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Understanding the role of international sport events on sport and exercise participation

An examination of hosted and postponed events among different age segments

Yoda, Ryuta

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Understanding the role of international sport events on sport and exercise participation. An examination of hosted and postponed events among different age segments

By

Ryuta Yoda



A thesis submitted in partial fulfilment of the University's requirements for the Degree of Doctor of Philosophy

December 2022

Certificate of Ethical Approval



Certificate of Ethical Approval

Applicant:

Ryuta Yoda

Project Title:

Understanding the role of sport mega-events on sport participation: Systematic
Review

This is to certify that the above named applicant has completed the Coventry University Ethical Approval process and their project has been confirmed and approved as Low Risk

Date of approval:

26 February 2019

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P88132



Certificate of Ethical Approval

Applicant:

Ryuta Yoda

Project Title:

Understanding the role of consecutive international sport events on sport and exercise participation. A study with different age segments

This is to certify that the above named applicant has completed the Coventry University Ethical Approval process and their project has been confirmed and approved as Medium Risk

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Ryuta Yoda

Project Title:

Understanding the role of success and postponement of international sport events on sport and exercise participation. A study with different age segments

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Date of approval:

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Content derived from this thesis has been rewritten and contributed to the following publications:

Peer-reviewed academic conferences

Yoda, R., Biscaia, R., Senaux. B., Brittain, I. (2020) ‘Understanding the Role of Consecutive International Sport Events on Sport Participation: A Study with Different Age Segments’. 34th North American Society for Sport Management (NASSM) Conference, San Diego (USA - held virtually due to COVID-19), 28th -30th May 2020.

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Abstract

The 2019 Rugby World Cup and 2020 Tokyo Olympic Games were both expected to take place in Japan with a one-year interval. Building on these cases, the initial aim of this study was to understand the impact of hosting consecutive international sport events on the attitude and behaviours towards participation in sport and exercise among different age groups. The COVID-19 pandemic, however, disrupted public health and led to the postponement of the 2020 Tokyo Olympic Games. As a result, since there was uncertainty on whether the Games would be hosted during the development of the current study (or at all), two revised aims were set. The first aim was to explore the impact of hosting an international sport event on sport and exercise participation among different age groups. The second aim was to critically analyse how the COVID-19 pandemic and related postponement of the 2020 Tokyo Olympic Games may have affected attitude towards participation and actual behaviours among the host citizens.

Two waves of semi-structured interviews with the same individuals were conducted in Tokyo (venues for both international sport events) and Oita (a venue for the 2019 Rugby World Cup). The sample comprised individuals in the age groups of 20-29 years old and 60-79 years old who watched the 2019 Rugby World Cup in the venues or through the live broadcasting. Across the two waves, a total of 106 interviews were conducted. The interviews were recorded and transcribed, before being coded on NVivo and analysed.

The results from the 1st wave of data collection highlight the importance of the demonstration effect on changing attitude towards participation in sport and exercise and/or actual behaviours. A comparison of the two age groups suggests that a higher percentage of 20s than 60-70s claimed an increased motivation to either start or maintain their participation in sport and exercise, and despite 20s being less active than participants in 60-70s. The results from the 2nd wave of data collection suggest that the postponement of the 2020 Tokyo Olympic Games had no impact on attitude towards participation and actual behaviours. On the other hand, the COVID-19 pandemic affected attitude towards participation and actual behaviours both positively and negatively. For the 20s, the most common reason for improved attitude was that they felt a reduction in their physical activity due to increased remote working and realised that they needed to do sport and exercise. This led to change in their behaviour, including for previously inactive participants. Overall, the pandemic had more impacts on the 20s than the 60-70s, mostly because of the nature of sport and exercise activities they engage in, and external constraints (e.g., facility closure).

The results of the current research add to the existing body of literature suggesting that active people are often more inspired by international sport events. This research indicates this trend only applies for younger individuals (20s) and not for older individuals (60-70s). Also, the current findings suggest the importance for policy makers of promoting short and entertaining sport and exercise programmes.

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1. Introduction

1.1. Context and importance of study

There are various benefits of participating in sport and exercise including social- and health-related benefits (Colberg et al. 2016; Pucci et al. 2012), which ultimately may lead to economic benefits through reducing healthcare costs and losses from physical inactivity (Kohl et al. 2012). Some of the health benefits of participating in an adequate amount of sport and exercise are a reduction in mortality risk, delay or prevention of the development of type 2 diabetes and a reduction in depression and anxiety (Colberg et al. 2016; Rebar et al. 2015). The literature suggests that some social benefits of participating in sport and exercise include an improvement in quality of life and a reduction in crime through organized sports programmes in urban areas (Hartmann and Depro 2006; Pucci et al. 2012). Some common psychological and social health benefits that are suggested in the literature are related to improved self-esteem and social interaction, and fewer depressive symptoms (Emile et al. 2014).

Because of these benefits, increasing sport and exercise participation attitudes and behaviours is often among the main reasons for countries to host international sport events (Bason and Grix 2018). The general public and governments often believe that the impacts on sport and exercise participation of hosting an international sport event are likely to occur through trickle-down effects (Reis et al. 2017). That is, hosting international sport events with success of the home country's athletes is likely to inspire people to be more active and engage in sport and exercise (Ramchandani et al. 2015; Reis et al. 2017). Nevertheless, Reis and colleagues argue that sport participation legacies at the 2012 London and the 2016 Rio Olympic Games were not accomplished as it was claimed they would be during the bid. On the other hand, Kokolakis, Lera-López, and Ramchandani (2019) argue that while sport and exercise participation dropped in 2014 compared to 2013, a year after the 2012 London Olympic Games, the participation rate in 2014 is higher than prior to hosting the event. Extant studies also suggest that hosting an international sport event is not in itself enough to increase sport and exercise participation among the host citizens (Veal, Toohey, and Frawley 2012; Reis et al. 2017; Aizawa et al. 2018). For example, Aizawa and colleagues highlight the need for countries to have a policy environment, and behavioural and social environments that favour the increase of sport and exercise participation through hosting international sport events. Successful planning and hosting of international sport events offers the potential to inspire individuals leading them to change attitudes and behaviours (Ramchandani and Coleman 2012).

Previous research has often focused on change in attitude and/or behaviour/behaviour intention to understand the impact of hosting international sport events on sport and exercise participation (e.g. Brown et al. 2017; Cleland et al. 2019; Ramchandani and Coleman 2012). This is based on the theory of planned behaviour (TPB) (Ajzen 1991), which is used to explain how changes in individuals' attitudes towards sport and exercise may lead to change in behavioural intentions and related behaviours (Gucciardi and Jackson 2015; Madden, Ellen, and Ajzen 1992). Nevertheless, findings from the literature are often contradictory, making it difficult to draw conclusions for academics, policy makers and practitioners (Teare and Taks 2021; Weed et al. 2015). Also, while the role of hosting an international sport event in promoting sport and exercise participation among the host population is well documented, regardless of the positive effects or its non-effects, previous literature has focused on the effects of single events (e.g. Cleland et al. 2019; Potwarka et al. 2016; Ramchandani, Coleman, and Bingham 2017). That is, events that are hosted only one time in a certain country such as the Summer and Winter Olympic Games, the Commonwealth Games, the FIFA World Cup or the Rugby World Cup. However, over the last decade, some countries have invested large amounts of resources in hosting multiple international sport events and, the effect of this continued investment on sport and exercise participation has never been explored. For example, Brazil hosted the 2013 FIFA Confederations Cup, the 2014 FIFA World Cup, and the 2016 Rio Olympic Games. Also, Russia hosted the 2013 World Championships in Athletics, the 2013 Summer Universiade, the 2014 Sochi Winter Olympic Games, the 2017 FIFA Confederations Cup and the 2018 FIFA World Cup. Still, it is yet to be known if hosting successive events plays a role in promoting sport and exercise participation among the host population. Hosting consecutive events often makes information about sport and exercise more connections in the daily lives of citizens (Gutierrez and Bettine 2022), which may contribute to developing a sense of social identification with the teams and athletes, and thus prolong the inspiration to be active among citizens (Gucciardi and Jackson 2015; Lock and Heere 2017). To this end, exploring how hosting consecutive events may impact sport and exercise participation is vital to provide a better understanding of potential benefits for citizens of such large investments by countries.

The recent international sport events hosted in Japan (the 2019 Rugby World Cup and the 2020 Tokyo Olympic Games) provide a good opportunity to study these continued effects, as these events were planned to be hosted in two consecutive years, covering different cities and sports. In addition, many countries will face a demographic shift with regard to aging societies that leads to an increase in the number of older citizens (World Health Organization (WHO) 2021). This trend has already been observed in some developed countries, including

Japan where 28.6% of population were age 65 and above in 2020 (Ministry of Internal Affairs and Communications (MIC) 2021a). As people age, they are more likely to face various physical and mental difficulties but participating in exercise is considered as one of the keys to healthy aging (WHO 2021). This is particularly important in the context of Japan where sport and exercise participation among older populations (age 60 and above) is higher than for younger populations except for ages 18-19 (Sasakawa Sport Foundation (SSF) 2019). Also, international sport events may inspire people from different age segments in different ways (Cleland et al. 2019; Ramchandani and Coleman 2012). These studies suggest that younger population are more likely to be inspired by watching international sport events, which highlights the importance of exploring how hosting consecutive events may contribute to changing attitude towards participation and actual behaviours among different age segments of the population.

1.2. Study aims and objectives

Given the need for more research focusing on potential spill-over effects of hosting consecutive international sport events (Veal, Toohey, and Frawley 2012), and how these consecutive events may affect specific age groups (Ramchandani, Coleman, and Bingham 2017), the initial aim of this study was to explore the impact of hosting consecutive international sport events on the attitude towards participation in sport and exercise and actual behaviours among different age groups of the host population. To address this initial aim, the following three objectives were set:

- (1) To evaluate how hosting international sport events may influence the attitude towards participation in sport and exercise and actual behaviours in different age groups of the citizens in the host cities;
- (2) To explore if there were spill-over effects from the first to the second international sport event in terms of participation in sport and exercise among the host citizens;
- (3) To explore if these international sport events affect older and younger groups of the host population differently.

In light of the effects of the COVID-19 pandemic in the sport sector, and specifically the uncertainty it caused on whether the 2020 Tokyo Olympic Games would be hosted during the development of the current study, the initial aim and objectives had to be adjusted (as detailed in Chapter 3). Prior to the pandemic, data collection of the first international sport

event was planned and its collection was conducted in an early stage of the pandemic in Japan. Due to the pandemic, the Tokyo Olympic Games, which was the second event (i.e., consecutive events) to be analysed in this dissertation was postponed. When the postponement was announced, more than half of the data collection for the first international sport event had been completed. The research objectives then needed to be adjusted given that the second event (Olympic Games) had been postponed by a year, there was high levels of uncertainty about the impact of the pandemic and associated discussions on whether Olympic Games would actually be cancelled. Also, the unusual postponement of an international sport event and the occurrence of the pandemic provided a unique context to be examined. Thus, the following aims and objectives were set:

Aim 1: To explore the impact of hosting an international sport event on sport and exercise participation among different age groups of the host population.

Objective 1: To evaluate how the 2019 Rugby World Cup may influence the attitude and behaviours towards sport and exercise among certain age groups of the host citizens

Objective 2: To assess how the 2019 Rugby World Cup may affect attitude and behaviours towards sport and exercise among older and younger groups of the host population.

Aim 2: To critically analyse how the COVID-19 pandemic and related postponement of the 2020 Tokyo Olympic Games may have affected the attitude towards participation in sport and exercise and actual behaviours among the host citizens.

Objective 1: To evaluate the impacts of the postponement of the 2020 Tokyo Olympic Games on attitude and behaviours towards sport and exercise the among host citizens.

Objective 2: To critically analyse the impacts of a health and social crisis on attitudes and behaviours towards sport and exercise.

Objective 3: To appraise how a health and social crisis may affect attitudes and behaviours towards sport and exercise among older and younger age groups of the host population.

1.3. Thesis structure

Given that this research focuses upon the impact of hosted and postponed international sport events on citizens' participation in sport and exercise, following this introduction, **Chapter 2** introduces and explores the literature related to three central areas of the study: first, definitions

of sport and exercise used in this research; second, the impact of hosting an international sport event on sport participation; and third, the evolution of public health planning during the research and how public health planning may impact sport participation and international sport events. The chapter also presents the proposition of an initial conceptual framework based on relevant literature in the chapter. The framework is to understand the impact of hosting an international sport event on attitudes and citizens' behaviour for the 1st wave of the data collection. Public health constraints during the development of the thesis are detailed in **Chapter 3**. This chapter focuses on the COVID-19 situation in Japan and the Japanese government's responses to the pandemic. In **Chapter 4**, the context of the study is explained to provide the background to the research, including the popularity of rugby and sport and exercise participation in Japan.

In **Chapter 5**, the research methodology is detailed. This includes an explanation of the methodological choice of using qualitative research and semi-structured interviews, as well as the research philosophy underpinning the study. This chapter also details the rationale for the research sample of two groups; younger (20s) and older (60-70s). Then, the two waves of data collection and subsequent data analysis are explained. The chapter ends by explaining ethical considerations, as well as aspects of reliability, validity, and positionality.

The results from two waves of data collection are presented in **Chapter 6**. The chapter starts with the results from the 1st wave of interviews regarding the 2019 Rugby World Cup. The results from the 2nd wave of interviews regarding the postponement of the Tokyo Olympic Games as well as the impact of the pandemic are then presented. Whenever appropriate and applicable, the differences between age groups are compared. The narratives of participants are also included to better appraise how individuals' attitudes and behaviour changed over the two waves of data collection. Then, the results are interpreted and discussed with related literature in **Chapter 7**, which helps to advance the understanding of the impact of hosted and postponed international sport events, as well as a health and social crisis, on citizens' attitudes and behaviours towards sport and exercise participation. Finally, the conclusions are outlined in **Chapter 8**. Research findings are summarised and then followed by recommendations for policy and practice, limitations and future research avenues. The chapter ends with a reflection on the PhD journey.

2. Literature Review

2.1. Introduction

This chapter consists of three sections. First, the definition of sport and exercise, as well as the classification of participation level are explained. The second section starts with definitions of international sport events. The rational, benefits and challenges of hosting international sport events are then presented. This is followed by a discussion of sport and exercise participation legacy from hosting international sport event. Then, the process of how international sport events may impact individual's sport and exercise participation before, during and after the event delivery is discussed. In addition, a proposed framework that aid understanding this process is presented. Finally, public health planning during the pandemic is discussed, particularly its impact on sport and exercise participation as well as the impact on a sport event itself.

2.2. Sport and exercise

Many governments highlight the importance of encouraging their citizens to participate in sport and exercise and allocate relevant budgets to that (Sport England 2020; Ministry of Health Labour and Welfare (MHLW) 2020). For example, in the UK, Sport England, the national governing body of community sport, spent £247.1 million in 2020 (Sport England 2020) and the Department of Education spent £320 million on elementary school physical education and sport programmes (Department of Education 2020). The government invests in sport and exercise to increase active lifestyles among citizens because participating in sport and exercise is often associated to health benefits and wellbeing, sense of belonging, and self-esteem (Erkut and Tracy 2002; Findlay and Coplan 2008; Wiersma and Fifer 2008).

According to the World Health Organization (WHO 2019), physical activity can be defined as “any bodily movement produced by skeletal muscles that requires energy expenditure”. The MHLW (2019) in Japan uses a similar definition, which indicates that physical activity is any activity that consumes more energy than being at rest. They also define that physical activity is a combination of any body movement during daily life (e.g. working, active transportation, house chores and recreational activities) and exercise (e.g. playing sports, walking and biking for leisure, weight lifting and other training). One of the differences between daily life body movement and exercise is that exercise is planned or intended activities with some continuity that lead to maintenance or improvement of an individual's fitness level (MHLW 2019). This is similar to the work by Caspersen, Powell and Christenson (1985) that has received large acceptance among scholars. On the other hand, the Council of Europe (2001)

defines sports as “all forms of physical activity which, through casual or organised participation, aim at expressing or improving physical fitness and mental well-being, forming social relationships or obtaining results in competition at all levels”.

For the purposes of this study, we focus on both sport and exercise, which refers to any form of physical activity either at an individual or collective level, with some continuity that leads to maintenance or improvement of an individual’s fitness level and mental well-being. It can include playing amateur sports or other leisure activities such as walking (with intention), running, biking, going to the gym or other recreational activities.

2.2.1. Participation levels

The table below shows sport and exercise participation surveys in Japan and the UK. There are some differences between the two surveys. Firstly, the National Sports-Life Survey (Japan) by the Sasakawa Sport Foundation (SSF) do measure intensity in their survey but they count everything as physical activity regardless of intensity level except for level 4 (Active Sports Participant) category (SSF 2017). On the other hand, the Active Live Adult Survey requires all sporting activities to be at least ‘moderate intensity’ (Ipsos MORI 2019). They define moderate intensity as activity that fasten breathing rate. Another difference is that the Active Live Adult Survey measures by minutes per week of sporting activities with 10 minutes minimum each time (Ipsos MORI 2019), while the National Sports-Life Survey measures by 30-minutes sessions for level 3 and level 4 (Active Sports Participant) category (SSF 2017).

In the current study, SSF’s conceptualization of sporting activities is adapted to ensure better fit with the research context as the two international sport events that represent the objects of the current study’s analysis were hosted in Japan. This will allow the study to extend the understanding of the level of sport and exercise there is currently available through the National Sports-Life Survey in Japan conducted by SSF, while also bringing theoretical insights about the effect of the role of international sport events on host citizens sport and exercise participation.

Table 2. 1 Sport and exercise participation surveys in Japan and the UK. (Sources: SSF 2017; SSF 2018; Ipsos MORI 2019; Sport England 2019)

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2.2.2. Benefits of sports and exercise

Previous research focused on various benefits of participating in sport and exercise from health benefits of individuals (e.g. Colberg et al. 2015; Colberg et al. 2016; Rebar et al. 2015) to social benefits (e.g. Hartmann and Depro 2006; Pucci et al. 2012) (See Table 2.2, page 10). Colberg et al. (2016) argue that compared to the group of people who do not exercise in their leisure time, mortality risk is 31% lower for people who exercise the minimum recommended by American Diabetes Association, which is 75 vigorous-intensity or 150 moderate-intensity minutes per week. Colberg and colleagues further argue that exercise is beneficial for people with various diabetes (e.g. regular exercise may be able to delay or prevent development of type 2 diabetes). The benefits of participating in sport and exercise are not limited to physical benefits but also have mental benefits.

Rebar et al. (2015) argue that for non-clinical population, participating in exercise can reduce depression and anxiety. Sport and exercise may also have social benefits like crime reduction and social inclusion. Hartmann and Depro (2006) argue that midnight basketball programmes to promote participation had an impact on reducing crime in the United States. While the research results show that the midnight basketball programme does not have significant impact on violent crimes, property crimes were significantly reduced in cities with the programme. In addition, Pucci et al. (2012), through a study conducted in Brazil, argued that participating in sport and exercise have impact on social relations with both male and female participants in moderate and vigorous levels of physical activities. These benefits from people participating in sport and exercise lead to economic benefits through reduction in healthcare costs. Sport England estimated the health benefits through sport in a year between 2011-2012 was £1.7 billion through savings in healthcare and had a total economic value of £11.2 billion (Sport England 2013). In addition, the exercise programme for elderly in Inabe municipality in Japan reduced the healthcare costs by 78,246 yen (£570) per person annually (Ministry of Education, Culture, Sports, Science and Technology (MEXT) 2014). This shows that participating in physical activity has various health, social and economic benefits for both active individuals and overall society.

On the other hand, past research often shows that physical inactivity could lead to various issues. Lee et al. (2012) argues that physical inactivity is a major health issue globally and physical inactivity has caused 6-10% of major non-communicable diseases such as coronary heart disease, type 2 diabetes, and breast and colon cancers. In addition, Win et al. (2010) studied elder people's cardiovascular mortality, depressive symptoms and physical inactivity. Their results show that physical inactivity was strongly related to depressive symptoms as well as these two factors increasing mortality and depressive symptoms independently. Research about childhood obesity in Canada showed that participating in organised and unorganised sport are negatively related to being overweight or obese (Tremblay and Willms 2003). Also, research in different countries shows that physical inactivity is causing direct health expenditure and illness, death and injury lead from physical inactivity causing indirect economic loss (Kohl et al. 2012). In this respect, Katzmarzyk and Janssen (2004) conducted research in Canada, and argued that physical inactivity cost \$5.3 billion with \$1.6 billion of direct costs and \$3.7 billion of indirect costs. Similarly, Scarborough et al. (2011) showed that physical inactivity was responsible for £0.9 billion of NHS expenditure in 2006-2007. These figures suggest that physical inactivity may be one of the significant factors

causing various health problems globally, which in turn lead to economic costs through both direct healthcare cost and indirect economic loss.

Economic benefits through reduction in healthcare costs are often targeted with older population as it was the case for Inabe municipality in Japan (MEXT 2014). Older individuals participating in sport and exercise activities tend to contribute to economic benefits in the community but participating in sport and exercise sometimes generates resistance associated to the negative view of ageing (Kelley et al. 2014 and Liechty et al. 2017). Another benefit of exercise among older people is the fact that helps prevent falls and associated injuries, thus favouring a healthier living (Sherrington et al. 2017). For older population, doing exercise contributes to physical wellbeing and helps prevent age-related dementia and neurodegenerative diseases (Bherer, Erickson and Liu-Ambrose 2013). Regarding sport and exercise participation among young adults, some studies have focused on college students (Gerber et al. 2014; Grasdalsmoen et al. 2020; Muñoz-Bullón, Sanchez-Bueno, and Vos-Saz 2017). Findings often suggest that in sport and exercise among these individuals contributes to lower stress, reduce mental health issues and improve sleep patterns (Gerber et al. 2014 and Grasdalsmoen et al. 2020). Muñoz-Bullón, Sanchez-Bueno, and Vos-Saz (2017) further noted that participation in formal sporting activities may favour higher grades among undergraduate students. Also, young adults are included in studies about general adult population and the benefits of sport and exercise participation are varied. These include physical health benefits (e.g., prevention of overweight; Elmagd 2016; reduction in high blood pressure; Bacon et al. 2004), psychological (e.g., improved self-esteem) and social (e.g., interaction with others) benefits (Eime et al. 2013).

Table 2. 2 Main Benefits of Participating in Sport and Exercise.

Categories	Specific benefits	References
Health	Reduction in mortality risk	Colberg et al. (2016)
	Delay or prevent development of type 2 diabetes	Colberg et al. (2016)
	Reduce depression and anxiety	Rebar et al. (2015)
Social	Reducing crime through organized sports programmes in urban areas	Hartmann and Depro (2006)
	Improvement in quality of life	Pucci et al. (2012)
Economic	Direct: reduction in healthcare costs	Sport England (2013); MEXT (2014)
	Indirect: reduction in economic loss due to illness, death and injury lead from physical inactivity	Sport England (2013)

2.2.3. Section summary

This study focuses on sport and exercise, which is defined as any form of physical activity either at an individual or collective level with some continuity that leads to the maintenance or improvement of individuals' fitness level and mental well-being. This definition of sport and exercise, adapted from the Council of Europe (2001), covers a wide range of activities including playing amateur sports or other leisure activities such as walking, running, biking, going to the gym or other recreational activities. Also, this study adapted SSF's conceptualization of sporting activities and focuses on sport and exercise to allow the study to extend the understanding of the levels of sport and exercise available through the National Sports-Life Survey in Japan. Participation in sport and exercise leads to various benefits for individuals, and for society as a whole through health, social and economic benefits. The next section elaborates on international sport events.

2.3. International sport events

There is a long-lasting debate in the literature about how sport events with an international scope should be classified (Parent and Chappelet 2015; Gammon 2011; Müller 2015; Țară-Lungă 2012). As shown in Table 2.3, the most common classification includes mega, major, and small events. Mega events are typically classified as large-scale prestigious events with specific duration that could have economic and social impacts and legacies, as well as some considered as single event (Müller 2015; Ribeiro et al. 2018; Țară-Lungă 2012). Major events are typically classified as high-status and large-scale one-time or recurring events that could have economic and social impacts, but smaller size or impacts compared to mega events (Gratton, Dobson, and Shibli 2000; Țară-Lungă 2012). In turn, small events are often classified as smaller-scale events, from community events to regional competition, that could have some impacts such as civic pride and health promotions, but often limited extent and duration compared to larger events (Gammon 2011). The work by Müller has received large acceptance among scholars. According to Müller (2015: 629), “Mega-events are ambulatory occasions of a fixed duration that (a) attract a large number of visitors, (b) have large mediated reach, (c) come with large costs and (d) have large impacts on the built environment and the population” (2015: 629). Based on this definition, Müller classified events using a three-point scale as giga-event, mega-events and major-events. He argued that Summer Olympic Games is a giga-event, Euro (European Football Championship), Football World Cup, Expo, Asian Games, and Olympic Winter Games are mega-events, and Commonwealth Games, Universiade, Pan American Games, APEC summit, European Capital of Culture, Rugby World Cup and Super Bowl are major-events. While the definition by Müller focuses more on the economic aspects of events, some other authors give more focus to social impact as components to classify events (e.g. Nadeau et al. 2016; Ribeiro et al. 2018; Țară-Lungă 2012). Ribeiro et al. (2018) argued that mega sport events may also improve the image of the host city and connect between local communities. Also, Nadeau et al. (2016) argue that the uniqueness of mega international sport events is the short duration of the event and the event transits to a different location every time the event is organised.

Despite different definitions, there are common things that apply for international sport events including the fact that these events have large number of international participants, visitors and mediated reach, which lead to economic and social impacts to hosting city and country. It is beyond the focus of the current study to provide typologies of sport events. Instead, the current study focuses on international sport events including both mega and major sport events due to their potential impact on people’s attitudes and behaviour towards sport and

exercise (Frawley and Cush 2011; Potwarka et al. 2016; Ramchandani et al. 2015). Thus, we define international sport events as transitory sport events with international scope that could either be single sport or multi-sports and with expected economic and social impact on the hosting community.

Table 2. 3 Definitions of Sport Event.

Author	Date	Classification	Definition
Müller	2015	Major event	Major event has at least one large aspect of visitor attractiveness, mediated reach, cost, and transformation.
		Mega-events	“Mega-events are ambulatory occasions of a fixed duration that (a) attract a large number of visitors, (b) have large mediated reach, (c) come with large costs and (d) have large impacts on the built environment and the population”
		Giga event	Giga event are the largest event with the largest impact on at least three aspects of visitor attractiveness, mediated reach, cost, and transformation.
Ribeiro et al.	2018	Mega-events	Define mega sport events as while having economic and social impacts, they might be able to improve image of host city and connect between local communities.
Nadeau et al.	2016	Mega international sport events	The uniqueness of mega international sport events is the short duration of the event and the event transits to different location every time the event is organised
Țară-Lungă	2012	Major events	The major events are large-scale special events with large crowds, media attention and large impacts to hosting communities. The biggest and most significant type of major event with the biggest economic value is mega event.
Gratton, Dobson, and Shibli	2000	Major events	The major events are international or domestic events with economic impacts and mediated reach but “not all events that are ‘major’ in sporting terms are important in economic terms”.
Gammon	2011	Small events	Smaller-scale events in community or regional level with local community involvement that have limited impacts

2.3.1. Rationale for hosting international sport events

There are various benefits of hosting international sport events, including an expected increase in sport and exercise participation among populations (Bason and Grix 2018). Social exchange theory helps to understand this dynamic as it refers to the exchange of rewards and costs. That is, the rationale for hosting international sport events is typically framed by the social exchange theory (Emerson 1972), which has three elements: economic (job creation, investments, tax revenue), environmental (pollutions and awareness), and socio-cultural (community building

and cultural exchange) benefits/costs (Huang et al. 2016). The social exchange theory is often used in the study of tourism and events to explain the process, where an individual thinks of benefits from and costs of hosting tourism or hosting events (Gursoy and Rutherford 2004). In the case of hosting international sports events, the perception of stakeholders, including citizens of the hosting city and country, is based on recognized benefits and costs from hosting these events (Waite 2003). When hosting the events, residents often see more benefits than costs and are more likely to show positive attitude and show support towards hosting of international sport events (Huang et al. 2016). This judgment is often made prior to the event based on their expectations from economic, environmental and socio-cultural benefits/costs (Lee 2013). While economic benefits are often considered the most important benefits among hosting residents (Kim and Petrick 2005) and the highest expectation for the 2020 Tokyo Olympic Games was contribution to the economy (Hara and Saito 2018), these are not limited to economic costs/benefits from hosting international events. Social exchange theory includes socio-cultural aspects such as the cultural diversity and opportunities to meet new people provided by countries' hospitality houses or Olympic education programmes which are related to some positive wanted outcomes by local residents (Ribeiro et al. 2018). On the other hand, social costs may include traffic issues, safety-related issues from having large numbers of visitors, decline in moral standards (Huang et al. 2016). In turn, environmental costs could be related to issues of noise or trash from the event itself or visitors of the events. At the same time, hosting international sport events could lead to environmental planning and awareness, which are considered as potential benefits of hosting the event (Huang et al. 2016). For local residents to have positive attitude and gain support towards hosting events, it is important for the organising committee and hosting city of international sport events to plan and explain how benefits exceed costs of hosting the event for local residents. The perceived benefits and challenges of hosting international sport events are discussed in the following section.

2.3.2. Sport and exercise participation legacy

Table 2.4 presents key literature related to sport and exercise participation legacy. These references were selected based on alignment with this research and the covering of various international transient sport events. Veal, Toohey, and Frawley (2012) examined the impact of hosting the 2000 Sydney Olympics, the 2003 Rugby World Cup and the 2006 Melbourne Commonwealth Games on sport and exercise participation. They used secondary data of national sport and exercise participation and rugby union participation in Australia (e.g.

Population Survey Monitor series and the Exercise, Recreation and Sport Survey). These authors compared participants during the pre- and post-events. The findings suggest the 2000 Sydney Olympic Games increased sport and exercise participation of both adult and children with more impact on children. The 2003 Rugby World Cup increased rugby union participation of both adults and children. In turn, the 2006 Melbourne Commonwealth Games did not have any impact on sport participation at the national level or state level except there might have been impact on children's participation. While prior to 2000 in Australia, the data collection of sport and exercise participation was not consistent enough and the research cannot provide definitive conclusions for the 2000 Sydney Olympic Games, the 2000 Sydney Olympic Games is still considered to be an important event for this field of the research. Some previous studies such as Cleland et al. (2019) mentioned that the 2000 Sydney Olympic Games was the first mega-sport event whose sport participation legacy received some attention as a research topic.

Many people and governments often think that hosting an international sport event impacts sports participation among the hosting city and country through trickle-down effects (i.e. the success of their country's athletes inspires people to participate in sport and leads to increases in sport participation; Reis et al. 2017). However, as noted by Reis and colleagues, sport participation legacies at the 2012 London and the 2016 Rio Olympic Games were not accomplished as they were highlighted during the bid. On the other hand, Kokolakis, Lera-López, and Ramchandani (2019) argue that while sports participation dropped in 2014 compared to 2013, a year after the 2012 London Olympic Games, the sport participation rate in 2014 is higher than prior to hosting the event. In addition, the Active People's Survey by Sport England shows that the ratio of weekly exercise population changed in London and overall England as well as within different areas of London (Sport England 2016). For example, the ratio of weekly exercise population in overall England dropped in 2013, a year after the game, but the ratio of weekly exercise population in London increased in the same period (Sport England 2016).

Previous researchers such as Veal, Toohey, and Frawley (2012), Reis et al. (2017), and Aizawa et al. (2018) seem to agree with the idea that hosting an international sport event is not in itself enough to increase sports participation among the host citizens. For example, Veal and colleagues and Reis and colleagues used the case of the 2000 Sydney Olympic Games, and explained the event did not have any legacy plan related to sport participation or policies to stimulate grass-roots programmes but it was believed that hosting the event and the successful performance by the athletes from the hosting country would lead to positive impacts on sport participation. However, they concluded that hosting the event was not enough to stimulate the

sports participation in hosting countries. They suggested that it is necessary to have a policy environment, a behavioural environment such as accessibility to proper sporting facilities and social environment like organisational supports to have the impact on sport participation through hosting the mega-events. In addition, Reis and colleagues argue that while the 2012 London Olympic Games had supply-side policies including both sporting policies and facilities, it lacked policies on the demand side to understand and stimulate the sport participation. This suggests that a more qualitative analysis to the demand side people may represent a key aspect to understand their barriers from participating in sport or exercise.

Prior research explored the leveraging strategies of sport and exercise participation associated to international sport events (Chalip et al. 2017; Rogerson 2016). Rogerson (2016) mentioned that the 2014 Glasgow Commonwealth Games opened newly built sporting facilities for public use prior to the event and this contributed to increases usage of new and refurbished sporting facilities managed by the local public sports and cultural organisations. Rogerson further argued that the fact these facilities were built in convenient locations, opened during long periods of the day, and offered discounted memberships for different populational groups were also important factors to increase sport and exercise participation. Chalip et al. (2017) also suggested the importance of coordination across sport organisations, event organisers and non-sport stakeholders, as well as a proper management of physical, human and knowledge resources. The authors supported these claims with the example of the 1984 Los Angeles Olympic Games and the LA county that used the profit and the endowment from the event to support local sport facilities and youth sport.

Table 2. 4 Key Literature.

Authors	Date	Event	Country	Method	Key Findings	Relevance for the current study
Cleland et al.	2019	Commonwealth Games	UK	Quantitative	The demonstration and festival effects were mostly ineffective in changing attitudes or behaviours. Also, younger (under 35 years), college-level education or equivalent, and were employed, in education or training were more likely to change their behaviour or pre-contemplated to change their behaviour than other groups.	This article measured impact of demonstration and festival effects from hosting international sport event on attitude and behaviour towards participating in sport and exercise.
Brown et al.	2017	Summer Olympic Games	UK	Quantitative	Although there was a positive relationship between event satisfaction and intention to watch swimming events in the future (as a spectator and on television), this was not true for event satisfaction and intention to participate in swimming.	This article measured impact of satisfaction on intention to participate in a sport.
Macrae	2017	Commonwealth Games	UK	Qualitative	Voluntary sports clubs need support in the areas of building capacity, retaining members in the long term, and promoting general visibility during the event to gain impact from hosting international sport events.	Awareness of opportunity is important when people change their behaviour towards participation in sport and exercise.
Reis et al.	2017	Summer Olympic Games	Australia, UK, Brazil	Quantitative	Sport participation legacies from hosting event cannot be achieved without including community in the plan, developing long-term strategies, and coordinating efforts between relevant stakeholders including different levels of the governments.	The previous international sport events show that hosting the events is not enough to change people's participation behaviour in sport and exercise.
Pappous and Hayday	2016	Summer Olympic Games	UK	Mixed Method	The interviews with the head office staff at the National Governing Bodies and local club coaches shows that to increase sport participation, they cannot only rely on the inspiration effect from hosting the event and organizing grassroots participation programmes were the most impactful way to increasing participation.	Inspiration effect from hosting event is not enough to change people's participation behaviour in sport and exercise, and opportunity to participate in a sport and exercise is important.
Potwarka et al.	2016	Winter Olympic Games	Canada	Qualitative	Identified three themes from thematic analysis: connecting through engaged viewership;	Inspiration from international sport events is important for

					harnessing the connection; and launching off but falling fast. Participants made personal and meaningful linkage with the athletes they watched and were inspired by watching elite athletes compete and made positive behaviour changes. After participants were inspired, supportive social environments and access to necessary resources were important to change their behaviours. These processes happen quickly but the changes did not last long.	individuals to change their behaviours but also athlete identification is important in this process.
Reis, Sousa-Mast, and Gurgel	2014	Summer Olympic Games, Pan-American Games	Brazil	Qualitative	Physical education professionals, who are important role at grassroots level in Brazil, were not aware of the government's or the organizing committee's plan to have impact on sport participation. Their perception and experiences from the 2007 Rio de Janeiro Pan-American Games, were that hosting the event has no impact or short term-increase.	Some international sport events may have limited or no impact on changes in sport and exercise participation behaviours due to lack of strategies, detailed plans or implementation of plans by organizing committees and hosting governments.
Frawley et al.	2011	Rugby World Cup	Australia	Mixed Methods	After hosting the event, registrations of rugby participants increased with junior rugby category experienced larger increase than the senior rugby category.	Hosting the single sport international event could have impact on participation in a sport.
Potwarka et al.	2020	Pan American Games	Canada	Quantitative	Results demonstrate that post-event intentions were a significant positive predictor of participation. Results also demonstrate that exposure to a leveraging initiative can increase participation in a new sport. Notably, the voucher stimulated participation for spectators with both low intentions and high intentions to participate post-event. Results provide support for the use of leveraging tactics as a means of stimulating sport participation in the context of hosting novel sport events.	Incentive can change people's behaviour towards participating in sport and exercise.
Ramchandani, Kokolakis, and Coleman	2014	Ten major events	UK	Quantitative	Age; place of residence; ethnic origin; sport participation profile; and whether or not they had been exposed to information about opportunities to undertake sport had significant impact on the level of the	Individuals' current sport and exercise participation may impact their inspiration from attending international sport events.

					inspiration effect. Events with aspects of team sports, non-age restriction and elite events with a mass participation aspect also have positive impact to inspiration.	
Ramchandani, Coleman, and Bingham	2017	Seven major events	UK	Quantitative	Using transtheoretical model, audiences at the event were primary to more active stage. For contemplators, attending the events can be encouragement to increase participation, but it is less impactful for pre-contemplators.	Hosting international sport events might be more impactful to behaviours of currently active people through events being motivated.
Ramchandani et al.	2015	Nine major events	UK	Quantitative	Attending a single sport international event could lead to change in individuals' participation behaviour in other sports. Changes in individuals' sport participation behaviour from attending an international sport event most likely happen soon after attending the event. This research was longitudinal study and other factors like other events may impact people's responses.	Hosting single sport international events could have impact on individuals' participation behaviour in other sports and this means that many international sport events have potential to change people's participation in sport and exercise.
Rogerson	2016	Commonwealth Games	UK	Qualitative	Opening newly built sporting facilities for public use prior to the event contributed to increase in usage of new and refurbished sporting facilities that are used for the event.	Importance of leveraging strategy during pre-events/preparation stages of hosting international sport events on sport and exercise participation.
Potwarka et al.	2018	Pan American Games	Canada	Quantitative	Inspiration from attending the event had positive impact on intention to track cycling. This linkage of inspiration from consumption and intention shows that relationship between sport event performance consumption and intention.	Inspiration from attending a sport event could lead to intention to participate in a sport.
Kokolakakis, Lera-López, and Ramchandani	2019	Summer Olympic Games	UK	Quantitative	Those who participate frequently (at least three times per week for at least 30 min) experienced the biggest impact in the year after the events. The sports participation rates declined in 2014 compared to 2013 but it was still higher than pre-event levels. Socio-demographic groups had impact on sport participation legacy.	The article shows impact of pre-events/preparation stages of hosting international sport events on sport and exercise participation.

Ramchandani and Coleman	2012	Two international events (Hockey Champions Trophy, Women's Rugby World Cup)	UK	Quantitative	The event experience had inspired two-thirds of respondents to increase their sport and physical activity participation. The people mostly felt inspiration from the athletes and the competition. Age, attitude and behaviour towards sport had impact on whether respondents were inspired. Providing information about opportunities to participate in sport was the most important support to convert inspiration into participation.	Age, current attitude and behaviour towards sport have impact on whether people are inspired.
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2.3.3. Perceived benefits of hosting international sport events

There are various reasons for cities, countries and committees to bid for hosting international sport events (Bason and Grix 2018). Among the common reasons is the expected growth of sport participation (e.g. 2012 London Olympic Games, 2014 Glasgow Commonwealth Games, 2020 Tokyo Olympic Games), nation and community building (e.g. 2016 Rio Olympic Games, 2020 Tokyo Olympic Games), urban development (e.g. 2014 Glasgow Commonwealth Games, 2018 PyeongChang Olympic Games, 2022 Beijing Olympic Games), boost of the global profile of the city or country (e.g. 2016 Rio Olympic Games) and development of specific sports (e.g. football & FIFA World Cup; rugby & World Cups) (Bason and Grix 2018; FIFA 2010; Glasgow 2007; Karadakis and Kaplanidou 2012; Rio 2013; World Rugby 2017).

In the case of the 2020 Tokyo Olympic Games it also aims to promote economic, environmental and socio-cultural benefits. In 2017, the Tokyo Metropolitan Government (2017) published a trial calculation result of economic impacts of hosting the 2020 Tokyo Olympic Games from winning the bid in 2013 to 2030, 10 years from 2020. During these periods, they expected about 14 trillion yen (about £92.6 billion) of economic impacts in Tokyo through increased direct impacts from the event and related spending as well as spillover impacts of 20 trillion yen (about £132.3 billion) in Tokyo and 32 trillion yen (about £211.7 billion) nationwide. In addition, the five polls from 2016 to 2019 showed that the highest expectations for the 2020 Tokyo Olympic Games is the contribution to the Japanese economy across all polls (Saito 2020). Within the same polls, socio-cultural benefits were also considered important by many as about 25% to 35% expected the 2020 Tokyo Olympic Games to contribute to the promotion of international exchange, promotion of sports, and youth development. The bid document mentioned cultural exchange through cultural programmes (Tokyo 2020 Olympic Games Bid Committee (Tokyo 2020) 2012). Also, the document mentioned promotion of sport and exercise participation through development of new venues and sports and physical education and awareness program pre- and post-event. Regarding the environmental benefit, the bid document indicated “A platform to promote the highest environmental standards” (Tokyo 2020 2012: 46). They are applying the ISO 20121 Event Sustainability Management system to have new standards of sustainability practices including environmentally. Also, they claimed that 15 of 37 competition venues already exist and venues to be built or renovated have green building standards. Furthermore, most venues are located near the Olympic Village to minimize environmental impacts through transportation.

