B.J.; Simonetta, L. A Midterm Assessment of the Host Population's Perceptions of the 1996 Summer Olympics: Support, Attendance, Benefits, and Liabilities. J. Travel Res. 1999, 37, 244–248. [CrossRef]

- 37. Hiller, H.H.; Wanner, R.A. Public Opinion in Host Olympic Cities: The Case of the 2010 Vancouver Winter Games. *Sociology* **2011**, 45, 883–899. [CrossRef]
- Chalip, L. Event Bidding, Legacy, and Leverage. In *The SAGE Handbook of Sport Management*; Hoye, R., Parent, M.M., Eds.; SAGE Publications LTD: London, UK, 2017; pp. 401–421. ISBN 978-1-4739-0243-5.
- 39. Fredline, E. Host and Guest Relations and Sport Tourism. Sport Soc. 2005, 8, 263–279. [CrossRef]
- 40. Huang, H.; Mao, L.L.; Kim, S.-K.; Zhang, J.J. Assessing the Economic Impact of Three Major Sport Events in China: The Perspective of ATtendees. *Tour. Econ.* 2014, 20, 1277–1296. [CrossRef]
- 41. Holmes, K.; Hughes, M.; Mair, J.; Carlsen, J. Events and Sustainability; Routledge: London, UK, 2015; ISBN 978-0-415-74450-8.
- 42. Hover, P.; Dijk, B.; Breedveld, K.; van Eekeren, F.; Slender, H. *Creating Social Impact with Sport Events*; Mulier Institute & Utrecht University: Utrecht, The Netherlands, 2016.
- 43. Gibson, H.J.; Walker, M.; Thapa, B.; Kaplanidou, K.; Geldenhuys, S.; Coetzee, W. Psychic Income and Social Capital among Host Nation Residents: A Pre–Post Analysis of the 2010 FIFA World Cup in South Africa. *Tour. Manag.* 2014, 44, 113–122. [CrossRef]
- Misener, L.; Mason, D.S. Creating Community Networks: Can Sporting Events Offer Meaningful Sources of Social Capital? Manag. Leis. 2006, 11, 39–56. [CrossRef]
- 45. Wilks, L. Introduction. In *Exploring the Social Impacts of Events*; Richards, G., de Brito, M.P., Wilks, L., Eds.; Routledge: New York, NY, USA, 2017; pp. 1–11. ISBN 978-1-138-08183-3.
- Kerwin, S.; Warner, S.; Walker, M.; Stevens, J. Exploring Sense of Community among Small-Scale Sport Event Volunteers. *Eur. Sport Manag. Q.* 2015, 15, 77–92. [CrossRef]
- 47. Kim, W.; Jun, H.M.; Walker, M.; Drane, D. Evaluating the Perceived Social Impacts of Hosting Large-Scale Sport Tourism Events: Scale Development and Validation. *Tour. Manag.* 2015, 48, 21–32. [CrossRef]
- 48. Ap, J. Residents' Perceptions on Tourism Impacts. Ann. Tour. Res. 1992, 19, 665–690. [CrossRef]
- Ma, S.C.; Ma, S.M.; Wu, J.H.; Rotherham, I.D. Host Residents' Perception Changes on Major Sport Events. *Eur. Sport Manag. Q.* 2013, 13, 511–536. [CrossRef]
- 50. Inoue, Y.; Havard, C.T. Determinants and Consequences of the Perceived Social Impact of a Sport Event. J. Sport Manag. 2014, 28, 295–310. [CrossRef]
- 51. Scheerder, J.; Thibaut, E. Studie over de Bewegingsactiviteiten in Vlaanderen (SBV) 1969–2019. Een Halve Eeuw Sportparticipatie in Cijfers [Study on Physical Activity in Flanders (SPF) 1969-2019. Half a Century of Sports Participation in Figures]; Sport Policy & Management Studies; KU Leuven, Policy in Sports & Physical Activity Research Group: Leuven, Belgium, 2021; Volume 100, ISBN 978-94-92134-88-2.