Specifically, regarding sport participation, the 2012 London Olympic Games were the first Olympic games that included increasing sport participation as main objective and had leveraging plan aims from the bidding process (Veal, Toohey, and Frawley 2012). For the 2016 Rio Olympic Games, developing sport participation was not a reported objective, but it was mentioned in the bidding document as a tool for community building and social development especially for marginalized youth. Regarding the 2020 Tokyo Olympic Games, the city aimed to create an Olympic community through hosting the events and one of the core elements were “facilitating and encouraging increased participation in sport and recreation” (Tokyo 2020 2012: 6). In addition, while development of sporting facilities is sometimes included in the bidding documents within urban development through hosting the events (e.g. 2018 PyeongChang Olympic Games, 2020 Tokyo Olympic Games), it also contributes to development of sport participation.

Table 2. 5 Main reasons to bid for international sport events.

Main Reasons	Example events	References
Increase sport and exercise participation	2012 London Olympic Games 2014 Glasgow Commonwealth Games 2020 Tokyo Olympic Games	Veal, Toohey, and Frawley (2012); Glasgow 2014 (2007); Tokyo 2020 (2012)
Development of specific sport	FIFA World Cup Rugby World Cup (in general)	FIFA 2010; World Rugby 2017
Nation and community building	2016 Rio Olympic Games 2020 Tokyo Olympic Games	Veal, Toohey, and Frawley (2012); Tokyo 2020 (2012)
Urban development (including infrastructures of sport and non-sport related)	2012 London Olympic Games 2014 Glasgow Commonwealth Games 2018 PyeongChang Olympic Games 2022 Beijing Olympic Games	London 2012 (2004); Glasgow 2014 (2007); Bason and Grix (2018)
Destination branding & global profile of city or country	2006 Germany FIFA World Cup 2010 South Africa FIFA World Cup 2016 Rio Olympic Games	Grix (2012); Knott, Fyall, and Jones (2015)

2.3.4. Challenges of hosting international sport events

While event organisers often claim that hosting international sport events has positive impacts to the cities, there are various challenges to meet their planned outcomes. These include lack of planned leveraging strategies, a lack of implementation, a lack of coordination among different stakeholders, and corruption (Bason and Grix 2018; Karadakis and Kaplanidou 2012; Macrae 2017; Veal, Toohey, and Frawley 2012). Also, the lack of planned leveraging strategies was a problem for various events such as the 2000 Sydney Olympic Games, the 2005 Pan American Junior Athletics Championships and the 2016 Rio Olympic Games. In the case of the 2000 Sydney Olympic Games, sport participation legacy was not part of the bidding process but the organizing committee and the relevant stakeholders believed that the success of their

athletes would lead to natural gain in sport participation through trickledown effect (Veal, Toohey, and Frawley 2012). Similarly, at the 2005 Pan American Junior Athletics Championships, intended tactics that were implemented by the organizing committee and the hosting cities were only facility development and coaching clinics. In turn, there was a lack of implementation of partnership programmes due to beliefs that the event would automatically attract new participants (Taks et al. 2014).

The 2016 Rio Olympic Games were challenged in many areas (Veal, Toohey, and Frawley 2012). During the bid, there were some leveraging plans to increase sport participation of youth and meet social development objectives such as expanding investments in existing programmes. For example, they planned sport and physical activity programmes for youth and programmes to develop public sport facilities throughout the nation. However, after the bid, the organising committee, the federal government and other relevant stakeholders (e.g. Ministry of Sports, local governments) did not have implementation plans to operationalise what was mentioned in the bid (Veal, Toohey, and Frawley 2012). In addition, the alleged corruption by the Minister for Sport led the programme to increase sport participation among youth to be questioned. Also, the budget for the programme to develop public sport facilities throughout the nation were cut back by the Government and no reports were published since 2010, so the accountability and the effectiveness of the programme were questioned. Other research conducted during the pre-event indicates that physical education professionals, who provided a large part of the physical activity for children and youth, mention that they were unaware of any programmes to leverage increase in sport participation of children and youth. This suggests another issue, which is a lack of coordination among different stakeholders (Veal, Toohey, and Frawley 2012; Reis et al. 2014).

Sport participation among the general population often starts in grassroots programmes, and previous research on the 2014 Glasgow Commonwealth Games hosted in Glasgow suggested mixed results. Rogerson (2016) argued that the 2014 Glasgow Commonwealth Games successfully leveraged sport and exercise participation through building new facilities in the accessible part of the city and opened newly built sporting facilities for public use prior to the event, which increased in usage of new and refurbished sporting facilities. On the other hand, Macrae (2017) argued that the stakeholders of grassroots programmes were not included in the planning of the leveraging plan or not properly supported to have enough resources to meet the increased demand. Macrae (2017) studied grassroots sport clubs and argued that these clubs did not have proper tools, knowledge or capacity to capture new sport participants amid the 2014 Glasgow Commonwealth Games. He argued that grassroots sport clubs need to be

included in the planning stage to develop leveraging strategies and the bidding team and the relevant organising committees need to provide necessary support and resources to grassroots sport clubs. Veal, Toohey, and Frawley (2012) argued that the 2012 London Olympic Games had several issues including the strategy plans and the investment in relevant areas were not adequate to meet the sport participation goals, a lack of coordination in the implementation stage due to complexity in the delivering process, and the relevant stakeholders did not have capacity and structure to implement the process.

Another significant challenge when bidding and hosting international sport events is related to the expected and actual costs, often actual costs exceed the bid plans (Lauermann and Vogelpohl 2017). Preuss et al. (2019) argued that between the 2000 Sydney Olympic Games and the 2018 PyeongChang Olympic Games, except for the 2014 Sochi Olympic Games, all other Olympic Games went over the projections. For example, the 2012 Salt Lake City Olympic Games overran by more than 110%. However, they mentioned that the percentage of the total cost overrun started declining after the 2006 Turin Olympic Games (Preuss et al. 2019). They also argued that government projects in general, such as infrastructure projects and railway projects, overrun by a similar percentage. However, Lauermann and Vogelpohl (2017) noted that the cost of hosting events leads to protests against bidding for international sport events. They showed that Boston and Hamburg cancelled their bidding campaigns due to the protest from their local communities. Therefore, it is becoming more important for the host cities to have planned leveraging strategies, implementation plans, and good coordination among different stakeholders to ensure positive impacts (e.g. increased sport and exercise participation) from hosting international sport events, and that these impacts are well perceived by the expected beneficiaries such as the local citizens.

2.3.5. Pre-event and delivery phases

As discussed in section 1.2.1, hosting international sport events may have an important impact on sport and exercise participation. But hosting international sport events, in itself, is not enough to increase sport and exercise participation (Veal, Toohey, and Frawley 2012, Reis et al. 2017; Aizawa et al. 2018). To have positive impacts on sport and exercise participation, relevant stakeholders including organising committees, hosting governments and sports organisations need to work together in leveraging strategies and implementation plans (Veal, Toohey, and Frawley 2012). This includes developing strategies to stimulate sport participation

prior to, during and after the event, as well the provision of facilities to engage in sport and exercise (Reis et al. 2017; Veal, Toohey, and Frawley 2012).

Social identity theory (Tajfel and Turner 1979) provides a useful lens to understand these ideas, as it argues that individuals develop psychological connections with groups (e.g. sport teams, clubs or events), and has been used to understand one's self-categorization (Tajfel and Turner 1979), identification with companies (Bhattacharya and Sen 2003) or identification with teams and events (Heere and James 2007). The base of social identity theory is that individuals strive to join social categories which reflect positively on their self-concept (Tajfel and Turner 1979). Social identity is important to understand sport-related behaviours (Fink et al. 2013), given that highly identified individuals put their favourite team and athletes as a central part of their own identity and this often impacts their daily planning and behaviours (Lock et al. 2012). While Lock and colleagues' research is based on football teams and their fans, the same rationale could be applied to national teams or events because identification could work with any group or individual (Tajfel and Turner 1979). This is important for the current research given that individuals who identify themselves with the events, or associated athletes or teams (even before the events start), may be more likely to support and consume the event. This, in turn, has the potential to boost an inspiration effect from the event and influence the attitude and behaviour towards sport and exercise participation. Following this rationale, one may assume that the pre-event attitude and behaviours of individuals will likely play a role on how individuals might be inspired by international sport events to participate in sport and exercise activities.

Previous research suggests the important role of people's pre-event behaviour towards sport and exercise on how people feel inspired by events (e.g. Ramchandani and Coleman 2012; Ramchandani, Coleman, and Bingham 2017). Ramchandani and colleagues (2017) conducted a survey in seven major sporting events in the UK and found that people's pre-event attitude and behaviour towards sport influence people's inspiration at sport events. They found that people who are more active will be more likely to be inspired by sport events. In addition, they argued that people who are not active are more likely to be inspired if they have a positive attitude towards sports, where they feel that they consider changing their sport and exercise behaviours. While previous studies measured the impact of single sport events on people who attended live event, the current research aims to explore the impact of international sport events among the general population including those who did not attend these live events and wider

population including those watching event on the TV¹. The reason for that is because only a small percentage of the host community actually attend these events live, with most citizens enjoying the events through other channels such as media (Kim et al. 2015). Also, the key stakeholders involved in the organisation of such events (i.e., organising committee, host city, governments) do not only aim to change and increase sport and exercise participation among those who attend the event, but rather to increase sport and exercise participation among the general population, especially among inactive individuals (e.g. Cleland et al. 2019; Ramchandani, Coleman, and Bingham 2017). In addition, previous research has focused on the impact of single events and did not capture how consecutive events hosted in a certain location may change attitudes and behaviours towards sport and exercise among the host citizens (e.g. Veal, Toohey, and Frawley 2012). On the basis of previous studies and remaining limitations, the current research aims to explore how hosting two events consecutively planned for the same city or country may affect host citizens' changes in attitude and behaviour regarding sport and exercise.

As per Lock et al. (2012)'s identification study, one may argue that when individuals are identified with a sport property (e.g. international sport event), they have more opportunities to be inspired and act accordingly. Inspiration is an important factor for increasing satisfaction and attitudinal change (Böttger et al. 2017). Böttger et al. note that "Inspiration is a type of intrinsic motivational state that is characterized by a strong epistemic component" (2017; 117). It is often caused externally and it is a temporary stage between thinking stage and implementation stage in the process towards reaching the goal. Böttger et al. (2017) argue that individual inspiration leads to satisfaction because intrinsic motivation, which is inspiration in their context of marketing, can lead to high levels of satisfaction. This was supported by previous research which has shown that inspiration was significant on customer satisfaction (Liu et al. 2017). In the context of sport events, inspiration can be created in various ways like performances of athletes and atmosphere of events (Cleland et al. 2019).

In addition, Böttger et al. (2017) argue that people who are inspired by their experience might change their attitude towards a service or product. In their research, inspiration was one of the predictors of attitudinal change. In the context of sport and exercise participation, Potwarka et al. (2018) examined the impact of inspiration of the Glasgow Commonwealth Games and found it to be non-significant on attitudinal change. However, their research was

¹ The 2019 Rugby World Cup had very high TV ratings in Japan especially for the matches played by Japan. The match against South Africa was 41.6% and the match against Scotland was 39.2%. These matches were the most and the second most watched programs in 2019 (VideoResearch 2019).

conducted in a deprived area of Scotland, which might have impacted the findings. On the other hand, the current research is conducted in Tokyo, which is one of the largest cities in the world and with the vast majority of the population exhibiting good financial wealth (Statista 2020). In addition, while Potwarka et al. (2018) examined the Commonwealth Games, the current study focuses on the Rugby World Cups and the Summer Olympic Games, which could lead to different impact on attitudes and behaviours of the host citizens. While both the Commonwealth Games and the Summer Olympic Games are international sport events, the Commonwealth Games were participated by limited number of countries similar to the continental events (e.g. Asian Games and European Games). In turn, the Summer Olympic Games hosted in Tokyo were participated by more than 200 countries. Therefore, the interest in the event among the host city and the country are likely higher with events like the Summer Olympic Games due to the level and quantity of competitions, as well as media reach.

Weed et al. (2012) argue that inspiration created by sport events can be categorized into demonstration and festival effect. Demonstration effect happens when people are inspired by performances and results of athletes and events (Potwarka et al. 2018). Cleland et al. (2019) explored the relationship between demonstration effect and attitudinal change. Their focus was on demonstration effect and not general inspirational effect, which includes festival effect. In their research, demonstration effect was a predictor of attitudinal change. The impact of demonstration effect on satisfaction is not explored in terms of sport and exercise participation, but previous studies in different sport events (e.g. Biscaia et al. 2013; Lee and Kang 2015) suggest that satisfaction is often influenced by individuals' perceptions of the on-field performance of the athletes. Therefore, the demonstration effect is also considered in the current research.

Festival effect is generated by the atmosphere of the sporting event as well as atmosphere that is created by side events (Cleland et al. 2019). Weed et al. (2012) argue that festive effects may impact more those individuals who are less active in changing their attitude toward sport. This idea was partially supported by Cleland et al. (2019) during 2014 Glasgow Commonwealth Games. Cleland and colleagues noted that people who considered the festive effect is important were more interested in sport and exercise after the event. However, the change in attitude did not lead to further behavioural change, where people consider trying a new sport. As mentioned earlier, while Cleland and colleagues noted that demonstration effect and festive effect were not an important predictor of changes in attitude towards trying new sports, sociodemographic characteristics such as employment, education and current physical activity status were significant on attitudinal change. This suggests that the fact that their

research took a place in a deprived area of Scotland may have had an influence on the findings. In addition, despite previous studies (e.g. Biscaia et al. 2013) showing that event atmosphere (i.e., equivalent of festive effect in the study of satisfaction at a football match) is important to increase satisfaction, the link between festive effects and increased satisfaction and subsequent attitude change towards sport and exercise participation is still to be empirically explored. To this end, festive effect is explored as part of the current study.

Satisfaction is often suggested to play a role in boosting identification with sporting events (Lee and Kang 2015). Also, there is evidence in the sport management literature indicating that consumer satisfaction with sport events contributes to changing attitudes towards sports (e.g. Funk et al. 2011 and Greenwell, Fink and Pastore 2002). An individual's satisfaction with an event is influenced by various factors including the core product (i.e., performance and behaviours of athletes and teams in the field of play), functional quality and event atmosphere (Biscaia et al. 2017, 2021; Lee and Kong 2015; Tsuji, Bennett and Zhang 2007). Lee and Kang (2015) further argue that individuals' satisfaction derived from the core product impacts attitude towards their team and associated events. While no previous research has specifically examined how event satisfaction may lead to changes in attitudes towards sports and exercise participation, evidence exists on the role of spectator satisfaction on improved attitude towards spectating sports (Lee and Kang 2015). In addition, Brown et al.'s (2017) study about the impact of hosting international sport events on sport and exercise participation explored the link between event satisfaction and behavioural intention changes, but did not capture attitudinal change. Furthermore, Brown and colleagues' study was specifically linked to swimming events during the London 2012 Olympic Games. An event that is single sport tends to have a smaller audience, while events with multiple sport often have a wider audience and reach (Müller 2015). The current study focuses on both single- and multi-sport events to understand overall satisfaction, given that the hosting cities and countries often focus on global advantages of events and their impacts on individuals with the wider community and not only those who already have a connection with a certain sport.

2.3.6. Post-event phase

Successful planning and hosting of international sport events offers the potential to inspire individuals leading them to change attitudes and behaviours (Ramchandani and Coleman 2012). This requires understanding and developing policies to stimulate sport participation like it was done in the 2012 London Olympic Games (Reis et al. 2017). The theory of planned behaviour

(TPB; Ajzen 1991) serves as good basis to help support the post-event processes, because it helps explain how change in an individual's attitude towards sport and exercise may lead to change in behavioural intentions and subsequent related behaviours (Madden, Ellen, and Ajzen 1992). The TPB has been used in previous studies related to sport and exercise participation (e.g. Hagger, Chatzisarantis, and Biddle 2002; Rivas and Sheeran 2003). For example, Theodorakis (1994) argues that attitude and behaviour intention towards sport participation are predictors of sport participation behaviour. That is, the more favourable attitudes that individual has towards sports, the stronger his/her intentions to perform related behaviours (Naia et al. 2017). However, gaps may exist in people's behaviour intention and their actual behaviours. Such gaps may be partially explained by self-determination theory (Deci and Ryan 1980; Vallerand and Bissonnette 1992). Previous research argues that self-determination is relevant for increasing sport and exercise participation (Edmunds, Ntoumanis, and Duda 2006; Hagger and Chatzisarantis 2008). If people are not self-determined, constraints such as lack of competence in sport and exercise (Swift et al. 1995), health constraints (Scholz et al. 2015) and time constraints (Tappe et al. 1989) may assume an important role on people's life preventing them being active. However, if individuals are strongly self-determined to be active, they will likely overcome these constraints and engage in sport and exercise (Edmunds et al. 2007). Despite that, no previous studies focused on international sport events have examined sport and exercise participation by considering both a self-determination theory and TPB. Doing it is important because understanding self-determination and constraints of people could help them to participate more in sport and exercise.

According to the TPB, an individual's attitude is developed from his/her experience and it is an important predictor of behaviour intention (Ajzen 1991). As discussed above, people might be inspired through demonstration or festive effects triggered by international sport events, and that might change their attitude towards participation in sport and exercise (Cleland et al. 2019). However, among those individuals who are inspired by international sport events, there may be differences in how it impacts their attitudes to participate in sport and exercise that could be linked to one's self-determination. In the context of sport and exercise, self-determination theory explains "motivation and behaviours based on individual differences in motivational orientations, contextual influences and interpersonal perceptions" (Hagger and Chatzisarantis 2008: 79). These individual differences in motivations, including lack of competence in sport and exercise, may lead to negative attitudes towards sport and exercise as well as lack of motivation to participate (Swift et al. 1995).

General attitudes of individuals are developed through various factors including organizations that the individual belongs to (e.g. jobs, schools and sport clubs) and people that one interacts with (e.g. family and friends). The TPB (Ajzen 1991) argues that impact on behavioural intentions happens by changing attitudes. The result from the study by Lee and Kong (2015) show that spectators' attitudes towards their teams are important to change associated behaviour intentions. In the context of sport and exercise participation, Gucciardi and Jackson (2015) mention that intention to exercise was predicted by the attitude one has towards exercise. Despite evidence about the role of attitude on changing behaviour intentions among both spectators and participants of small-scale sport events, it is yet to be known if the same applies to the context of international sport events that present the potential to strongly impact host citizens, particularly when these events are hosted consecutively.

While an individual's attitude often influences behavioural intentions, an attitude may also lead directly to an associated behaviour. Previous studies from various fields such as health (e.g. Gerrard, Cunningham, and Devlin 2006) and sport and exercise participation (e.g. Potwarka et al. 2018) argued that an individual's attitude may directly lead to behaviour due to external factors like social norms, influence or incentives. In the context of sport and exercise participation, Potwarka et al. (2018) argued that individuals with an unfavourable attitude to participation in sport programmes did participate in the programme due to the external factor of incentive (e.g. free trial programme). This calls for the attention to the role of incentives when exploring the role of international sporting events on host citizens' attitudes, intentions and behaviours towards sport and exercise.

As noted by Ajzen (1991), a change in attitude leads to a change in a behavioural intention and that leads to a change in a behaviour. This idea is of paramount importance for the current study as it helps explain how an individual's change in attitude towards participation in sport and exercise may lead to a related intention (Edmunds, Ntoumanis, and Duda 2006). Complementarily, an individual's self-determination to be physically active may help boost the importance of an intention and its translation into an action (e.g. playing sports and/or doing exercise). Fortier et al. (2009) argue that autonomous motivation leads to intention to participate in sport and exercise as well as intention to increase participation. An intention is often a predictor of an associated behaviour (Biscaia et al. 2013). Spears and Singh (2004) define behaviour intention as an individual's conscious plan to perform a behaviour. In the context of sport participation, Potwarka et al. (2018) observed that intentions to be physically active predicted associated behaviours. In addition, Gucciardi and Jackson (2015) noted that behaviour intentions were important to increase exercise behaviour. Based on previous

research evidence and the lack of research on this matter linked to international sport events, attitudes, intentions and behaviours of host citizens towards sport and exercise are considered.

As noted above, an incentive may help explain how sometimes an individual's behaviour changes without a change in attitude. One's self-determination to perform a behaviour (e.g. to be physically active) assumes a pivotal role to help explaining it because an individual's behaviour can also be driven by extrinsic motivation (i.e., motivation that is based on external factors such as an incentive; Deci and Ryan 1985). An incentive can be enough push to change people's behaviour by getting rid of obstacles, providing motivation or increasing attractiveness of a certain behaviour (Potwarka et al. 2018). For example, a free voucher to go a gym session may be enough incentive for an individual to participate in exercise activities at least in one moment in time. Incentives can be provided in various ways including the momentary incentive of providing vouchers. Gneezy, Meier, and Rey-Biel (2011) argue that financial incentives have both direct and indirect effects on people to perform a behaviour. A direct effect is that the incentivised choice with lower price become more appealing and an indirect effect is a psychological effect. For example, in the context of sport participation, the Japan Fencing Federation, some district federations and local clubs are organizing a grassroots introduction programme of fencing that also provides necessary equipment to reduce the barrier(s) to trying it out (Japan Fencing Federation 2019; Minato Fencing Association 2019). The programme costs only a small fee, which also incentivises people to give it a try. Potwarka et al. (2018) found that incentives like vouchers to join sport classes could increase participation of both people who intended and not intended to participate in sport prior to receiving vouchers.

While an incentive may change an individual's behaviour without a change in attitude, perceived behavioural control may limit how change in attitude leads to change in behaviour. When people believe that they have limited control over their actions due to a lack of resources, it leads to motivational impact on people (Ajzen 1991). Constraints often explain how sometimes an individual's change in attitude does not lead to change in behaviours (Blake 1999). However, constraints may impact individuals differently, and this could be explained by their levels of self-determination (Brittain, Biscaia, and Gérard 2020). Intrinsic motivation is an autonomous way of motivation, and behaviours that are autonomous can be initiated freely (Edmunds, Ntoumanis, and Duda 2006). Also, autonomous behaviours are more likely to lead to long-term participation in sport and exercise than other types of motivation (Teixeira et al. 2012). Therefore, intrinsic motivation may drive individuals to continue to participate in their sport and exercise despite the existence of different constraints. Understanding constraints is

important to better comprehend the relationship between behaviour intention and actual behaviour because constraints may prevent these relationships from occurring, while reducing constraints can help people to participate in sport and exercise (Portwarka et al. 2019). While various definitions of constraints exist among different academic disciplines and contexts, we adapted Kim and Trail's (2010) definition and consider a constraint as a factor that prevents or prohibits an individual from participating in sport and exercise. There are two types of constraints: internal constraints and external constraints (Kim and Trail 2010). Internal constraints include intrapersonal and interpersonal constraints, which stop people from behaving in the action. External constraints are social and environmental factors that increase the chances of not behaving in the action. Jun and Kyle (2011) noted that constraints negatively influence actual participation in sport. Following Biscaia et al.'s (2017) arguments that constraints could happen in any relationship, the current research focuses on the relationship between behaviour intention and change in behaviour towards sport and exercise, because constraints on any relationship will ultimately impact behaviours (Kim and Trail 2010). Based on the results by Jun and Kyle (2011) and Kim and Trail (2010) one may argue that constraints exist for individuals to engage in sport and exercise behaviours regardless of the other effects of the international sport events.

Similarly, awareness of opportunity could be a part of perceived behavioural control and impact behavioural intentions and behaviours (Ajzen 1991) linked to sport and exercise. When people are aware of opportunities to be physically active, this may impact their behaviour given that they see fewer obstacles to participate in sport and exercise (Holt et al. 2011). On the other hand, limited access to opportunities could negatively impact an individual's behavioural intentions and behaviours. Awareness of opportunity is one of the important components to changing behaviour towards sport and exercise (Portwarka et al. 2019). Previous research (e.g. Crompton 2004) on individual reactions to brands suggest that awareness is the first and necessary step for subsequent behaviours. Making individuals aware of products and services is vital because they need to be aware of them in order to enjoy these opportunities. In the context of international sport events, hosts and associated stakeholders must promote their sporting programmes and facilities, and inform ways to access their programmes and facilities, so that citizens become aware of the opportunities to engage in sport and exercise; thus, increasing participation level in host city and country.

2.3.7. Proposed framework

Based on the review of extant literature, a framework for understanding the impact of hosted international sport event is proposed (see Figure 2.1). This framework was developed to help address the initial aim of the study, which was to explore the impact of hosting consecutive international sport events on the attitude and behaviours towards participation in sport and exercise among different age groups of the host population. That was formalised by a feedback arrow showing a relation between “change in behaviour after an event” impacted on “pre-event behaviour” for the following event. Notwithstanding, as this proposed framework remains relevant to explore the importance of one event (see aim 1), it is used to help exploration of how the 2019 Rugby World Cup may affect attitudes and behaviours towards different age groups among the host population. The only change is that the impacts are based on a single event rather than consecutive events. An explanation of the proposed model is presented below (see Figure 2.1) alongside definitions of all variables (see Table 2.6).

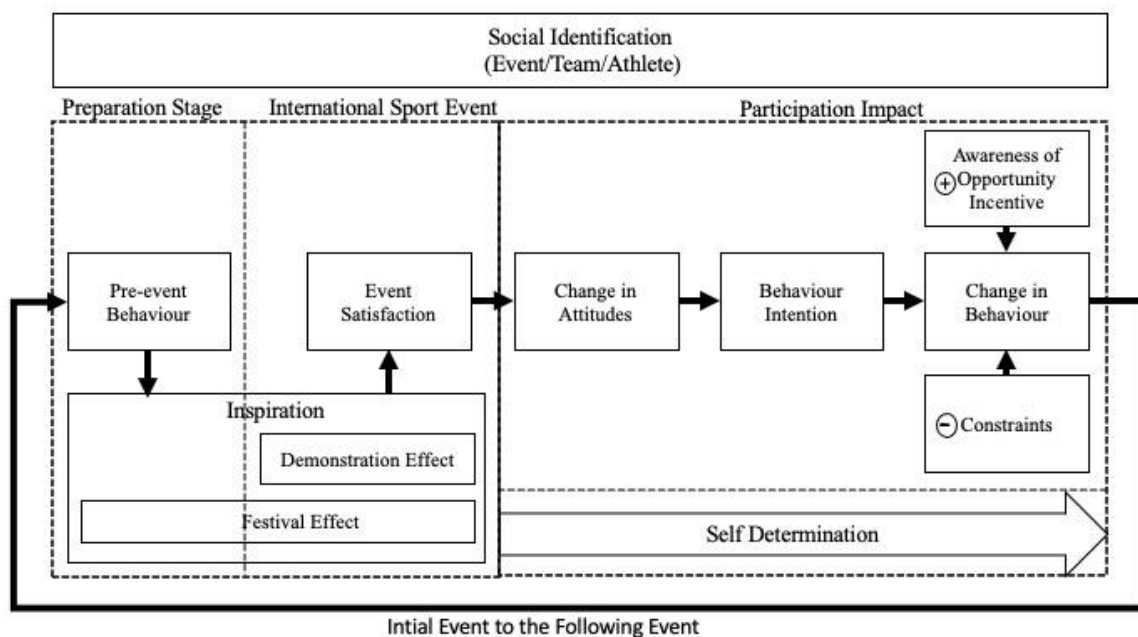


Figure 2. 1 Proposed framework for understanding the impacts of hosted international sport events.

Following social identity theory’s tenets (Tajfel and Turner 1979), individuals who are identified with the event, athlete or teams even before the events starts, are more likely to be inspired to become active. People’s pre-event participation behaviour in sport and exercise often influences how they feel inspired by an international sport event (Ramchandani, Coleman, and Bingham 2017). In turn, inspiration represents an important factor for increasing event satisfaction and changing attitudes towards participation (Böttger et al. 2017). The inspiration

generated by an international sport event can be categorized into demonstration and festive effects (Weed et al. 2009). Demonstration effect happens when people are inspired by athlete and team performances (Potwarka et al. 2018), while festive effects are generated by event atmosphere and supplementary events in a hosting country (Cleland et al. 2019). Inspiration generated from an international sport event could affect attitudes towards participation (Gucciardi and Jackson 2015), given that individuals who identify themselves with the events, athletes or teams, may be more likely to support and consume the event (Lock and Heere 2017). In the same way, people's satisfaction derived from being involved in sport events (e.g. watching the competition and the being part of the event environment) has been suggested to have an impact on attitude towards the associated event (Lee and Kang 2015).

Positive attitudes towards an event are then often suggested to trigger associated favourable behavioural intentions. Following the TPB (Ajzen 1991), individuals' attitudes can be developed from people's experience. For example, positive attitudes triggered by previous sport and exercise participation or involvement with international sport events through TV may lead to intentions to be involved in sport and exercise. Similarly, a positive attitude and behaviour intention towards sport participation can translate into actual behaviours of sport and exercise participation (Theodorakis 1994). Complementary, the process explained above may also be impacted by one's self-determination to be actively engaged in sport and exercise participation behaviour (Deci and Ryan 1980; Teixeira et al. 2012; Vallerand and Bissonnette 1992). That is, a change in behaviour towards becoming more active in terms of sport and exercise is more likely to occur when the individual has the self-determination to do it (Brittain, Biscaia, and Gérard 2020). Despite that, it is also worth noting that the change in behaviour may be boosted when individuals are aware of opportunities to be physically active (Ståhl et al. 2001), while it can also be negatively affected by social and personal constraints that prevent them from engaging in sport and exercise activities (Alexandris and Carroll 2010).

As the proposed framework was developed before the public health and social crisis caused by the COVID-19 pandemic, it is considered that change in behaviour from the first international sport event (2019 Rugby World Cup) may lead to pre-event behaviour for the second international sport event (2020 Tokyo Olympic Games). This is based on the existing literature (e.g. Ramchandani, Coleman, and Bingham 2017) suggesting that people's pre-event behaviour often influences how they feel inspired by an international sport event. This connection between the first and the second event was to understand the impact of hosting consecutive international sport events on attitude towards participation and actual behaviours, which was the initial objective of this research.

Table 2. 6 Definitions of variables in the proposed framework.

Framework components	Definition	Support references
Pre-event Behaviour	People's behaviour towards sport and exercise prior to the hosting of the international sport event.	Ramchandani and Coleman (2012); Ramchandani, Coleman, and Bingham (2017)
Inspiration	People's intrinsic motivation towards participation in sport and exercise caused by inherent aspects of an international sport event	Böttger et al. (2017)
Demonstration Effect	Motivation to participate in sport and exercise that is derived by the performances and results of athletes involved in the event	Potwarka et al. (2018)
Festival Effect	Motivation to participate in sport and exercise that is derived by the atmosphere of the event in the host city	Cleland et al. (2019)
Event Satisfaction	A pleasurable fulfilment response based on the evaluation of the international sport event.	Giese and Cote (2000); Oliver (1997)
Social Identification	People's identification and sense of connection with teams and athletes involved in the international sport event.	Lock and Heere (2017)
Self-determination	People's motivation towards participation in sport and exercise based on motivational orientations, contextual influences and interpersonal perceptions.	Hagger and Chatzisarantis (2008)
Change in Attitude	People's improved disposition towards participation in sport and exercise	Ajzen (1991); Eagly and Chaiken (1993)
Behaviour Intention	An indicator of how much a person is willing to engage in sport and exercise	Biscaia et al. (2017)
Awareness of Opportunity	The extent to which individuals know the opportunities to participate in sport and exercise in their local areas	Crompton (2004)
Incentive	Measures adopted by the host city, employers or other stakeholders in the city ecosystem aimed at helping to promote citizens' participation in sport and exercise.	Potwarka et al. (2018)
Constraints	Internal or external factors that prevent or prohibit people from participating in sport and exercise.	Kim and Trail (2010); Jun and Kyle (2011)
Change in Behaviour	Improved behaviours related to sport and exercise participation.	Jenkin et al. (2017); Theodorakis (1994)

2.4. Public health and international sport events

2.4.1. Public health planning

The COVID-19 pandemic revealed that public health planning is crucial for sporting events, especially for those with an international scope and a large number of participants and staff involved. For example, during the 2016 Rio Olympic Games, more than 11,000 athletes from 205 countries represented their teams (Settimi 2016). Also, around 1.17 million tourists travelled to Rio de Janeiro with 419,000 from abroad (Kalvapalle 2016). However, the pandemic changed every expected scenario for the Tokyo 2020 Olympic Games, from no audience in most venues to the introduction of bubbles for athletes, officials, media and support staff (NHK 2020a).

To prevent and slow down the spread of COVID-19, various restrictions were introduced, and suggestions were made at international, national, community and individual levels (e.g. Department of Health and Social Care (DHSC) 2020, MHLW 2020, WHO 2020a). At an international level, travel bans were introduced by many countries including the US, Japan and the UK (Narayan et al. 2021). At the national level, many countries introduced lockdowns to restrict movement of people within their country or community (WHO 2020a). At the community level, finding, testing, isolating, and tracing COVID-19 cases were pivotal in many countries (WHO 2020a). At the individual level, people were asked to follow guidelines and advices by public health authorities such as adapting protective behaviours (MHLW 2020 and WHO 2020a).

In Japan, travel bans were initially introduced in late February 2020 with restricting entry from Wuhan, China (Narayan et al. 2021). Then, the bans were expanded to most countries by April 2020, and this was maintained throughout the period of the data collection of the current study (Ministry of Justice 2021). From April to May 2020, the Japanese Government declared a state of emergency. It was not a lockdown, but citizens and businesses were requested to follow the guidelines by prefectural governments of each area (refer to section 3.1.2 for more detail of the state of emergency) (NHK 2020a). At the community level, the government focused on testing potential cases rather than conducting mass testing to identify larger cases of transmission to prevent the next mass transmission of COVID-19 (NHK 2020a). At the individual level, people were asked to avoid places that are dense, close or sealed and especially a place that has apply two or more of those characteristics (NHK 2020a). For example, in the early stage of the pandemic, pubs, indoor concerts, gyms and live events were all considered as high-risk places that have two or more characteristics that people should avoid.

As the situation became worse globally, uncertainty of hosting the Tokyo Olympic Games increased. On 24th March, the postponement of the 2020 Tokyo Olympic Games was announced by the Japanese government and IOC (NHK 2020b). On 30th March, the IOC announced the new schedule of the Tokyo Olympic and Paralympic Games for 2021 (see section [3.1.1](#) for more details).

2.4.2. Public health and sport participation

The COVID-19 pandemic has also highlighted the importance of public health planning for people to safely participate in sport and exercise. Prior to the pandemic, participating in sport and exercise was a key for healthy living (WHO 2019). However, during the pandemic, several restrictions were introduced on sporting facilities or how far people could be away from home to do outdoor exercise (Brand et al. 2020). Various restrictions from social and physical distancing to lockdowns of businesses, schools and overall social life were introduced or requested across the world, which discontinued various regular activities including sport and exercise participation (United Nations (UN) 2020). In most countries, the pandemic led to closure of gyms, stadiums, pools, dance and fitness studios, physiotherapy centres, parks and playgrounds (UN 2020). It also impacted most sporting events, and leagues at international, regional and national levels have been cancelled or postponed including postponement of the 2020 Tokyo Olympic Games to 2021 (UN 2020).

According to the Council of Europe, physical activity during the first lockdown decreased in 13 countries while it remained the same or increased in 16 countries. Also, participation in indoor activities declined significantly due to the closure of facilities during the lockdowns (Council of Europe 2020). All countries experienced increased physical activity after the first lockdown but participation levels were still lower compared to before the pandemic. Also, the participation level dropped in Japan from February to May 2020, because during most of this period many sporting facilities were closed, or had limited access, and the state of emergency was declared from April to May (SSF 2020a). However, after the state of emergency was lifted, participation levels returned to the pre-pandemic level in Japan (SSF 2020b). Another difference was that the report by the Council of Europe (2020) shows that during the lockdown participation levels dropped more among active individuals (-39%) than intermediate individuals (-5%). However, the report by SSF (2020a) shows that active individuals (i.e., exercising more than five times a week) in Japan might have maintained the

same participation level, but intermediate individuals (i.e., exercising one to three times a week) might have dropped their participation levels.

2.4.3. Sport event postponement and cancellation

It is very rare that international sport events such as the Olympic Games or World Cups get postponed or cancelled. In the past, the 1916 Berlin Olympic Games was cancelled due to World War I. Also, the 1940 Tokyo Olympic Games (initially moved to Finland then cancelled), the 1940 Sapporo Olympic Games, the 1944 London Olympic Games and the 1944 Cortina d'Ampezzo Olympic Games were cancelled due to World War II (McKeever 2020). Similarly, the FIFA World Cup was only cancelled in 1942 due to World War II, and 1946 due to World War II as well as lack of funding (Tomlinson 2014). In the UK, Wimbledon was cancelled between 1915 and 1918, 1940 and 1945 due to World Wars I and II (Newman 2016; Rossingh 2020). These figures indicate that well-established international sport events are only cancelled or postponed under worldwide crisis. At the same time, changes in hosting venues due to withdrawal from hosting sites or confiscation from international governing bodies could happen for international sport events. The 1908 London Olympic Games were initially awarded to Rome, but then relocated to London due to the eruption of the Mount Vesuvius in Italy (Howard 2021). Similarly, the 1986 FIFA World Cup was initially awarded to Colombia but withdrew due to financial crisis in the country as well as change in domestic politics; with the event being hosted in Mexico (Kioussis 2020). More recently, the 2022 Commonwealth Games was initially awarded to Durban, but the city lost the hosting rights due to financial issues and Birmingham become the new hosting city (Tella and Labyschagne 2018).

Sport event postponement or cancellation can lead to economic and social impacts (UN 2020). During the COVID-19 pandemic, various sport events were postponed or cancelled including the Table Tennis World Championships and the World Figure Skating Championships, many tennis tournaments (e.g. Wimbledon cancelled and French Open postponed), and international marathons (e.g. London Marathon postponed, Chicago Marathon cancelled) (BBC 2020). According to Sports Value (2020), global revenue of the sports industry is approximately US\$756 billion (about £549.3 billion) annually. For some professional leagues, match day revenues represent large portions of their revenues, such as \$2,256 million (about £1,639.1 million) for MLB and \$1,400 million (about £1,017.2 million) for NFL (Sport Value 2020). In addition, the report by Deloitte (2020) elaborates on potential long-term impacts of the pandemic on professional sports business such as use of stadiums and

venues (e.g. supporting responses to the pandemic and using them for non-sporting contents in the future), commercial relationships (e.g. implications of changes due to the pandemic) and investments (e.g. cashflow). The postponement or cancellation can also lead to social impacts. Sporting events lead to emotional excitement. Also, identification with teams, events and athletes may lead to social benefits such as being a part of a community and/or participating in physical activities (UN 2020).

The postponement of the Tokyo Olympic Games and Paralympic Games led to extra costs for the organising committee, the Tokyo Metropolitan Government and Japanese government (NHK 2021). It is estimated to be Japanese ¥294 billion (about £1.95 billion) which is split into ¥120 billion (about £0.79 billion) for the organising committee, 103 billion yen (about £0.68 billion) for the Tokyo Metropolitan Government and ¥71 billion for the Japanese government. In addition, the hotel industry and other tourism-related businesses faced difficulties because the 2020 Tokyo Olympic Games were hosted without any audiences in most venues - a consequence of the bans imposed to international travellers. The poll in October 2020 showed that hosting the Tokyo Olympic Games in 2021 was supported by 40.0% of people, but 22.5% supported cancellation of the event and 25.1% supported further postponement of the event (NHK 2021) (refer 3.1.2 for more details of National Poll related to hosting the Tokyo Olympic Games). This shows that during the time that the current research was conducted, hosting the Tokyo Olympic Games itself was still supported by nearly two thirds of the citizens but some people started to question the hosting of the event in 2021.

On 26th June 2021, the organising committee announced that they were planning to host the Tokyo Olympic Games with an audience of 50% of the capacity or 10,000 people (NHK 2021). At the same time, they mentioned that if the Government restrictions were planned to continue throughout the Tokyo Olympic Games, they might change to hosting the event without an audience. On 7th July, the Government decided to declare a state of emergency in Tokyo and semi-emergency coronavirus measures in three surrounding prefectures of Tokyo throughout the period of the Olympic Games. Therefore, on 8th July 2021, the organising committee and other stakeholders decided that all venues in Tokyo and three other surrounding prefectures would not have any audience, and only 50% or 5,000 audience in other venues (including only invited local students in one venue) (NHK 2021). A few days later, the status of two other locations was changed to 'no audience' due to the decision made by local authorities. These decisions led to only a total of 43,300 spectators during the Tokyo Olympic Games (Nikkan Sports 2021). While these decisions followed the result of the poll in February

2021 that 52% supported hosting the Tokyo Olympic Games with a restricted audiences or without audiences, some people felt that some excitement might be lost (NHK 2020a).

2.4.4. Summary and key ideas guiding the study

Based on the literature review about international sport events and the linkages with sport and exercise participation, some important ideas are worth highlighting. While some cities (e.g. Sydney, Rio de Janeiro, London) hosted international transit sport events consecutively, there is no previous research exploring the impact of hosting international transit sport events consecutively in a city or country on sport and exercise participation among host citizens. There were some studies examining multiple international transit sport events in one city or country (e.g., Veal, Toohey, and Frawley 2012; Ramchandani, Kokolakis, and Coleman 2014) but none considered the impact of hosting events consecutively in the same region. Ramchandani, Coleman, and Bingham (2017) argue that people's attitude and behaviour towards participating in sport and exercise have an impact on how they are inspired by the event. These authors further argue that people who are more active before events are more likely to be inspired. On the other hand, if people are not active but have a positive attitude towards sport, then they are more likely to be inspired. This suggests that if the first event hosted in a country inspires people to change their attitude and behaviour towards sport and exercise, people may have more impact from the subsequent event(s) because inactive people with a positive attitude towards sport or active people are more likely to be inspired by the second event.

Another aspect to consider is that not all citizens may be affected by international sport events in the same way, particularly in what concerns sport and exercise participation. Younger segments of the host population are suggested to be more receptive to change their behaviour intention or behaviour towards sport and exercise amid international sport events (Cleland et al. 2019). Also, people who are already physically active are more likely to be inspired by international sport events (Ramchandani, Kokolakis, and Coleman 2014). This idea applies in many European countries, where sport and exercise participation rates tend to decline with age. However, this does not seem to be a trend in Japan since Japanese people above 60 years old are more active than younger adults except for the age group of 18-19 (SSF 2019) (see section 4.2 for more details). This suggests that the two international sport events hosted in Japan (2019 Rugby World Cup and 2020 Tokyo Olympic Games) provide a unique characteristic to help understanding potential ways to inspire inactive people to change their behaviour towards participation in sport and exercise.

It is also worth noting that previous research conducted in the context of smaller sport events and their spectators have pointed out a linkage between both demonstration and festival effects (Biscaia et al. 2013; Lee and Kang 2015) with satisfaction. Yet, no studies have been dedicated to exploring the linkages of inspiration effects (i.e., demonstration and festival) and satisfaction in terms of sport and exercise participation. This is of particular importance because a person's satisfaction with an event has been suggested to positively impact attitudes and behaviours associated with such event as could be the case of sport and exercise participation.

Furthermore, while an initial report about the impact of COVID-19 on sport participation in Japan (SSF 2020a) was published before the time of the data collection of this research, the impact of the 2020 Tokyo Olympic Games postponement on sport and exercise participation among the host citizens was never considered. As the postponement of such an event has an impact on the host citizens' life in a variety of ways, understanding if and how it influences their sport and exercise participation may represent an opportunity for further advance planning procedures for future events. In addition, none of the Olympic Games so far was postponed or cancelled after World War II. This suggests that this unique context may help to explain the effect of postponement of an international sport event on sport participation, which may also help to understand effect of postponement (or potential cancellation of other international events during this pandemic or future similar occasions).

3. Public Health Constraints During the Development of the Thesis

3.1. Introduction

The COVID-19 pandemic became a serious concern in Japan right before the first wave of data collection and became a serious public health concern after the 1st data collection was started. Due to the pandemic, some changes were made in both the context and method of the research. The initial plan was to conduct two waves of data collection to analyse the impact of hosting international sport events consecutively on individuals' attitudes and behaviours toward participation in sport and exercise. However, the 2020 Tokyo Olympic Games, the second event in this research, was postponed to 2021 due to the pandemic, which means that changes had to be implemented in the research objectives and method. Considering the timeframe of the doctoral studies, the postponement of the Olympic Games and the uncertainty and disruption in the day-to-day life of the citizens, the 2nd round of interviews was changed to focus on how the postponement of the international sport event and the social changes derived from the pandemic may impact individual's attitudes and behaviours. Also, to the best of my knowledge, there is no previous study that observed the impact of postponed international sport events on sport and exercise participation. Thus, this was an opportunity to explore the impact of the postponement of an international sport event and whether future events need to consider postponement risks for their legacy plans. With this change, the aim was to understand (1) the role of successful and postponement of international sport events on young (20s) and older (60s-70s) individuals' attitude and behaviour, and (2) how the pandemic impacted individuals' attitude and behaviours towards sport and exercise.

3.1.1. Spread of COVID-19

Figure 3.1 key events during the early stage of the pandemic, including the impact on the 2020 Tokyo Olympic Games. Details are explained in following paragraphs.

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Figure 3. 1 Key events during the early stage of the pandemic. (Source: NHK 2020a; NHK 2020b; Reuters 2020; WHO 2020b)

COVID-19 was initially reported in Wuhan, China, and it was first reported as unidentified pneumonia to the WHO office in China on 31st December 2019 (WHO 2020b). On 13th January 2020, the first case outside China was found in Thailand (WHO 2020b). Following this case, most cases outside China were initially found in East and Southeast Asia. On 21st January 2020, human transmission of the virus was confirmed (WHO 2020b). On 23rd January, the Chinese government decided to put Wuhan under quarantine (American Journal of Managed Care (AJMC) 2021). On the 30th January, the WHO announced a Public Health Emergency of International Concern as the cases continued to increase in China and started to spread across the world. On the 10th February, deaths from COVID-19 in China become higher than during the SARS pandemic. Later, on the 11th March, the WHO declared that COVID-19 was a pandemic. By March 2020, COVID-19 reached most parts of the world and the cases surged in many countries including Italy, Spain, the UK, Iran and the US. This led to travel restrictions across the world as well as the introduction of lockdowns in many countries to reduce transmission of the virus and drop the rate of positive cases to reduce pressures from medical services. At the end of 2020, there were 83.3 million COVID-19 cases with 1.8 million deaths (AJMC 2021).

On the 5th January 2020, Japan Broadcasting Corporation (NHK) reported that the Ministry of Health Labour and Welfare (MHLW) cautioned that pneumonia patients with the causative pathogen were found in Wuhan City. MHLW requested for any returners from Wuhan with symptoms such as cough and fever to then attend medical facilities and declare

their travel history (NHK 2020a). This was the first report of COVID-19 on their archive. The first COVID-19 case in Japan was found on the 15th January from a Chinese person who lived in Japan and who had returned from Wuhan City (MHLW 2020; NHK 2020a). On the 30th January, COVID-19 was listed on designated infectious diseases and quarantinable infectious diseases by the government. This means that the government could restrict and impose measures to prevent the spread of the virus including (1) the prefectural governor could require patients to be hospitalised, (2) instruct them to be taken off from their work during a period of time, (3) the government could instruct examinations and medical examinations at airports and ports with penalties for violations.

The positive cases in Japan were gradually increasing in February and March 2020, but when looking back it was very low with less than hundred until the end of March (MHLW 2020). However, on the 23rd February, the experts meeting raised concerns about the capacities of medical facilities in the metropolitan areas as these were tight due to the outbreaks in the cruise ship, the Diamond Princess, as well as increased in untraceable cases (NHK 2020a). Cluster cases with multiple infection from one location were reported, and often those occurred in places that were closed, relatively populated areas, and smaller space such as live houses and gyms. The expert meeting instructed the citizens to avoid places with those three characteristics (NHK 2020a). This discouraged people from going to their gyms, and some gyms even decided to temporarily close their facilities in March (NHK 2020a). Also, on the 26th February, the prime minister announced that all elementary, middle and high schools would enter spring break on 2nd March, a week earlier than the planned break (NHK 2020a).

COVID-19 also impacted various sporting events from international competitions to domestic leagues. At the end of January, the 2020 Asia & Oceania Boxing Olympic Qualification in Wuhan was cancelled (and moved to Jordan), which was one of the first events that were impacted by COVID-19, and later many sporting events in China were cancelled or postponed (NHK 2020b). On the 27th February, Thomas Bach, the president of the IOC, emphasised during a press conference that they would be hosting the 2020 Olympic Games in July as planned (NHK 2020b). While the WHO declared that COVID-19 was a pandemic on the 11th March, the Lighting Ceremony took place without audiences in Greece on the 12th March and President Bach continued to hold the stance that the 2020 Tokyo Olympic Games would take a place as planned (NHK 2020b). However, during that period doubts about hosting the event were increasing. On the 13th March, the president of the United States of America, Donald Trump, said that “Maybe they postpone it for a year... if that’s possible,” and “I like that better than I like having empty stadiums all over the place. I think if you cancel it, make it

a year later that's a better alternative than doing it with no crowd" (Reuters 2020). By this time, COVID-19 started to impact sporting events outside of China including Japan at a relatively earlier stage (e.g. general categories for the Tokyo Marathon were cancelled and the J. League cancelled all matches after 15th March). While the IOC had discussions with international federations and released a statement indicating that "The IOC remains fully committed to the Olympic Games Tokyo 2020, and with more than four months to go before the Games there is no need for any drastic decisions at this stage" (Grohmann 2020), some national Olympic committees, athletes and media criticised the IOC's decision and demanded the postponement of the 2020 Tokyo Olympic Games (NHK 2020b). On the 22nd March, the IOC announced that they would consider choices including postponement with the organising committee. They referred that they would make the decision within four weeks, but this was criticised again by national Olympic committees, athletes and media for taking too long to make the decision, demanding that the decision be made immediately and suggesting that the postponement would be desirable (NHK 2020b). Only two days later, prime minister Abe (Japan) and President Bach (IOC) announced that the 2020 Tokyo Olympic Games would be postponed by one year and, on 30th March, the IOC announced the new schedule of the Tokyo Olympic and Paralympic Games in 2021 (NHK 2020b).

3.1.2. A state of emergency in Japan with Tokyo and Oita

This section provides context to the current research, including how the Japanese government responded to the pandemic. It also illustrates how the pandemic impacted Tokyo and Oita differently. On the 7th April 2020, a state of emergency was declared in seven prefectures of Japan for a month by the prime minister. Later, on the 16th April, the state of emergency was expanded to nationwide including Oita. The biggest difference in two prefectures was the duration of the declaration. As Table 3.1 shows, even considering Oita is smaller prefecture, the cases in Oita were relatively low, so Oita only requested some preventive actions as explained in Table 3.2 (Page 46).

Table 3. 1 Summary of COVID-19 Cases in Tokyo and Oita in April 2020. (Source: NHK 2020a)

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While the decision to declare a state of emergency was made by the prime minister, the prefectural governors in declared areas could request and instruct citizens and businesses based on the legislation. In addition, they held authority to instruct restrictions on the use of facilities such as schools and welfare facilities and could request owners of any land/building to open temporary medical facilities. Since the prefectural governments can make decisions on what to request and instruct their citizens and businesses, wide differences in responses were observed between Tokyo, the biggest city in Japan, and Oita, a capital of a prefecture but relatively small in size.

In Tokyo, people were requested to refrain from going outside except for essential and health-related activities but in Oita people were only requested to avoid high-risk facilities and refrain from traveling to other prefectures. It was not mentioned on the webpage of Oita Prefectural Government at least, but many rural prefectures were concerned about their people travelling to larger prefectures and cities, and they often strongly argued not to travel to large cities such as Tokyo, Osaka and surrounding areas. In Tokyo, schools were closed for most parts since the beginning of March when they began the extended spring break. Most schools resumed on the 1st June with shorter hours and reduced capacities. This process continued throughout June for many cities. For Oita, prefectural high schools as well as elementary and middle schools in some cities resumed in early May. However, many others, including Oita city, restarted schools in late May. Most schools were closed during the declaration. Similarly, universities were teaching remotely (online classes) and most public facilities (e.g. libraries, gyms, museums) were closed in both cities (Tokyo and Oita) during the state of emergency. For a few courses, face-to-face learning was important and students returned to the campus (e.g. medical-related courses and natural sciences courses that require experiments). Some public facilities were also reopened in Tokyo and Oita but slower paces in Tokyo were observed.

For the economic activity, non-essential stores and services in large shopping malls and department stores were closed in Tokyo following the declaration and the request. In Oita, some shopping buildings closed except for essential areas based on the declaration without a specific request from the prefecture and the department stores were also closed during the weekend. This was probably to avoid crowdedness in the store during the weekend. In Tokyo, businesses were asked to reduce employees in their office by 70% and increase remote working. In turn, full remote working was requested and encouraged in Oita.

Although a state of emergency worked on the basis of requests to the public (i.e., no penalties included in legislation), people generally followed that. On the 14th May, a state of emergency was lifted in 39 prefectures including Oita and lifted in an additional 3 prefectures including Osaka on the 21st. Finally, it was lifted in the remaining five prefectures including Tokyo, and three other prefectures in metropolitan areas on the 25th May.

Table 3. 2 Summary of the first state of emergency. (Sources: NHK 2020a; Oita Prefectural Government 2020)
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While the cases of COVID-19 declined nationwide at the end of the state of emergency, they slowly increased again in June and the cases in mid-July become higher than the peak during the 1st wave of the pandemic and this continued until September. Positive cases started to surge again, and continued to increase between October and November. By the end of October 2020, about 100,000 cases were reported and 1,755 had died from COVID-19 (MHLW 2020).

3.1.3. National poll on hosting the Tokyo Olympic Games

In Japan, various media sources conducted national polls on the cabinet approval rating and supporting political parties. Polls are often conducted on other political and common topics

such as the government responses to COVID-19, economic concerns related to impact of COVID-19, attitudes toward the COVID-19 vaccination. Within these polls, there were polls related to hosting the 2020 Tokyo Olympic Games prior and during the pandemic. Table 3.3 shows the result of polls related to the 2020 Tokyo Olympic Games. Prior to the COVID-19, about 70% of people were interested in the 2020 Tokyo Olympic Games. Before the postponement of the 2020 Tokyo Olympic Games was announced, the March poll indicated that nearly 40% of people thought that Japan was able to host the 2020 Tokyo Olympic Games as planned, but nearly 45% of people thought the event would be hosted as planned. In October, 40% of people supported hosting the Tokyo Olympic Games in summer 2021, which was the most popular choice.

Table 3. 3 Polls related to the 2020 Tokyo Olympic Game (%). (Source: NNK 2021)

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3.2. Summary

This section discussed the spread of COVID-19, how COVID-19 led to the government policies' and how the pandemic and social changes led by the pandemic may have impacted Tokyo and Oita, where the interviews were conducted. COVID-19 and social changes led by the pandemic impacted this research especially from the postponement of the 2020 Tokyo Olympic Games. The 2nd wave of data collection and overall research focus had to be changed to (1) understanding the role of success and postponement of international sport events on individuals' attitude and behaviour, and (2) how the pandemic impacted individuals' attitude and behaviours towards sport and exercise. Also, the research method was changed for safety of participants and researcher as well as following guidelines from the government and the university. Details about the method are presented in Chapter 5.

4. Context of the Study

4.1. Sport context in Japan

In Japan, baseball and football are the most popular sports and those with the highest number of male registered participants in high schools (All Japan High School Athletic Federation 2019; Japan High School Baseball Federation 2019). In female sports, volleyball, basketball and badminton have the highest number of registered participants in high schools (All Japan High School Athletic Federation 2019). For attendance, both live and TV, baseball is usually the most popular sport among both genders and all age groups. The only exception to this figure is the fact that figure skating surpasses baseball in terms of TV viewership among female audience (SSF 2017; SSF 2019). But the SSF survey in 2018 shows that the Japan national football team games were the most watched events on TV due to the 2018 FIFA World Cup (SSF 2019). While baseball is historically a popular sport and some people consider baseball as a national sport, football become popular since the J.League (i.e., the professional league) started in 1992 (J.League 2018).

Despite the hosting of the 2019 Rugby World Cup, rugby is not among the most popular sports, neither from a participation nor spectatorship point of view (SSF 2019). The national statistics show that only 10.6% of Japanese people watched the Japanese national team rugby on TV in 2018, and that rugby is more popular among males in their 50's and older generations (SSF 2019). In recent decades, rugby did not get much attention in Japan until the 2015 Rugby World Cup, where the Japanese team had unexpected success. Nevertheless, rugby has a long history in Japan. In the 1970s and 1980s, rugby was one of most popular spectator sports (Nikkan Sports 2019). Japan only had a semi-professional rugby league, with the college rugby league being at the centre of the development of the sport in Japan. In 1982, the traditional rival rugby match between Waseda University and Meiji University had an attendance of 66,999 spectators, which is the third highest attendance in the old national stadium after the opening and the closing ceremonies of the 1964 Summer Olympic Games (Japan Sport Council 2019). This suggests that rugby in Japan has potential especially for people in older generations who grew up with rugby being more popular.

Considering the data related to rugby in Japan, and the hosting of the 2019 World Cup in this sport, data for the current study was collected after the 2019 Rugby World Cup targeting young and old Japanese citizens. For the older age group (i.e., above 60), rugby was a popular spectator sport when they were growing up, which may not seem to be the case among younger generations (20s). For both generations, they experienced a high volume of media coverage

during the 2015 Rugby World Cup and the 2019 Rugby World Cup. The impact of hosting the 2019 Rugby World Cup on the population might be larger among the junior category than the senior category as was the case of the 2003 Rugby World Cup in Australia (Frawley and Cush 2011). However, previous research shows that hosting international sport events may impact individuals' participation behaviours in other sports and increase exercise practices overall (Ramchandani et al. 2015). This suggests that hosting the 2019 Rugby World Cup may have the potential to change people's attitude and behaviour towards doing sports and exercise in general, and not just regarding rugby.

4.2. Sport and exercise participation in Japan

Since 1992, SSF has been conducting a bi-annual national survey called SSF National Sports-Life Survey. This survey collects various information related to sport and exercise participation, attendance at sport events, and volunteering (SSF 2019). The data is collected using quota sampling and they approximately match their data to the population composition ratio. For 2018, they collected data from 300 points with 10 samples each; 88 points from large cities (20 designated cities and the special wards of Tokyo), 122 cities with a population of more than 100,000, 65 cities with population of less than 100,000, and 25 points from towns and villages. Since the survey in 2016, their sample size is 3,000 and they started to include ages 18-19 in the sample due to the change in Japanese law regarding adult age (i.e., it moved from 20 to 18). In the section about sport and exercise participation, SSF classifies the population into five levels (See Table 2.1).

As shown in Graph 4.1, their data shows an increasing trend of sport and exercise participation once a week, from 1992 to 2012 (59.1%). Then, there was a decrease until 2016, followed by another increase in 2018 (57.9%). When considering only the active sport population, it increased between 1992 to 2000, but declined in 2002 and did not recover until 2010. After a decline in 2014, active sport and exercise participation has been increasing and the survey in 2018 showed the highest percentage, with 20.7%.

Graph 4. 1 Japanese Sport and Exercise Participation Rate from 1992-2018. (SSF 2019)

As shown in Graph 4.2 (Page 52), exercise and sport and the exercise participation rate in Japan varies by age group (SSF 2019). While the ratio of active sport population is higher for the age group of 18-19 (31.0%), the group of 70+ is more active than all other age groups (27.6%). For the age groups between 20s and 40's, the ratio of active sport population gets lower for older age group, and active sport and exercise participation was the lowest for those in their 40's (13.8%). In contrast, for the age groups of 50's and 70+, the ratio of active sport population gets higher as age group increases. A similar trend was shown for the ratio of level 2 (at least twice a week) or above, except for those in their 20s (the lowest among all age groups). In Graph 4.3, the ratio of active sport population is higher for males. Also, the ratio of completely inactive population is lower for males. The ratio of level 2 or above is higher for female. This means that males are more likely to participate in sport and exercise at least once a year, and some of them participate in sport and exercise of relatively longer sessions with harder intensity. In turn, females are more likely to participate in sport frequently if they participate at least once a year. The graphs in Appendix A and Appendix B show that this trend is similar among most age groups.

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Graph 4. 2 Japanese Sport and Exercise Participation Rate by Age Group in 2018. (Data Source: SSF National Sports-Life Survey 2018)

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Graph 4. 3 Japanese Sport and Exercise Participation Rate by Gender in 2018. (Data Source: SSF National Sports-Life Survey 2018)

In addition to SSF, the metropolitan government of Tokyo conducted their own survey regarding live attendance and interest in the 2019 Rugby World Cup and the 2020 Tokyo Olympic Games (Tokyo Metropolitan Government 2019). The survey conducted in 2018 showed that 30.4% of the citizens do sport or exercise more than three times a week, 19.5% do it twice a week and 18.4% do it once a week (this includes walking). Overall, females are more likely to exercise two or three times a week but the male population has a higher percentage for at least once a week of participating in sport and exercise. In terms of the age groups of 20s (male) and 30's (female), these are the lowest for participation in sport and exercise at least once a week. On the other hand, both male and female participation rates for at least once a week increases after the age of 40. This might be due to the fact that walking is counted as exercise. The most common reason to participate in sport was related to health and physical fitness. Other common reasons were for having fun, escape from daily life activities and socialising with friends. The survey also shows reasons for people who did not participate in exercise more than once a week. The most common reason was not having time. Other frequent reasons were the lack of opportunity to do exercise, laziness and feeling aged. According to the survey, about 91% of the overall population thinks that sport and exercise are needed in their lives or needed in some levels including participation, spectatorship, being involved with sports at some level and volunteering to support sport organisations.

These two surveys show some unique aspects of sport and exercise participation in Japan. The age group of 50's and above are more active (participate in sport twice a week or more) than younger age groups such as the 18-19 (SSF 2019). A similar trend was shown in the survey by the Tokyo Metropolitan Government - the ratio of sport and exercise participation at least once a week increase as the age group gets higher for age group over 40 and above. This trend of the older population being more active than the younger population seems to be distinctive in Japan and may be related to the fact these older generations have experienced the 1964 Tokyo Olympic Games as youths (Aizawa et al. 2017). In other countries such as England, sport and exercise participation rates get lower as age group increases (Sport England 2017). In line with this trend, in 2014, the Eurostat conducted a survey to measure participation in sport and exercise at least once a week by age groups in 26 EU countries (Eurostat 2018). Overall trends of the EU were that the participation rate in sport and exercise declines with age. In addition, the data of individual countries show that only three countries had a higher participation rate for the age group of 55-64 than the age group of 45-54, and the participation rate of 65+ was lower than the age group of 55-64 in all countries.

4.3. Summary

This section provides background Japanese sport, including rugby, as well as sport and exercise participation trends. In Japan, rugby is not a dominant sport neither from attendance nor participation point of view. This means that people might have had less interest before or at initial stages of the 2019 Rugby World Cup, which could be a constraint to sport and exercise participation. On the other hand, rugby being not most prominent sport in Japan may lead to an opportunity to create inspiration among some participants. Sport and exercise participation in Japan has some unique aspects. The age group of 50s and above are more active (i.e. participate in sport twice a week or more) than younger age groups such as the 18-19 (SSF 2019). Since most country results indicate that the participation rate in sport and exercise declines with age, this unique trend of sport and exercise participation in Japan become one of focus in this research.

5. Methodology

5.1. Introduction

The initial aim of this study was to understand the impact of hosting consecutive international sport events on the attitude and behaviours towards participation in sport and exercise among different age groups of the host population. Then, due to the disruption in public health caused by the COVID-19 pandemic and associated postponement of the 2020 Tokyo Olympic Games, the study aim was separated into two.

The first aim was then to explore the impact of hosting an international sport event on sport and exercise participation among different age groups of the host population. To address this aim, two objectives set were:

- (1) To evaluate how the 2019 Rugby World Cup may influence the attitude and behaviours towards sport and exercise among certain age groups of the host citizens
- (2) To assess how the 2019 Rugby World Cup may affect the attitude and behaviours towards sport and exercise among older and younger groups of the host population.

The second aim was to critically analyse how the COVID-19 pandemic and related postponement of the 2020 Tokyo Olympic Games may have affected the attitude towards participation in sport and exercise and actual behaviours among the host citizens. Based on anecdotal evidence from the pandemic and a review of the literature, the following three objectives were developed to address this second aim:

- (1) To evaluate the impacts of the postponement of the 2020 Tokyo Olympic Games on the attitude and behaviours towards sport and exercise among host citizens.
- (2) To critically analyse the impacts of a health and social crisis on attitudes and behaviours towards sport and exercise.
- (3) To appraise how a health and social crisis may affect attitudes and behaviours towards sport and exercise among older and younger age groups of the host population.

This chapter consists of five sections. Firstly, the research philosophy guiding this study is explained. Secondly, the research design is presented by discussing the qualitative approach followed and the secondary data that was also used. Thirdly, the sampling and data collection procedures are described. Fourthly, the ethical considerations guiding the study and an explanation of how the research was planned and conducted is presented to ensure the rights and safety of participants. Then, the reliability, validity and positionality are discussed regarding qualities of the data used in the study.

5.2. Research philosophy

In this study, the research philosophy adopted is interpretivism. Interpretivism is driven by interpreting research context (Bryman 2016). Ontology is concerned with interrelating complex phenomenon (Blaikie 2000: 8). There are two ontological positions: ‘objectivism’ and ‘constructivism’ (Bryman 2016). In objectivism, social phenomenon and their meaning are developed and completed by social factors. On the other hand, in constructivism, social phenomenon and their meaning are continuously changing based on social factors. Ontology of interpretivism is “Socially constructed through culture and language” (Saunders, Lewis, and Thornhill 2019:145). Epistemology is accepted knowledge and it is subjective, and epistemology of interpretivism is finding new perspectives based on interrupting narratives and stories (Saunders, Lewis, and Thornhill 2019:135;145).

The research approach is inductive and deductive. The deductive approach is applied for the part of the research that is testing the frameworks based on the literature, and the inductive approach is applied for the part of the research that collects the data to explore themes and relation to alternately developing a model and/or theory (Grix 2019). The deductive approach applies for this research as it tested the framework, based on the literature review, proposed to understand the impact of hosting an international sport event on attitude towards participation in sport and exercise and actual behaviours among young and old individuals. The 1st wave of data collection was carried out to test this framework. On the other hand, the 2nd wave of data collection was developed to explore how the COVID-19 pandemic impacted attitude and behaviour among young and old individuals. This is the inductive approach that tries to develop a new model, theory or frameworks based on research. Similarly, the nature of this research combines evaluative and exploratory study. These two studies were utilised as this research has an evaluative aspect of evaluating the frameworks and exploratory aspect of exploring the model based on the research (Grix 2019).

The research design is longitudinal as this study conducts semi-structured interviews to capture individuals’ attitudinal and behavioural changes over a period of time, and the participants of the study are the same in both moments of data collection. In addition, this is a case study because it uses the real-life context to understand how hosting international sport events and the pandemic impact people’s attitude and behaviour towards sport and exercise (Saunders, Lewis, and Thornhill 2019). Unlike experimental study where the conditions of the experiment are controlled, it is hard to separate researched object and surrounding environment of the object (Saunders, Lewis, and Thornhill 2019). In the current study, a qualitative approach is used through semi-structured interviews. This study takes a subjective approach to conduct

interviews aiming to understand behaviours and reasons for behavioural change based on the perspective of interviewees and the analysis process by the interviewer (Saunders, Lewis, and Thornhill 2019). Semi-structured interviews were adopted because this approach is effective in understanding attitude, behaviour and its reasons. This study also utilizes secondary data to help understand some findings from semi-structured interviews.

5.3. Research design

This study applies a qualitative approach as interpretivism often use a qualitative method (Saunders, Lewis, and Thornhill 2019). Qualitative research focuses are suitable in understanding people and their behaviour, values, beliefs as well as describing context or explaining processes (Becker, Bryman and Ferguson 2012). In this study, the research aims to understand people's attitude and behaviours towards participation in sport and exercise throughout hosting an international event and the pandemic crisis, which fits well with what qualitative research is suitable for. It also has more flexibility than quantitative research as it is less structured, and it fits well with creating new theory and concepts (Becker, Bryman and Ferguson 2012). Qualitative research is often more in-depth research and mostly uses interviews, documentation, archives, observation and ethnographies. It often aims to find themes, patterns and trends from mass-information (Grix 2010). In the case of this research, it aims to understand how hosting an international sport event and the pandemic impacted attitude towards participation in sport and exercise and actual behaviours and finds trends and themes across the population and among young and old age groups.

The research interview is a conversation with motive where an interviewer asks clear and concise questions to interviewees (Saunders, Lewis, and Thornhill 2019). Interviews can be classified into four categories; structured, semi-structured, unstructured and focus group. Structured interviews have a set of questions asked in the same order to each participant (Grix 2010). It has strength in standardising and being easy for comparisons, but is not flexible and only able to capture what was initially prepared in the list of questions (Grix 2010). On the other hand, unstructured interviewees formulate questions based on intended topics or broad ideas and continue to formulate questions based on responses of participants, so every interview is unique and difficult to compare (Grix 2010). Semi-structured interviews are in between those two approaches, having more flexibility but enough structure to compare between participants (Grix 2010). Also, the researcher can analyse around each theme (Saunders, Lewis, and Thornhill 2019). For focus groups, an interviewer act as a moderator to

facilitate conversations within participants (Grix 2010). In this research, semi-structured interviews were selected since the interviews were guided by the literature but have enough flexibility to allow new topics to arise from the conversation.

Semi-structured interviews were chosen as the interview technique to analyse how international sporting events and the pandemic have impacted attitude and behaviours towards participating in sport and exercise among young and old individuals. This approach is considered to be an effective way to collect in-depth information and details of specific topics as well as having flexibility to capture individual's constraints and determination to participate in sport and exercise (Saunders, Lewis, and Thornhill 2009).

5.3.1. Data collection

Interviews were conducted in two cities (Tokyo and Oita). The option to conduct interviews in more than one city was to understand if potential impacts of the event could be observed outside the main city of Tokyo. However, as mentioned earlier, the 2020 Tokyo Olympic Games were postponed to 2021 due to COVID-19.

Instead, following worldwide changes imposed by the COVID-19 pandemic, this study focused on understanding the impact of hosted and postponed events on individual's attitude and behaviour towards sport and exercise. In addition, a new focus was developed for understanding the impact of COVID-19 and social changes led by it on attitude and behaviour changes towards sport and exercise participation. Consistently, this study looked at how the 2019 Rugby World Cup had impacted individuals' attitude and behaviours (i.e., not consecutive events but rather a single event), and on the effects of the pandemic and associated postponement of the 2020 Tokyo Olympic Games.

The 1st wave of interviews was conducted to understand the impact of hosting an international sport event on attitude towards participation in sport and exercise and actual behaviours. This was conducted as part of the initial research plan prior to the COVID-19 pandemic. While the COVID-19 pandemic was already impacting participants, interviews focused on their experiences from an international sporting event and participants mentioned their attitude and behaviour prior to the pandemic as their current status. As explained in Figure 5.1, prior to the interviews, an interview guide (see Appendix I) and the framework were developed derived from the literature review.



Figure 5. 1 Overview of the 1st data collection.

The 2nd wave of interviews was conducted to understand the impact of postponement of international sport event on attitude and behaviour as well as to explore the impacts of a health and social crisis on young and old individuals' attitudes and behaviours. Unlike the 1st wave of interviews, no framework was developed prior to the interviews due to the lack of a theoretical body of knowledge to guide this step. Thus, the 2nd wave of interviews had a more exploratory nature with the aim of developing a model. However, as shown in Figure 5.2 (p. 60), the interview guide was developed to facilitate interviews about sport and exercise participation and life changes during the pandemic (see Appendix J).

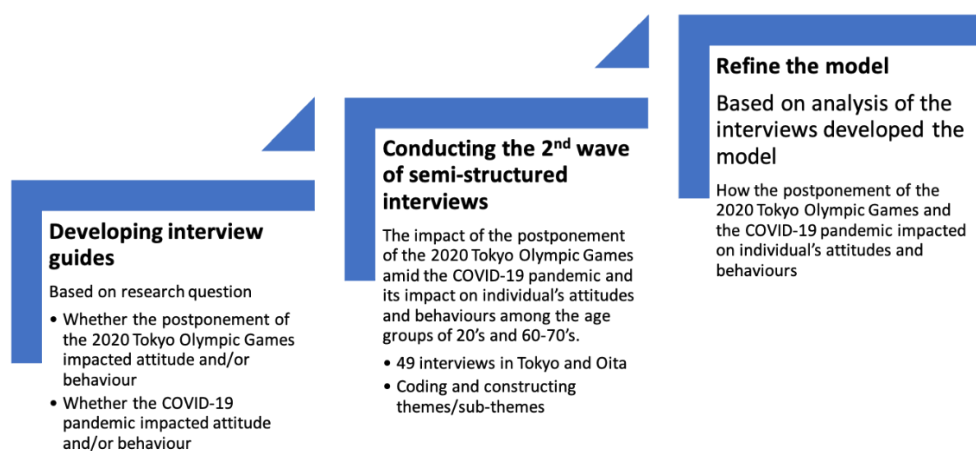


Figure 5. 2 Overview of the 2nd data collection.

All interviews were recorded with the consent of the participants. Before analysing the recorded interviews, the content was transcribed for better and more accurate analysis. Then, interviews were analysed, and key quotes were translated from Japanese into English. The results are presented based on the two waves of data collection using quotes from the interviews to explore themes and sub-themes as well as the narratives of three participants. The analysis of the 1st wave of interviews was guided by the initial conceptual framework derived from the literature, and findings allowed to refine it. In turn, the analysis of the 2nd wave of interviews contributed to the development of another model. Aligning with the thesis's objectives, the analysis of both waves also contributed to understand similarities and differences between two age groups (20s vs. 60s- 70s) in terms of their attitude and behaviour toward sport and exercise participation. In turn, the narratives of three participants aimed to observe how some individuals' attitude and behaviour changed over the two waves of interviews. Narratives are used to show how the 2019 Rugby World Cup, the postponement of the Tokyo Olympic Games and the pandemic have impacted the attitude and behaviour of these three participants throughout the research. This includes how the impact from the 2019 Rugby World Cup might last at the time of the 2nd wave of interviews. These three individuals were selected because they all mentioned how the Rugby World Cup and the pandemic impacted their attitudes and behaviours towards sport and exercise activities. They also mentioned an impact from the Rugby World Cup during the 2nd wave of interviews, regardless of whether these impacts have disappeared or continued. They represent good examples of how the hosting and postponement of international sport events in one host country may impact attitudes and behaviours toward sport and exercise participation and allow, and capture participants from both age groups under analysis.

5.4. Strategies for sampling and data collection

The semi-structured interviews were conducted in two cities; Tokyo and Oita. Tokyo was the main venue for the 2020 Tokyo Olympic Games. Tokyo was also one of two main venues for the 2019 Rugby World Cup as well as another main venue is in Yokohama, which is within the capital region by various definitions and the official statistics. Oita was an ideal comparison because the city was one of the venues for the 2019 Rugby World Cup and one of the two venues that hosted quarter finals but did not host any events for the 2020 Tokyo Olympic Games. Oita is located in the western part of Japan and rugby in Japan especially at youth level is more popular in the western part of Japan than the Eastern part (Saito 2015). In addition, the

Rugby World Cup was the biggest international event in Oita since hosting some matches of the 2002 FIFA World Cup. Therefore, the prefectural government and the city government had been putting effort into promoting the event and the sport. For 100 days countdown weekend, they organized rugby festival including a top-level high school match and a college match. In addition, as of March 2017, Oita had the highest awareness rate among twelve hosting prefectures for people in their prefecture knowing them being a hosting city of the 2019 Rugby World Cup (OBS Radio 2018). This suggested that conducting interviews in Oita will likely be an effective way to measure the impact of hosting an international sporting event.

The interviews were conducted twice, and with the same individuals because it would allow the research to measure the impact of hosting international sport events consecutively. By conducting the interviews to the same participants at two locations, where one hosted a single event and another with consecutive events, the research planned to measure the impact of hosting consecutive events on individuals' attitude and behaviours towards sport and exercise. This had been changed to understanding the impact of hosted and postponed events on attitude and behaviours. The plan was to interview approximately 25 individuals in each location. The target sample of this research is 20 to 29 years old and 60 to 79 years old. Justifications for choosing these two groups are explained in the next section under target sample. In terms of criteria for selecting the individuals, they must have watched at least one match (equivalent of 80 minutes) of rugby, which could be either at the venues or through the live broadcasting. While this research does not limit the research target to only people who watched at the venue and collect the data at the venues like Ramchandani, Coleman, and Bingham (2017) and Potwarka et al. (2018), this research did not want to include people who did not have any interest in these international sport events. Therefore, the research target of this research would be anyone who watched at least one match (equivalent of 80 minutes) of rugby, at the venue or through live broadcasting. It is important to note that it must be live broadcasting due to the nature of the Japanese TV programmes, where sports are one of large content for Japanese TV programmes especially when the Japanese national teams and athletes are successful. Therefore, it is possible that individuals could watch about 80 minutes of the 2019 Rugby World Cup by watching their news and other daily programmes without any intention. At the end of the 1st interview, the participants were asked about their interest to participate in a 2nd interview. The 2nd interviews were conducted with the same participants, to observe how individuals were affected by the two events.

5.4.1. Target sample

The target sample of this research is 20 to 29 years old and 60 to 79 years old. The age group 20 to 29 was selected for two reasons. First, previous research (e.g. Ramchandani, Kokolakis, and Coleman 2014; Cleland et al. 2019) argues that younger people are more likely to experience a higher level of inspiration effect and that younger people tend to change their behaviour from hosting international sport events. This suggests that younger Japanese are more likely to be inspired by the events and change their behaviours than older age groups. Second, SSF National Sport Life Survey 2018 shows that between age group 18-19 and age group 20-29, there is a large increase in inactive population and decline in active sports and exercise participants (level 4). So, understanding if hosting international sport events could impact younger individuals' attitude and behaviours towards participation in sport and exercise is important among different age groups. Furthermore, as Table 5.1 shows, age group 20-29 has the highest ratio of inactive people among the population (29.9%) (SSF 2019). This suggests the importance of understanding how hosting international sport events and other factors may impact these young adults and how sport and exercise participation of this age group can be improved.

Table 5. 1 Exercise and Sport Participation Rate by Age Group in 2018. (Data Source: SSF National Sports-Life Survey 2018)

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On the other hand, two additional reasons were bases to select the age group of 60-79 years old. First, understanding the impact on older people is important because the aging population globally is expected to increase continuously and being physically active is important for healthy aging (WHO 2018). The world's population aged 60 years and older is 900 million, 12% of the world's population in 2015 but it is expected to increase to 2 billion, 22% of the world's population in 2050 (WHO 2018). In Japan, the population aged 60 years old and above is 34.1% as well as the population aged 65 years and older being 28.4% in 2019, which is the highest in the world (MIC 2019). In addition, the previous research suggests

various benefits of participating in sports and exercise from health benefits of individuals (e.g. Colberg et al. 2015 and Rebar et al. 2015) to social benefits (e.g. Hartmann and Depro 2006 and Pucci et al. 2012). While aging is a global issue and participation in sport and exercise is important for healthy aging, most studies have focused on increased sport participation among the general population (e.g. Cleland et al. 2019), and there is a dearth of research on how these events may have differential effects on specific population segments.

Second, while Potwarka et al. (2018) argue that retired people (aged 65 and above) are less likely to change behaviour towards sport and exercise than employed, unemployed, long-term sick or disable, the result of the Japanese National Sport-Life Survey shows that 25.5% and 27.6% of individuals aged 60-69 and 70 and above, respectively, are active sports and exercise participants (i.e., “at least twice a week, at least 30 minutes at a time and moderate intensity at least slightly hard”; SSF 2021). Cleland et al. (2019) argue that currently active people are more likely to be inspired by international sport events. As Table 5.1 shows the ratios of Active Sports Participant for aged 60-69 and 70 and above are higher compared to most of the younger population except the age group 18-19. Table 5.1 also shows that the ratio of completely inactive population for age group 60-69 is lower than 50-59 as well as age group 70 and above being lower than age group 60-69. These suggest that hosting international sport events has potential to inspire older individuals in Japan. Table 5.2 shows that while the participation rate in sport and exercise declines with age in many countries, there are a few countries (e.g. Denmark, Germany) where older people are as active as younger people (Eurostat 2018) but Japan is a unique case where people of age 60 and above are more active compared to age 20-59 (SSF National Sports-Life Survey 2018 2019). This suggests that hosting international sport events may have different impacts and change attitude and behaviours towards sport and exercise of older individuals in Japan.

Table 5. 2 Practising sport, fitness or recreational (leisure) physical activities at least once a week, by age group, 2014. (Source: Eurostat 2018)

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Within each target sample group, the research recruited people from different occupational status. The occupational status was included because for 20s could be university students or employed, and similarly 60-70s could be employed or retired. For 20s, the research recruited both students and full-time employed³ people. According to the OECD, 53.7% of people attend universities (4 years) in Japan (2019). In Japan, the average new university student is 18.3 years old. In addition, some other people attend specialised training college (MEXT 2019). These show that a large portion of early 20s are attending university. While individuals are attending universities, they have club activities including ones related to sports and exercise. Actually, more than half of clubs are related to participating in sports and exercise at National Universities (National University Student Circles 2012). This does not include university sporting teams. These show that university students have different environments and

² United Kingdom was a part of EU in 2018

³ The average unemployment rate of 2019 in Japan is 2.4% (Statistics Bureau of Japan 2020)

opportunities to participate in sports and exercise. For age group 60s and 70s, this research tried to recruit both 60s and 70s in each location. While ratios of active sports participants for both aged 60-69 and aged 70 and above are higher compared to most of the younger population except age group 18-19 (SSF National Sports-Life Survey 2018), the research tried to recruit both 60s and 70s to have a wider sample.

5.4.2. Sampling method

This research applied homogenous sampling and snowball sampling as sampling methods. Homogenous sampling is a suitable way for in-depth exploration and understanding smaller differences (Saunders, Lewis, and Thornhill 2019). All sample share common characteristics (e.g. age groups, living or working locations, watched or attended the 2019 Rugby World Cup live match). In addition, the participants were recruited using snowball sampling which is an effective way to reach individuals where it is hard to identify if they meet the required characteristics (Saunders, Lewis, and Thornhill 2019). In this case, using snowball sampling, the information provided by 3rd person allows the research to identify potential participants, who watched the 2019 Rugby World Cup match as well as meeting criteria of age and residency. In addition, this method allows research to identify occupational status (student, employed, retired) of potential participants before officially inviting them to participate, which allows the research to have participants with different status. Snowball sampling also led to homogenous sampling as often they share some similar characteristics (e.g. residency, interested in watching sports).

5.4.3. Timeframe

The 1st wave of interviews was conducted between February and April 2020 with the intention to analyse the impact of the 2019 Rugby World Cup. The second wave of interviews was conducted between August and October 2020. Although the initial intention was to examine the role of consecutive events on the attitudes and behaviours of the participants towards sport and exercise, this time period was maintained as it also allowed to examine the impact of the postponement of the 2020 Tokyo Olympic Games and the impact of COVID-19 among participants.

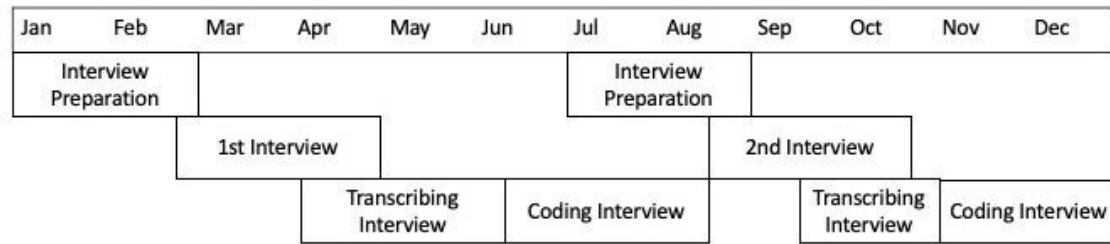


Figure 5. 3 Timeframe of the study interviews.