- 52. Knuts, S.; Delheye, P.; Vanysacker, D. Wentelende Wielen. Anderhalve Eeuw Fietsen En Wielrennen in Vlaanderen [Revolving Wheels. A Century and a Half of Recreational and Competitive Cycling in Flanders]. In Vlaanderen Fietst! Sociaalwetenschappelijk Onderzoek Naar de Fietssportmarkt [Flanders is Cycling! Social Science Research into the Cyling Sports Market]; Scheerder, J., Lagae, W., Boen, F., Eds.; Academia Press: Ghent, Belgium, 2011; pp. 15–70. ISBN 978-90-382-1817-5.
- 53. CIM Ons Aanbod: TV [Our Offer: Television]. 2022. Available online: https://www.cim.be/nl (accessed on 20 April 2022).
- World Health Organization. WHO Director-General's Opening Remarks at the Media Briefing on COVID-19–11 March 2020. 2020. Available online: https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-atthe-media-briefing-on-covid-19---11-march-2020 (accessed on 29 April 2022).
- Constandt, B.; Thibaut, E.; De Bosscher, V.; Scheerder, J.; Ricour, M.; Willem, A. Exercising in Times of Lockdown: An Analysis of the Impact of COVID-19 on Levels and Patterns of Exercise among Adults in Belgium. *Int. J. Environ. Res. Public Health* 2020, 17, 4144. [CrossRef] [PubMed]
- 56. Helsen, K.; Derom, I.; Corthouts, J.; De Bosscher, V.; Willem, A.; Scheerder, J. Participatory Sport Events in Times of COVID-19: Analysing the (Virtual) Sport Behaviour of Event Participants. *Eur. Sport Manag. Q.* **2022**, *22*, 35–54. [CrossRef]
- 57. Federal Public Service Health, Food Chain Safety and Environment Laatste Nieuws [Latest News]. 2022. Available online: https://www.info-coronavirus.be/nl/news (accessed on 1 March 2022).
- Balduck, A.-L.; Maes, M.; Buelens, M. The Social Impact of the Tour de France: Comparisons of Residents' Pre- and Post-Event Perceptions. *Eur. Sport Manag. Q.* 2011, 11, 91–113. [CrossRef]
- 59. Denstadli, J.M.; Solberg, H.A. I Want to Ride My Bicycle! Or Not? Health and Transportation Legacies of the 2017 World Road Cycling Championship. *Eur. Sport Manag. Q.* 2021, 1–17. [CrossRef]
- 60. Vegara-Ferri, J.M.; Pallarés, J.G.; Angosto, S. Differences in Residents' Social Impact Perception of a Cycling Event Based on the Fear of the COVID-19 Pandemic. *Eur. Sport Manag. Q.* **2021**, *21*, 374–390. [CrossRef]
- Taks, M.; Rocha, C. Maakt Rio 2016 de Brazilianen Gelukkig? [Did Rio 2016 Make the Brasilians Happy?]. In *The Story of Rio 2016: De Maatschappelijke Betekenis van de Olympische en Paralympische Spelen 2016 [The Story of Rio 2016: The Societal Meaning of the Olympic and Paralympic Games]*; Hover, P., Breedveld, K., Eds.; Mulier Institute: Utrecht, The Netherlands, 2017; pp. 119–127. ISBN 978-90-5472-394-3.
- 62. Shank, M.D.; Beasley, F.M. Fan or Fanatic: Refining a Measure of Sports Involvement. J. Sport Behav. 1998, 21, 435–444.
- 63. Wann, D. Preliminary Validation of a Measure for Assessing Identification as a Sports Fan: The Sport Fandom Questionnaire. *Int. J. Sport Manag.* **2002**, *3*, 103–115.