5.4.4. Interview process

Interviews were conducted in Japan, where the researcher is from and speak the language as my first language. The interviews were conducted in Japanese. A pre-interview survey to facilitate the interview process and consent forms were translated into Japanese. The 1st wave of semi-structured interviews was conducted in either a local public building (e.g. community centre, city hall, library, open areas of office building) or cafe, where open area to ensure safety of participants and myself. These places were agreed between the interviewer and the interviewees. While the original plan was to conduct all face-to-face interviews, some interviews were conducted by phone or online (e.g. Skype) to accommodate the needs of participants and ensure health and safety of participants and researcher.

Table 5. 3 Interview process of the 1st and the 2nd wave of data collection.

	1 st wave	2 nd wave
Focus	The 2019 Rugby World Cup	The postponement of the 2020 Tokyo Olympic Games and the impact of the pandemic
Format	Mix of face-to face and phone or online (e.g. Skype)	All phone or online (e.g. Teams, Skype, Line)
Number of participants	57 (Tokyo: 35 and Oita: 22)	49 (Tokyo: 31 and Oita: 18)
Common duration of interviews	30-40 minutes	30-35 minutes
Pre-interview	Consent and pre-interview survey to facilitate interview	Same as 1 st wave
Post interview	Whether they could participate in the 2 nd wave of interview and whether they could introduce potential interviewees	None

Before conducting the interviews, the participants were asked to answer the pre-interview survey, which asked about their experience with the 2019 Rugby World Cup and their current and previous sport and exercise participation record. This survey was used to facilitate the interviews and get to know the participants better. The length of the interviews

varied between participants, but most interviews were between 30 and 40 minutes. After the interviews, the participants were asked two questions. The first question was whether they could participate in the 2nd interview about their experience of the 2020 Tokyo Olympic Games in November. Participants were also informed about potential changes to the timeframe of the 2nd interview and the focus of the interview due to the uncertainty of hosting the 2020 Tokyo Olympic Games especially for those who were interviewed before the postponement was officially announced. Almost all the participants were positive about participating in the 2nd interviews. The second question was whether they could introduce me to another potential interviewee. This is the snowballing sampling method, which was one of the sampling methods used in this research. Table 4.4 shows that summary of participants in the 1st wave of interviews.

Table 5. 4 Number of participants in the 1st wave of interviews (Overall n=57).

Location	Gender	Number of participants	
		20s (n=35)	60-70s (n=22)
Tokyo	Male	10	3
	Female	8	7
Oita	Male	12	9
	Female	5	3

Before the 2nd wave of interviews was conducted, the participants were contacted again and informed about changes to the focus of the 2nd interview as well as whether they could participate in the 2nd interview. For the 2nd wave of data collection, all interviews were conducted by phone or online (e.g. Teams, Skype, Line - equivalent of WhatsApp in Japan - to follow the university guidelines). Similar to the 1st wave of data collection, before conducting the interviews, the participants were asked to answer the survey (i.e., their interest in the Tokyo Olympic Games and impact of COVID-19 on their attitude and behaviours). The length of interviews varied between participants, but most interviews were between 30 to 35 minutes. Table 4.5 shows the summary of participants in 1st wave of interviews.

Table 5. 5 Number of participants in the 2nd wave of interviews (Overall n=49).

Location	Gender	Number of participants	
		20s (n=31)	60-70s (n=18)
Tokyo	Male	8	7
	Female	7	3
Oita	Male	12	7
	Female	4	1

5.4.5. Data analysis

All interviews were recorded with the consent of the participants. The recorded interviews were transcribed for better and more accurate analysis. For this research, more denaturalism approach was taken for the transcription process. Denaturalised transcription is used when the research is interested in spoken content of interviews rather than some details such as pauses, stuttering and response/non-response tokens that might be paid more attention in naturalised transcription (Oliver, Serovich, Mason 2006). This approach was taken as the research is interested in the informational content of interviews. Once interviews were transcribed, the content was analysed using NVivo. Thematic analysis (i.e. qualitative analysis method that could explore a data sets to find patterns and trends from analysed data; Braun and Clarke 2006; 2019) was conducted by coding transcriptions on NVivo. Braun and Clark argue that advantages of the thematic analysis include having flexibility to identify a potential new theme, while being able to highlight similarities and difference with in-depth information. As some argued that thematic analysis is not a specific method but a process that can be used for grounded theory (Boyatzis 1998), this flexibility of thematic analysis fits very well for this research. For the first wave of data collection, thematic analysis was important to identify similarities and differences with thick descriptions. At the same time, it offered flexibility to identify unexpected themes and sub-themes not only for the first wave, but also the second wave as this as this part was less structured.

For the first wave of data collection, the literature-driven framework and interview guidelines were used as initial guide for coding process (Miles et al. 2018). The variables in the framework were used as codes and sub-codes (Guest et al. 2012) but, as the process continued, a few new sub-codes emerged. For example, “change in attitude” was a theme included in the original model based on the literature review, but a new sub-theme emerged as some participants experienced motivation to continue their current sport and exercise activities. This led to two sub-themes; motivation to continue and motivation to start sport and exercise activities within the theme (change in attitude). Similarly new sub-themes emerged in internal and external constraints. During the coding process, a new theme or a sub-theme is formulated and then re-organised throughout the coding process based on the emerged theme/sub-theme. For this part, the themes and some sub-themes were originally named based on the literature (Guest et al. 2012) but the naming of some themes and some sub-themes were revised before being presented in the results section to have better fit with this research. A similar process was used for the second wave of data collection, but this time, in the absence of a framework, a

more exploratory analysis was undertaken. For some parts of the second wave, coding process was data-driven, unlike the coding process of the first wave that was theory driven using the literatures (Braun and Clarke 2006). In this case, initial codes were generated using the notes from interviews and transcripts. The coded extracts were explored to identify any trends and themes. Through this process, some new themes emerged related to the impact of the COVID-19 pandemic on sport and exercise participation. For example, changes in life was a newly identified theme that described social changes due to COVID-19 that impacted attitude towards sport and exercise and actual participation behaviour. Also, two sub-themes (e.g. increased remote working and limited other activities) were identified. Unlike the first wave in which only new sub-theme was identified from the data analysis, in the second wave there were new aspects related to how changes in life led by the pandemic may have impacted sport and exercise participation emerging that were unclear before the data collection.

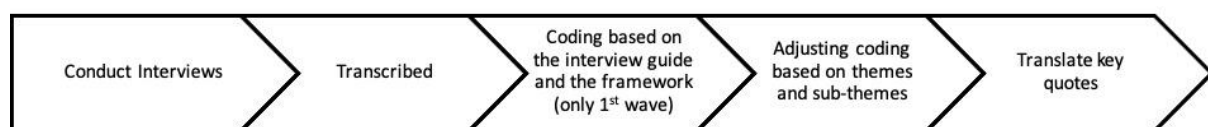


Figure 5. 4 The analysis process for each wave of interviews.

When key quotes were identified in Japanese, those quotes were translated into English. Since literal translation can be applied when two languages are identical to each other but not in this case, oblique translation was used as the main approach (Molina and Albir 2002). In this way, it accommodates differences in two languages including applying transposition to make changes to word class (e.g. verb to noun) equivalence to incorporate differences in idiomatic expression and adaption to accommodate cultural differences (Molina and Albir 2002). Other procedures were used to complement the translation process such as amplification, economy and inversion. Amplification is a technique to add details within translation so that translated sentences or paragraphs are appropriately understood and economy is the opposite of amplification as provide less detail in translation (Đorđević 2017). Inversion is to relocate a word or a phrase to another part to have easier understanding of translated sentences (Molina and Albir 2002). These processes are important processes of translation especially considering Japanese is often understood by correlation between surrounding words and phrases as well as context of conversation (Yamaguchi 2003). Also, Japanese sentences often omit subjects (Yamaguchi 2003). Therefore, use of non-literal translation and using translation techniques

such as amplification and inversion are important processes to make translated sentences and phrases easily and accurately understood.

5.5. Ethical considerations

Ethical considerations are essential parts of the research (Grix 2010). This is especially important for conducting qualitative research that has direct interaction between participants and researcher and particularly if the research topic is sensitive, but it also applies for secondary quantitative research (Saunders, Lewis, and Thornhill 2019). Saunders and colleagues (2019: 257-259) suggested a set of ethical principles that are widely applicable in various research approaches. Table 4.6 shows how this research applied the principles suggested by Saunders and colleagues that were particularly important. Two waves of data collection were conducted respectfully, openly and truthfully to voluntary participants that were given sufficient information to decide their participation. Due to the pandemic, extra care regarding health and safety issues such as providing a choice of interview format as well as reconfirmation of the format especially in the case that interview appointments were made well in advance. Also, reported results were truthfully and maintained confidentiality.

Table 5. 6 Ethical considerations in this research. (Adapted from Saunders, Lewis, and Thornhill 2019)

Ethical principal	How it was applied in this research
Integrity, fairness and open-mindedness of the researcher	The researcher acted openly and truthfully with research participants and reporting results. There was no conflict of interests.
Respect for others	Researcher acted truthfully and respectfully to research participants
Avoidance of harm (non-maleficence)	For physical interviews, those were conducted in either local public building (e.g. community centre, city hall, and open areas of office building) or cafe, where open areas to ensure safety of participants. Also, due to COVID-19, for the 1 st wave, participants are given a choice of taking interview by phone or online as well as all interviews for 2 nd waves being conducted online or by phone to conduct interview in safe and comfortable environment for participants. In general, the research topic and interview contexts were not related to sensitive issues except for the cases that participants mentioned their current or previous health issues as their constraints to participate in sport and exercise.
Privacy of those taking part	Each participant was assigned identifiers (e.g. assigned T15F20 ⁴ to a participant instead of recording as their name and using this to present the result)
Voluntary nature of participation and right to withdraw	Participants in this research participated with their choice and in the case of snowball sampling, reconfirmed with participants about their willingness to participate. Also for 2 nd wave of interviews, participants had made their choice to participate in another interview or not.

⁴ The first letter indicates a location (Tokyo or Oita). The following number is that number assigned to each participant. The third letter indicates a gender (Male or Female). The last number indicates age group (20 or 60-70).

Informed consent of those taking part	To have written consent to participate in research, informed consent form with information sheet that explained sufficient information about the research and their rights were given to participants and if they agreed they signed the form prior to participating in each wave of interviews.
Ensuring the safety of the researcher	Physical interviews were conducted in either local public building (e.g. community centre, city hall, open areas of office building) or cafe, with open area to ensure safety of participants but also for safety of researcher.

In addition, prior to data collection, the researcher applied for ethical approval at Coventry University's 'CU Ethics' system. The application was submitted in three occasions: initial desktop research, the 1st wave of interviews and the 2nd wave of interviews. In each case, an online application was submitted with the Participant Information Sheet, Informed Consent Form, a copy of the interview guide and pre-interview questionnaire. Also, all documents were translated to Japanese by the researcher who is a native Japanese speaker and confirmed by another person. Approval was confirmed on 26th February 2019 (desktop research), 21st January 2020 (the 1st wave of interviews) and 28th July 2020 (the 2nd wave of interviews), confirming that the research follows the Coventry University Code of Ethics (Coventry University 2021). For details of the full ethical application please see Appendix.

5.6. Reliability, validity and positionality

For both quantitative and qualitative research, reliability and validity are critical aspects (Bashir, Afzal and Azeem 2008). Reliability "refers to replication and consistency" (Saunders, Lewis, and Thornhill 2019: 213). Validity can be classified into three categories: measurement validity, internal validity and external validity. Measurement validity is a measure used to fit with intended phenomenon under analysis; internal validity is related to the accuracy of analysis that findings are caused by the intended variable; and external validity is about how findings could be generalised (Saunders, Lewis, and Thornhill 2019). While reliability and validity are essential for quality of quantitative research, qualitative research also require reliability and validity except other terms would fit better with qualitative research (Bryman 2016). Lincoln and Guba (1985) proposed that different terms for some criteria such as dependability, conformability, credibility and transferability.

Dependability is equivalent of stability in quantitative research that assures trustworthiness of the research (Becker, Bryman and Ferguson 2012). In quantitative research researchers would conduct the test again with same sample in different times (Bryman 2016). In this research, the researcher presented and discussed the analysis process and findings with internal and external reviewers. This includes the awarding university's annual 'Performance

Review Panels' (PRPs), external subject experts and supervisory meetings to reassure the trustworthiness of the research.

Confirmability is parallel to objectivity in quantitative research (Becker, Bryman and Ferguson 2012). The research philosophy of this research is interpretivism, which means the researcher is a part of research (Bryman 2016). However, the research was conducted with good faith and the impacts of personal values to this research was minimised to only very necessary ways. For example, the researcher avoided leading questions during interviews by preparing an interview guide with open questions and requested participants to elaborate instead of asking direct questions. In addition, the data collected was accurately analysed and interpreted.

Credibility is equivalent to internal validity in quantitative research and it shows trustworthiness of the research, data analysis process and findings (Becker, Bryman and Ferguson 2012). Internal validity concerns about findings from analysis are actually caused by measuring variables and not based on other reasons such as testing itself impacting participants or the impact of external events. Lincoln and Guba (1985) argued that engaging in relevant activities increase credibility. The researcher has been actively viewing and attending a range of international sport events and previously participated in various sport and exercise activities for many years. Also, the researcher has previous research experience in the sport context and was involved in the organisation of sporting events as an intern, a part-time worker and a volunteer. In addition, member validation and triangulation could lead to credibility (Bryman 2016). Member validation was utilised during and after the interviews to confirm that the researcher's understanding and interpretation are aligned with what participants meant, to increase accuracy and quality of the data, analysis and findings. Furthermore, different data sources were used to confirm and support analysis and findings of this research. This process is called triangulation, a way to confirm validity, credibility and authenticity of research data (Saunders, Lewis, and Thornhill 2019). In this research, the National Sports-Life Survey by SSF was used to support analysis and findings from the interviews as well as adding breadth to the research rather than finding reality (Saunders, Lewis, and Thornhill 2019).

Transferability is parallel to external validity in quantitative research (Becker, Bryman and Ferguson 2012). While external validity focuses on research repeatable in another time by following the data collection and analysis process, transferability focuses on producing "thick description" and possible utilisation in another context or extended research. This research focuses on young individuals, who are a relatively less active group, and old individuals, a key group in aging society, and how international events and the pandemic impacted their attitude

towards participation and actual behaviours in sport and exercise. So, findings from this research could be utilised to understand inactive and aging individuals or to conduct further research in relevant studies. Similarly, sport participation legacy is one of the common reasons for bidding for international sport events (Bason and Grix 2018), so understanding impact is critical for hosting cities and countries and this research might be transferable to their planning.

Table 5. 7 Lincoln and Guba's alternative criteria for qualitative research and how this research fulfils these qualities. (Resources: Becker, Bryman and Ferguson 2012; Bryman 2012)

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5.7. Summary

This chapter discussed the methodological approach of this research. The research philosophy was identified as interpretivism that focuses on richer understanding and interpolating things around us. It also considered multiple realities and truth that could be changed based on perspective, time and other factors that consist research. The research approach was inductive and deductive. Also, the nature of this research is combination evaluative and explorative. Two waves of data collection were conducted. On the other hand, the 2nd wave of interviews were completed to understand how the COVID-19 pandemic impacted attitude and behaviour among young and old individuals, which is an inductive approach. The research design is longitudinal. The semi-structured interviews were conducted in two cities: Tokyo (venues for both

international sport events) and Oita (venue for the 2019 Rugby World Cup). The interviews were conducted twice, and with the same individuals to measure the impact of hosting and postponement of international sport events as well as impacts of the COVID-19 pandemic. The sample comprised individuals in the age group of 20 to 29 years old and 60 to 79 years old. In terms of criteria for selecting the individuals, they must have watched at least one match of the 2019 Rugby World Cup (equivalent of 80 minutes), which could be either at the venues or through live broadcasting. The findings of the research were supported by triangulation, another data source to add breadth as well as provide credibility to the research. This research used the SSF National Sports-Life Survey as another data source.

There were 57 participants in the 1st wave of interviews and 49 participants in the 2nd wave of interviews. The 1st wave of interviews was conducted by a mixture of face-face, online and phone interviews. All interviews were conducted through online and phone interviews for the 2nd wave of interviews. Before conducting the interviews for both waves, the participants were asked to answer the pre-interview survey, which was used to facilitate the interviews. The length of interviews varied between participants, but most interviews were between 30 and 40 minutes. Before the 2nd wave of interviews, the participants were contacted again and asked whether they could participate in the 2nd interview.

The interviews were recorded with the consent of the participants. The recorded interviews were transcribed and analysed using NVivo. Transcriptions were coded on NVivo and codes and sub-codes were formulated and re-organised throughout the process of coding based on identified themes and key quotes from interviews. When key quotes were identified in Japanese, those quotes were translated in English.

Ethical considerations are important for wellbeing of participants and researchers. The research conducted two waves of interviews respectfully, openly and truthfully to voluntary participants who were given sufficient information to decide their participation. Participants were given the informed consent form with the participants information sheet that has sufficient information to make their decision whether or not to participate in the research. Due to the pandemic, extra care was given regarding health and safety issues. The researcher applied for ethical approval for the research using Coventry University's 'CU Ethics' system before conducting any data collection. As a nature of qualitative research, the research adapted Lincoln and Guba (1985)'s alternative criteria for reliability and validity. Dependability, confirmability, credibility and transferability were considered and included in the research to assure quality of the research.

6. Results

6.1. Introduction

In order to explore the role of hosting and postponing international sport events on citizens'; participation in sport and exercise activities, data was collected in two waves. Guided by a conceptual model derived from the literature, the 1st wave explored the impact of hosting an international sport event (2019 Tokyo Rugby World Cup) on the attitudes and behaviours of citizens towards participation in sport and exercise. The 2nd wave explored the impact of the postponement of an international sport event (2020 Tokyo Olympic Games) amid the COVID-19 pandemic and its impact on individuals' attitudes and behaviours. Accordingly, this chapter reports the results of the participant interviews from the 1st and 2nd waves of interviews, using quotes from the interviews to explore themes and sub-themes and narratives of three participants. This allowed to (1) present a refined model for the 1st wave of interviews and (2) develop another model based on the 2nd wave of interviews. Aligning with the thesis's objectives, the results also include a comparison of two age groups (20s vs. 60-70s) in terms of their attitude and behaviour.

6.2. The 1st wave: the 2019 Tokyo Rugby World Cup

6.2.1. Introduction

The 1st wave of interviews was focused on the impact of hosting the 2019 Rugby World Cup on individuals' attitudes and behaviours, and these differ according to the age group (20s vs. 60-70s). This section shows findings extracted from the 1st wave of interviews to illustrate themes and sub-themes that impact on the attitude and behaviour by these two age groups. Figure 6.1 presents a refined model that includes factors related to the preparation stage, the hosting of the event and its impact on attitude and behaviour. In turn, Table 6.1 provides a summary of themes and sub-themes of the proposed model and its association with the study participants.

Figure 6. 1 Refined framework.

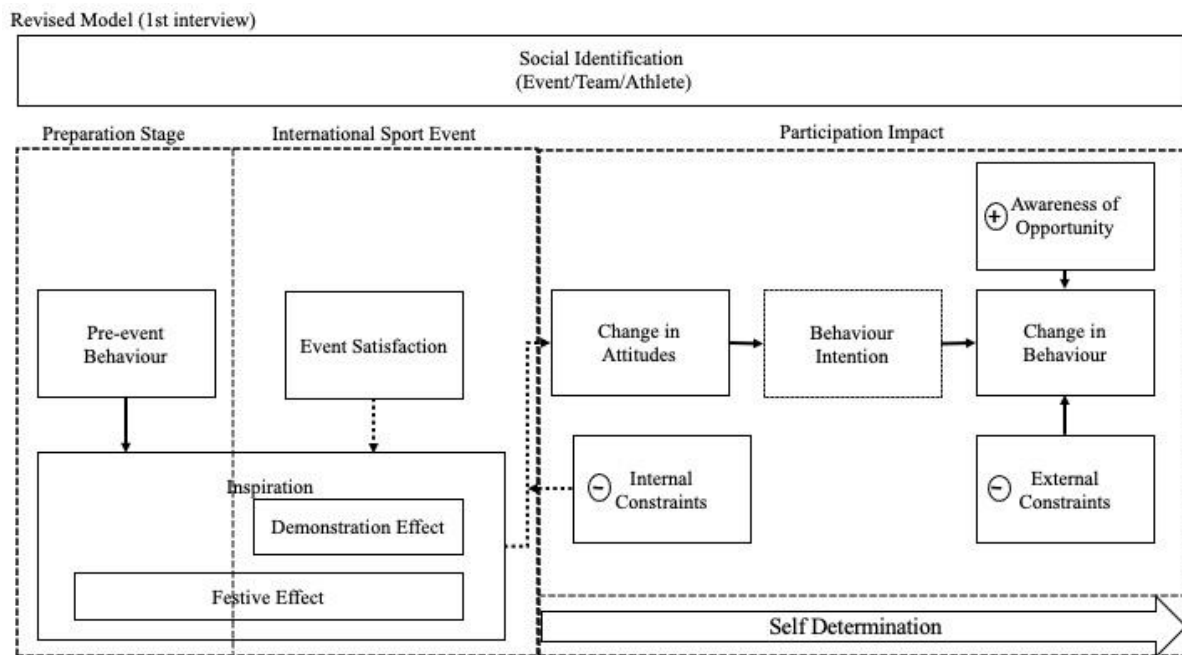


Table 6. 1 Summary results of the 1st wave of data collection.

Theme	Sub-theme	Number of participants	
		20s (n=35)	60-70s (n=22)
Pre-event Behaviour		25 (71.6%)	20 (90.9%)
Demonstration Effect		12 (34.3%)	2 (9.1%)
Festival Effect		35 (100%)	22 (100%)
Event Satisfaction	Japanese Team	27 (77.1%)	19 (86.4%)
	Atmosphere	25 (71.4%)	16 (72.7%)
	Athlete Performance	9 (25.7%)	6 (27.3%)
Change in Attitudes	Motivation to Continue	3 (8.6%)	0 (0%)
	Motivation to Start	9 (25.7%)	2 (9.1%)
Internal Constraints	Marginal Utility	7 (22.9%)	10 (45.5%)
	Physical or Health Problem	0 (0%)	3 (13.6%)
	Sport Characteristics	5 (14.3%)	8 (36.4%)
External Constraints	Work Commitments	22 (62.9%)	4 (18.1%)
	General Facility Access	8 (22.9%)	3 (13.6%)
	Specific Sport Access	6 (17.1%)	1 (4.5%)
Incentives		1 (2.9%)	0 (0%)
Awareness of Opportunity	Gym Equipment	4 (11.4%)	0 (0%)
	Gym Atmosphere	2 (5.7%)	0 (0%)
Self-determination	Intrinsic motivation	7 (20.0%)	3 (13.6%)
	Amotivation	2 (5.7%)	1 (4.5%)
Change in Behaviour		6 (17.1%)	2 (9.1%)

6.2.2. Pre-and during event

This sub-section builds on the interviews from the 1st wave of data collection to explain the impact of hosting the 2019 Rugby World Cup and identify themes on individuals' attitudes and behaviours, and how these differ according to the age group.

Pre-event Behaviour. A total of 45 participants (out of 57) reported to be participating in sport and exercise at least once within the year before the 2019 Rugby World Cup. Also, 29 of them were participating more than twice a week for 30 minutes a time and 10 participants were participating more than twice a week for 30 minutes a time with slightly hard intensity level. Between the age groups of 20s and 60-70s, there were found differences in participation rates in sport and exercise. Among the 60-70s, 90.9% participated at least once within the year before the event, but for the 20s only 71.4% participated in sport and exercise activities over that period. Similarly, regarding participation in sport and exercise more than twice a week, for the 60-70s, 68.2% participated but for 20s only 40% participated. However, the percentages of participants who reported doing sport and exercise more than twice a week, 30 minutes a time with slightly hard intensity level, were similar among the two groups: 17.1% for the 20s and 18.2% for the 60-70s.

In addition to the interviews, data from SSF were also collected. The participants of this research are generally following national trends observed in the SSF National Sports-Life Survey 2018. Although this survey is from 2018, a year before the 2019 Rugby World Cup, the survey is biannual and provides more up-to-date information when the current research was initiated. Comparing the results of the survey and the participants of this research, 20s that participated at least once within the year were 70.1% in the survey and 71.4% in this research. Similarly, 20s and 60-70s that participated in sport and exercise more than twice a week were 37.1% (20s), 57.2% (60s) and 65.9% (70s) in the survey and 40% (20s) and 68.2% (60-70s) in this research. Also, 20s that participated in sport and exercise more than twice a week, 30 minutes a time with slightly hard intensity level were 19.2% in the survey and 17.1% in this research. However, 90.9% of 60-70s participants participated at least once within the year of the event, but the survey shows that 73.2% of 60s and 76.4% of 70s participated in sport and exercise activities within one year. Also, 60-70s that participated in sport and exercise more than twice a week, 30 minutes a time with slightly hard intensity level were somewhat different with 25.5% (60s) and 27.6% (70s) for the survey and 18.2% (60-70s) in this research. While there are some differences for 60-70s between the participants of this research and the result of the National Sports-Life Survey, this research still captured trends of individuals in their 60-70s being active as well as some samples of inactive participants.

Most participants had previous experiences of participating in sport and exercise outside of physical education classes and within those who have previous experience, some of them had experiences of participating in relatively more competitive sport like playing for the middle school basketball team or being a part of the competitive swimming club. While most participants had sport and exercise participation history regardless of age groups, the 60-70s had more experience in participating in less organised sport (e.g. casual baseball and volleyball), but for the 20s almost no one mentioned participating in unorganised activities (except for sport and exercise with their families).

Overall, the most common activity was gym exercise including training with weights and cardio exercises. Weight training was most common among the 20s male, and most of them participated more than twice a week, 30 minutes a time with slightly hard intensity level. One of the participants who plays college rugby mentioned his personal training (“For running and weight training, I’m doing it personally. I do not run on days when I have practice, but I do weight training on my own every day except Saturdays and Sundays”, O54M20). For female 20s, aerobic exercises including yoga and Zumba were the most common activities. For example, O1F20 goes to “run at the gym and do hot yoga” and O8F20 to “attend[s] Zumba dance classes once a week”.

There was more variety of sport and exercise activities among 60-70s, with aerobic exercise at the gym and walking/jogging being the most common ones. Across both age groups, tennis, golf (including driving range), and baseball were also common sports and exercise activities. Tennis was particularly played among a wide range of participants. For 20s, T24F20 plays tennis at tennis school and mentioned “play tennis once a week for about 80 minutes”, while T25M20 plays at his university tennis club “twice a week” and “2 hours at once”. Also, there was a participant who is a high school teacher who coaches for his school’s tennis team and while coaching he also “plays 5 times a week” and “3 hours per day”. Tennis was also popular among 60-70s and they had no or very limited experience of playing tennis until when they started in their 40’s. T26M60-70 mentioned he “plays mostly once a week but sometimes twice” and “4 hours at once”. He also explained that “started about 15 years ago, when I retired from coaching rugby and my friend invited me to play tennis” as well as “my wife was occasionally playing tennis with our family friends. So, we now play with 7-8 other families”. Similarly, T14M60-70 mentioned he “plays once a week for two hours” and “started to play in early 40’s”. He also explained that “I was fat due to lack of exercise and played with the purpose of solving that issue” and “my wife started to play with me, and my children played together when they were growing up”.

Demonstration effect. The importance of the demonstration effect from the 2019 Rugby World Cup was evident among some of the interviews. The ratio of participants who claimed demonstration effect was higher for 20s (34.3%) than 60-70s (8%). Most participants were inspired by watching exciting moves like physical actions and tackles, and a few specifically mentioned that they were inspired by built-up bodies of rugby players. For example, T17M20 noted: “I watched a sports game on TV for the first time in a while. I was somewhat stimulated [...] I thought I'd train myself. Rugby looked cool by watching it.” Similarly, O57M20 mentioned “When I was watching the game and how they were tackling was very cool. I want to build my body bigger and felt like I was a kid again.”

Some other participants mentioned more specific aspects related to how muscularity of players inspired them to change their attitude or behaviour. For example, T16M20 explained how he watched built-up bodies of players of the 2019 Rugby World Cup inspired him by “Visual effect, is not the body big? So, after all, they look strong. In general, I like strong people, so that's it.”. This was also supported by O45M60-70 who mentioned that “Bodies are crashing into each other in rugby and in the stadium, I can hear the sound of banging in front of me. [...] since it is something that I do not have, I want a little”. In addition, a participant who had played rugby at university highlighted he was inspired by techniques of players (“There was something that I imitate from their plays. For physical and weight training, I'm doing them already so I will continue what I'm doing now”; O54M20).

A participant who was a former rugby coach and currently occasionally coaches in grassroot programmes also reported he wanted to apply plays he saw during the World Cup on his future coaching:

Next time, when I coach, I want to coach aspects [from plays I watched] and if it is my speciality position centre or wing, then catching ball, if the number 10 who has the most influence, make the best use of scanning, positioning early, and grasping the battle situation by looking at the opponent's positions before receiving the ball. (O9M60-70)

While this is not demonstration effect directly impacting participation in sport and exercise, he was inspired by plays and wanted to use what he saw next time he coaches young players, which could have an impact on youth community rugby. The length of time that this inspiration continued vary across participants. Some participants' inspiration had been continuing for at least a year until the 2nd interview. In some cases, they are inspired to continue what they are doing currently such as T17M20 who felt “I'd train myself” by watching the 2019 Rugby World Cup and he had increased his frequency of going to the gym and his training intensity. On the other hand, for a participant with lower inspiration, behaviour change only lasted during the event. In this case, he reported he “was running a little faster and trying to

dash to the bank a lot. I also listened to the songs playing in the World Cup, and in that sense, I think it was a big influence” (O4M20). Overall, the interviews showed that effective length of inspiration varies across participants with potentially long continuous impact in some cases observed regardless of age groups.

Festival effect. All participants felt a general festival effect at some level. However, its role on attitude and behaviour was not evident with exception for one participant (T15F20). In both locations (Tokyo and Oita), most participants experienced the festival effect through communications in their workplace or with their family and friends. Especially within the workplace, most participants mentioned that it was a common topic of conversation during the 2019 Rugby World Cup. While all participants claimed some level of festival effect regardless of age group, the 20s were more likely to mention their experience of talking about the 2019 Rugby World Cup in their workplace. For example, O5M20 mentioned that “It was often a topic of conversation at workplace, so we were quite interested in it. Both myself and others”. One of the reasons the 2019 Rugby World Cup was commonly talked about at the workplace throughout might be that most people had similar a level of knowledge related to rugby including rules and players. This means everyone could be part of conversation without worrying about saying something wrong. In this respect, one interviewee noted that:

For rugby, everyone has the same level of knowledge. I like soccer and I like watching it, but people who know soccer already know most things. Of course, baseball is the same, but rugby pretty much started from the same stance except for those who have experience in rugby, so let's all get together and talk about what that was. There was something like talking about the rules. Everyone was on the same starting line. (T17M20)

While participants across the two locations experienced the festival effect, participants in Oita seem to have felt stronger festival effects than in Tokyo. A few participants in Oita lived somewhere else during the preparation stage of the event or visited other hosting cities during the event and they all felt that Oita had more excitement than other hosting cities. For example, interviewee O6M20 said “I came back to Oita, I feel that Oita had more energy (towards this event). It was the same with bus advertisements.” Another participant highlighted that this was also true in Beppu, a city next to Oita which is slightly more distanced from the venue in Oita, by stating that:

Oita, especially Beppu. Beppu's streets are narrower, so there are not many big streets. For that reason, Beppu was far more noticeable. On one street, all of them were foreigners and drinking Corona beer or Japanese beer outside. Forever. Over there. That atmosphere was not in Fukuoka. The impression that comes from the size of the city is that Beppu was much more exciting. There was a match in Beppu, and it was in Oita, but I felt that Beppu was very exciting. (O38M60-70)

This is partially due to the fact that more participants have watched a match at the stadium and had an experience of stadium atmosphere. For the 2019 Rugby World Cup, the hosting prefectures of venues had match tickets allocated for local residents⁵. This made more tickets accessible for local residents especially in Oita where 7 matches were hosted (Oita was the second city hosting more games after Tokyo- 8 matches, while the population in 2018 was 1.14 million and 13.82 million respectively (Statistics Bureau of Japan 2020)). Although none of the participants in Tokyo mentioned ticket allocation, some participants in Oita mentioned it and a few participants (e.g. O40M20) purchased tickets through this option. In addition, in Oita, many participants went to fan-zones created by the organising committee. Among those who watched a match at the stadium or visited fan-zones, some participants had interactions with foreign fans and enjoyed it (e.g. O8F20, O45M60-70, T51F20).

While all participants felt a festival effect, only one participant claimed that the festival effect had an influence on her attitude and behaviour. As T15F20 explained:

There was the Rugby World Cup and I got the feeling of wanting to exercise, so my motivation was definitely different than before. When I saw rugby, I remembered myself playing tennis hard and vaguely thought that I wanted to exercise. The effect is that the team won more and more matches and I lived in Chofu, where rugby was played, so while feeling the energy every day, I want to do it myself. (T15F20)

While there seems to have been limited impact of the festival effect on attitude and behaviour compared to the demonstration effect, all participants who highlighted the impact of demonstration effect on attitude or behaviour, also experienced festival effect.

Event Satisfaction. All participants mentioned they were satisfied with the 2019 Rugby World Cup and that the event surpassed their initial expectations. The satisfaction of participants mostly came from the performances of the Japanese Team and atmosphere during the event. When comparing the two age groups, satisfaction with the Japanese team's performance was higher for 60-70s (86.4%) than 20s (77.1%), while a similar ratio was observed regarding the event atmosphere. The fact that Japan advanced to the knockout stage for the first time in its history was a good surprise for many people and increased their excitement with the team and satisfaction with the event. This applied to people with different levels of interest in rugby. For example, T47F20 explained that:

I knew most of the rules, but I was not really interested in it, so I did not watch the game at all at the very beginning, and initially it was not an event that I was interested in. [...] What I paid the most attention to was Japan vs. South Africa, and as the media coverage and everyone's interest increased, I board on [...]. I think Japan's advancement was a big part [of my experience]. [...] After Japan lost, I

⁵ Rugby World Cup (2018) available at <https://www.rugbyworldcup.com/news/317470>

was less interested about the [final] match between South Africa and England. I was interested to watch whether the team that Japan played against could win or not. (T47F20)

In another example, O3F20 who already had some interest in rugby and experience of watching high school rugby explained that he did not have an image of Japanese rugby being very strong and was positively surprised (“I think it was much better than I expected, including the fact that they got into the upper ranks [reaching the quarter-finals]; O3F20). For people who were very interested in rugby prior to the event, they explained that while they were interested in the whole event itself, the Japanese team’s performance contributed to their satisfaction with the event and it influenced the general population’s interest and excitement level, which is important for the success of the event. For example, T13M20, who played rugby for many years said that “When I think about myself, it’s only one factor that Japan breaks through the qualifying league” but it was important overall as he explained “I think Japan striving [at the Rugby World Cup] was important. I thought it was really good that people around me who did not usually watch rugby were interested in rugby”. One of the participants also mentioned the importance of ‘niwaka’ (Japanese slang for newbies) fans recognising names of the players when she compared it to the 2015 Rugby World Cup in England when Japan beat South Africa and won three matches but could not advance to the quarter-finals, which was the first time in the Rugby World Cup history. A participant explained by comparing the two Rugby World Cups:

After the World Cup 2015, rugby become a hot topic, but the focus was very much on Goromaru and people did not remember the faces of other players. It is all about Goromaru. People would not see matches if Goromaru made appearance. Generally, when there was a match, I was always asked, "Will Goromaru play?" [...] This time, I think everyone knew their faces. (O33F60-70)

The same interviewee also explained the importance of winning matches on the process of people recognizing Japanese players along with hosting the event in Japan:

[Before the opening match] I had thinking what would happen. Since they won [the opening match against Russia], people can have feeling of expectation for the next one, but I think it would have been completely different if it came out differently at the beginning. [...] So, maybe the TV rating was not that high against Russia yet. Everyone was not known of players. There were advertising Leitch. I have not been asked so much by people. The face and name do not match. It's about winning. They had to win. (O33F60-70)

This interviewee was very satisfied with the event and its subsequent effects and further elaborated on her experiences with her colleagues during the Top League season (after the 2019 Rugby World Cup):

When I talk about Canon and Suntory match in months before [the Rugby World Cup], I was asked “who and who will play” from niwaka-fans. I thought it was amazing. I was asked "Matsushima is coming?" So, I said "He is coming". If I line up a lot of names, they recognise these players if I mention their names. [...] Since people know the name [of players], they probably watched the match following that player, maybe. That's why I think it's okay to be niwaka-fan, at all. I was very happy. That's the story at a company locker-room. I was really surprised. (O33F60-70)

While everyone was satisfied with the event, no direct linkages with changes in attitude or behaviour were mentioned. Nevertheless, all participants who were inspired by the event and changed attitudes and/or behaviours were satisfied with the event.

Table 6. 2 Examples of participant responses about pre-event and event stages.

Themes and its meaning	Example Quotes
Pre-event Behaviour (i.e., participation in sport and exercise prior to the 2019 Rugby World Cup)	<p>① “It's jogging. That jogging is not jogging for training like in the past, but moving the body, and recently I'm still doing slow jogging for 30-40 minutes almost every day except for rainy days or have meetings or gathering” (O9M60-70)</p> <p>② “Before the Rugby World Cup, I played tennis. I was a college student, so I was in a club.” (T15F20)</p> <p>③ “For 1 year before the Rugby World Cup, I went to gym about once a week. I used to play tennis since I was a student. I played since 6 years old but there is much place to play tennis or more of timing rather than the place. But I wanted to do some exercise and only gym was something I could do after the work and many people at the branch use as well so they told me about it.” (T17M20)</p>
Demonstration Effect (i.e., Inspiration to participate in sport and exercise derived from the matches and player's strength)	<p>① “Visual effect, is not the body big? So, after all, they look strong. In general, I like strong people, so that's it. I've always been friends with the rugby club members since college, and I've been lifting weight with them, so I liked rugby” (T16M20)</p> <p>② “I watched a sports game on TV for the first time in a while. I was somewhat stimulated or I felt good to see some physical actions and although it was not that far, I thought I'd train myself. Rugby looked cool by watching it.” (T17M20)</p> <p>③ “I feel that it is necessary to (build strength) for life ahead. In that sense, bodies are crashing each other in rugby and in the stadium, I can hear the sound of banging in front of me. When a person with such excellent physical strength or a person with high physical ability actually does such a thing, since it is something that I do not have, I want a little, or I got a slight desire to get it.” (O45M60-70)</p>
Festival Effect (i.e., Inspiration to participate in sport and exercise derived from the event atmosphere)	<p>① “It was an atmosphere that I could not usually experience, so I felt like it was exciting.” (O7M20)</p> <p>② “It's a festival, so it's fun. Especially in the fan zone, around the stadium, and in the stadium, there is a foyer on the mezzanine floor, where there were various national costume, shirtless people, and people making noise with the help of alcohol. It's the atmosphere of festivals in many places, but it was not unsightly. It was reasonable way so it was a very fun atmosphere.” (O9M60-70)</p> <p>③ (Felt change in atmosphere) “It was just before the event started. What I thought most unusual was that the number of foreigners in the city increased, and an Irish pub was opened. Those made me happy, and I felt that it could be exciting event. The biggest impact was when I went to the venue and watched the public viewing. When we all went to see the Wales and Fiji match, it happened to be that Welsh fans were neighbour, and we took picture and had exciting time. Then we drank beer like "Cheers" and brought rice balls, so we shared rice balls with them. Talking about "I'm glad I won Wales" and my older son shared photos with them on social media. Then he come back to Oita to see England. Me and my son went to see the game too and we could not meet, but we had several exchanges of messages saying that it was good that England was also made to the semi-finals. When I see that kind of thing, I think it's good” (O37M60-70)</p>
Event Satisfaction (i.e., Overall positive evaluation of the event and associated matches)	<p>Japanese Team</p> <p>① “In the first place, I do not understand the rules of rugby well, and I was not so interested in rugby before, but it was fun to watch, and the Japanese team is pretty multinational, and there are people of various nationalities and such a cultural place, but they are still working as one. I enjoyed them featured in the media and appearing on TV shows.” (O1F20)</p>

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- ② “I did not really have the image that the Japanese rugby team was strong, so I think it was much better than I expected, including the fact that they got into the upper ranks.” (O3F20)
 - ③ “The biggest thing is that Japan was strong after all. If Japan loses, I do not think it was going to be so exciting. Japan played well was the biggest part.” (O33F60-70)

Atmosphere

- ① “There are a lot of people in the town, Oita is originally few, but at that time there were really a lot of people, and when I went to “Ikoi no hiroba”, it was crowded with various people and volunteers talked very actively. I talked to foreigner on my own too and I enjoyed that kind of opportunity. Just asking where I came from and I really enjoyed talking. I think people become really open. Japanese people tend to have some barriers to foreigners, but I felt that is all in one. I really feel that a town was not separated (to various groups) and united as a one town, and as a venue for the event it really become lively.” (O8F20)
 - ② “When foreign fans were walking around the city, the restaurant is open, and it looks like welcome, welcome, I was very impressed by the fact that it created a non-Japanese atmosphere where Japanese shops and foreigners' open feelings were matched.” (O9M60-70)
-

6.2.3. Post-event

Change in Attitudes. From the interviews, change in attitudes could be classified to two types: increased motivation to participate and motivation to start participating. The ratio of participants who claimed to have gained motivation to start were higher among 20s (25.7%) than 60-70s (9.1%). Also, while some participants from 20s claimed they increased motivation to continue their current sport and exercise, no participants from 60-70s seem to be motivated to continue doing it.

Among participants who gained motivation to start, there are those who wanted to start new activities and others wanted to increase frequency or intensity of participation in their sport and/or exercise activities. For participants who wanted to start new activities, some of them were already participating in some form of sport and exercise, but others were not doing it prior to the 2019 Rugby World Cup but changed through watching the matches. For example, participant T29F60-70 mentioned: “I thought I would move my body. Anything.”, while T15F20 explained how her attitude changed (“I'd always been busy with work, but I feel like I was pushed by rugby a little and able to think about sports. I think that will consciously stimulate the desire for doing sports”). This was also supported by O6M20:

When you see it, I do feel wanting to do exercise. I want to do exercise. [...] I wanted to go to the gym. The influence of the Rugby World Cup, people around me were trying rugby [casually] and doing a little exercise. (O6M20)

While some participants started new activities like biking at the gym, weight training or body-weight muscle training, others thought of going to the gym but never ended up doing it due to internal and/or external constraints. For those inspired by the event, changes include

new sport and/or exercises and increases in frequency and/or intensity. For example, O45M60-70 explained how his attitude towards his current weight training changed (“... I want a little [strength], or I got a slight desire to get it.”). This idea was shared by other interviewees such as O57M20 who had been weight training but through the 2019 Rugby World Cup changed his attitude towards it. In this respect, he pointed that:

First of all, simply they have a huge body and I strongly wanted to build my body bigger. [...] Until now, rather than building my body bigger, I'd rather gain more muscle mass, and gain more power, but I did not think of making my body so big. I was wondering if I could maintain it at least, but for the first time [...] I'd try to make some changes to my body, so I tried it. (O57M20)

This helps explain how an individual's attitude could change and individuals wanting to participate in new activities or increase frequency and/or intensity of current sport and exercise. Also, for 20s, three participants claimed that they experienced increase in motivation to continue their current sport and exercise. These participants were participating in sport and exercise frequently prior to the 2019 Rugby World Cup and did not start either new sport and exercise activities or change their participation frequency or intensity. However, those participants mentioned to have gained motivation to continue their current sport and exercise activities. For instance, T16M20, who used to be physically active more than twice a week, 30 minutes a time with slightly hard intensity level prior to the 2019 Rugby World Cup, claimed that “I [he] got more motivated to continue what I'm doing currently”. Similarly, participant T51F20 mentioned that he “want[s] to do a little more focused and do my best in rugby [that I play] [...] Also, I thought I should do some practice in my own time. But maybe I have not done that too often but feeling wise [that is what I felt].” These results suggest that hosting an international sport event could lead to increases in motivation to participate in current sport and exercise.

Internal Constraints. Changes in attitudes and/or behaviour seem to also be influenced by internal constraints, and these could be mainly of three types: marginal utility, physical or health problems, sport characteristics of rugby. All these internal constraints were experienced more among 60-70s than 20s. The differences between 20s and 60-70s was 22.9% and 45.5% for marginal utility, 0% and 13.6% for physical or health problem, and 14.3% and 36.4% for sport characteristics of rugby. Only participants in 60-70s mentioned physical or health conditions as a constraint to participation in sport and exercise activities freely.

Marginal utility was the most common among both age groups. For both age groups, participants who mentioned marginal utility as a constraint mentioned they felt they were doing enough sport and exercise and/or satisfied with their current participation level. For example,

T49M20 mentioned his right amount by “[current level is] just right. 2-3 times a week. [...] Depending on my feeling I'm doing twice a week, and when it's amazing, I do it four days a week”. Another participant, O9M60-70, also aligns with this idea, explaining aspects of balancing with age:

It's been such a year now, so instead of doing hard things, jogging is like fast walking or slow jogging, and moving body to the extent that it's not too hard. But also, after that, when I come back to my house, I'm still doing some sets of push-ups, abs, back muscles, etc. in this year, and I'm self-satisfied by training my body a little. (O9M60-70)

Participant O52M60-70 further pointed out the importance having the right amount of exercise according to the age and the need to avoid excessive physical activity (“If I overdo it, it will be a burden [later], so I can only adjust to the right degree to my body. It will hurt as much as I overdo it. It seems that there is a good amount of exercise for me”). When individuals feel they are doing enough exercise and are satisfied with current participation levels, they are in marginal utility status (i.e., marginal utility to increase frequency or intensity of their sport and exercise participation is zero; interested to maintain their current participation level but not interested to change their behaviours). This becomes a constraint to participation in new sport and exercise activities indicating lack of inspiration by an international sport event. Other factors such as age could impact a constraint to do more exercise and sports, especially when individuals are satisfied with their current level of exercise.

Physical or health problems were an internal constraint for some 60-70s. This could be related to their current or previous conditions, and it often led to limitations to participation in sport and exercise activities. For example, T10M60-70 did participate in sport and exercise twice a week, but showed no intention to increase intensity (“I just cannot run, since I have a heart problem with my circulatory system, and I'm told that I cannot run, so I'm walking”). Similarly, participant T11F60-70 mentioned that “I have asthma”, which was difficult for her to do some activities from time to time “the symptom gets a little terrible”, and it also discouraged her from participating in sport and exercise (“an excuse of not doing much”). These examples show that having physical or health problems could be a large constraint for some 60-70s to participate in sport and exercise or could limit intensity levels.

Sport characteristics was mentioned as a reason by participants for not being inspired by the 2019 Rugby World Cup to be more active. Some mentioned how rugby is different from sport they play or sport that can be played by them. For example, T12M60-70 explained “Rugby is fun to watch, but it's not something I can do myself.”, while T50F20 mentioned that the competition level is too different (“It is on another level that it becomes [simply] cool [to

watch]”). Consistent with this view, other participants explained that rugby could be inspiring if the game was a more relevant sport to them:

When I look at the trained body, I felt that I need to lose weight or exercise, but the level is too different, is not it professionals are amazing? So, if I watched basketball, I probably wanted to play basketball, but if it's rugby, it's probably that too far away from me like I was a bit scared watching tackles. (O8F20)

[inspiration from the Rugby World Cup] I did not really think about it because the competition is different. But, for example, if this sport is swimming, and if there is a big swimming pool nearby and I can easily swim with my friends, maybe the influence of watching the game. I think there is a possibility that it has moved to the action. (O53M20)

These examples show that characteristics of rugby, and how it is not a sport anyone can easily start to play, could be an internal constraint in the process of inspiring people from watching the Rugby World Cup.

External Constraints. From the interviews, external constraints could impact changes in attitudes and/or behaviour in three different ways: work commitments, general facility access and specific sport access. All of these internal constraints were experienced more by 20s than 60-70s. The differences between 20s and 60-70s were: 62.9% and 22.7 % for work commitments, 22.9% and 13.6% for general facility access, and 17.1% and 4.5% for specific sport access.

Work commitments was the most common external constraint mentioned for both age groups, being especially a large constraint for 20s. This was a constraint for various participation levels but mainly for participants without any sport and exercise activities. For example, a participant who watched a match at the stadium and wanted to participate in sport and exercise afterwards, but did not change his behaviour explained “I have a desire to do something and continue doing it. It is hard to get time for it. It's work [that is busy]” (O6M20). Another participant (T21M20) aligned with this narrative by mentioning:

It is daytime work. That's it. I often go out for drinks [with colleagues]. The morning is early, so after all, go home. Even if not night gathering, it would not happen. I'm taking work home and working in my room. After all, I'm not able to think much about doing exercise. (T21M20)

Work commitment was not only an external constraint for individuals to start participating in exercise and sport, but also a constraint for individuals to participate in exercise in a certain way or regularly. For example, T29F60-70 explained how work was one of the reasons why she stopped playing tennis: “I started working in this school. So it was a little difficult [to continue].” Another participant mentioned how work represented a constraint to participation in sport and exercise despite the fact that she felt inspired by the 2019 Rugby World Cup:

If I'm not working, for example I was a college student, I had a lot more time than now, so I imagine I would be trying to do some sports, I guess. I'm a person who take action immediately so I should be doing somethings. But when I'm working as an adult, for example while I'm doing sports, I get contacted from my school/colleagues and asked to do some work. When I think about such things, I cannot do what I like. I think I did not start something new because of these feelings. (O4M20)

These are examples of how work commitments represent a large external constraint for individuals to participate in sport and exercise, especially in the group age of the 20s.

Facility access was another common constraint for both age groups, with more prevalence among the 20s. Facility-related constraints were existent prior to the 2019 Rugby World Cup among some participants and it remained as a constraint to participation in sport and exercise. Facility access was one of key factors in the process of selecting the sport gyms to use, but it could also led to change the sport and exercise to participation, or to reduce frequency of participation. For example, T29F60-70 used to go to a gym but not now, as the access issue changed her choice:

I would like to have a gym within 5 minutes from my house. There was before. However, the place was closed. For example, if I sweat a lot, wipe it and then come home and take a shower. I get sweaty when I go to the gym and I cannot take train to go home without taking shower and then need to drain my hair, and this process is too much hassle and one of the reasons I do not go to the gym. (T29F60-70)

Another participant who does not own a car in Oita struggled to play basketball with an access issue as "I cannot go to the gymnasium of an elementary school in the neighbouring town, which is one of the reasons why I'm away from basketball" (O8F20). This was also supported by one participant who mentioned general access issues in Oita recently:

At that time [about 30-40 years ago], it was good that there were still public pools, public tennis courts, and so on, but gradually all of these things were sold to the private sector by the local government, and the number of facilities were decreasing, even in the countryside. Prefectural pools, municipal pools, prefectural tennis courts, and so on, so the people in charge of sports promotion in those prefectures accept locals on Saturdays and Sundays and hold swimming classes for the elderly. It's decreasing. It's decreasing, and there is a base in Oita city, they have concentrated on one station like that in the south, and the environment where you can still participate in a dispersed environment is gradually disappearing. [...] it's ok for someone who can go that far (O45M60-70)

These examples indicate that access to facilities is an important part of participating in sport and exercise activities, and that difficulties with access represent an external constraint for individuals. Within specific sport access, tennis and golf were mentioned. Tennis was a sport commonly mentioned due to lack of availability and access. A few participants mentioned their difficulties of reserving tennis courts to play, including T24F20 who noted that "there are not many places where you can rent a tennis court yourself, but it's quite like a scramble. There are only ones by ward [local district in Tokyo], and other ones [non-public courts] are out of business." Another participant explained both difficulties with availability and access as he pointed out:

It's quite difficult to make a reservation. It fills up in about an hour [when it opens for the reservation]. Sometimes I forgot it. [...] I sometimes do reserve tennis courts like ones by local districts with my friends but if I could wish I would like to play every week, but then it will be attending a tennis school. It's far [...] it would be over an hour one way at the end of work. (T17M20)

O1F20 mentioned another limitation of tennis facilities as “[playing tennis] Really, sometimes. I want to play if there are indoors facilities. [...] but no tennis facilities as a part of gyms.” Similarly, for playing golf, T14M60-70 raised issues as “I spend 4 hours a day driving, and then if I play golf it takes a day. [...] No matter how cheap it is, you have to pay 6000-7000 yen for a round.” These examples provide evidence that access to play specific sports such as tennis and golf may be a stronger constraint than other sports.

Incentives. Only one participant clearly mentioned incentives that might encourage individuals to participate in sport and exercise activities. The incentive was highlighted by T13M20 who referred to the company of a friend by stating:

Not in my company, but the company give employees something like an Apple Watch to measure exercise, and if you walk some kilometres a month, you get a reward, something like that. I know a company that does something like this. People might be a little more motivated if there was such a thing. (T13M20)

This indicates that some companies are developing programmes to encourage their employees to be physically active. None of the participants mentioned programmes organised by national or local governments related or not related to the 2019 Rugby World Cup. However, some participants claimed that they use district-owned sport gyms, a tennis court and a baseball field which are most likely subsidised by local governments. Especially for playing tennis and baseball, local government-owned facilities are the most accessible places for adults. Participants did not see these opportunities as incentives but rather mentioned them a part of external constraints related to facility access where some of them mentioned constraints to play frequently.

Awareness of opportunity. From the interviews, awareness of opportunity may also help change attitudes and/or behaviour in mainly two ways: gym equipment and gym atmosphere. Awareness of opportunity was only mentioned by participants in 20s. Also, all of them were male who were already participating in sport and exercise activities with frequency and intensity. Gym equipment is important for some of those who exercise with high frequency and intensity and they might choose the gym based on equipment variety instead of other factors like access. For example, a participant who is a university student uses an external gym instead of the university gym and he explained that:

At the university, the equipment is not well-equipped, and there are many people after that. [...] [for the gym that he uses] Users increases at night, but unexpectedly there are no many people during the day, so you can use it in your pace. Also, I had an expensive image, but it's surprisingly cheap, and there is a good line-up of equipment. (O54M20)

Similarly, participant T16M20 mentioned how he has chosen specific gyms to satisfy his needs (“There are two gyms, but one is a general weight gym. The other place is called hard exercise, there is a boxing punching bag, it's like boxing exercise”). Finding and using gyms that are suitable for their purpose is important especially for those with high frequency and intensity of participation. Other participants put the importance on gym atmosphere, and how the university gym is great for serious trainers:

I think the great thing about the university's gym is that the motivations of users are much higher than other universities. Compared to other gyms I go to, my university gym definitely wins, and there are a lot of people who are really big and big. [...] even if they do not have enough equipment, in the end, I think that weight training is probably how much you can drive yourself, so in that sense, I personally prefer the university gym's environment. (O5720M)

I'm satisfied, but if I could wish, I think it would be even better if they could improve the equipment. [...] It's crowded, but we take turns. I can talk with people I do not know there, so I can make friends, so in that part, I think such an exchange happens because it is crowded. So I do not care so much. (O5520M)

These examples show that for some individuals who do exercise with high frequency and intensity, gym atmosphere could be even more important than gym equipment.

Self-determination. Changes in attitudes and/or behaviour may also be related to the individuals' self-determination and this may be in two ways: intrinsic motivation and amotivation. Intrinsic motivation was more common among 20s (20%) than 60-70s (13.6%) and similarly amotivation was more common among 20s (5.7%) and 60-70s (4.5%). For participants in 60-70s who are not motivated (i.e., amotivation) they also had physical or health problems. In turn, for 20s, lack of motivation is often due to other priorities or “feeling hassle’ to participate in sport and exercise”.

Intrinsic motivation was observed among participants who were passionate about participating in sport and exercise activities. For example, two participants who play football and coach tennis, respectively, explained:

[About doing exercising and playing sports] It's refreshing, having fun and life and passion, and doing it drives me to do other things in some extent. Also, I feel that if I do not do it, I'm getting fat and unhealthy, so I think that's important. (O7M20)

It's purpose of life, and trying hard to produced [good] results. Now that I'm not a competitive player, I do not have that purpose anymore, but I think help developing people and connecting people by playing one sport are meaningful. (O05M20)

In addition, some participants feel pleasure from the outcome of their sport and exercise (e.g. “[by continue training] a great pleasure for me to have muscles and to get the clothes to fit a little more”; O38M60-70). These examples show that some participants are internally motivated regardless of their frequency of participating in sport and exercise, as long as they do the activities they like.

Amotivation was observed among participants who were currently not participating in sport and exercise at all, and do not really have motivation to change the current status. For example, a participant, who used to be physically active (volleyball and swimming) but is now inactive after surgery to her hip joint explained how she is not motivated: “The swimming teacher invite me to come again once in a while. But I do not feel like going. I do not understand. Maybe I'm believing that I cannot exercise anymore” (O44F60-70). Another interviewee in his 20s explained how he is not interested in participating in sport and exercise: “I'm vary lazy. To be honest, I feel a hurdle there and think that I have to go to the gym, but it's a hassle, so I'm not doing it” (O42M20). Similarly, O43M20 felt his priority and social circle changed as he described “[...] social life for me changed to music [from playing sport]. I go to clubs and have DJ friends and things changed”. These examples describe different reasons behind amotivation of individuals to participate in sport and exercise.

Change in Behaviour. A total of 8 participants claimed their behaviour changed after the 2019 Rugby World Cup. The ratio of participants who claimed to have changed their behaviour was higher for 20s (17.1%) than 60-70s (9.1%). Some changes were observed among participants who were either not active or had very limited participation in any sport and exercise prior to the 2019 Rugby World Cup. For example, O40M20 described that “[Before the Rugby World Cup] exercise is like walking while commuting, and nothing else in particular” but currently he is “signed up for a gym and started going three or four times a week” and “sure enough it is rugby. Inspired by rugby” was the reason for him to change his attitude and behaviour. Similarly, another participant who had very limited participation in sport and exercise activities since she graduated from the university and started to work in April 2019, reported to have changed her attitude and behaviour through the event (“After the Rugby World Cup, [...] I was doing bodyweight training in my way.” and “Twice a week at better time. I only do it for about 30 minutes at a time [...]”; T15F20). In addition, some participants increased their frequency and/or intensity of sport and exercise. For example, T17M20 explained her change in behaviour:

For 1 year before the Rugby World Cup, I went to gym about once a week. [...] [After the Rugby World Cup] In average 2 to 3 times a week. At least twice. If I could 3 or 4 times. At once, I go for 1 hour and a bit. (T17M20)

This idea was supported by O45M60-70, who claimed that “I increased the intensity of the weight training that I was doing. Or my body is getting weaker [with age], so I wondered if it can be improved with some protein or supplements.” These examples show how the 2019 Rugby World Cup had contributed to change some individual behaviours regarding sport and exercise. While these examples of changes in behaviour were maintained at the time of the 1st wave of data collection⁶, some changes in behaviour lasted shorter periods. For example, the shortest among all participants who experienced changes in behaviour was O4M20 who explained “I was running a little faster and trying to dash to the bank a lot. [...] After watching the match and I went running home and then the feeling was gone.”

These examples show that the impact from an international sport event to change sport and exercise behaviours may last for a limited period of time in some cases. There were other cases that lasted for a few weeks, but changes in behaviour disappeared before the 1st wave of data collection. For example, after the Rugby World Cup, T15F20 started “doing bodyweight training in my way” and “Twice a week at better time. I only do it for about 30 minutes at a time” but diminished gradually and mostly disappeared at the time of the 1st wave of data collection.

⁶ In some cases, changes in behaviour may have been disrupted prior to their 1st interview due to the impact of COVID-19 leading to social changes (details explained later in the section related to the 2nd wave of data collection)

Table 6. 3 Examples of participant responses about post-event stage.

Themes and its meaning	Example Quotes
Change in Attitudes (i.e., improved or reduced attitude towards sport and exercise derived event inspiration)	<p>Increased motivation to participate</p> <p>① “Not necessarily starting new activity but I got more motivated to continue what I’m doing currently.” (Note: participating sport and exercise in level 4 before the World Cup) (T16M20)</p> <p>② I thought that weights and daily training were probably accumulated, and I thought that I could not be like them because I changed suddenly [so no changes in weights and daily training] [...] This time, the Rugby World Cup was during our season, so I was inspired by the World Cup, and the attitude towards match, or the attitude of seeking a win, increased tremendously. (O54M20)</p> <p>Motivation to Start</p> <p>① “I got excited by cheering and then I become more aware of sports. I’d always been busy with work, but I feel like I was pushed by rugby a little and able to think about sports. I think that will consciously stimulate the desire for doing sports.” (T15F20)</p> <p>② “I thought I would move my body. Anything. For example, when you happen to be watching TV, there is TV calisthenics and try it together. I thought it was important to move your body [after watching the Rugby World Cup]” (T29F60-70)</p>
Internal Constraints (i.e., internal mental processes that prevent or decrease an individual’s change to do sport and exercise)	<p>Marginal Utility</p> <p>① I would like to continue the current level and practice efficiently. [...] I started from May of last year. The strength of tennis varies depending on the class and the day of the week, even at the same level, so the difficulty of tennis is difficult. A little while ago, the class I was doing until about October was a little light [and not enough], so since then I am in the class with a coach that seems to do harder practices. (T24F20)</p> <p>② [the current frequency and intensity are] I think it's just right. (T25M20)</p> <p>③ I think I'm doing my best now. It might be a little too much. But I got used to it (T23M60-70)</p> <p>Physical or Health Problem</p> <p>① “I have asthma. When it gets a little terrible, using that as an excuse of not doing much.” (T11F60-70)</p> <p>② “I think I’m assuming that I cannot exercise completely after surgery on my hip joint.” “The swimming teacher invite me to come again once in a while. But I do not feel like going. I do not understand. Maybe I'm believing that I cannot exercise anymore.” (O44F60-70)</p> <p>Sport Characteristics</p> <p>① “When I look at the trained body, I felt that I need to lose weight or exercise, but the level is too different, is not it professionals are amazing? So, if I watched basketball, I probably wanted to play basketball, but if it's rugby, it's probably that too far away from me like I was a bit scared watching tackles.” (O8F20)</p> <p>② “If you look at the physique of those who play rugby, it is not a sport that you play.” (T11F60-70)</p> <p>③ “Rugby is fun to watch, but it's not something I can do myself. I'd rather do it. Now I cannot do that much in terms of age.” (T12F60-70)</p>
External Constraints (i.e., social or environmental factors that prevent or decrease	<p>Work Commitments:</p> <p>① “I have a desire to do somethings and continue doing it. It is hard to get time for it.” (O6M20)</p> <p>② “It is tiring to exercise. If I get tired, and if it has an adverse effect on your life or work the next day, that makes me reluctant to exercise.” (T19M20)</p>

an individual's chance to do sport and exercise)	<p>③ “If I have time to exercise, maybe. I do not really feel like exercising on weekends, so if I have a longer holiday, I think I should do it.” (T20M20)</p> <p>General Facility Access</p> <p>① “I do not have a car and try to do something in Oita, I cannot go to the gymnasium of an elementary school in the neighbouring town, which is one of the reasons why I'm away from basketball” (O8F20)</p> <p>② “I was relocated, and I quit going to the gym for a while because I could not find the gym that is convenient. I'm going to gym now with reduced frequency compared to before the relocation. I used to be in Kouchi (rural city), and there was much to do so I went to the gym. Also, before my house and workplace were really close, so I could go home and go to gym. Now it's longer commuting and more choices outside of exercise in Tokyo.” (T18F20)</p> <p>③ “I would like to have a gym within 5 minutes from my house. There was before. However, the place was close. For example, if I sweat a lot, wipe it and then come home and take a shower. I get sweaty when I go to the gym and I cannot take train to go home without taking shower and then need to drain my hair, and this process is too much hassle and one of the reasons I do not go to the gym”. (T29F60-70)</p> <p>Specific Sport Access</p> <p>① “If you live in Tokyo, you have to go to the suburbs. Then, one and a half hours one way. When going back and forth, there is a traffic jam and about two and a half hours to return. Then, I spend 4 hours a day on the driving, and then if I play golf it takes a day. Canada and the United States are probably in my style, and you can play comfortably after the work. Moreover, with shoes without spikes. You can play around with sneakers. If there is such comfort and the price is low, it can maintain its position as a citizen's sport. It's quite difficult, is not it? Japan is difficult. No matter how cheap it is, you have to pay 6000-7000 yen for a round” (T14M60-70)</p> <p>② “(Especially tennis) When it comes to renting personally, it's troublesome, or there is no availability. For example, my friend works for a company, and that company has a gymnasium, and you can exercise there. In that kind of place, it is easier to use it, but to use a public facility, considering the setup where someone makes a reservation and people gather there, I think that the idea is that I do not do it anymore” (O5M20)</p>
Awareness of Opportunity (i.e., identification of chances to use sport facilities)	<p>Gym Equipment</p> <p>① “If anyone does not know, I would recommend it (new gym). Users increases at night, but unexpectedly there are no many people during the day, so you can use it in your pace. Also, I had an expensive image, but it's surprisingly cheap, and there is a good line-up of equipment. That's why I thought it would be a good gym for those who play rugby and want to train because the weight of the dumbbells is wide. My friend who is a deputy captain of Waseda University Rugby, Japanese university champion this year (*2020 winter), and a returned to the home and asked me to take to somewhere to exercise, I took him here and my friend said “better than I thought”. The players of the top team say so, so I think it's a pretty good gym.” (O54M20)</p> <p>② “University's gym is incomparable. They do not have variety of the equipment at all, and I'm not satisfied if I'm told if I'm satisfied with the equipment.” (O57M20)</p> <p>Gym Atmosphere</p> <p>① “I think the great thing about the university's gym is that the motivations of users are much higher than other universities. Compared to other gyms I go to, my university gym definitely wins, and there are a lot of people who are really big and big. So to be honest, if you want to do some weight training, but you have not done so much before, maybe you cannot come to the gym, and everyone is really serious about it. In that sense, even if they do not have enough equipment, in the end, I think that weight</p>

	training is probably how much you can drive yourself, so in that sense, I personally prefer the university gym's environment. I think it's better than a place like Konami, which has a lot of equipment." (O57M20)
Self-determination (i.e., one's own motivation to participate in sport and exercise)	<p>Intrinsic motivation</p> <p>① "The reason I go to the gym is because I do not want to get fat, so it's like maintaining my body shape and managing my health, but because it releases stress, I think it's important both mentally and physically" (O1F20)</p> <p>② "The thigh muscles of the legs have grown. It's getting a little bigger. Slightly. Then, for example, you'll touch something like this. The muscles here have come along. I'm happy with this. [...] It's also a great pleasure for me to have muscles and to get the clothes to fit a little more. If I tell you without hiding it." (O38M60-70)</p> <p>Amotivation</p> <p>① "I think I'm assuming that I cannot exercise completely after surgery on my hip joint. The swimming teacher invite me to come again once in a while. But I do not feel like going. I do not understand. Maybe I'm believing that I cannot exercise anymore." (O44F60-70)</p> <p>② "I'd like to do it, but honestly, it's a hassle. Moving or changing clothes, that kind of thing. I'm vary lazy. To be honest, I feel a hurdle there and think that I have to go to the gym, but it's a hassle, so I'm not doing it." (O42M20)</p> <p>③ "(About playing a sport in school's team when a student) It was more like doing it because the people around me were doing it. (After graduated) That part of social life for me changed to music. I go to clubs and have DJ friends and things changed." (O43M20)</p>
Change in Behaviour (i.e., improved and reduced sport and exercise behaviours derived from event inspiration)	<p>① "Before the Rugby World Cup, I played tennis. I was a college student, so I was in a club. I was once or twice a week or twice a week at most. At once, I was playing for 6 hours. " (Not playing tennis after graduating from the university) "The reason is that I was exhausted, and I could not get enough time for sports initially, and my tennis friends and my schedule did not match and cannot really play tennis without my someone to play with. That's why I do not play it anymore." After the Rugby World Cup, I do not know if I could say exercise, but I was doing bodyweight training in my way." "Twice a week at better time. I only do it for about 30 minutes at a time, so I did not put much effort into it." (T15F20)</p> <p>② "Until now, rather than making my body bigger, I focused on gaining more muscle mass and more power, but I did not think of making my body so big. I was thinking of maintain it at least, but for the first time this year, I tried bulking, eating more rice, and increasing it like a baseball team, and now It's already time to squeeze, but with that feeling, I thought I'd try to make some changes to my body, so I tried it." (O57M20)</p> <p>③ "Before the final of the Rugby World Cup, I thought I should ride a bicycle again. I actually did it. I think it has an impact." (T29F60-70)</p>

6.2.4. Summary of the results from the 1st wave

This 1st wave of data collection was aimed at understanding the role of hosting an international sport event on potential changes in attitude and behaviour towards sport and exercise among the age groups of 20s and 60-70s. About one quarter of the participants reported some kind of demonstration effect impacting changes in attitude and/or behaviours. On the other hand, while all participants have experienced the festival effect and were satisfied with the event, these aspects seem to have limited impact on changes in attitude. However, all participants including those who experienced demonstration effect, also experienced festival effects and satisfaction from the event, which suggests that these could be necessary towards changing attitudes.

When comparing the age groups of 20s and 60-70s, there were some similarities and differences (see table 6.4). There was a difference in participation rates in sport and exercise of the two age groups for those who were participating at least once within one year and those who were participating more than twice a week before the 2019 Rugby World Cup. Still, the ratio of interviewees who participated in sport and exercise activities more than twice a week, 30 minutes a time with slightly hard intensity level, were similar among two groups before the event. Overall, the age group of 60-70s was more active than the age group of 20s prior to the 2019 Rugby World Cup. There were no evident differences in festival effect and satisfaction among the two groups, but the Japanese team's performance seems to have been more important for the 60-70s than for the 20s. On the other hand, the role of event atmosphere to promote event satisfaction seems to have been similar for both age groups. In addition, the ratio of participants who claimed to have experienced a demonstration effect was higher for 20s than 60-70s. Results suggest that demonstration effect seems to be more likely to be observed among 20s than 60-70s.

About one quarter of participants claimed a change in their attitude towards sport and exercise. Most participants discussed internal or external constraints. Marginal utility was the most common of internal constraints, and work commitments was the most common among external constraints. Self-determination to participate in sport and exercise activities was mentioned by 22.8% of participants. On the other hand, incentives and awareness of opportunities were discussed among relatively few participants. Overall, some participants claimed changes in their behaviours with changes also observed among participants who were either not active or had very limited participation prior to the 2019 Rugby World Cup.

When comparing between age groups (20s vs. 60-70s), there were some similarities and differences observed in this phase as well. Both age groups had some participants who claimed

change in their attitude towards sport and exercise from watching the 2019 Rugby World Cup, but the ratio of participants who claimed to have gained motivation to start was higher among 20s than 60-70s. In addition, while some participants from 20s claimed an increased motivation to continue their current sport and exercise, no participants from 60-70s noted that. All internal constraints (marginal utility, physical or health problem, sport characteristics of rugby) were experienced more among 60-70s than 20s. Only participants in 60-70s mentioned physical or health problems as a constraint to participation in sport and exercise freely. All external constraints (work commitments, general facility access and specific sport access) were experienced more among 20s than 60-70s. Especially the differences between 20s and 60-70s were larger for work commitments and specific sport access. This suggests that internal constraints were key barriers to changing attitude and behaviours among participants in the 60-70s, and external constraints were key barriers to changes attitude and behaviours among 20s. Also, awareness of opportunities and incentives were only mentioned by 20s.

The ratio of participants who claimed a change in behaviour was higher for 20s than 60-70s. For the latter group, participants who claimed that their attitude changed also claimed changes in their behaviours. On the other hand, for 20s one-third of participants who claimed that their attitude changed, did not actually change their behaviours towards sport and exercise. Among 20s, external constraints such as work commitments and specific sport access may be barriers for them to changing attitude and behaviours towards sport and exercise. Overall, these results contribute to a better understanding of how an international sport event may impact attitudes and behaviours among young and old individuals from the host cities.

Table 6. 4 Summary of the similarity and differences between 20s and 60-70s.

Themes	Similarities	Differences
Pre-event Behaviour	The ratio of participants who engaged more than twice a week, 30 minutes a time with slightly hard intensity level, was similar among two groups.	60-70s were more likely to be active than 20s.
Demonstration Effect	For both age groups, the effective length of inspiration varies across participants and potentially long continuous impacts.	The ratio of participants who claimed demonstration effect was higher for 20s than 60-70s.
Festival Effect	All participants experienced festival effect regardless of age group.	Only one participant (20s) claimed that festival effect had impact on attitude or behaviour toward sport and exercise.
Event Satisfaction	All participants claimed they were satisfied with the Rugby World Cup regardless of age group.	Japanese team's performance was more important for improving satisfaction among 60-70s than 20s.
Change in Attitudes	Both age groups had participants who claimed change in their attitude toward sport and exercise.	The ratio of participants who claimed to have gained motivation to start was higher among 20s than 60-70s. Increased motivation to continue the current sport and exercise activities was only claimed by 20s.
Internal Constraints	Marginal utility was the most common internal constraint for both age groups.	All three types of internal constraints were experienced more among 60-70s than 20s. Physical or health problems were only claimed by 60-70s.
External Constraints	Work commitments were the most common external constraints for both age groups.	All types of external constraints were experienced more among 20s than 60-70s with a greater difference for work commitments and specific sport access.
Awareness of Opportunity	No similarity was observed.	Awareness of opportunities was not mentioned for 60-70s.
Self-determination	Intrinsic motivation and amotivation were observed among both groups.	Intrinsic motivation and amotivation were more common among 20s than 60-70s. Amotivation for 60-70s was related to previous physical or health problem. For 20s, it was related to other priorities or feeling hassle to participate.
Change in Behaviour	Changes in behaviour were observed for both groups.	The ratio of participants who claimed to have changed their behaviour toward sport and exercise was higher for 20s than for 60-70s.

6.3. The 2nd wave: the COVID-19 pandemic and postponement of the 2020 Tokyo Olympic Games

6.3.1. Introduction

The 2nd wave of data collection was focused on the impact of the postponement of the 2020 Tokyo Olympic Games amid the COVID-19 pandemic and its impact on individuals' attitudes and behaviours towards sport and exercise among the age groups of 20s and 60-70s.

This section shows findings related to the impacts of the postponement of the 2020 Tokyo Olympic Games and the pandemic. Extracts from the 2nd wave of interviews are presented to

illustrate themes and sub-themes that impact the attitude and behaviour toward sport and exercise among these two age groups. The model is developed based on a combination of the literature and the findings from the data collection. Figure 6.2 presents a model derived from the interviews that includes factors related to social changes led by COVID-19 and its impact on attitude and behaviour toward sport and exercise. In turn, Table 6.6 provides a summary of themes and sub-themes of the proposed model and its association with the study participants.

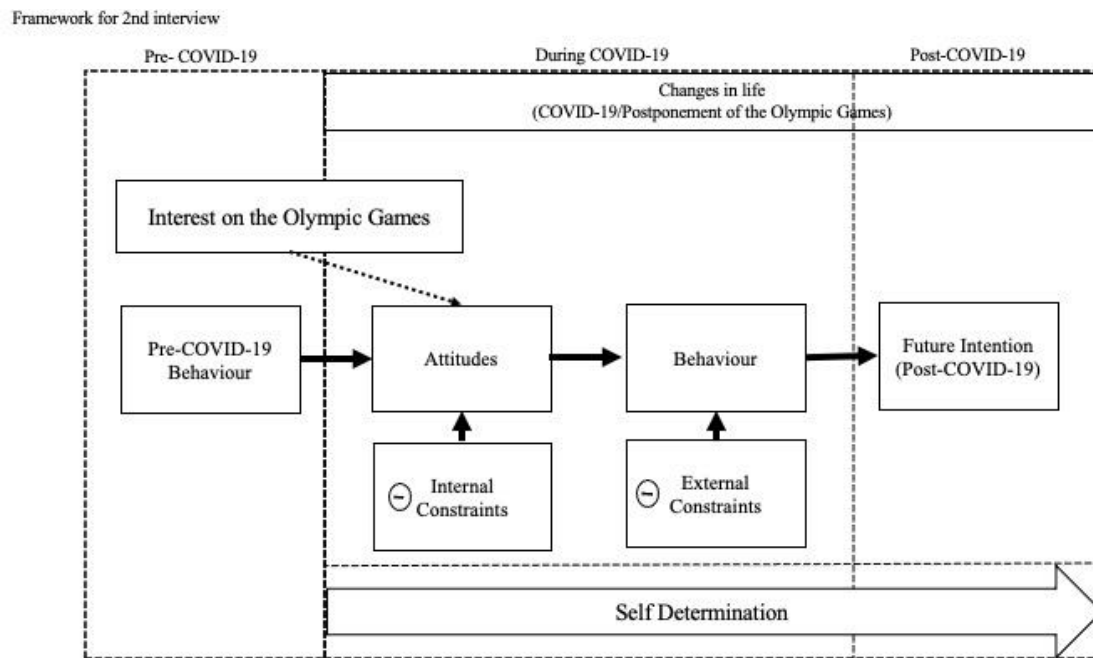


Figure 6. 2 Framework to understand attitudes and behaviours towards sport and exercise amid the pandemic and postponement of the 2020 Tokyo Olympic Games.

Table 6. 5 Summary results of the 2nd wave of data collection about the postponement of the 2020 Tokyo Olympic Games.

Theme	Sub-theme	Number of participants	
		20s (n=31)	60-70s (n=18)
Interest before postponement	Highly interested (7~10/10)	19 (61.3%)	11 (61.1%)
	Somewhat interested (4~6/10)	10 (32.3%)	7 (38.9%)
	Not interested (0~3/10)	2 (6.5%)	0 (0%)
Interest after postponement	Highly interested (7~10/10)	13 (41.9%)	8 (44.4%)
	Somewhat interested (4~6/10)	15 (48.4%)	8 (44.4%)
	Not interested (0~3/10)	3 (10.0%)	2 (11.1%)
Interest before and after postponement	Increased	4 (12.9%)	0 (0%)
	Maintained	14 (45.2%)	11 (61.1%)
	Declined	13 (41.9%)	7 (38.9%)

Table 6. 6 Summary results of the 2nd wave of data collection about the pandemic.

Theme	Sub-theme	Number of participants	
		20s (n=31)	60-70s (n=18)
Pre-event Behaviour		22 (71.0%)	17 (94.4%)
Attitude	Improved Attitude	11 (35.5%)	2 (11.1%)
	Reduced Attitude	6 (19.4%)	2 (11.1%)
Internal Constraints	Concern with virus	7 (19.4%)	2 (11.1%)
Change in life	Increased Remote Working	22 (32.3%)	2 (5.6%)
	Limited Other Activities	4 (12.9%)	1 (5.6%)
External Constraints	Lack of Accessibility	22 (71.0%)	6 (33.3%)
	Health of Family	8 (9.7%)	0 (0%)
	Workplace	7 (25.8%)	1 (5.6%)
Behaviour	Started	6 (19.4%)	1 (5.6%)
	Alternative	15 (48.4%)	6 (33.3%)
	Continuing	4 (12.9%)	11 (61.1%)
	Stopped and Restarted	10 (32.3%)	5 (27.8%)
Future Intention		8 (25.8%)	1 (5.6%)

6.3.2. The postponement of the 2020 Tokyo Olympic Games

This sub-section explains findings related to changes in interest in the 2020 Tokyo Olympic Games before and after postponement and whether that had any impact on attitude or behaviour on sport and exercise participation.

Interest before postponement. Almost all participants were interested in the 2020 Tokyo Olympic Games before the postponement was announced by the Japanese Government and the International Olympic Committee. Many participants also referred to the fact that they are generally interested in the Olympic Games regardless of the host location. Notwithstanding, the hosting of this Olympic Games in Tokyo meant extra excitement and interest for many of them. For example, T29F60-70 noted: “always (interested) [...] the value of the Olympics itself, or the young people compete once every four years with all they got”. She also mentioned that she was interested in this Olympic Games “From the time they announced Tokyo.” Similarly, T15F20 mentioned:

The Olympic Games in general, I like watching the opening and closing ceremonies and have seen various events like swimming. That's why I've always been interested in it, because I often see it when it comes to topics [common interests or on media]. In addition, when it was decided Tokyo was the host, my interest went up again. I'm usually interested in the Olympic Games on the year of the event, but I have been interested since it was decided and especially since two years before the Olympic Games I was already looking forward to it. (T15F20)

This is an example to illustrate how people were generally interested in the Olympic Games and the hosting in their city or country added extra interest since the preparation stages of the event. While the two age groups had relatively similar interest levels in the 2020 Tokyo Olympic Games, in the 60-70s everyone had at least some interest (5 or more out of 10 points

of the scale). Also, there were a few 20s that showed low interest. For example, O40M20 raised issues related to the venues and the costs by saying:

It was high [interest] at first through it gradually went down. [...] I do not think I can watch it comfortably, I'm worried about the conditions like for triathlon athletes, [...] In that respect, it's not that I'm not interested in the competition itself, but I'm worried about event safety (O40M20)

This idea was supported by some other participants who are somehow interested or highly interested. For example, T10M60-70 explained his concern:

"There are pros and cons to this Tokyo Olympics, and I still wondering if it is good to host [in Tokyo]. In such a hot season, [...] the weather was very bad, and the rainy season could not end for a while this year." (T10M60-70)

Nevertheless, most participants are interested in the competition aspects of the Olympic Games including those who raised concerns about hosting the event. Overall, almost all of them seem supportive and no one was unsupportive of the event regardless of ages or having positive or negative views towards the Olympic Games.

Interest after postponement: While the majority of participants state that there was no decline in their interest and many of them were still highly or relatively highly interested in the Olympic Games, some changes in interest in the 2020 Tokyo Olympic Games due to the postponement were found. One of common reasons to remain interested in the Olympic Games was it is only postponed and not cancelled, including O46M60-70 who noted:

The postponement has been decided, but it has not been cancelled, and basically it is at the stage of thinking about how to hold it on the premise that it will be held, so I have expectations that it will still be held. By all means, I would like the event to be held. (O46M60-70)

This view was supported by many participants including some others who are more wishful. T14M60-70 said: "After all, there is wishful thinking that they might be able to do it [the Olympic Games] in Tokyo, and I still feel that I would definitely like to see it". While some people were concerned about whether the Olympic Games would be held in 2021, others are less concerned of what would happen such as O9M60-70 who explained:

For us, rural people, it does not affect that much. [...] I'm not directly involved in it. In that respect, it does not have much effect. The only thing is that the enjoyment is postponed for a year, and that's how I feel. (O9M60-70)

A few others remained interested to learn more about this process of the postponement. For example, O1M20 described "Even if it is postponed, whether it will be done on the same or reduced scale, I was very interested in a response as such and after all it is a global situation, how they are going to deal with the situation". This quote exemplifies how those who remain interested were concerned and curious about what would actually happen in 2021. Overall, participants who remained interested were the largest group.

Nevertheless, some participants claimed that their interest in the 2020 Olympic Games declined due to the postponement. The common reason for decline in interest was explained by O2F20: “After all, dates were postponed, and not being able to watch it soon diminished my interest”. This was supported by T31M20 who noted “What was up close has been postponed, so in that sense the reality has diminished as well as interest”. Some participants claimed that their interest has declined due to scepticism of holding the Olympic Games in 2021. For example, two participants referred that:

To be honest, I do not think the Olympic Games can be held in a year. I do not think it's possible to think that COVID-19 will disappear after a year. It's hard to believe that people can come and go freely. In that sense, I think the reason why lost interest in it was because for now they postponed it for a year, but I feel that they cannot do it anyway. (T10M60-70)

In the first place, I do not like the current president of the IOC. I feel he is really arrogant. To be honest, I've become more and more disgusted with the behaviours and responses when they cancel [postpone] or do not cancel the Olympic Games. [...] I have an honest impression that they should cancel now for next year as well. If there are a great, miraculous drug and the situation is fine, they should be happy to do that, but general perspective is that it's a difficult prospect. (T28M60-70)

While some participants' interest diminished and some had sceptical views on hosting the Olympic Games in 2021, most of them feel that interest would return as the time gets closer to the Olympic Games or if it is actually held in 2021 as noted by T24M20 who claimed “I think it [interest] will probably come back when it comes to doing it” and supported by others including O3M20 who said “it [interest] should come back”. Generally, the impact on changes in interest in the 2020 Tokyo Olympic Games due to the postponement were similar for both age groups except for a few participants in age group of 20s who showed low interest prior to the postponement and claimed that their interest in the Olympic Games increased due to the postponement. For example, O43M20 explained how his interest increased as: “I think probably the biggest part was that there are more and more talks about whether or not the Olympic Games can be held after the COVID-19 pandemic”. This was also supported by T19M20 who mentioned that:

After the announcement of the postponement, there were a lot of news about whether or not the Tokyo Olympics would really be held, so in such a place, the interest of the Olympic Games increased with a focus on whether it could be held in this situation. (T19M20)

As mentioned earlier, increase in media coverage and curiosity towards whether or not the Tokyo Olympic Games will be held was one of the reasons for being interested in the event, and it was also observed among participants who maintained their interest. This also increased interest of some participants in 20s who showed low interest prior to the postponement. As mentioned earlier, many participants who experienced a lower interest feel that their interest will likely return when the Olympic Games happen in 2021 as planned and when the time gets

closer again. Overall, most participants seem to remain interested and will likely be interested when the Tokyo Olympic Games are held in 2021.