- 64. Hover, P.; Breedveld, K. Belangstelling Voor de Sportzomer van 2016. Factsheet 2016/8 [Importance of the Sport Summer of 2016. Factsheet 2016/8]; Mulier Institute: Utrecht, The Netherlands, 2016.

- 65. Helsen, K.; Scheerder, J. Onderzoek Naar Lokale Effecten van Leuven Europese Sportstad En WK Wielrennen. Resultaten van Het Online Onderzoek Bij Inwoners (Deel 2) [Research on the Local Effects of Leuven European Sport City and the World Cycling Championships. Results of the Online Survey among Residents (Part 2)]; Sport Policy & Management Studies; KU Leuven: Policy in Sports & Physical Activity Research Group: Leuven, Belgium, 2022; Volume 114, ISBN 978-94-6459-303-7.
- 66. Bourdieu, P. La Distinction: Critique Sociale du Jugement; Editions de Minuit: Paris, France, 1979.
- 67. Statistics Belgium Actieve (Werkende En Werkloze) En Inactieve Bevolking Sinds 2017 Op Basis van de Enquête Naar de ArbeidsKrachten, per Jaar, Gewest, Leeftijdsklasse En Onderwijsniveau [Active (Working and Unemployed) and Inactive Population since 2017 Based on the Labor Force Survey, by Year, Region, Age Class and Level of Education]. 2021. Available online: https://statbel.fgov.be/en (accessed on 22 June 2021).
- 68. Hair, J.F.; Black, W.C.; Babin, B.J.; Anderson, R.E. Multivariate Data Analysis, 7th ed.; Pearson Education: Harlow, UK, 2013.
- 69. Kline, R.B. *Principles and Practice of Structural Equation Modeling*, 4th ed.; The Guilford Press: New York, NY, USA, 2016; ISBN 1-4625-2334-X.
- Fornell, C.; Larcker, D.F. Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *J. Mark. Res.* 1981, 18, 39–50. [CrossRef]
- Algesheimer, R.; Dholakia, U.M.; Herrmann, A. The Social Influence of Brand Community: Evidence from European Car Clubs. J. Mark. 2005, 69, 19–34. [CrossRef]
- Kenny, D.A.; McCoach, D.B. Effect of the Number of Variables on Measures of Fit in Structural Equation Modeling. *Struct. Equ. Model.* 2003, 10, 333–351. [CrossRef]
- Kelley, K.; Lai, K. Accuracy in Parameter Estimation for the Root Mean Square Error of Approximation: Sample Size Planning for Narrow Confidence Intervals. *Multivar. Behav. Res.* 2011, 46, 1–32. [CrossRef] [PubMed]
- 74. Kenny, D.A.; Kaniskan, B.; McCoach, D.B. The Performance of RMSEA in Models With Small Degrees of Freedom. *Sociol. Method. Res.* **2015**, *44*, 486–507. [CrossRef]
- 75. Kavetsos, G.; Szymanski, S. National Well-Being and International Sports Events. J. Econ. Psychol. 2010, 31, 158–171. [CrossRef]
- Oja, B.D.; Wear, H.T.; Clopton, A.W. Major Sport Events and Psychic Income: The Social Anchor Effect. J. Sport Manag. 2018, 32, 257–271. [CrossRef]
- 77. Derom, I.; VanWynsberghe, R. Extending the Benefits of Leveraging Cycling Events: Evidence from the Tour of Flanders. *Eur. Sport Manag. Q.* **2015**, *15*, 111–131. [CrossRef]
- Claes, E.; Scheerder, J.; Willem, A.; Billiet, S. Belgium: Flanders—Sport Federations and Governmental Sport Bodies. In Sport Policy Systems and Sport Federations: A Cross-National Perspective; Scheerder, J., Willem, A., Claes, E., Eds.; Palgrave Macmillan: London, UK, 2017; pp. 41–63. ISBN 978-1-137-60222-0.
- 79. Chalip, L. Towards Social Leverage of Sport Events. J. Sport Tour. 2006, 11, 109–127. [CrossRef]