Attitude: Overall, the postponement of the 2020 Tokyo Olympic Games did not seem to have impacted on the attitude towards sport and exercise regardless of age groups, gender, locations or current participation level. For example, O1M20 noted that “There is no impact on me”. This was supported by many other participants including O52M60-70 who explained that “It did not affect my exercise or anything like that”. While all participants mentioned that they did not feel any impact from the postponement of the 2020 Tokyo Olympic Games, some mentioned that if the Olympic Games were held as planned, they might experience some impacts as T51F20 described: “In fact, if there was [the Olympic Games], I think I probably would want to do it [rugby]” and “I’ve never seen a rugby world competition in the venue. I think watching [at the venue] would also lead to my motivation to play”. This was supported by T24M20 who also explained “If I saw the Olympic Games, I think I would probably exercise in the same way to how I was inspired by the 2019 Rugby World Cup. Now that it’s gone and general things [matches/conversations/ converge] related to sports are reduced, the opportunity to trigger to start exercising decreased.” These potential impacts of hosting the Olympic Games were only mentioned by participants in the age group of 20s. Even for those who claimed that if the 2020 Tokyo Olympic Games were held then they might experience positive impact, they did not have any changes in their attitude including negative impact from the postponement of the Olympic Games.

Table 6. 7 Examples of participant responses regarding the postponement of the 2020 Tokyo Olympic Games.

Themes	Example Quotes
Interest before postponement	<p>① “I’m interested in sport, so I always watch it, if I have time [...] Also, in my lifetime, there are not too many times to be held in Japan. In terms of image, it’s about twice at the most for people who have seen it in their lifetime. I think it will be the last Tokyo Olympics. Maybe not the first time for a very old person, but the first time for me, so I’m interested.” (O4M20)</p> <p>② “I moved to Harumi after the Olympic Games were announced to be hosted in Tokyo, they already had planned to build an Olympic Village in Harumi, and I really wanted to get involved in the Olympics in some way. I strongly thought about it. I wanted to learn conversations in English and participate in some kind of volunteer work.” (T11F60-70)</p> <p>③ “When it was decided to host it in Tokyo, I felt great as much as many other people felt, but at that time I was still a [university] student, so I did not know if I was working in Tokyo. So, I thought it would be nice to watch it on TV. Since it was decided to be hosted in Japan, so I felt like happy. It was not particular about Tokyo’ (T17M20)</p>
Interest after postponement	<p>① “I wonder if they really want to do the Tokyo Olympics because there is COVID-19. Somehow, it seems unlikely. It was a shock because I suddenly could not do what was exciting me. There are also times when it declines once due to shock. There is also a suspicion that it can be postponed, and I feel that my interest is retreating. [...] Because COVID-19 was spreading before the postponement was decided. Probably, COVID-19 did not stop right away, and I gave up from the point that it would not be possible, and it felt like it was really cancelled, so that’s the order.” (T15F20)</p> <p>② “I feel that the current problem with COVID-19 has diminished my interest a little. I wonder if the Olympics will be held (next year). That’s why it’s fading. [...] [but if the Tokyo Olympic is held next year] I think it (interest) will go up. Now I do not have anything to concentrate, so I feel like it will be even more (interested).” (T22M60-70)</p> <p>③ (Continued to be interested in the same level) “After all, the Olympic Games are the competition that decides the best athletes in the world. That’s why it’s interesting to watch. They compete with their national prestige. In that sense, even if you do not actually watch it (at the venue), you can feel intensity by watching on the TV alone, and I’m (still) looking forward to it.” (O35M60-70)</p>
Attitude	<p>① “There was no particular impact at the Olympics.” (T23M60-70)</p> <p>② “Not particularly. I do not mean to do it (sport and exercise) because of the Olympics, and on the contrary, I’m disappointed because Japan lost does not mean that I quit doing it. There is no particular effect.” (T28M60-70)</p> <p>③ (Any impact on sports and exercise attitude and/or behaviour if the Olympics were held) “I feel like it would have happened if it was held. For girls playing rugby is difficult. At the Olympic Games, there are various events, and there are also events that are relevant to me, so when I look at the actions, I want to do it as well. I’m sure it had an effect, though. But now that it’s gone, I do not particularly think about if the Tokyo Olympic Games will be held (next year) and wanting to exercise” (T15F20)</p>

6.3.3. Impact of the COVID-19 pandemic

This sub-section focuses on findings related to the COVID-19 pandemic and how that impacted the attitude and behaviours towards sport and exercise participation among the two age groups.

Attitudes. Both improved attitude and reduced attitude towards participating in sport and exercise were observed with both being stronger for the 20s than 60-70s. The differences

between the 20s and 60-70s was 35.5% and 11.1% for improved attitude, 19.4% and 11.1% for decline in attitudes.

Within participants in the 20s who improved their attitude, the most common reason was due to working remotely especially during the state of emergency, which initially led to a reduction in their physical activity levels and then they realised it would be important to do sport and exercise. For example, a participant explained how her body changed, which also changed her attitude:

When it comes to working remotely, I do not move my body, but I think I used to walked for about an hour a day by commuting. I thought that commuting was maintaining my strength for me. I felt fear of losing muscle strength, so I think that made me feel stronger that I have to exercise properly. (T15F20)

This claim was supported by other participants including some who were not participating in any exercise and sport prior to the pandemic. To this respect, T30F20 mentioned “Due to COVID-19, the remote working increased, and I became more aware that I had to move”⁷. While it was more common among participants in the 20s, a few participants in the 60-70s improved their attitude. For example, T11F60-70 explained: “When the state of emergency was declared, my husband was working remotely at home. [...] I think we felt like we had to do something a little with intention because we had less chance to move.” These clearly showed that general physical activity from commuting, working or daily living were reduced and led some participants to feel that they needed to have planned physical activities (sport and exercise) and improve their attitude.

On the other hand, some participants experienced decline in their attitudes towards participation in sport and exercise. There were mainly two types of changes among these participants. First, some participants were simply more concerned or worried about COVID-19 than wanting to participate in sport and exercise. For example, T16M20 who was a very active participant prior to the pandemic described his situation:

It's a family environment, or my wife is pregnant. I think I want to be with you on Saturdays and Sundays, so I'm refrained from doing so in that sense. [...] If I spread it to my parents or relatives. Is not that a virus that many people have no symptoms? If anything. If you are infected, the elderly will get worse. That's why I'm scared.

Another participant described how she, a principal of a high school, was mentally overwhelmed during the state of emergency, which negatively impacted her attitude. She stated that:

I was a really mentally stuck and feeling trapped, and I was feeling tired. It may be the fear of fighting the invisible. There was many thinking about what would happen to the school in the future. But there is no solution. I could not move because of such mental pressure. (T29F60-70)

⁷ In the case of this participant, she did not consider walking during her work or commute as exercise, but she still felt a reduction in physical activity during the pandemic that led to increase in the remote work.

Another type of reduced attitude was that their sport and exercise environment was restricted due to the pandemic. For example, O4M20 explained the difficulty of certain sports returning to normal as he noted: “I'm trying to restart practicing martial arts little by little, but I cannot really have contact, so it's not so much fun”. In addition, another participant (T22F60-70) mentioned a decline in motivation due to a lack of competition and uncertainty with future competitions, stating that “I thought I'd try to keep my body fit because there was a (baseball) match, but I did not know what would happen to the competition. Then I was not energetic, I've lost my purpose.” These examples show that, for some participants, COVID-19 changed their priorities or changed their sport and exercise environment that ultimately reduced their attitude.

Overall, most participants claimed to have either improved or reduced their attitudes during the state of emergency in April and May, when many of them were working remotely and as schools and gyms were mostly closed (or open with limited access). Some of these changes in attitudes, both positively and negatively, returned to ‘normal’ after the state of emergency was lifted in late May and people started to adjust to a new way of life. For example, T22F60-70 explained “This time, at the first time, I was doing it without any precedent and no answer, so it was frequently revised. It was hard” as well as “It's been two weeks since then, so I've got a way to keep going. I feel a little better” and she gradually returned to her sport and exercise activities. Similarly, some participants’ improved attitudes may only continue while they are working remotely (e.g. “[would continue his jogging] while I [he] have remote working days”; T31M20). Despite future behaviour to participate in sport and exercise were uncertain, attitudes of some participants were changed by COVID-19, and some of the improved attitudes remained at least until the time of the 2nd wave of interviews.

Internal Constraints: All of internal constraints mentioned during the interviews were related to concerns with the virus. The ratio of participants who expressed their concern with the virus was higher among the 20s (19.4%) than the 60-70s (11.1%). Most common responses were that they are simply scared of COVID-19 and being infected by this new virus especially during the state of emergency. T15F20 noted that “I was afraid to go out in the first place.” Another participant in the 60-70s (T11F60-70) explained her concern related to her age noting that “I feel like I'm about to enter the category of elderly people, and I feel like I'm told to protect myself after all” and “when I think that it is necessary for people around me not to get infected, I feel ‘lost in vitality’ and unable to be active”. Some others including O3F20 explained a specific factor that they are concerned about:

The most worrisome thing is that the information is changing rapidly, I think it's a little scary, and at first it was said that young people are hard to infected, but now the number of cases among 20s and 30's are increasing. I'm afraid that the information has changed considerably since the beginning of February. (O3F20)

These examples show that concerns with the virus were internal constraints for some of them to participate in sport and exercise.

Changes in life: Changes in life were mainly observed in two ways: increased remote working and limited other activities. The ratio of participants who claimed increase in remote working were higher among the 20s (32.3%) than for the 60-70s (5.6%). Similarly, participants in the group of 20s (12.9%) reported to be more limited in other activities as opposed to the group of 60-70s (5.6%). These were more commonly observed among the 20s than the 60-70s, probably because some participants in the 60-70s were retired, so they were less impacted by changes in working environment. Also, this group was relatively more active prior to the COVID-19 pandemic, so having more flexible time did not impact their behaviour the same way as for the 20s.

Introduction of, and increased, remote working were mentioned by almost all 20s who are not students or civil servants. For example, T51F20 noted “I had more time, so I decided to exercise, and I did not have to commute to work as well.” This was actually particularly observed among those who were not participating in any sport and exercise or participating infrequently (less than twice a week), that changed due to increased remote working. For example, T31M20 explained a reason to start sport and exercise as “I think that the amount of exercise will be inevitably decreased when working from home, so that was biggest”. Similarly, O6M20 who was also inactive prior to the pandemic explained: “During the state of emergency, the school was closed for some period and I worked at home. [...] Because I was just at home and could not move, I thought of going outside a bit and I was running”. These examples show how people’s life changed due to the COVID-19 pandemic and working remotely was particularly relevant for the age group of 20s.

Another change in life was that since there were limited other activities they could do, some participants expressed that they focused more on their sport and exercise than before. For example, O54M20 explained how his frequency of going to the gym and golf increased, partially as an alternative to playing rugby, but also because of limitation of social activities. He described this as “I guess I returned to my normal life. But I do not just go out to play or drink with my friends, basically, just by myself most of time” and “Frequency of exercise increased. I've been in online classes all the time, I've been looking at my computer all the time,

my body is solidified, and it's really impossible [without physical activities]. I go to the gym, recently, play golf". This was supported by other participants who also increased frequency of their exercise. For example, O38M60-70 noted "(About his body-weight exercise) Until now, if I was a little busy outside, I did not do it. I do not have a dinner gathering, so sure I have no choice, but I go back home at night, right? Then I should use my body." These examples show how some participants could not do other activities due to the COVID-19 pandemic and they utilise the 'extra time' to do sport and exercise activities.

External Constraints: External constraints were mainly observed in three ways: lack of accessibility, health of family, and workplace. All of these external constraints were experienced more by the age groups of 20s than the 60-70s. The differences between 20s and 60-70s were: 71.0% and 33.3% for lack of accessibility, 9.7% and 0% for health of family, and 25.8% and 5.3% for workplace, respectively.

A lack of accessibility was the most common external constraint for both age groups, being a large constraint especially for the 20s. Many participants mentioned that their sporting facilities and schools were closed during the state of emergency between April and May. For example, O4M20 noted that "there were no club activities at the school, the gym that I went to was closed". This was supported by others that had been using the gyms including O55M20 who said: "The gym [that I used to go] was a school gym, but it is closed." The impact was not limited to using the gym as T23M60-70 explained: "The use of the ground and all that kind of thing was suspended, so it became a situation that I could not do anything, so that was a big impact." This was similar for other sporting facilities such as tennis courts. For example, T26M60-70 mentioned: "The tennis court was closed, maybe from April. It was closed for two months." These shows that a lack of accessibility was a common issue for many regardless of age and type of sports and exercise unless they were doing them outside or inside their room.

Health of family was only mentioned by participants in their 20s. In all cases, health of family was mentioned along with other reasons. For example, O1F20 (concerned with virus for herself as well as potential impact to the school where she works if she is tested positive) mentioned about the potential higher risks for her parent by explaining: "My dad has a chronic illness, so if I get infected, I do not live with him, but I'm still worried about that." This was supported by another participant (O2M20) who only started jogging after the state of emergency was lifted and noted: "[During the state of emergency], I wondered if it's really good to go out. [...] I'm more worried about my parents than myself. [...] Even if I'm good, it's not good if it affects the people around me." While health of family was a relatively less

common external constraint, it was a part of the reasons why some participants changed their behaviours.

The workplace was another constraint for some full-time working participants with some being restricted by workplace policy and others taking a very conservative approach due to the nature of their work. This was mentioned more frequently by the 20s than the 60-70s, which may be related to the fact that only some 60-70s are working full-time and many of them exercise at their house or outside. For some participants, the workplace discouraged them from using gyms and other closed facilities with many people, which could also include yoga or similar classes. For example, T17M20 mentioned that “Occasionally I go to the gym. I cannot say this to the company. [...] when I want to do weight training as much as I want, I go to the gym.” This was further explained by another participant who also works in the same company saying:

“I think it's big that the company has such a policy. In short, avoid denseness. For example, a movie theatre or a sports gym. Since the name has already come out concretely, saying that refrain from doing it as much as possible. In other words, it means it is prohibited for us. [...] I cannot go because I've been told specifically. What if something happens?” (T16M20)

While some other participants do not have workplace policies, they decided to be very conscious to reduce potential risks. For example, O1F20, a teacher, explained potential wider impact of her being infected by COVID-19: “If I am infected, the school will probably be closed again. If there is any such risk, I think we should refrain from doing so now.” Another example supports this conservative approach (e.g. “I think being a teacher is quite big. I am very careful.”; O4M20). Another participant (O36M60-70) who is an outside auditor explained his similar minimising risk approach by saying: “As an organization, we will thoroughly prevent infection. As an officer, instructing employees to minimise risks, I cannot get infected first. [...] I'm refraining from doing it [biking and walking] now.” While his activities are not restricted by his company, he stayed indoor as much as possible. These examples show that formal and informal work policies and potential wide or large impacts in cases of infection changed behaviours of some participants.

Behaviour: During the interviews, behaviour was mentioned in four ways by participants: started activities, alternative activities, continuing activities, stopped and restarted activities. The main differences between the 20s and the 60-70s were respectively: 19.4% and 5.6% for started activities, 48.4% and 33.3% for alternative activities, 12.9% and 61.1% for continuing activities, and 32.3% and 27.8% for stopped and restarted activities. These are some

participants who are counted in multiple sub-themes (e.g. participating in multiple sports and exercises and belongs to more than one sub-theme).

Started activities were more common among the age group of 20s than for 60-70s because most 60-70s were already participating in some level of sport or exercise activities before the pandemic. Most of them who started activities were inactive or infrequent participants before the pandemic including T30F20 who explained:

I can only think of jogging as a simple exercise that I can do by myself, so I started jogging [...] 30 to 40 minutes at once. [...] Even during a state of emergency, I went out and jogged in early morning or late at night. Well, a little bit. Then in June, I have less remote working, so if I did once a week or more, that would be better side. [...] (During the summer) Even during that period, I could not go out if rained, but if the weather was not bad and I work remotely, I continued exercise

This idea was supported by some other participants such as T19M20 who was exercising less than twice a week: “I bought a running machine in June to do jogging inside the room” and “Initially I did twice a week or more for 30 minutes plus [...] As COVID-19 cases declined, I started to go outside so it declined to twice week for less than 30 minutes at once.” One participant in the 60-70s who very occasionally exercised before the pandemic also started new activities as she noted: “[during the state of emergency, I cannot say every day but nearly every day [...] It's really about 10 or 15 minutes. [...] stretching and some other exercise using equipment I bought.” as well as “sometimes went for walk with my husband after his work.” These examples show that some participants who were not active, or occasional participants, changed their sport and exercise behaviours becoming more active.

Overall, taking up alternative activities were the most common and particularly for the 20s. However, this applied regardless of age groups for many participants that were using some facilities as many of them were closed especially during April and May. For example, T23M60-70, who was active and participating in multiple sports explained: “After all, I took a walk at least. Only a walk. There is nothing else I can do, so I took a walk once a day for 40 to 50 minutes.” Similarly, O53M20 mentioned that “Because the tennis court was closed, I could not play tennis” and “I went for running. [...] Started off with three or four times a week but eventually reduced to once a week or may be at least once every two weeks [...] continued until the court reopened, and I return playing tennis.” For many participants, this was a temporary change as they returned to their original activities once their facilities reopened. However, in a few cases, they chose to continue their new activities. For example, T18F20 described:

When I stayed at home, I was really missing exercise, so I bought a yoga mat. I bought a yoga mat and a small dumbbell. I've lost walking during the commuting and work including outside, so I thought it was a little bad for my health, so I watched exercise videos and yoga videos on YouTube, and I tried to do it several times a week. [...] 30 minutes at once [...] initially every other day, when I was working

remotely then reduced to twice a week. [...] went for walk for 30-40 minutes every weekday when I was working remotely in April and May. [...] I did quit the gym as the frequency was dropped [after moving to Tokyo]. [...] now it's been a little difficult to go [with the pandemic] [...] and I felt like it is pretty expensive of non-frequent use [...] I am still continuing yoga and stretch in similar frequency. (T18F20)

These examples indicate that alternative activities were very common among participants who were using facilities to do sport and exercise previous to the pandemic. While the facilities were closed due to the pandemic, they chose alternative sport and exercise to continue to be active. Many of them returned to their original activities, but a few decided to continue their new activities.

Continuing activities were observed for both age groups, but it was more common among the 60-70s and actually the majority of 60-70s continued their activities. For example, O52M60-70 noted: "I continued walking twice a week regardless of month [...] 6000 to 7000 steps." This was supported by T12F60-70 who had been walking with her dogs every day and mentioned that "no changes to walking with my dogs". A few 20s continued their exercise as they had equipment or they purchased equipment. T17M20 described that "The gyms were closed during March to June, obviously including the state of emergency, and even now I'm not sure about going to the gym. For that reason, I bought weight training equipment at home, I'm trying to make up somehow". Another participant mentioned that "during the state of emergency, I did weight training at my home. [...] using weights at home" (O57M20). Some participants were participating in sport and exercise that were easier to continue, or were able to continue their activity by creating suitable environments.

Stopped and restarted activities were observed in both groups, while it was more common for the 20s than for the 60-70s. Similar to alternative activities, stopped and restarted activities were due to participating in sport and exercise in external facilities, which was the reasons for doing alternative activities during the closures of facilities. For example, participant T23M60-70 mentioned his participation in baseball and badminton by saying: "It restarted right after the state of emergency was lifted." Other sport facilities were also closed in April and May and then reopened in June. To this respect, T24F20 explained: "I attended a tennis school but when the state of emergency was declared in April and May, it was also closed, so I could not have an environment to play tennis. [...] returned to play in June." For some participants, they returned to their sport and exercise with limitations as T14M60-70 explained:

After all, leaving Tokyo and going to golf is becoming more difficult. It also has a relation to friends, but both. [...] I practice in the field twice or three times a month, but I practice on the premise that I cannot go to the course. I practice so that I can go back to the course immediately after COVID-19 has resolved. I can only practice like that. (T14M60-70)

These examples show that many participants stopped their sport and exercise due to closure of their facilities but many of them were able to return once the facilities reopened. When they returned to their activities, some mentioned about their own measures toward safeness to participate such as T23M60-70 who noted: “playing baseball is outdoors, so I was not too worried. Also, for playing baseball, we measure body temperature. We always check everyone's health condition.” Another example is from O57M20 who explained:

People never have to remove the mask. Even if I talk to anyone, it's not like eating meal together, so I thought there was definitely no spreading droplet. I'm sure many people are touching weights, but I sterilise them every time. Even if I touch them and get the virus on my hands, I thought that as long as I do not rub my eyes and mouth, I will not be infected, so when it comes to going to the gym, I was not afraid about getting infected (O57M20)

As per these examples, participants who returned to their sport and exercise considered safety issues related to COVID-19 and took actions they felt necessary to prevent potential contagion.

Future Intention: Future intention to return to do sport and exercise, which was impacted by the COVID-19 pandemic, was observed among both age groups but more commonly observed among the 20s (25.8%) than the 60-70s (5.6%). All participants that were participating in some level of exercise before or during the pandemic, either mentioned about some behaviour during the pandemic or their future intention to return. Actually, two participants were previously very active (participating more than twice a week for 30 minutes a time with slightly hard intensity level) but are currently participating in sport and exercise with limitations due to their constraints, but are eager to return to a more active lifestyle. For example, T16M20 who used to do weight training at gyms and play baseball described: “I like a muscular body, so I have a narcissistic temperament, so I want to go back first to the gym. I want to lift a heavy weight and look in the mirror. [...] would like to play baseball too.” Similarly, T14M60-70 is currently only able to practice golf and claimed that “As soon as this COVID-19 problem is sorted, I would return [to golf and tennis].” This was supported by O36M60-70 who was less active but used to bike and walk: “I would return once the COVID-19 pandemic is settled.” These examples show that those previously active and who have been impacted in their sport-related behaviour by COVID-19 want to return to their sport and exercise and/or participation level.

Table 6. 8 Examples of participant responses about the COVID-19 pandemic.

Themes and its meaning	Example Quotes
Attitudes (i.e., improved or reduced attitude towards sport and	Improved Attitudes ① “I felt OMG. I only realised after not doing it that usually walked quite a lot during work and commuting. I started to feel very serious about this and is not okay to not have exercise during work.” (O8F20)

exercise derived from the COVID-19 pandemic)	<p>② “Every day there are news about people in their 20s and 30’s are mildly ill, and those over 60’s have higher rate of heavily ill, newly infected cases, those who died from COVID-19, etc. The news is flowing all the time, and I’m approaching a high-risk age. Compared to young people, I feel like I really do not know what kind of risks I will encounter if I do not strengthen myself. More than ever, I have to be aware of maintaining my health and strengthening my physical strength.” (O45M60-70)</p> <p>Reduced Attitudes</p> <p>① “My hobbies are golf and sports, but I’m trying to restart practicing martial arts little by little, but I cannot really have contact, so it’s not so much fun” (O4M20)</p> <p>② “I did go for a walk and jogging every day initially. But I stopped doing it in somewhere in the middle of it (the state of emergency). I’d been doing it all the time at first, I thought I’d try to keep my body fit because there was a (baseball) match, but I did not know what the match would be. Then I was not energetic, I’ve lost my purpose.” (T22M60-70)</p>
Internal Constraints (i.e., mental processes that prevent or decrease an individual from doing sport and exercise)	<p>Concern with virus</p> <p>① “The first thing is that I’m scared” (O1F20)</p> <p>② “I was afraid to go out in the first place.” (T15F20)</p> <p>③ “I’m a little afraid to go outside” (T12F60-70)</p>
Changes in life (i.e., social changes due to COVID-19 that impacted attitude towards participation in sport and exercise and actual behaviours)	<p>Increased Remote Working</p> <p>① (Started exercise at home) “Before COVID-19, I felt like I was swamped with work. And I felt like I’m exercising since my job was a sales role and I walked. So not at all. (Regarding the changes in the frequency of muscle training) I think I did more often when I was working remotely every day.” (T15F20)</p> <p>② “Due to COVID-19, the remote working increased, and I became more aware that I had to move, and I have started exercising a little” (T30F20)</p> <p>③ “I always do things like walking back one station (both ways). I used to do it every day but now about twice a week. Maybe once or twice a week, it seems that my physical activity has decreased a little. [...] (so now) basically, I usually go out to buy lunch. I’m currently living on the 4th floor of an apartment but of course, it’s not a big exercise, but never use the elevator, use the stairs, and go to the nearby shopping areas.” (T10M60-70)</p> <p>Limited Other Activities</p> <p>① “During the state of emergency, there was only weight training to do, so I feel that the frequency has increased more than before. I really started to take weight training seriously after COVID-19. Before, I had a lot of other things like going out for drinks with my friends and traveling in my spare time, so I did not really focus on muscle training. If compared to those times, I prioritized that leisure time. However, when I could not meet friends because of the COVID-19, the only thing left was weight training. So, by putting more effort into weight training, I got into it more, and now, I feel like weight training is centre of my life rhythm.” (O57M20)</p> <p>② (About his body-weight exercise) “Until now, if I was a little busy outside, I did not do it. I do not have a dinner gathering, so sure I have no choice, but I will come back at night, right? Then I should use my body. What’s more, it’s easier for me to train my muscles alone than to play any sport, so it has become a daily routine.” (O38M60-70)</p>
External Constraints (i.e., social or environmental factors that prevent or decrease an individual to do sport and exercise)	<p>Lack of Accessibility</p> <p>① “The gyms were closed during March to June, obviously including the state of emergency, and even now I’m not sure about going to the gym. For that reason, I bought weight training equipment at home, I’m trying to make-up somehow.” (T17M20)</p> <p>② (About the gym after reopening) “It seems that there are various regulations from the city, such as time and number of people.” (O52M60-70)</p> <p>③ “Most of the gyms were closed for 2 weeks, so I could hardly exercise for about 2 to 3 weeks.” (T49M20)</p>

	<p>Health of Family</p> <p>① “My dad has a chronic illness, so if I get infected, I do not live with him, but I'm still worried about that.” (O1F20)</p> <p>② “It's a family environment, and my wife is pregnant. And I want to be with her on Saturdays and Sundays too. Also, I spread it to my parents or relatives. Is not that a virus that many people have no symptoms? If anything. If you are infected, the elderly will get worse. That's why I'm scared.” (T16M20)</p> <p>Workplace</p> <p>① (About going to the gym) “Related to my job if I am infected, the school will probably be closed again. If there is any such risk, I think we should refrain from doing so now.” (O1F20)</p> <p>② “I think it's big that the company has such a policy. In short, avoid denseness. For example, a movie theatre or a sports gym. Since the name has already come out concretely, saying that refrain from doing it as much as possible, in other words, it means it is prohibited for us. Because it is a strait-laced company. So, because of that, I cannot go because I've been told specifically. What if something happened?” (T16M20)</p> <p>③ “I am an outside auditor of a local company, and that was the case. As an organization, we will thoroughly prevent infection. As an officer, I cannot get infected first.” (O36M60-70)</p>
<p>Behaviour (i.e., sport and exercise participation during the COVID-19 pandemic)</p>	<p>Started</p> <p>① “Walking or playing tennis.” “Once or twice a week” “twice a month” (respectively) (T31M20)</p> <p>② “I ran three or four days a week. Every other day, there may or may not be two consecutive days. It was a hassle to run but I did not hate it, and I heard that fat started to burn about 30 minutes after exercising, so I started running for more than 20 minutes from home and took a detour a little. When I came back, it would take about 40 minutes, then I felt like I was going to run for an hour, so I went somewhere random from home” (T50F20)</p> <p>③ “I cannot say every day but nearly every day, when my husband was working in different rooms, I suddenly felt like I could not go out either. I thought I would do it once during my husband's work time, and I did it at that time. I thought it was my job. [...] It's really about 10 or 15 minutes. [...] stretching and some other exercise using equipment I bought. [...] sometimes went for walk with my husband after his work.” (T11F60-70)</p> <p>Alternative</p> <p>① “Started running in March [...] I relatively continued, (but) the frequency has decreased. I stopped when I started tennis.” (O53M20)</p> <p>② “Zumba is a little negative, but there are also places where it has turned positive, and while all my colleagues are working at home remotely, some of us meet up once a week on Saturday or Sunday to have the day of physical training. I cannot go anywhere, and at first, it's not really a circuit, but I started physical trainings in the riverside like 30 seconds for sit-ups and 30 seconds for squats, which is a plus on Saturdays and Sundays. I cannot do Zumba, but basically once a week do some physical training on the day when we get together. Gradually, the gym was reopened, and now it is possible to use table tennis, badminton, and other things like weight training rooms, so I continue to go there and exercise” (O8F20)</p> <p>③ “It's a city facility, so the city does not lend it all. That's why I could not use them all at the same timing (baseball and tai chi). That's why I did not do it. It's a walk. I had no choice but to go for a walk.” (T22M60-70)</p> <p>Continuing</p> <p>① (Doing weight training at home instead of going to the gym) “In terms of frequency, it's about once every two days, so the frequency may not have changed. However, the time is less than 30 minutes. Also, I sometimes go to the gym, which I cannot say to my company.” (T17M20)</p> <p>② “I go for jog every day by myself, so it has no effect.” (O09M60-70)</p> <p>Stopped and Restarted</p>

	① When I was interviewed in April and May, I was probably mainly training at home or running outside, but the J-League and baseball started, and sporting activity became active again. So, it seems that the gym and other places have reopened, and I'm fulfilled that I can go to gyms and the range of exercise has been enhanced. (O54M20)
	② "The gym I used to go is a university gym, but since it was closed, I'm going to another membership gym now." (O57M20)
	③ (Resume tennis) "Maybe from the second week of June. Maybe it's like that. Resume and keep your social distance. Well, tennis does not have much contact play." (T26M60-70)
Future Intention (i.e., intention to do sport and exercise post-COVID-19)	① "I want to return [to yoga]" (O1F20)
	② "I want to break the feeling of being trapped/stuck. I live in a company dormitory, and I feel sorry for making a lot of noise, so when I want to do weight training as much as I want, I go to the gym." (T17M20)
	③ "To the extent that I do not forget, I practice (golf) in the practice field where I keep hitting twice or three times a month, but since I practice on the premise that I cannot go out on the course, I can go to the course immediately after COVID-19 has settled. I can only practice like that. As soon as this the COVID-19 pandemic is settled, I would return [to golf and tennis]" (T14M60-70)

6.3.4. Summary of results from the 2nd wave

This 2nd wave of data collection was aimed at understanding the impact of the postponement of the 2020 Tokyo Olympic Games amid the COVID-19 pandemic and its impact on individuals' attitudes and behaviours towards sport and exercise among the age groups of 20s and 60-70s. For the impact of the postponement of the 2020 Tokyo Olympic Games, when comparing the age groups of 20s and 60-70s, there were some similarities and differences (see table 6.9). Most participants overall, and all 60-70s, were interested in the Olympic Games prior to the postponement. While some people's interest diminished with the postponement regardless of the age group, some referred that if the Olympic Games started in 2021, as time gets closer to the event, their interest should return. Also, some participants in the 20s are interested in the process of postponement and curious about what is going to happen throughout the process of trying to host the event in 2021. Both before and after the postponement was announced, most participants were interested in the competition aspects of the Olympic Games including those who raised concerns or sceptical views towards hosting the Olympic Games in 2021. Impact on attitude towards participating in sport and exercise due to the postponement was not observed either positively or negatively. However, a few participants in the 20s mentioned that if the Olympic Games were held, they might be inspired due to their experiences from the 2019 Rugby World Cup and the fact that the Olympic Games have a wider range of sports.

Table 6. 9 Summary of the similarities and differences between 20s and 60-70s regarding the postponement of the 2020 Tokyo Olympic Games.

Themes	Similarities	Differences
Interest before postponement	Both age groups had relatively similar interest levels in the 2020 Tokyo Olympic Games	In the 60-70s, everyone had at least some interest but there were a few 20s who showed low interest.
Interest after postponement	For both age groups, more than 40% are highly or relatively highly interested. For nearly 60% of participants, interest did not decline.	Increased interest of some participants in 20s, some with low interest prior to the postponement.
Impact on Attitude	The postponement of the 2020 Tokyo Olympic Games did not have impact on attitude.	Only 20s mentioned potential impact of hosting the Olympic Games if it was not postponed.

Regarding the impact of the COVID-19 pandemic, when comparing the age groups of 20s and 60-70s, the attitude, behaviour and other observed themes, there were some similarities and differences (see table 6.9). Both age groups had some participants who claimed change in their attitude but the ratio of participants who claimed to have improved and/or reduced attitudes was higher among the 20s than the 60-70s. For the 20s, more participants seem to have improved their attitudes. However, for the 60-70s, there was a balance of improved and reduced attitudes among participants. For the 20s, the most common reason for improved attitude was that they felt a reduction in their physical activity due to increased working remotely and realising that they need to do sport and exercise. On the other hand, some participants experienced reduced attitudes due to more concerns about COVID-19 or due to changes to their sport and exercise environments from the pandemic.

All of the internal constraints mentioned were related to concerns with the virus. The ratio of participants who mentioned the concern with the virus was higher among the 20s than the 60-70s. Changes in life were mainly observed by increased remote working and limited other activities. The ratio of participants who claimed increased remote working and limited other activities was higher among the 20s than the 60-70s. Increased remote working was mentioned by almost all full-time working participants in the age group of 20s, and this change had a positive impact on the behaviour of many participants. While all changes in life observed led to positive impact regardless of age groups, it was more commonly observed among the 20s than the 60-70s. This is probably due to the fact that the 60-70s were relatively more active and some of them were already retired or not working full-time; thus, they had more flexible time and less need to change their behaviours. External constraints were mainly observed in three ways and all three sub-themes were experienced more by the 20s than the 60-70s. The

lack of accessibility was the most common external constraint for both age groups, especially for the 20s but a lack of accessibility was a common issue for many participants who required facilities, regardless of the age group. Health of family was mentioned along with other reasons and only mentioned by the 20s. Workplace was another constraint for some participants especially for the age group of 20s. Formal workplace policies and potentially large impact in a case of any infection was another constraint impacting some individuals' behaviours.

Overall, changes in sport and exercise behaviour were more observed among the 20s than the 60-70s. *Started activities* were more common among the 20s than the 60-70s because most 60-70s were already participating in sport and exercise activities at some level. Most of them were inactive and infrequent participants before the pandemic. *Continuing activities* was the only one that was more common among the 60-70s than the 20s, and actually the majority of 60-70s continued their activities. Some participants especially in the 60-70s were participating in sport and exercise that were easier to continue such as walking or jogging. This is aligned with the National Sport-Life Survey 2020 indicating that walking (for exercise), strolling and calisthenics are the top three sports and exercises participated in 60s and 70s and frequent locations of their exercises were nearby roads (about 60%), their house (about 28%) and gymnasium (13.4% for 60s and 19.4% for 70s). On the other hand, strolling, weight training and walking (for exercise) were the top three sports and exercises participated by 20s and frequent locations of their exercises were nearby roads (51.5%), their house (35.4%) and gymnasium (26.5%). For the 20s, a few participants already had or created an environment to continue their sport and exercise activities (e.g., weight training) at home. While overall taking up *alternative activities* as well as stopped and restarted activities were more common among the 20s, this applied regardless of age groups for many participants who were using some facilities because many of them were closed during the state of emergency. Many participants stopped their sport and exercise due to closure of their facilities and often they were able to return once the facilities reopened, but some decided to continue their new activities. For those who returned to their previous sport and exercise activities, some of them considered safety issues related to COVID-19 and took actions they felt were necessary upon return.

The National Sport-Life Survey 2020 (2021) collected the data on sport and exercise participation during February to May, around the state of emergency period. This part of the survey shows two findings. Firstly, there is a relationship between frequency of sport participation and maintaining previous level of sport participation during this period. That is, the higher the frequency of participation, the more likely to maintain their previous participation frequency. Secondly, for people who changed their participation frequency, for

those who are participating in sport and exercise less than three times a week, they were more likely to increase participation than to reduce it in this period. This was particularly relevant for infrequent sport and exercise participants with more than 50% of people who participated less than a once a week claiming an increase in their participation. This is consistent with the findings from the current research indicating that inactive and infrequent participants started to participate in sport and exercise activities.

Future intention to return to their sport and exercise, which were impacted by the COVID-19 pandemic, were more commonly observed among the 20s than the 60-70s. All participants who were participating in some level of sport and exercise before or during the pandemic, either mentioned about some behaviour during the pandemic or future intention to return. Those previously active and impacted by COVID-19 showed the will to return to their sport and exercise and/or participation level.

Overall, the findings indicate that while the COVID-19 pandemic impacted everyone's life, in aspects of attitude and behaviour relating to sport and exercise, it had more impact on the 20s than the 60-70s, often due to the nature of sport and exercise that they participate in and external constraints. These results contribute to a better understanding of how postponement of an international sport event and the pandemic may impact attitudes and behaviours among young and old individuals.

Table 6. 10 Summary of the similarities and differences between 20s and 60-70s regarding the COVID-19 pandemic.

Themes	Similarities	Differences
Attitudes	For both groups, improved and reduced attitudes were observed.	More participants in the 20s claimed both improved attitudes and reduced attitude toward sport and exercise.
Internal Constraints	For both age groups, internal constraints were observed.	More internal constraints were reported for the 20s than the 60-70s.
Changes in life	For both age groups, two types of changes in life were observed: increased remote working and limited other activities	More participants in the 20s claimed increased remote working and limited other activities.
External Constraints	For both age groups, a lack of accessibility was the most common constraint.	Lack of accessibility, health of family and workplace were stronger constraints for the 20s than the 60-70s. Health of family was only mentioned by the 20s.
Behaviour	For both age groups, starting, alternative, continuing and stopped and restarted activities were observed. Overall, alternative activities were the most common behaviour.	While alternative activities were most common for the 20s, continuing their activities were the most common for the 60-70s.
Future Intention	Both age groups mentioned future intention to return to their previous sport and exercise activities.	Higher intentions to return to sport and physical activity among the 20s than the 60-70s.

6.4. The events through the lenses of three participants

This section builds on the narratives of three participants to observe how individuals' attitude and behaviour changed over the two waves of data collection. This approach was adopted to complement the overall results presented above and to allow a more in-depth understanding of how the events may impact the lives of individuals. Narratives are used to show how each event impacted the attitude and behaviour of these three participants throughout the research and how the impact from the 2019 Rugby World Cup might last at the time of the 2nd wave of data collection. These three individuals were selected for four reasons: (1) they exhibited evidence of being impacted by both the Rugby World Cup and the pandemic in terms of their attitudes and behaviours towards sport and exercise activities; (2) they illustrated good examples to illustrate the model presented in figure 6.2; (3) they mentioned an impact from the Rugby World Cup during the 2nd wave of data collection; and (4) they capture both age groups under examination in the current study. The 1st narrative is from T15F20 who was a good example of the model flow presented in figure 6.1 and figure 6.2. While she was not constantly participating in sport and exercise, the impacts of the 2019 Rugby World Cup and the pandemic on her attitude and behaviour were observed. Following her stories helps to understand how some themes were impacting at an individual level. Firstly, she was the only participant who mentioned the importance of the demonstration effect: "The effect is that the players won more and more matches. And I lived in Chofu, where rugby was played. So, while feeling the energy every day, I want to do it myself." She also mentioned how the festival effect had impacted her to start watching the matches on TV by explaining how it might be different from 4 years ago:

(About the Rugby World Cup in England 4 years ago) I did not see it at that time. I think it was probably that held in Japan was biggest one [reason to watch]. [...] I cannot say in general as the people around me have changed quite a bit since I was a university student 4 years ago and working in a company now but did not talk much about the Rugby World Cup 4 years ago and since I joined the company, I feel like various people are talking and had a lively chat about the result of rugby matches.

This also connects to her demonstration effect from watching rugby which led her to feel that "I remembered myself playing tennis hard and vaguely thought that I wanted to exercise." These festival and demonstration effects changed her attitude that she claimed to be "excited by cheering" and becoming more aware of sports." In her words, she had "always been busy with work, but I feel like I was pushed by rugby a little and able to think about sports", which contributed to her having a "conscious desire" for doing sports.

She also noted external constraints in both 1st and 2nd waves of interviews. For example, she used to play tennis regularly during her time at university but explained that one of the reasons why she stopped playing tennis was: "[after I started to work] I was exhausted, and I

could not get enough time for sports initially”. Similarly, she admitted that her changes in behaviour from the 2019 Rugby World Cup did not last until the 2nd wave of interviews and frequency became very occasional and not consistent again (e.g. “I feel that the biggest thing is that I do not have enough time and energy.” and “Before COVID-19, I felt like I was swamped with work. And I felt like I’m exercising since my job was a sales role and I walked. [...] I only did it when I felt like doing it on Saturday and Sunday”). Furthermore, an increase in remote working led her to exercise at home as she explained “I’m doing [bodyweight training] relatively frequently. For really short ones, I do it every day. However, if it is solid, I do it 2-3 times a week.” These examples showed that work commitments were very impactful external constraints for her attitude and behaviour, which was observed among many participants in 20s (e.g. O6M20, T19M20, T21M20) as described earlier.

During her 2nd wave interview, she noted the postponement had no impact on her attitude and behaviour towards sport and exercise. However, she explained the impact of hosting the Olympic Games as “At the Olympic Games, there are various events, and there are also events that are relevant to me, so when I look at the moves, I want to do it as well.” Similar claims were made among a few other participants in the 20s (e.g. T24M20, T51F20). Also, this narrative captured changes in attitude and behaviours throughout the pandemic from April to September. In the first two months during the state of emergency, she was “afraid to go out” due to the pandemic and “did not go walking at all” and instead did body weight exercise at home that she explained “I’m doing relatively frequently. For really short ones, I do it every day. However, if it is solid, I do it 2-3 times a week.” After June, her frequency of working remotely and exercise at home declined as she mentioned “I work from home once every three days from June. I’m still doing it. I have been repeating the cycle of going for two days and one day at home” and “I think I did more often when I was working remotely every day.” At the same time, her attitude and behaviour about going outside to exercise changed: “I’m feeling that I should try exercising outside more than before.” and “I want to get in touch with the outside air. Anything is fine if I could exercise outside and then I have been choosing badminton.” While no exact same process of changes was observed, a part of these processes was observed among other participants such as concern about the virus (O1F20, T12F60-70) and reduction in working remotely led to a reduction in sport and exercise participation behaviour (O6M20, T30F20, T31M20).

Table 6. 11 Participant T15F20 - the 1st wave of interview.

Themes and its meaning	Example Quotes
Pre-event Behaviour	<p>① “Before the Rugby World Cup, I played tennis. I was a college student, so I was in a club. After the Rugby World Cup, I do not know if I could say exercise, but I was doing bodyweight training in my way. [...] I was [playing] once or twice a week or twice a week at most. At once, I was playing for 6 hours.”</p> <p>② (Not playing tennis after graduating from the university) “The reason is that I was exhausted, and I could not get enough time for sports initially, and my tennis friends and my schedule did not match and cannot really play tennis without my someone to play with. That's why I do not play it anymore.”</p>
Festival Effect	<p>① (About the Rugby World Cup in England 4 years ago) “I did not see it at that time. I think it was probably that held in Japan was biggest one [reason to watch]. [...] I cannot say in general as the people around me have changed quite a bit since I was a university student 4 years ago and working in a company now but did not talk much about the Rugby World Cup 4 years ago and since I joined the company, I feel like various people are talking and had a lively chat about the result of rugby matches.”</p> <p>② “The effect is that the players won more and more matches. And I lived in Chofu, where rugby was played. So, while feeling the energy every day, I want to do it myself.”</p>
Demonstration Effect	<p>① “There was the Rugby World Cup and I got the feeling of want to exercise, so my motivation was definitely different than before. When I saw rugby, I remembered myself playing tennis hard and vaguely thought that I wanted to exercise.”</p>
Event Satisfaction (i.e., Overall positive evaluation of the event and associated matches)	<p>① “At first, honestly, there are many powerhouses, so I thought they would not go that far. It's really rude [to say it]. I did not really watch it because I thought [only] Chofu (*where the stadium for the Rugby World Cup in Tokyo) was getting excited and it would end soon, but as it proceed, I felt something is different. The people around me were getting more and more excited, my family is watching it all the time, and it seems that they are still winning, so I started to support them. Through this I feel satisfied.”</p>
Attitude	<p>① “I got excited by cheering and then I become more aware of sports. I'd always been busy with work, but I feel like I was pushed by rugby a little and able to think about sports. I think that will consciously stimulate the desire for doing sports.”</p> <p>② (Doing bodyweight training after the Rugby World Cup) “There was rugby and I had a great desire to exercise, so my motivation was definitely different than before.”</p>
Internal Constraints	<p>① (Reasons not currently doing exercise) “I feel that the biggest thing is that I do not have enough time and energy.”</p>
External Constraints	<p>① “When I was in college, it was a club, and if there was an opportunity to participate near me like if there is a club in this branch office, I will definitely be joined, and I know it's not great to rely on others, but if other people are doing something, I would like to join there.”</p>
Behaviour	<p>① “Twice a week at better time. I only do it for about 30 minutes at a time, so I did not put much effort into it.”</p>

Table 6. 12 Participant T15F20 - the 2nd wave of interview.

Themes and its meaning	Example Quotes
One year from the 2019 Rugby World Cup	<p>① “I live in Chofu now. There are some remnants of that Rugby World Cup, so I talk about it a little. But to be honest, I do not talk about rugby so much now. [...] To be honest, I feel that rugby's interest is almost non-existent now.”</p> <p>② (About next Rugby World Cup) “I still have a desire to see it. I'm a person who like to follow the trends and like to be a part of things that are hot in the country.”</p>

	③	(About the feeling of wanting to exercise, after watching the Rugby World Cup) "I feel like it's going on for a while. It's not like I've been playing the same sport all the time. There are still things like playing badminton or wanting to move is continuing for sure. Also, I think the impact of being at home for a long time due to COVID-19 is probably stronger on this feeling."
Interest before postponement	①	"The Olympic Games in general, I like watching the opening and closing ceremonies and seen various events like swimming. That's why I've always been interested in it because I often see it when it comes to topics [common interests or on media]. In addition, when it was decided to host in Tokyo, my interest went up again. I usually interested in the Olympic Games on the year, but I have been interested since it was decided and especially since two years before the Olympic Games I was already looking forward to it. I think that was changed."
	②	"I'm not interested in a specific player. What I always pay attention to is swimming and track and field. Also, badminton. I see various sport like the one I used to do. I cannot swim but I watch it. An event that was in the limelight for a while. I think I see an event that Japanese athletes are competitive."
Interest after postponement	①	"I wonder if they really want to do the Tokyo Olympics because there is COVID-19. Somehow, it seems unlikely. It was a shock because I suddenly could not do what was exciting me. There are also times when it declines once due to shock. There is also a suspicion that it can be postponed, and I feel that my interest is retreating. [...] Because COVID-19 was spreading before the postponement was decided. Probably, COVID-19 did not stop right away, and I gave up from the point that it would not be possible, and it felt like it was really cancelled, so that's the order."
Impact of postponement on attitude	①	"I think there was an impact if the Olympic Games were hosted as planned"
	②	"I feel like it would have happened if it was held. For girls playing rugby is difficult. At the Olympic Games, there are various events, and there are also events that are relevant to me, so when I look at the actions, I want to do it as well. I'm sure it had an effect, though. But now that it's gone, I do not particularly think about if the Tokyo Olympic Games will be held (next year) and wanting to exercise"
Attitude	①	"When it comes to working remotely, I do not move my body, but I think I used to walked for about an hour a day by commuting. I thought that commuting was maintaining my strength for me. I felt fear of losing muscle strength, so I think that made me feel stronger that I have to exercise properly."
	②	(About now) "I'm feeling that I should try exercising outside than before."
Internal Constraints	①	"I was afraid to go out in the first place."
Change in life	①	"In April and May, we worked from home all the time. Because [the companies] were asked to have 30% of employees in their office. I had not been to the office for two months. I work from home once every three days from June. I'm still doing it. I have been repeating the cycle of going for two days and one day at home"
Behaviour	①	"Before COVID-19, I felt like I was swamped with work. And I felt like I'm exercising since my job was a sales role and I walked. So not at all [before the pandemic]. I only did it when I felt like doing it on Saturday and Sunday."
	②	(About bodyweight training) I'm doing relatively frequently. For really short ones, I do it every day. However, if it is solid, I do it 2-3 times a week.
	③	"I do not have any equipment. I'm just doing an exercise like squat that can be done without using anything. Also, there is something like a foam roller now. I've been exercising recently using something like that. [...] Everything started, maybe since the working remotely started. From April."
	④	I often watch YouTube. There is always at least one muscle training item suggested on YouTube. When I see it, I feel like I will do it, and I often do muscle training while looking at it.
	⑤	(During the state of emergency) "I did not go walking at all and lived a terrifying life."
	⑥	"I want to get in touch with the outside air. Anything is fine if I could exercise outside and then I have been choosing badminton."

Future intention	① (About the future continuation of the current exercise) I think I've lost a lot of muscular strength compared to when I was a student. I really feel that I need to do it to maintain muscular strength.
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The 2nd narrative is from T17M20 who similarly provides a good overview of the flow of both models (see Figure 6.1 and Figure 6.2). The main difference from the 1st narrative is that this participant was more active than T15F20, and attitude and behaviour changes from the 1st interview were still observed in the 2nd interview. Following his stories also helps to understand how some themes were impacting at an individual level. Firstly, while the participant was only explicit about the impact of the demonstration effect on his attitude (“I was somewhat stimulated, or I felt good to see some physical actions and although it was not that far, I thought I'd train myself.”), the festival effect might have had some role in this process. This was explained by him when stating that:

There were many promotions since it will be held in Japan. There were posters all over in the city, and there was a special feature on TV, so I happened to see the first game, win, and after all it was fun to watch country-to-country, so I continued watching. Also, everyone was watching at the branch, so I have to talk about it.

This shows how the festival effect had an impact on watching the match as well as continuing to watch the match, which led to demonstration effect in changing attitude. In his case, this changed attitude and behaviour lasted throughout the period of the two interviews. This was explained during his 2nd interview by mentioning that “It's more accurate to say that I've already got into the habit, [...] the habit still remains. Mentally, I have to do it about twice a week, or I feel uncomfortable.” This was consistently observed in his behaviour while external constraints existed (e.g. “The gyms were closed during March to June” and workplace policy that discourages usage of gyms) as he claimed:

[Before the pandemic] I was going to the gym, so I went to two gyms, but of course I did not go during the lockdown period [the state of emergency] from March to June and even now I'm not sure about going to the gym. For that reason, I bought weight training equipment at home, so I feel like I'm trying to make-up somehow. [...] [About the time to purchase equipment] It was early March

These examples show that international sport events could increase motivation of individuals and this could lead to the point that they are self-determined to participate in sport and exercise. Although it was not as evident as for this participant, a similar process of changes was claimed among a few other participants (e.g. O57M20). Another finding related to this participant (T17M20) is that in his 1st interview, he mentioned how he identified with the behaviour of athletes outside of the match:

During the period, Canada and another team volunteered in the disaster area, which was probably covered in the news quite a bit. [...] If they feature such things on TV, become attached to them. A particularly intense sport, I think that the gap is the reason why it became popular.

While he was the only person who claimed these behaviours outside the match lead to identification with athletes, this case of volunteering by two teams after the typhoon was mentioned by some participants during the interviews and a few explicitly mentioned it as a one of the reasons for their satisfaction (e.g. T13M20, O37M60-70, O40M20). In both cases, it only impacted their satisfaction and it did not impact their attitude to participate, but this example shows that behaviours of teams and athletes outside the match could impact on individuals' experience of the international sport event.

Table 6. 13 Participant T17M20 - the 1st wave of interview.

Themes and its meaning	Example Quotes
Pre-event Behaviour	① “For 1 year before the Rugby World Cup, I went to gym about once a week. [...] I used to play tennis since I was a student. I played since 6 years old but there is not much place to play tennis or more of timing rather than the place. But I wanted to do some exercise and only gym was something I could do after the work and many people at my branch use as well so they told me about it.”
Festival Effect	① “There were many promotions since it will be held in Japan. There were posters all over in the city, and there was a special feature on TV, so I happened to see the first game, win, and after all it was fun to watch country-to-country, so I continued watching. Also, everyone was watching at the branch, so I have to talk about it.” ② “For rugby, everyone has the same level of knowledge. I like soccer and I like watching it, but people who know soccer already know most things. Of course, baseball is the same, but for rugby pretty much started from the same stance except for those who have experience in rugby, so let's all get together and say what that was. There was something like saying about the rules. Everyone was on the same starting line. As a sense of position. Also, on my way home, there was public viewing as well as sports bars, people really came to their mind, it was like a feast, so I enjoyed it.”
Demonstration Effect	① “I watched a sports game on TV for the first time in a while. I was somewhat stimulated, or I felt good to see some physical actions and although it was not that far, I thought I'd train myself. They looked cool by watching it.”
Event Satisfaction (i.e., Overall positive evaluation of the event and associated matches)	① “After all, I think they [Japanese team] continued to win matches and it was a good feeling. At the end, everyone felt that the team went as far as they could [in the tournament]. ② “During the period, Canada and another team volunteered in the disaster area, which was probably covered in the news quite a bit. Perhaps unlike football World Cup or a tennis tournament, rugby has a long period between each game, so maybe the players can go around in various places. If they feature such things on TV, become attached to them. A particularly intense sport, I think that the gap is the reason why it became popular. Above all, I wondered what a wonderful spirit of players from other countries to volunteer even though they have lost the game [tournament]. I feel that it has led to satisfaction.”
Attitude	① “I thought I'd train myself.”
Awareness of opportunity	① “There are 3 gyms near nearest station from my company apartment and I chose the gym that is clean and people from my company is not using. I do not really want to meet people from my work in private time.”
External Constraints	① “It's quite difficult to make a reservation. It fills up in about an hour [when it opens for the reservation]. Sometimes I forgot it. [...] I sometimes do reserve tennis courts like ones by local districts with my friends but if I could wish I would like to play every week, but then it will be attending a tennis school. It's far [...] it would be over an hour one way at the end of work.” (T17M20)

Behaviour	① [I go to gym] “In average 2 to 3 times a week. At least twice. If I could 3 or 4 times. [...] At once, I go for 1 hour and a bit.”
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Table 6. 14 Participant T17M20 - the 2nd wave of interview.

Themes and its meaning	Example Quotes
One year from the 2019 Rugby World Cup	① “Now that I think back, I have not talked about it at all. [...] On TV from time to time, it's not a highlight, but like a television advertisement or a very brief scene from the World Cup are shown and when I glanced at it, I certainly felt nostalgic. I have a feeling that it's been a while.” ② (About the next World Cup) I want to see it. It was fun.
Interest before postponement	① “When it was decided to host in Tokyo, I felt great as much as many other people felt but at that time I was still a student, so I did not know if I was working in Tokyo, so I thought it would be nice to watch it on TV. Since it was decided to host in Japan, so I felt like happy. It was not particular about Tokyo.” ② “I think it was the final of track and field, but I wanted to see anything, and my friend got the ticket for me, so I did not hear much about detail of events. I heard it once and got final of track and field which I remember thinking it is exciting one.”
Interest after postponement	① “Certainty [of hosting the Olympic Games] is gone and I wonder what will happen if the promise is gone. I do not know if it will be without spectator, so my enthusiasm was naturally disappeared.
Impact of postponement on attitude	① “No impact”
Attitude	① “(the gained motivation from watching the Rugby World Cup) I'm continuing. What was the trigger. It's more accurate to say that I've already got into the habit, but now I'm not trying to do my best because of how the rugby players were working hard, but the habit still remains. Mentally I have to do it about twice a week, or I feel uncomfortable.”
External Constraints	① “The gyms were closed during March to June, obviously including the state of emergency, and even now I'm not sure about going to the gym. For that reason, I bought weight training equipment at home, I'm trying to make-up somehow.” ② “Also, I sometimes go to the gym which I cannot say to my company.”
Change in life	① “I still work from home once every three days. Of course, during the lockdown [the state of emergency], it was almost every day, so COVID-19 really changed the way we work.”
Behaviour	① “[Before the pandemic] I was going to the gym, so I went to two gyms, but of course I did not go during the lockdown period [the state of emergency] from March to June and even now I'm not sure about going to the gym. For that reason, I bought weight training equipment at home, so I feel like I'm trying to make-up somehow. [...] [About the time to purchase equipment] It was early March. ② “In terms of frequency, it's about once every two days, so the frequency may not have changed. However, the time is less than 30 minutes. Also, I sometimes go to the gym which I cannot say to my company.”
Future intention	① “I want to break the feeling of being trapped/stuck. I live in a company dormitory, and I feel sorry for making a lot of noise, so when I want do weight training as much as I want, I go to the gym.” (T17M20) ② “I want to go to the gym freely once I could do so.” (T17M20)

The 3rd narrative is from O45M60-70 who also provides a good overview of the flow of both models (see Figure 6.1 and Figure 6.2). The main difference from the previous two narratives is that this participant is in age group of 60-70s, which provides additional

perspectives. Firstly, he was one of two participants in 60-70s that experienced the demonstration effect from the 2019 Rugby World Cup and it changed his attitude:

[...] bodies are crashing each other in rugby and in the stadium, I can hear the sound of banging in front of me. When a person with such excellent physical strength or a person with high physical ability actually does such a thing, since it is something that I do not have, I want a little, or I got a slight desire to get it.

This change in his attitude led to a change in his behaviour (“I increased the intensity of the weight training that I was doing.”). While there were only a few cases (e.g. T29F60-70) of individuals in the 60-70s who claimed change in their attitude and behaviour from the 2019 Rugby World Cup, this participant shows that older individuals could change their attitude and behaviour from an international sport event.

The change in behaviour was maintained during the 2nd round of interviews (“I’m continuing weight training at the same frequency”). During the pandemic, he experienced internal constraints (“going to sporting gym and putting myself in an environment that forcibly move my body is needed [...] but now it is not feeling encourage to use gym”). However, it only discouraged his feeling of needing to start exercising at the gym and it did not have any impact on behaviour. Unlike the participant in the 2nd narrative (T17M20), he continued weight training at the same frequency throughout two waves of data collection (“I’m continuing weight training at the same frequency”). This was mostly due to differences in locations of exercises prior to the pandemic (T17M20 exercised at gym and O45M60-70 exercised at home). O45M60-70s behaviour actually continued to improve as he explained the supplements he started to take after the 2019 Rugby World Cup (“I have more opportunities to take supplements. I’m taking it continuously. Especially jelly - one more than powdered ones. I drink the one with protein once every day”). This was a unique case that additional positive change from the 2019 Rugby World was observed in between the 1st and the 2nd waves of data collection. Also, the pandemic led him to further improve his attitude towards sport and exercise.

I’m approaching a high-risk age. It depends on how the media is reported, but compared to young people, I feel like I really do not know what kind of risks I will encounter unless I strengthen myself. More than ever, I’m aware that I have to do physical activities to maintain my health and strengthening my physical strength.

This led to a change in his behaviour making him start an additional activity (I started to bike. [...] about 2 hours per week). During the pandemic, it was more common among participants in 20s to change attitudes and behaviours, but the attitude and behaviour of this participant was also positively changed by the pandemic.

Table 6. 15 Participant O45M60-70 - the 1st wave of interview.

Themes and its meaning	Example Quotes
Pre-event Behaviour	① “Doing weight trainings [...] using weights at home. [...] about 15 minutes at once for morning and evening almost everyday”
Festival Effect	① “I went to the fan zone all the time. There were two fan-zones, one on the south and one on the north side of the station but went both. Especially, there were foreign fans in the fan zone on the north side and there are various international exchanges that are not in Japan.” ② “The match was fun, but I had hospitality tickets [...] so there was hospitality-staff that looked after us well and it was a good experience with the people involved in the tournament.”
Demonstration Effect	① “I feel that it is necessary to [build strength] for life ahead. In that sense, bodies are crashing each other in rugby and in the stadium, I can hear the sound of banging in front of me. When a person with such excellent physical strength or a person with high physical ability actually does such a thing, since it is something that I do not have, I want a little, or I got a slight desire to get it.”
Event Satisfaction (i.e., Overall positive evaluation of the event and associated matches)	① “Had fun.” ② “I was in a fan zone, a stadium, and so on. I'm not sure if it's the reaction of the general people, but [prior to the event] I was wondering if people would gather to that extent. People were more enthusiastic and been quite crowded than I expected, and even when I saw the gathering of people, there were many unexpected sizes of crowd, and I felt was impressed and impressed than I expected.” ③ “Rather than competition aspects, since the event and the matches are taking place in Oita, hometown, I was more concerned about the transportation of personnel and whether that was okay. I wonder if it will be embarrassing to customers that come from far away overseas. Not to mention the sports match and the content itself, there was a question that the management of that area would be okay. [...] Well, I think during the actual World Cup matches, the transportations went ok. A year ago, I went to see the test match against Japan and Italy but there was a lot of trouble with the transportation [...] but during the World Cup it was relatively smooth.
Attitude	① “I want a little [strength], or I got a slight desire to get it.”
External Constraints	① “It's difficult to have time to go outside and exercise, so I'm not able to do it so far.”
Behaviour	① “I increased the intensity of the weight training that I was doing. Or my body is getting weaker [with age], so I wondered if it can be added with some protein or supplements.”

Table 6. 16 Participant O45M60-70 - the 2nd wave of interview.

Themes and its meaning	Example Quotes
One year from the 2019 Rugby World Cup	① “I'm still interested. [...] Nowadays, the 2019 World Cup matches are rebroadcasted on the cable TV, and they are actually rebroadcasting the matches regularly, and I often see them, so it's often talked about at home. [...] Unfortunately, there are not many new [national team] matches. Not only re-arranging the 2019 World Cup, but also matches from foreign leagues are played on the cable TV, so I watch them on the channel. My family went to see the world cup together, so we share the same memory, so they are also interested and nostalgic [about the World Cup].
Interest before postponement	① “Of course, there was interest. I applied for the ticket lottery but unfortunately, I did not win any of them.” ② “Since it was decided that the Olympic Games would be held in Japan rather than in Tokyo. I did not watch the 1964 Tokyo Olympic Games at the venue, but I watched it on TV. Before that, I saw the torch relay climbing up Kyushu along

	<p>the road. Since then, I was imprinted [about the Olympic Games], and I became it's such a historic event and held in Japan, I'm relatively highly interested in this Olympic Games throughout [since winning the bid]."</p> <p>③ (Interest regarding whether it would be held in 2020) "It's been a long time since the beginning of the year and the topic of postponement began to come up around March of this year. Rather than globally, the number of the cases in Japan has increased since the holidays in March, so I was always worried about the environment in which Japan would be held."</p>
Interest after postponement	<p>① "The postponement has been decided, but it has not been cancelled, and basically it is at the stage of thinking about how to hold it on the premise that it will be held, so I have expectations that it will still be held. By all means, I would like it will be held"</p> <p>② "As with the public viewing of the Rugby World Cup, there is probably a public viewing of the Tokyo Olympics in Oita prefecture, especially in the familiar area where I live. There is such an environment within reach, so I have a strong feeling of expectation that I want to experience that kind of energy/excitement again."</p>
Impact of postponement on attitude	<p>① "There is no impact of the postponement of the Olympic Games."</p>
Attitude	<p>① "Every day, I see news reports such as newly positive cases, those who died in COVID-19, those in their 20s and 30's who are mildly ill, and those who are over 60's have a high illness rate. I'm approaching a high-risk age. It depends on how the media is reported, but compared to young people, I feel like I really do not know what kind of risks I will encounter unless I strengthen myself. More than ever, I'm aware that I have to do physical activities to maintain my health and strengthening my physical strength."</p>
Internal Constraints	<p>① "I always thought that I need to do more exercise, so going to sporting gym and putting myself in an environment that forcibly move my body is needed. I thought it was necessary (but not as flexible in terms of timing as doing at home) but now it is not feeling encourage to use gym [with the pandemic]"</p>
Change in life	<p>① "I think COVID-19 has a huge impact on my work. [...] within the company, remote working is introduced in possible department but not as much in my department. [...] so, I still commute to the office. [...] many other personal and family gatherings are not happening so I guess I have more time"</p>
Behaviour	<p>① "I'm continuing weight training at the same frequency (15 minutes at once, twice a day and almost everyday)"</p> <p>② "I started to bike. [...] about 2 hours per week. [...] When the summer was approaching, I had the feeling that if I do not have a body composition that is able to sweat, I'll be not able to survive this summer. After all, I'm in my 60's and I do not sweat a lot in day-to-day life and becoming difficult to sweat. As the heat wave continues in summertime, there may be a risk of heat stroke, so I'm trying to change my body composition to sweat."</p> <p>③ (About the supplements that started to take after the World Cup) "I have more opportunities to take supplements. I'm taking it continuously. Especially jelly-one more than powdered ones. I drink the one with protein once every day."</p>
Future intention	<p>① "It might be ideal to go to gym [...] but at least I will continue what I'm doing"</p>

7. Discussion

7.1. Introduction

This study focused on understanding (1) the impact of hosting an international sport event on sport and exercise participation among different age groups of the host population, and (2) how the COVID-19 pandemic and related postponement of the 2020 Tokyo Olympic Games may have affected the attitude towards sport and exercise participation and actual behaviours among different age groups of the host citizens. The 1st wave explored the impact of hosting an international sport event (2019 Rugby World Cup) on the attitudes and behaviours of the host citizens towards sport and exercise participation. The 2nd wave explored the impact of the postponement of an international sport event (2020 Tokyo Olympic Games) amid the COVID-19 pandemic and its impact on individuals' attitudes and behaviours towards sport and exercise participation.

The previous chapter presented the results from the two waves of interviews. In this chapter, the findings are interpreted and discussed within the context of the research objectives and related literature. This chapter begins by explaining the evolution of the study and summary of key findings of the results (section 7.2). Next, a discussion of the results related to the hosted international sport event are presented (section 7.3). This is then followed by discussion of the results linked to the COVID-19 pandemic and postponement of an international sport event (section 7.4). Subsequently, the findings from the two waves of data collection are combined to provide an overall discussion (section 7.5).

7.2. Evolution of the study and summary of key findings

The findings from the 1st wave of interviews helps to better understand the connection between hosting an international sport event and impact on sport and exercise participation among different age groups of the host population. Within the five objectives of the research, the 1st wave of data collection addresses the 1st and the 2nd objectives: (1) To evaluate how the 2019 Rugby World Cup may influence the attitude and behaviours towards sport and exercise among certain age groups of the host citizens; (2) To assess how the 2019 Rugby World Cup may affect the attitude and behaviours towards sport and exercise among older and younger groups of the host population.

Table 7. 1 Key findings from the 1st wave of data collection.

Objectives	Key associated findings
To evaluate how the 2019 Rugby World Cup may influence the attitude and behaviours towards sport and exercise among certain age groups of the host citizens	<ul style="list-style-type: none"> ① Inspiration from the event (demonstration and festival effects) was important to citizens' satisfaction. ② Citizens' satisfaction with the event was not linked with changes in attitude or behaviour towards sport and exercise. ③ Demonstration effects from the event lead to change in attitude and behaviour towards sport and exercise participation among some participants. ④ Festival effects derived from the event were important to improve attitude and behaviour towards sport and exercise participation among some participants.
To assess how the 2019 Rugby World Cup may affect attitude and behaviours towards sport and exercise among older and younger groups of the host population.	<ul style="list-style-type: none"> ① The age group of 60-70s was more active (participating more than twice a week) than the age group of 20s prior to the event. However, the ratio of participants who mentioned to have benefited from a demonstration effect of the event was higher for 20s than for 60-70s. ② Most participants highlighted internal or external constraints to sport and exercise participation. Marginal utility was the most common within internal constraints especially for 60-70s, while work commitments were the most common among external constraints especially for 20s.

The findings from the 2nd wave of interviews help to explore the connection between the COVID-19 pandemic and the impact on those individuals' attitude towards sport and exercise participation and actual behaviours. Within the five objectives of the research, the 2nd wave of data collection addresses the 3rd, 4th and 5th objectives: (3) To evaluate the impacts of the postponement of the 2020 Tokyo Olympic Games on the attitude and behaviours towards sport and exercise the among host citizens; (4) To critically analyse the impacts of a health and social crisis on attitudes and behaviours towards sport and exercise; (5) To appraise how a health and social crisis may affect attitudes and behaviours towards sport and exercise among older and younger age groups of the host population. Key findings from the 2nd wave of data collection are shown in the table.

Table 7. 2 Key findings from the 2nd wave of data collection.

Objectives	Key associated findings
To evaluate the impacts of the postponement of the 2020 Tokyo Olympic Games on the attitude and behaviours towards sport and exercise the among host citizens.	<ul style="list-style-type: none"> ① There seems to have been no impact of the postponement of the 2020 Tokyo Olympic Games on attitude towards sport and exercise participation and actual behaviours.
To critically analyse the impacts of a health and social crisis on attitudes and behaviours towards sport and exercise.	<ul style="list-style-type: none"> ① Both improved and reduced attitude towards participating in sport and exercise were observed among the participants in both age groups. ② All internal constraints to participate in sport and exercise were related to concerns with the COVID-19 pandemic. ③ Changes in life due to the pandemic impacted attitude and behaviour towards sport and exercise participation in two ways:

	increased remote working and limited other activities
	④ External constraints to participate in sport and exercise were mainly observed in three ways: lack of accessibility, health of family, and workplace
	⑤ Sport and exercise behaviours were mentioned in four different ways: new activities started, alternative activities to the ones being done previously, maintenance of the same activities, temporary break in the activities.
	⑥ Taking up alternative activities was most common for those individuals normally using facilities as many of them were closed especially during April and May.
	⑦ Those individuals engaged in some level of sport and exercise before or during the pandemic, either mentioned they continued to participate or had the intention to return.
To appraise how a health and social crisis may affect attitudes and behaviours towards sport and exercise among older and younger age groups of the host population.	① Within participants in the 20s that improved their attitude toward sport and exercise, the most common reason was remote working especially during the state of emergency in Japan.
	② Changes in life were more commonly observed among the group of 20s than the 60-70s
	③ External constraints to sport and exercise participation were more experienced by the age groups of 20s than the 60-70s.
	④ Starting new activities was more common among the age group of 20s than for 60-70s.
	⑤ Maintenance of the same activities was observed for both age groups, with this being more common among the 60-70s.

7.3. Hosted international sport event - the 2019 Rugby World Cup

7.3.1. Sport and exercise participation

Following the proposed model guided by the literature (see section 2.2.7), all participants highlighted that they were inspired by the 2019 Rugby World Cup and that this inspiration contributed to their satisfaction with the event. The trends observed during the interviews were that the performances of the Japanese rugby team and the atmosphere during the event were the most common reasons for participants' satisfaction. This follows the result of Cleland et al. (2019) that individual inspiration can be created in various ways like performances of athletes and atmosphere of events. The fact that Japan reaching the quarter-finals for the first time in its history was a good surprise for many people and contributed to their inspiration and satisfaction with the event. Many participants explained that the Japanese rugby team's performance exceeded their expectation prior to the 2019 Rugby World Cup. Some participants explained how they felt: the fact that the success of the Japanese team was important for increasing interest among 'niwaka' (Japanese slang for newbies) and inspired them to be interested in the 2019 Rugby World Cup. In this respect, participant T13M20 noted that "When I think about myself, it's only one factor that Japan breaks through the group stage", but it was important overall as he explained "I think there is Japan striving was important. I thought it was really good that people around me who did not usually watch rugby were interested in

rugby”. This aligns with the results of Biscaia et al. (2013) indicating that the core aspects of sport events are the strongest predictors of spectators’ satisfaction.

Many participants also mentioned how the atmosphere during the event contributed to their satisfaction. This was mentioned across both age groups in Tokyo and Oita, but it was particularly common and considered important for participants from Oita. Several participants noted that many foreigners visited the city and that they enjoyed interactions with international fans during the weeks that Oita hosted matches (e.g. “I talked to foreigner on my own too and I enjoyed that kind of opportunity [...] I think people become really open. Japanese people tend to have some barriers to foreigners, but I felt that is all in one”; O8F20). The linkage between inspiration and satisfaction with the event is consistent with previous research. In the context of marketing and consumer behaviour, Böttger et al. (2017) argue that individual inspiration led to satisfaction because intrinsic motivation, which is equivalent of inspiration in their context, can lead to high levels of satisfaction. In the context of regular sport competitions, satisfaction has been often linked to individuals’ perceptions of the on-field performance of the athletes and the ambiance generated during the events (e.g. Biscaia et al. 2013; Lee and Kang 2015). The result of the current study extends prior literature by providing empirical evidence that the inspiration generated by the demonstration effect and the festival effect is also vital in the context of international sport events. Nevertheless, it is worth noting that these impacts may not always be observed (Cocq et al. 2021). Cocq and colleagues developed a study in the context of field hockey in Belgium, and they argued that increases in grassroots membership were observed when the 2013 European Championships was hosted in Belgium. This increase was larger than when the men’s team won the semi-final at the 2016 Rio Olympic Games.

The proposed model of this research suggested that citizens’ satisfaction derived from an international sport event would lead to a change in attitudes towards participation in sport and exercise, but it was not observed in this research. While all participants claimed that they were satisfied with the 2019 Rugby World Cup, no linkages to changes in attitude or behaviour towards sport and exercise were mentioned during the interviews. Some participants mentioned that their experience with the event increased their interest in rugby, and most of them specifically referred to an increased interest and expectation regarding the next Rugby World Cup (e.g. T15F20; T17M20; O45M60-70). This suggests that satisfaction from the event improved attitudes towards rugby (i.e., from watching future rugby matches, and the Japanese national rugby team, to the future rugby World Cup). Following the 2019 Rugby World Cup, the attendance of the top Japanese rugby league in 2019-2020 season recorded the highest average until the season was cancelled in March 2020 (Top League 2020). These findings

follow existing literature that suggested individuals' satisfaction from sport competitions impacts attitudes towards the team and associated events (Brown et al. 2017; Lee and Kang 2015). However, the interviews with participants of this study suggest that satisfaction derived from the event did not lead to improved attitude towards sport and exercise. Contrary to the proposed model, the findings from the current research suggest that the demonstration effect led to change in attitude towards sport and exercise participation without any intermediary. This is in line with recent experimental studies indicating that the mere observation of action leads to an enhancement of proneness for exercise (Abreu et al. 2022). The demonstration effect was often mentioned by participants in relation to physical aspects of the event. For example, a participant who was inspired by the event to work out more mentioned he felt motivated to do more sport and exercise because of the body fitness of the rugby players (T16M20). The same idea was supported by O45M60-70 who explained that "[...] bodies are crashing each other in rugby and in the stadium, I can hear the sound of banging in front of me" and this made him feel some desire to have physical strength. Previous literature that constituted the basis for the proposed model (e.g. Brown et al. 2017; Lee and Kang 2015) also indicates a link between event satisfaction and change in attitude towards sport and exercise participation. However, findings derived from the interviews suggest that the demonstration effect is linked to change in attitude towards participation without any intermediary.

The inspiration created by sport events can be categorized as demonstration and festival effects (Weed et al. 2012). In the current research many participants experienced the festival effect and that contributed to their satisfaction. This is aligned with previous literature suggesting that festival effects are often experienced by spectators at international sport events (Cleland et al. 2019; Weed et al. 2012). Yet, with the exception of one participant (T15F20), the role of festival effects on attitude and behaviour toward sport and exercise was not evident. As T15F20 explained, "I got the feeling of want to exercise, so my motivation was definitely different than before. (...) I remembered myself playing tennis hard and thought that I wanted to exercise". While there seems to have been limited impact of the festival effect on attitude and behaviour compared to the demonstration effect, all participants who highlighted the impact of the demonstration effect on attitude or behaviour, also experienced the festival effect.

Similarly, satisfaction has been suggested to be important for increasing the identification with sport events (Lee and Kang 2015), and evidence exists on the role of sport spectator satisfaction on attitude towards attending more events (e.g. Lee and Kang 2015). Still, to the best of my knowledge, no previous research has specifically examined how event satisfaction may lead to changes in attitudes towards sports and exercise participation. In the

current research, all participants mentioned that they were satisfied with the 2019 Rugby World Cup and that the event surpassed their initial expectations. However, no linkages between satisfaction and changes in attitude or behaviour were noted during the interviews. Nevertheless, all participants who were inspired by the event and changed attitudes and/or behaviours were satisfied with the event. For example, T15F20 who was inspired by the 2019 Rugby World Cup and changed her attitude and behaviour toward sport and exercise explained how she was satisfied with the event; i.e., enjoyed the atmosphere and the successes of the Japanese national team. This explains how the festival effect could lead to satisfaction and further consumption of the event, which ultimately may lead to demonstration effect from watching an international sport event.

That is, festival and demonstration effects might work together to inspire individuals to change their attitude and behaviours toward sport and exercise. The findings from this research contribute to the literature about festival effects (e.g. Weed et al. 2012) by indicating festival effects lead to satisfaction and further consumption of hosted events, which in turn may increase the chance of individuals to changing their attitude towards sport and exercise. This suggests that festival effects may be linked to the sport and exercise legacy of international sport events. While other participants did not mention any kind of festival effect in relation to their attitude and behaviour towards sport and exercise, some have said that the festival effect and atmosphere of the 2019 Rugby World Cup was a part of the reason why they were satisfied with the event. This role of being a fan and supporting the Japanese national team was explained by one of the participants (T15F20) who felt the excitement from the event, saying that “People around me were getting more and more excited, my family was watching it all the time, and they were still winning, so I started to support them. Through this I feel satisfied”.

Furthermore, other participants identified themselves with the event because of a sense of belonging to the community, which led them to further consume the event (e.g. “It was often a topic of the conversation at workplace, so we were quite interested in it. Both myself and others”; O5M20). This follows social identity theory (Tajfel and Turner 1979) that argues that individuals want to join social categories that they would like to belong to. This was further explained by another participant (T17M20) who referred to the fact that most people had limited knowledge of rugby and that actually helped more people to join the conversation without worrying about not being knowledgeable enough to talk. This finding adds to the body of knowledge (e.g. Gibson et al. 2002) indicating that some host citizens tend to identify with the event for a matter of feeling they are part of a community of individuals who share common interests. Teare and Taks (2021) further argue that hosting mega-sport events might positively

impact youth in hosting regions by increasing a strong sense of belonging to community and wellbeing. In addition, findings from sport consumption literature suggest that event atmosphere tends to positively impact satisfaction and further consumption (e.g. Chen et al. 2013; Yoshida and James 2010). Thus, findings from the current research add to existing literature by highlighting that satisfaction with an international sport event may not impact further consumption of related events, but also leads some individuals to be inspired and change their attitude and behaviours towards sport and exercise.

7.3.2. Sport and exercise participation in different age groups

The results of the current study indicate that older participants (60-70s) were more active than younger participants (20s) prior to the 2019 Rugby World Cup, which aligns with SSF reports about sport and exercise participation patterns in Japan (SSF 2019). On the other hand, participants in the age group of 20s claimed to have experienced more of a demonstration effect than the group of 60-70s. This finding adds to the literature (e.g. Ramchandani, Kokolakis, and Coleman. 2014; Cleland et al. 2019) suggesting that in Western countries younger people are more likely to feel inspired by international sport events to engage in sport and exercise, by showing the same pattern in an Eastern country. This is particularly interesting given that research findings from Western cultures (i.e., more individualistic) do not often translate into Eastern cultures (i.e., more collectivistic) and vice-versa (Zhang et al. 2014). Furthermore, this finding extends prior research (e.g. Cleland et al. 2019) arguing that active people are often more inspired by international sport events. In many countries, older age groups are less active than the younger population and the participation rates in sport and exercise often decline with age (Eurostat 2018). However, in Japan and some other countries (e.g. Germany and Sweden), that it is not the case, given that older citizens are more active compared to younger generations (SSF 2019). The results from the current research indicate that those who currently have a more active work life in Japan are more likely to be inspired by international sport events, but this trend only seems to apply for younger individuals (20s) and not for older ones (60-70s). This may be related to fact that older age groups in Japan are more active than younger groups, and they are already satisfied with their current levels of sport and exercise participation. On the other hand, younger age groups are less active due to their other constraints (e.g., work commitments and facility access) and more receptive to be inspired by the event.

The interviews from this research also suggest that while some participants might experience marginal utility prior to watching an international sport event, thus might be

particularly experienced by older individuals who were active prior to the international sport event. Marginal utility is a concept that explains incentives to do activity (e.g. work, study, purchase, exercise) (Layard, Nickell and Mayraz 2008) and this may also apply to sport and exercise participation levels. In the current research, older active participants may have felt that the incentive to participate in more sport and exercise declines as the amount of current sport and exercise participation levels increase and it was approaching a point where marginal utility equals zero. This is supported by diminishing marginal utility of income that could ultimately lead to zero (Easterlin 2005). As O9M60-70 explains, “At this age, instead of doing hard things, jogging is like fast walking or slow jogging, and moving body to the extent that it's not too hard [...] I'm self-satisfied by training my body a little”.

Other participants further pointed out the importance of having the right amount of exercise according to age and the need to avoid excessive physical activity (e.g. O52M60-70: “If I overdo it, it will be a burden [later], so I can only adjust to the right degree to my body. It will hurt as much as I overdo it. It seems that there is a good amount of exercise for me”). This marginal utility as an internal constraint was mentioned by both age groups of 20s and 60-70s, but it was highlighted more by participants in the 60-70s (45.5%) than in the 20s (22.9%). Marginal utility may lead to a lack of inspiration from watching and experiencing an international sport event.

The results also indicate that more participants were inspired to start new activities than to improve motivation to continue their current activities. This was particularly evident for the 60-70s as no participants noted that the 2019 Rugby World Cup had an impact on their attitude towards participation in their current sport and exercise. On the other hand, this finding is contrary to previous studies suggesting that the 2012 London Olympic Games led to an increased frequency of sport participation among existing participants compared to attracting new participants for sport and exercise activities (Kokolakakis and Lera-López 2022). This might be due to the fact many participants of the current research were frequently doing sport and exercise prior to the 2019 Rugby World Cup.

In addition, the results of the current research suggest that individuals in the 60-70s are satisfied with their current level of exercise. This is likely due to the combination of currently being active and other factors such as their age and health condition that could create constraints to participate in more or different sport and exercise activities. For example, participant T10M60-70 had no intention to increase the intensity of his sport and exercise participation due to a heart problem. In this respect, it is also worth noting that health constraints tend to prevent older individuals from participating in some sport and exercise

activities (Boehm et al. 2013; Moschny et al. 2011). Also, the marginal utility in sport and exercise participation observed in the current study supports the findings of Justine et al. (2013) who argue that one of the most common internal constraints for older participants is that fact they are already active enough.

7.4. The COVID-19 pandemic and the postponement of an international sport event

7.4.1. Postponement of the 2020 Tokyo Olympic Games

It is very rare for international sport events such as the Olympic Games or World Cups to be postponed or cancelled. Well-established international sport events are only cancelled or postponed under worldwide crisis (e.g. World War) (Howard 2021; McKeever 2020; Tomlinson 2014). So, prior to conducting interviews, there was no research related to the impact of cancellation or postponement of international sport events in the host cities. The findings of the current research indicate that for the majority of participants there were no decline in interest towards the Tokyo Olympic Games. The postponement of the event generated even more interest among some of the study's participants. One common reason to remain interested in the Olympic Games was the fact it was only postponed and not cancelled (e.g. "The postponement has been decided, but it has not been cancelled [...] so I have expectations that it will still be held. By all means, I would like the event to be held"; O46M60-70). This may be related to the emotional value often associated to sports and contradicts extant literature (Hendricks and Singhal 2008; Su and Rao 2010) about the impact of delays in product introduction on business performance arguing that a delay has a negative effect on profitability (Hendricks and Singhal 2008) or market value of the businesses (Su and Rao 2010).

On the other hand, the international survey by Ipsos in May-June 2021 shows that Japan was the bottom third country (tied with France) out of the 28 countries for their interest towards the Tokyo Olympic Games. The difference between Ipsos' report and the current results might be that the interviews were conducted in August to October 2020, when the first peak of COVID-19 cases was settling down from mid- to late August 2020 (NHK 2020a). Also, the poll by NHK in July 2020 shows that while interest in the Tokyo Olympic Games declined by 9%, most people (71%) were still interested. A similar trend was observed by Yamamura and Tsutsui (2020) in a study about the impact of the event postponement on the happiness level of workers in the tourism and restaurant industries. They argued that while happiness of the workers declined drastically after the announcement of the postponement, two weeks later the impact diminished. This might be because people at the beginning of the pandemic were more

optimistic about the medium- to long-term impact of the pandemic. However, around the time that the survey by Ipsos was conducted, Japan was facing the fourth peak of COVID-19 cases (NHK 2021) which suggests that interest towards postponed international events due to the pandemic may vary depending on the time of data collection. This relationship between interest in sport events and the pandemic situation was partially supported by Reade and Singleton (2021) who noted that daily domestic COVID-19 cases or deaths negatively affected football stadium attendance in Italy, England and Germany, but not in Spain and France during the early stages of the pandemic.

The results from the current research also suggests that there was no impact from the postponement of the 2020 Tokyo Olympic Games on the attitude and behaviour of Japanese citizens towards sport and exercise participation. Many participants mentioned that their attitude and behaviour towards sport and exercise participation were not affected by the postponement of the event. For example, T28M60-70 explained that “I do not mean to do it (sport and exercise) because of the Olympics, and on the contrary, I'm disappointed because Japan losing a match/game does not mean that I quit doing it.” However, one participant mentioned the potential impact of the Tokyo Olympic Games. Based on her experience from the 2019 Rugby World Cup (T15F20), when the 2020 Tokyo Olympic Games are hosted, it may likely have an impact on her sport and exercise participation because the event includes various sports that are relevant to her.

To the best of my knowledge, no other research has explored the impact of international sport events' postponement on host citizens' attitude and behaviour towards sport and exercise. Nevertheless, there are some studies focused on how people's interest in sport was impacted by postponement during the COVID-19 pandemic. For example, for participants of participatory sport events, there seems not be a decrease in the frequency, but the intensity of sport behaviour declines (Helsen et al. 2021). Elliott et al. (2021) further looked at the impact of the pandemic on youth community sports, and they argued that the pandemic negatively impacted physical activity and the mental wellbeing of young people.

Also, Auer et al. (2020) examined the impact of postponement of sport matches on regular sport bettors and found that there was a significant decline in money bet in sports as gamblers did not switch to online casino games, but actually reduced the amount of money they bet.

7.4.2. Impact of the pandemic on sport and exercise participation

The results from the interviews indicate that the impact of the pandemic on sport and exercise was varied according to different participants, but some trends were observed across all participants and both age groups. Both improved attitude and reduced attitude towards participating in sport and exercise were observed. For 20s, improved attitude was highlighted by more participants than reduced attitude but for 60's improved and reduced attitudes were highlighted similarly. Within participants in the 20s that improved their attitude, the most common reason was due to working remotely especially during the state of emergency, which initially led to a reduction in their physical activity levels and then they realised it would be important to do sport and exercise. The participant O8F20 explained that "I felt OMG. I only realised after not doing it that usually walked quite a lot during work and commuting. I started to feel very serious about this and is not okay to not have exercise during work". This change includes the participants who were inactive prior to the pandemic as T30F20 explained "Due to COVID-19, the remote working increased, and I became more aware that I had to move, and I have started exercising a little". This finding is consistent with the survey that was conducted by the SSF in Japan. In addition, some recent research in other countries suggests similar results. For example, Constandt et al. (2020) argued that sport and exercise participation among previously low active adults (younger than age 55) increased during the lockdown. Such findings may be explained by the fact that people had more flexible lives and more time in general to participate in sport and exercise during the state of emergency or the lockdown. This is supported by some findings in this research that increased remote working and limited other activities were two factors that both positively affected attitude towards participation and actual behaviours. For example, T15F20 explained that her job is related to sales and requires walking in the street, but that changed with the pandemic and she was now working remotely. Another participant explained how limited other activities led to increase in sport and exercise participation (e.g. "Until now, if I was a little busy outside, I did not do it. I do not have a dinner gathering, so sure I have no choice, but I will come back at night, right? Then I should use my body"; O38M60-70). These trends follow findings from other research such as Ding et al. (2020) suggesting that change in lifestyle led by the pandemic may have had positive changes to sport and exercise participation behaviours.

All internal constraints mentioned during the interviews were related to concerns with the virus. The ratio of participants who expressed their concern with the virus was slightly higher among the 20s than the 60-70s. Most common responses were that they are simply scared of COVID-19 and being infected by this new virus especially during the state of

emergency. T15F20 noted that “I was afraid to go out in the first place.” Another participant in the 60-70s (T11F60-70) explained her concern related to her age noting that “I feel like I’m about to enter the category of elderly people, and I feel like I’m told to protect myself after all” and “when I think that it is necessary for people around me not to get infected, I feel ‘lost in vitality’ and unable to be active.” In this research, the proportion of participants with concern towards COVID-19 was slightly higher among younger participants than older participants, but other research argues different results. Fisher et al. (2020) argue that age was positively associated with use of facial coverings in the US during April and May 2020 which suggests that older citizens were more concerned with COVID-19. Similarly, mitigation behaviours such as hand washing, social distancing, and avoiding public or crowded places was lowest among younger adults (aged 18 to 29 years) and highest among older adults (aged 60 years and above). This might be because younger participants who were concerned with COVID-19 were often mentioning its impact on people around them rather than themselves.

Changes in life were mainly observed in two ways: increased remote working and limited other activities. The proportion of participants who claimed these two changes was higher among the 20s than for the 60-70s. These were more commonly observed among the 20s than the 60-70s probably because some participants in the 60-70s were retired, so they were less impacted from changes in working environment. Also, 60-70s were relatively more active prior to the COVID-19 pandemic, so having more flexible time did not impact their behaviour the same way as for the 20s. Introduction of, and increased, remote working was mentioned by almost all 20s except for students and civil servants that continued to operate face-to-face services in most parts. This was particularly observed among inactive or infrequent (less than twice a week) participants, that changed their attitudes and behaviours due to increased remote working. This includes T31M20, who explained a reason to start sport and exercise as “I think that the amount of exercise will be inevitably decreased when working from home, so that was biggest”. Increase in remote working was observed in many countries. For example, in Japan, the percentage of companies that introduced working remotely increased from 17.6% in March 2020 when the government started to encourage remote working to 56.4% during the state of emergency in April and May 2021 (MIC 2021b). Similarly, the ratio of workers who were working remotely increased from 13.2% to 27.9% in this period (MIC 2021b) (note⁸). In the US, the proportion of workers who worked entirely from home was 35.2% in May 2020, which was 8.2% higher than prior to the pandemic (Bick, Blandin

⁸ regardless of frequency

and Mertens 2020). In the UK, the ratio of workers who did any work from home was 37% in 2020, which was about 10% higher than in 2019. The research by Rubin et al. (2020) suggests that 69% of respondents in their study are missing at least some aspects of commuting. This is particularly for commuters by (e-)bicycle with 91% missing at least some aspects of commuting which are highest group compared to other groups that commute by other methods but also more than 80% of commuters who walk missing at least some aspects of commuting. While this research is not focusing on the physical activity aspects of commuting, the activity of commuting itself was the most common missed aspect with 53% (Rubin et al. 2020). This suggests that the physical activity aspects of commuting seem to be a positive aspect or at least not a negative aspect of commuting among many adults.

Also, some participants expressed that they focused more on their sport and exercise than before because there were limited other activities they could do. For example, O38M60-70 noted “Until now, if I was a little busy outside, I did not do it [body-weight exercise]. I do not have a dinner gathering, so sure I have no choice, but I go back home at night, right? Then I should use my body.” This contradicts the study by Velde et al. (2020) that analysed the impact of school closure on Dutch children during the COVID-19 pandemic with pre-, during- and post-school closures. Velde and colleagues argue that the school closures due to the COVID-19 lockdown led to children being less physically active during and after closure. They also mention that screen time such as watching TV and computer/video games was higher.

External constraints were mainly observed in three ways: lack of accessibility, health of family, and workplace; all of them were experienced more by the age group of 20s than the 60-70s. A lack of accessibility was the most common external constraint for both age groups, being a large constraint especially for the 20s. During the state of emergency between April and May, many participants experienced closure of their sporting facilities and schools. For example, O4M20 noted that “there were no club activities at the school, the gym that I went to was closed”. The impact was not limited to using the gym as T23M60-70 explained: “The use of the ground and all that kind of thing was suspended, so it became a situation that I could not do anything, so that was a big impact.” A lack of accessibility was a common issue for many regardless of age and type of sport and exercise unless they were doing it outside, or in their own room. This result follows the report by the Council of Europe (2020) that argues that sport and exercise participation in sports facilities or sports clubs are more common in urban than rural areas, which leads to a greater decline in sport and exercise participation among urban populations. The impact of closure of sporting facilities and schools was also observed in another research. Mutz and Gerke (2020) argue that the most mentioned reason for stopped or

reduced sport and exercise participation in their research in Germany was closure of sporting facilities, particularly the closing of fitness studios and sports clubs.

During the interviews, behaviour was mentioned in four ways by participants: started activities, alternative activities, continuing activities, stopped and restarted activities. The main differences between the 20s and the 60-70s were respectively: 19.4% and 5.6% for started activities, 48.4% and 33.3% for alternative activities, 12.9% and 61.1% for continuing activities, and 32.3% and 27.8% for stopped and restarted activities (note⁹).

Started activities were more common among the age group of 20s than for 60-70s because most 60-70s were already participating in some level of sport or exercise activities before the pandemic. Most of them who started activities were inactive or infrequent participants before the pandemic. For example, T30F20 started jogging when remote working was introduced. His frequency of jogging declined as the frequency of remote working declined after the state of emergency was lifted, but still continued on the days that he worked remotely. This idea was supported by some other participants such as T19M20 who was exercising less than twice a week: “I bought a running machine in June to do jogging inside the room” and “Initially I did twice a week or more for 30 minutes plus [...] As COVID-19 cases declined, I started to go outside so it declined to twice week for less than 30 minutes at once.” These examples show that some participants who were not active, or occasional participants, changed their sport and exercise behaviours becoming more active. This result partially followed the results of Lesser and Nienhuis (2020) who researched physical activity behaviour and well-being of Canadians during the pandemic. Their results indicate that 33% of inactive individuals became more active. Both studies suggest that the pandemic had some positive impact on inactive or less active individuals. However, Lesser and colleague argue that 40.3% of active individuals became more active which was a larger positive change than changes among inactive individuals. On the other hand, Meyer et al. (2020) looked at physical activity and sedentary behaviours during the pandemic in the US and they argue that physical activity level between before and during the pandemic was unchanged among inactive individuals.

Overall, taking up in alternative activities was the most common reason for the 20s. However, this applied regardless of age group for many participants that were using some facilities as many of them were closed especially during April and May. For example, T23M60-70, who was active and participating in multiple sports explained: “After all, I took a walk at

⁹ Some participants participating in multiple sports and exercise belongs to different sub-theme and are counted in multiple sub-themes.

least. Only a walk. There is nothing else I can do, so I took a walk once a day for 40 to 50 minutes.” Similarly, O53M20 mentioned that “Because the tennis court was closed, I could not play tennis” and “I went for running. [...] Started off with three or four times a week but eventually reduced to once a week or may be at least once every two weeks [...] continued until the court reopened, and I return playing tennis.” For many participants, this was a temporary change as they returned to their original activities once their facilities reopened. These examples indicate that alternative activities were very common among participants who were using facilities to do sport and exercise before the pandemic. While the facilities were closed due to the pandemic, they chose alternative sport and exercise to continue to be active. This result partially follows the results of Hargreaves et al. (2021) who researched physical activity in New Zealand before, during and after lockdown. They argue that walking during lockdown was higher than walking after lockdown. In the current study, similar trends were observed during and after the state of emergency. In both studies, taking up alternative activities during the lockdown or the state of emergency were observed, which replaced sport and exercise that require facilities.

Continuing activities were observed for both age groups, but it was more common among the 60-70s and actually the majority of 60-70s continued their activities. For example, O52M60-70 noted: “I continued walking twice a week regardless of month [...] 6000 to 7000 steps.” This was supported by T12F60-70 who had been walking with her dogs every day and mentioned “no changes to walking with my dogs”. A few 20s continued their exercise as they had purchased or already owned equipment. T17M20 described that “The gyms were closed during March to June, obviously including the state of emergency, and even now I’m not sure about going to the gym. For that reason, I bought weight training equipment at home, I’m trying to make-up somehow”. Another participant mentioned that “during the state of emergency, I did weight training at my home. [...] using weights at home” (O57M20). Some participants were participating in sport and exercise that were easier to continue or were able to continue their activity by creating suitable environments. This result contradicts Mutz and Gerke (2020) that argue 53.0% of age 65 and above that participated in some level of sport and exercise prior to the pandemic reduced their sport and exercise participation during the early stage of the lockdown in Germany. In our study, the majority of 60-70s continued their activities. This might be partially due to the difference in the pandemic situation of two studies. In Mutz and Gerke's research, the data was collected during the lockdown when the number of COVID-19 cases was averaging 5,000+ per day but during the state of emergency in Japan, the cases were mostly between 300 and 550 per day (Dong et al. 2022).

Stopped and restarted activities were observed in both groups while it was more common for the 20s than for the 60-70s. Similar to alternative activities, it was related to participating in sport and exercise in external facilities, which was the reason for doing alternative activities during the closures of facilities. For example, participant T23M60-70 mentioned his participation in baseball and badminton by saying: “It restarted right after the state of emergency was lifted.” Other sport facilities were also closed in April and May and then reopened in June. In this respect, T24F20 explained: “I attended a tennis school but when the state of emergency was declared in April and May, it was also closed, so I could not have an environment to play tennis. [...] returned to play in June.” For some participants, they returned to their sport and exercise with limitations (e.g. “After all, leaving Tokyo and going to golf is becoming more difficult. [...] I practice in the field twice or three times a month [...] I practice so that I can go back to the course immediately after COVID-19 has resolved.”; (T14M60-70). These examples show that many participants stopped their sport and exercise due to closure of their facilities but many of them were able to return once the facilities reopened. This contradicts Hargreaves et al. (2021) that argue physical activity levels among highly active individuals were lower during and after lockdown in compared to before the lockdown. While the current research follows the results of Hargreaves and colleagues during the lockdown/the state of emergency, findings indicate that most highly active individuals returned to pre-lockdown levels. Also, Hargreaves and colleagues’ study was conducted 6 weeks after the lockdown, and they suggested that it may take some time for individuals to readjust their behaviour back to pre-lockdown physical activity levels. On the other hand, the current research was conducted 3 to 4 months after the state of emergency.

7.5. Overall discussion

Based on the three narratives that are presented in section 6.4, the models presented in Figure 5.1 and Figure 5.2 could be combined in a longitudinal scheme (see Figure 7.1). The model is particularly based on the 2nd narrative (T17M20). During two waves of data collection, this participant mentioned most of variables in the longitudinal model except for internal constraints as shown in Table 6.13 and Table 6.14. Aligning with the TPB (Ajzen, 1991) that helped frame the current study, his attitude towards participation in sport and exercise was developed from his inspiration from the 2019 Rugby World Cup and led to his behavioural intention to train himself physically. He also played tennis occasionally but there was external constraints related to facility access participate in tennis frequently, so he increased his training

at the gym that is near his workplace. While the TPB and the previous literature argues that perceived behavioural control such as constraints could limit how change in attitude lead to change in behaviour (Ajzen 1991; Blake 1999), he had the determination to participate in sport and exercise in a feasible way. Although his self-determination to participate in sport and exercise were more clearly observed during the pandemic, he started to show his determination to participate after watching the 2019 Rugby World Cup. Prior to the 2019 Rugby World Cup, he went to a gym about once a week but after he was inspired, he went to a gym two to three times a week on average. During the pandemic, there was no change in his attitude towards participation in sport and exercise. He actually mentioned that he got into the habit of doing exercise regularly and he felt uncomfortable if he could not do exercise twice a week, which suggests he was self-determined. However, his behaviour changed due to the pandemic. That is the restrictions imposed by the pandemic led to change in his life, and external constraints such as facility closure and company policy on visiting high-risk facilities including a gym. He bought weight training equipment and continued some training at his room. His future intention (post-COVID-19) was that he would like to return to gym once the situation settled.

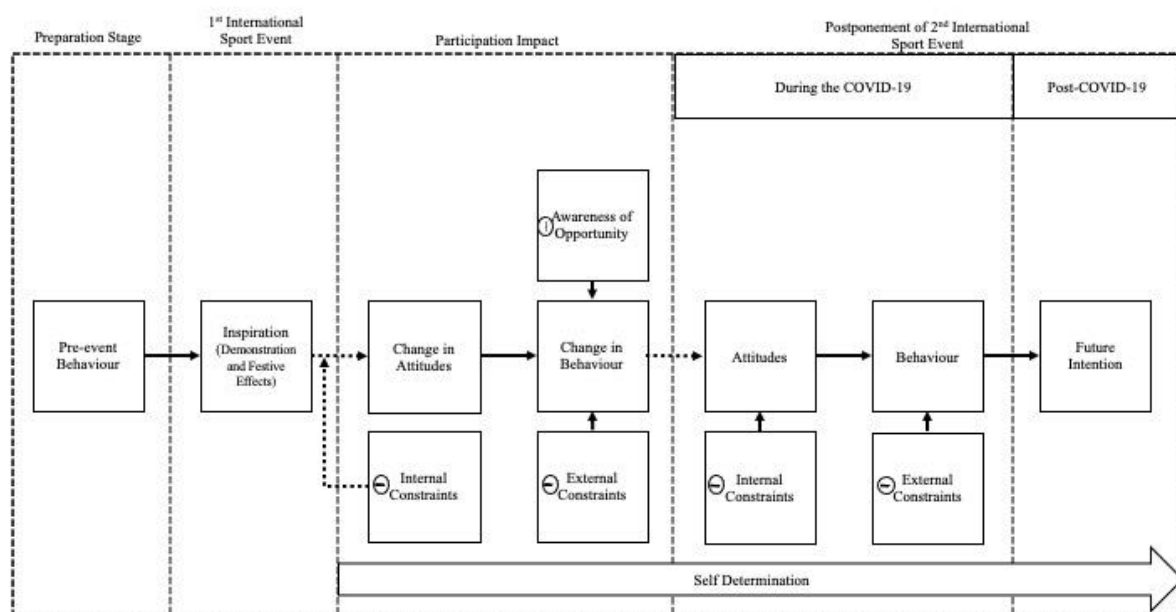


Figure 7. 1 Framework to understand attitudes and behaviours towards sport and exercise throughout two waves of interviews.

Similar to the 2nd participant (T17M20), the 3rd participant (O45M60-70) exhibited many aspects highlighted in the two models (Figure 4.1 and Figure 4.2) and his narratives could

also fit into the longitudinal scheme (Figure 7.1). The difference from the 2nd participant (T17M20) was that during the pandemic, external constraints were not mentioned, and internal constraints had limited impact on attitude and behaviour. Also, his concern about the pandemic improved his attitude and further changed his behaviour. Nevertheless, his narratives also fit well with the longitudinal scheme (Figure 4.3).

All three participants mentioned that the 1st international sport event (2019 Rugby World Cup) had at least some impact on their attitude and behaviours towards participation. For the case of the 2nd participant (T17M20) and the 3rd participant (O45M60-70), these changes remained for the 2nd interviews. As an initial model that aimed to measure the impact of hosting consecutive international sport events, these two participants entered the pandemic with improved attitude and behaviours towards participation. While the 2nd participant (T17M20) had to change his behaviour due to the external constraints caused by the pandemic, he continues to participate in sport and exercise. He explained that it became his habit to have a routine of sport and exercise and actually feels uncomfortable if he does not exercise regularly. This evidence suggests that he is self-determined to participate in sport and exercise, which aligns with self-determination theory and supports previous research (Teixeira et al. 2012) suggesting that when participating in sport and exercise become an autonomous behaviour, it leads to long-term participation. Also, Edmunds, Ntoumanis, and Duda (2007) argue that if individuals are strongly self-determined to be physically active, they will likely overcome constraints and engage in their activities. In the case of the current research, this participant overcame temporary closure of his sporting gym (i.e. external constraint), by purchasing weight lifting equipment to work out at home and continuing his sport and exercise.

For the 3rd participant (O45M60-70), the pandemic increased awareness regarding health, which further improved his attitude towards participation in sport and exercise. While he continues weight training at the same frequency, he increased his frequency of taking the supplements that he started to take after the World Cup (e.g. “I have more opportunities to take supplements. I'm taking it continuously. Especially jelly- one more than powdered ones. I drink the one with protein once every day”). While the pandemic is not a sport event, it also impacts individuals' attitudes and behaviour towards participation. This follows Ramchandani and Coleman (2012) and Ramchandani, Coleman, and Bingham (2017) that people's pre-event behaviour towards sport and exercise have important role on how people are impacted from current sport events.

8. Conclusions and Recommendations

International sport events represent major undertakings by the host cities and countries that expect their citizens to be inspired to engage in more sport and exercise activities (Bason and Grix 2018). Some countries (e.g. Brazil, Russia, Japan) have invested a lot of resources in hosting multiple international events in the last decade. However, there is a void in research about potential spill-over effects of hosting consecutive international sport events (Veal, Toohey, and Frawley 2012) on sport and exercise participation among the host citizens, and how or if it differs among different age groups. To this end, through a longitudinal design, the current study initially aimed to explore the impact of hosting consecutive international sport events (i.e., 2019 Rugby World Cup and the 2020 Tokyo Olympic Games) on the attitude and behaviours towards participation in sport and exercise among different age groups of the host population. A longitudinal study was designed with the specific objectives of (1) evaluating how hosting international sport events may influence the attitude towards participation in sport and exercise and actual behaviours in different age groups of the citizens in the host cities; (2) exploring if there were spill-over effects from the first to the second international sport event in terms of participation in sport and exercise among the host citizens; and (3) exploring if these international sport events affect older and younger groups of the host population differently.

However, due to the COVID-19 pandemic, the International Olympic Committee and the Japanese government announced in March 2020 the postponement of the 2020 Olympic Games by a year. The situation with the pandemic was not improving and rather getting worse after the postponement was decided so some people become sceptical about hosting the event in summer 2021 (NHK 2020a), but the event ended up being hosted in July/August 2021. The uncertainty of the International Olympic Committee and the Japanese government on whether to postpone or cancel the event, and the changes caused by the pandemic in society, and specifically in the sport sector, led to an adjustment in the aims and objectives of the current study as detailed in Chapter 5. Thus, given the lack of research on how hosting single international sport events may contribute to changing attitude and behaviours towards participation among different age groups of the host population, and the need to explore the impact of the COVID-19 pandemic and the postponement of an international sport event on sport and exercise participation among host citizens, the following two aims guided the current research. The first study aim was to explore the impact of hosting an international sport event on sport and exercise participation among different age groups of the host population. This aim was assessed through two objectives: (1) to evaluate how the 2019 Rugby World Cup may

influence attitude and behaviours towards sport and exercise among the host citizens; and (2) to assess how the 2019 Rugby World Cup may affect the attitude and behaviours towards sport and exercise among older and younger groups of the host population. The second aim of this study was to critically analyse how the COVID-19 pandemic and related postponement of the 2020 Tokyo Olympic Games may have affected the attitude towards participation in sport and exercise and actual behaviours among the host citizens. This aim was assessed through three objectives: (1) to examine the impacts of the postponement of the 2020 Tokyo Olympic Games on the attitude and behaviours towards sport and exercise the among host citizens; (2) to critically analyse the impacts of a health and social crisis on attitudes and behaviours towards sport and exercise; and (3) to appraise how a health and social crisis may affect attitudes and behaviours towards sport and exercise among older and younger age groups of the host population.

The longitudinal design was maintained with semi-structured interviews being conducted in two waves (n=57 and n=49). On both occasions, data was collected in two cities of Japan: Tokyo and Oita. The 1st wave of data collection was carried out to test a framework driven by the literature (see Figure 2.1) and followed a deductive approach (Saunders, Lewis, and Thornhill 2019). In the 2nd wave, an inductive approach was followed to develop a new model exploring how the postponement of the 2020 Tokyo Olympic Games and the COVID-19 pandemic have impacted attitudes and behaviours towards sport and exercise participation among younger and older individuals. The findings were first presented and discussed for each wave of data collection separately and then a general discussion was conducted.

8.1. Summary of research findings

The findings associated to the five research objectives mentioned above are summarised below. Firstly, the demonstration effect from the 2019 Rugby World Cup was evident in some participants who noted changes in their attitude and/or behaviours towards sport and exercise. On the other hand, while all participants have experienced the festival effects and were satisfied with this international sport event, these aspects seem to have limited influence on their changes in attitude. However, it is worth noting that all participants, including those who experienced the demonstration effect, experienced festival effects and were satisfied with the event, which suggest that both festival effects and satisfaction may play a role towards changing attitude towards sport and exercise. About one quarter of participants claimed a change in their attitude towards sport and exercise from the international sport events. Most participants also noted

internal or external constraints preventing them from being more active. On the other hand, incentives, and awareness of opportunities to engage in sport and exercise activities were discussed among relatively few participants. Overall, participants explained changes in their behaviours towards sport and exercise, and changes were also observed among participants who were neither active nor had extensive participation prior to the international sport event.

Secondly, when comparing the age groups of 20s and 60-70s, there were some similarities and differences (for more detail see table 4.4). Overall, prior to the 2019 Rugby World Cup, the age group of 60-70s was more active than the age group of 20s. On the other hand, the number of participants who noted to have experienced a demonstration effect was higher for 20s than 60-70s. They experienced a demonstration effect through physical actions and tackles, and felt inspired by built-up bodies of rugby players. The ratio of participants who mentioned a change in attitude and behaviour was higher for the 20s than for the 60-70s. Internal constraints (e.g. marginal utility and physical or health problems) were key barriers to changing attitudes and behaviours towards sport and exercise among participants in the age group of 60-70s, and external constraints (e.g. work commitments and specific sport access) were key barriers among the age group of 20s. For the 60-70s, participants who mentioned that their attitude changed also explained changes in their behaviours. For the 20s, one-third of participants who mentioned that their attitude changed, did not actually change their behaviours towards sport and exercise. Among the 20s, external constraints such as work commitments and specific sport access seem to be barriers for them to change attitude and behaviours towards sport and exercise.

Thirdly, regarding the postponement of the Tokyo Olympic Games, findings suggest that the postponement neither positively nor negatively impacted attitudes toward participating in sport and exercise activities. However, a few participants in the 20s mentioned that if the Olympic Games were held, they might have been inspired due to their experiences from the 2019 Rugby World Cup and the fact that the Olympic Games have a wider range of sports. Overall, the impact of the postponement of the Tokyo Olympic Games was not observed among the study participants because the pandemic seems to be more a significant event affecting their lives. This finding links to the 4th objectives of this research as noted below.

Fourthly, regarding the impact of the COVID-19 pandemic (for more details see table 4.9), some participants in the two age groups mentioned both improved and reduced attitude towards sport and exercise participation. All internal constraints mentioned were related to concerns with the virus. Changes in life were mainly observed through increased remote working and limitation in other activities, which positively impacted the study participants'

attitude and behaviour towards sport and exercise participation. External constraints were mainly observed through lack of accessibility, health of family, and workplace policies. Lack of accessibility were common across participants who were using sport and exercise facilities prior to the pandemic. Sport and exercise behaviours were mentioned in four different ways including: new activities, alternative activities, maintaining the same activities, stoppage and restart of activities. Initiating alternative activities, as well as stopping and restarting activities, were common patterns observed regardless of age group for participants who were already using sport facilities to do their activities. This was due to the fact that many sport and exercise facilities were closed during the state of emergency in Japan. For those engaged in some level of sport and exercise before or during the pandemic, they continued their participation in sport and exercise activities and/or showed their future intention to return.

Lastly, the ratio of participants who explained they had improved and/or reduced attitudes during the COVID-19 pandemic was higher among the 20s than the 60-70s, and more participants in the 20s seem to have improved their attitudes. However, for the 60-70s, there was a balance of improved and reduced attitudes among participants. Internal constraints were mentioned more among the 20s than the 60-70s. Similarly, changes in life were more observed among the 20s than the 60-70s. Of particular importance was the fact that increased remote working was mentioned by almost all full-time working participants in the age group of 20s. External constraints were also experienced more by the 20s than the 60-70s. The lack of accessibility was the most common external constraint for both age groups. Health of family and workplace were mentioned along with other reasons, especially for the age group of 20s. Changes in sport and exercise behaviour were more observed among the 20s than the 60-70s. Initiation of new activities was more common among the 20s than the 60-70s. Most participants who started new activities were inactive or infrequent participants before the pandemic. Maintenance of activities was the only option that was more common among the 60-70s than the 20s, and actually the majority of 60-70s continued their activities. Overall, the findings suggest that while the COVID-19 pandemic impacted everyone's life in terms of attitude and behaviour towards sport and exercise, it had more impact on the 20s than the 60-70s, often due to the nature of sport and exercise that they participate in external constraints.

8.2. Recommendations for policy and practice

8.2.1. Bidding committees and relevant stakeholders

The findings from the current research suggest the importance of international sport events as an opportunity for stimulating sport and exercise participation by coordinating with various stakeholders including local governments, relevant ministries, sporting federations and sporting clubs. In the case of the 2019 Rugby World Cup, increasing sport and exercise participation among the general population was not the objective of the organising committee, and the main aims were to increase popularity of rugby and rugby players in Japan (Japan Rugby Football Union 2017; World Rugby House 2018). Unlike bidding for the Olympic Games that has various stakeholders from the initial stages, the Japan Rugby Football Union led the bidding process for the Rugby World Cup (Utsunomiya 2019). However, each hosting city was responsible for the costs of setting up the venue and relevant infrastructures (e.g. media centre, transportation, training grounds) (Nishinippon Shimbun 2018). In this respect, the findings of the current study suggest that a hosting city spent resources and efforts to increase local awareness and interest towards the 2019 Rugby World Cup and advertising and promoting the events. For example, participant O9M60-70 explained how the city of Oita promoted the event well with the coordination with the media:

The efforts made by the local government and the media, including newspapers and televisions, have been featured the 2019 Rugby World Cup on a daily basis, and even if people are not intended to know about it, they will get know it because of the coverage everywhere. I believe that the whole city was all about the rugby [and the 2019 Rugby World Cup]

This idea was shared by other participants (e.g. O6M20) who started to feel energy towards the event through seeing bus advertisements and recognising new gathering squares were opened in front of the central station, which was used for fan-zones. This importance of the preparation period also mentioned by Weed et al. (2015) who referred this period as the pre-Games pregnancy period to leverage potential demonstration effect. Local cities could put similar efforts to have sport and exercise impact on the local community. In addition, the Japan Sport Council also financially supported the events through the revenue from the Sports Promotion Lottery as well as revenue from a general lottery. The purpose of the Japan Sport Council is the operation of sports facilities and promotion of sports in the country (Japan Sport Council, n.d.). Therefore, these stakeholders should have created plans to leverage sport and exercise participation impact among the general population. The Rugby World Cup is a single sport event and its organising committee and the Japan Rugby Football Union intended to have a positive impact to increase the rugby participation. Due to the limited rugby participation among older adults in Japan, the impact is likely to have only been observed among children.

Also, the case of the 2003 Rugby World Cup in Australia highlighted that rugby population among children increased more than rugby population among adults (Frawley and Cush 2011). While it was not the focus of this research, one participant who plays rugby in a team recognised an increase in rugby participation among children of her club team (e.g. “They were probably, kindergartens, elementary schools, middle schools, and they come for the trial sessions and some joined the club”; T51F20). However, previous research highlighted that hosting international sport events may impact individuals’ participation behaviours in other sports and increase sport and exercise participation overall (Ramchandani et al. 2015). The result of the current research suggests that some participants claimed their attitude and behaviour improved during the 2019 Rugby World Cup. This happened without specific plans to increase general sport and exercise participation, so having detailed plans to stimulate sport and exercise participation likely offers more potential to affect the wider population and increase general levels of sport and exercise in the host regions.

Another practical implication of the current study to future bidding cities of international sport events is that hosting events (or some competitions of these events) in relatively smaller cities might create larger impacts on the local community than in larger cities. In this research, participants across the two locations experienced festival effects, but those in Oita seem to have felt stronger festival effects than in Tokyo. A few participants were able to compare the atmosphere in Oita and another city during the preparation stage of the 2019 Rugby World Cup or during the event. They all felt that Oita had more excitement than other hosting cities. For example, interviewee O6M20 who lived in another hosting city during the preparation stage said “I came back to Oita, I feel that Oita had more energy (towards this event). It was the same with bus advertisements.” Another participant confirmed that this was also true in Beppu, a city next to Oita (“[...] all of them were foreigners and drinking Corona beer or Japanese beer outside. Forever. [...] That atmosphere was not in Fukuoka. The impression that comes from the size of the city is that Beppu was much more exciting”, O38M60-70). This might be partially due to more participants having watched a match at the stadium and had an experience of stadium atmosphere compared to the participants in Tokyo. For the 2019 Rugby World Cup, the hosting prefectures of venues had match tickets allocated for local residents. Although none of the participants mentioned ticket allocations in Tokyo, some participants in Oita noted it and a few participants (e.g. O40M20) purchased tickets through this option. In addition, in Oita, many participants went to fan-zones created by the organising committee. Among those who watched a match at the stadium or visited fan-zones, some participants had interactions with foreign fans and enjoyed it (e.g. O8F20, O45M60-70,

T51F20). Similarly, the atmosphere was also felt in Tokyo including fan-zones, the venues, parts of Tokyo that are often visited by foreign visitors and sporting bars (T13M20, T51F20) but it was mostly limited to those places. This is probably due to the size/scale of the city and frequency of hosting large size events. There are only 1.14 million people in Oita but there are 13.82 million in Tokyo (Statistics Bureau of Japan 2019). For Oita, the 2019 Rugby World Cup was the biggest event, regardless of being international or domestic, since the 2002 FIFA World Cup but Tokyo hosted the Olympic Games and other events including FIVB (Fédération Internationale de Volleyball) World Cup (every 4 years), the World Figure Skating Championships 2019 in Saitama (next to Tokyo), and the 2019 World Judo Championships. Thus, based on the findings from the current research, hosting future international sport events, or some competitions of the event in relatively smaller cities may be beneficial as the atmosphere could be built more easily and relatively larger impacts on the local community are likely to occur. In addition, hosting a part of the event outside the main venue could reduce the costs of building sport infrastructure as the wider community could feel stronger festive atmosphere.

In recent international sport events, the costs of hosting events have become an increasing concern leading to protests against the bidders (e.g. Boston and Hamburg). Therefore, it is becoming increasingly important for host cities to plan leveraging strategies, implementation plans, and good coordination among different stakeholders to ensure positive impacts on hosting cities and country such as increasing sport and exercise participation. Findings from the current research suggests that attitude and behaviour towards sport and exercise participation among some participants improved, despite the organisers of the 2019 Rugby World Cup not having a clear plan to increase sport participation in the host cities. The analysis of the interviews also indicates that hosting events (or some competitions within events) in relatively smaller cities might create larger impacts on the local community than in larger cities. The findings suggest that if host cities plan leveraging strategies, implement clear plans, and have good coordination among different stakeholders, international sport events offer the potential to improve attitude and behaviour towards sport and exercise among the wider host population. This might be particularly effective if events are hosted in relatively small cities due to stronger festival effect among locals.

8.2.2. Policy makers promoting sport and exercise

The current findings suggest that policy makers promoting sport and exercise when a country is hosting an international sport event should focus on younger generations of the population. While older populations in Japan are more active than younger populations (SSF 2019), they are less likely to be inspired by an international sport event to change their attitude and behaviour towards sport and exercise participation. This may also be applicable to countries with higher sport and exercise participation rates among older groups of the population, such as Germany and Sweden (Eurostat 2018). Although there might be some older individuals that may be inspired by hosting international sport event, allocating resources on younger individuals could foresee better outcomes.

Another recommendation for policy makers is related to the importance of promoting short and entertaining sport and exercise programmes. During the 1st wave of interviews, some participants mentioned they would do exercise for shorter periods of time, such as weight lifting at home every morning and/or evening. Among those participants, a few of them have used TV exercise programmes to do exercise or adapted their activities from the programmes (e.g. T29F60-70, O35M60-70). For example, O38M60-70 supplementing his main exercise with a daily routine short exercise. During the 1st wave of interviews, this was more commonly observed among participants in 60-70s. This is likely because participants in the 20s tend to do their individual exercise activities in sporting facilities (e.g., weightlifting gyms, Zumba, or yoga) as compared to the group of 60-70s that often exercise outdoors. However, during the 2nd round of interviews, due to the pandemic, the gyms were closed and some participants in the 20s decided to do exercise using exercise programmes available on YouTube or other online platforms. For example, T15F20 explained “I often watch YouTube. There is always one muscle training item suggested on YouTube. When I see it, I feel like I will do it, and I often do muscle training while looking at it”. Prior to the pandemic some participants used videos on YouTube to learn ways to train effectively, but it was mainly as a learning tool (e.g. “I usually have my own set of exercises to do, but I see people from overseas posting on social network sites how to do things a little differently, and sometimes I try to include their suggestions into my practice.”; O57M20). However, during the pandemic these participants found the online exercise programmes to be an encouragement to continue to be active. This was supported by some participants such as T18F20 who noted she watches exercise videos and yoga videos on YouTube and tries do it several times a week. Also, while it was not mentioned during the interviews, various athletes and teams (e.g. Team GB, Japan Association of Athletics Federations (JAAF), baseball teams in Japan) posted exercise programmes on their

social media sites (Team GB 2020; JAAF 2020). Recent research about online exercise programmes for elderly in Germany argues that it positively affects the lower and upper body strength, flexibility, and agility/dynamic balance skills (Aksay 2021). This suggests that online exercise programmes could be effective regardless of age as long as individuals participate in suitable programmes. The WHO European Region (n.d.) also suggests engaging in online exercise classes including YouTube for people who need to self-quarantine.

8.3. Theoretical implications

The current research includes two waves of data collection with focus on younger and older individuals. The findings from the 1st wave contribute to the existent literature about the role of international sport events on attitude and behaviour towards sport and exercise participation. In turn, the findings from the 2nd wave contribute to provide an initial understanding of how the postponement of an international sport event and a major public health issue (COVID-19 pandemic) impact host citizens' attitude and behaviour towards sport and exercise participation. Firstly, the findings suggest that the demonstration effect leads to a change in attitude towards sport and exercise participation among the participants (e.g. T16M20 and O45M60-70), which highlights that international sport events may promote a sport participation legacy (Ribeiro et al. 2021) and particularly the role of athletes as role models to trigger positive changes in society (Kunkel et al. 2020). While all study participants were satisfied with the event (i.e., 2019 Rugby World Cup), their satisfaction does not seem to have contributed to a change in attitude towards sport and exercise participation. This is contrary to previous literature that constituted the basis for the proposed model (e.g. Brown et al. 2017; Lee and Kang 2015), which may be related to the context of this research (i.e., characteristics of rugby and some participants being already active particularly older ones). Findings derived from the current research suggest that the demonstration effect is linked to changes in attitude towards participation regardless of a sense of satisfaction with the event. That is, some host citizens seem to be inspired to be more active by watching the performances of top athletes. Most inspired participants explained the core aspects of the event (e.g., physical performance of the athletes) have inspired them to change their attitude and behaviour. Rugby being a sport with physical contact, athletes have physical strength that inspired some participants to train and be more physically active.

Secondly, the results indicate those who are currently more active in Japan are more likely to be inspired by international sport events, but this trend only applies for younger

individuals (20s) and not for older individuals (60-70s). This provides support to the existing body of literature suggesting that active people are often more inspired by international sport events (e.g. Cleland et al. 2019). The common sport and exercise trends are that older age groups are less active than the younger population (Eurostat 2018). However, in some countries like Japan, Germany and Sweden, older populations are more active (SSF 2019). Thus, the current findings also add to the literature (e.g. Ramchandani, Kokolakis, and Coleman. 2014; Cleland et al. 2019) suggesting that in Western countries younger people are more likely to feel inspired by international sport events to engage in sport and exercise, by showing the same pattern in an Eastern country. This is particularly important because previous studies have often suggested that culture often tends to shape individuals' perceptions and behaviours (Samaha et al. 2014), and that Western and Eastern sport consumers evaluate sport events differently (Ma and Kaplanidou 2020).

Also, the current active older individuals not being inspired by international sport events might be due to them being already satisfied with their current levels of sport and exercise participation as well as other factors such as their age and health condition that could create constraints to being physically more active. Some participants pointed out the importance of having the right amount of exercise according to their age and need to avoid excessive physical activity (e.g. O9M60-70, O52M60-70). Thus, one could argue that the effect of the inspiration effect of an international sport event on sport and exercise participation is dependent on the personal characteristics of the target audience. This might be also explained by the concept of marginal utility (i.e., incentives to do activity - work, study, purchase, exercise) (Layard, Nickell and Mayraz 2008). For example, marginal utility of income declines as income increases and at one point utility of income declines relatively faster than the rate of increase in income (Layard, Nickell and Mayraz 2008). This might be also applied to participation in sport and exercise particularly for active older individuals. The result of this research suggests that some active older individuals are already satisfied or facing constraints to participate in more exercise or higher intensity sport and exercise. This is particularly important because previous studies have often suggested that older individuals are less likely to feel inspired by international sport events to engage in sport and exercise (e.g. Ramchandani, Kokolakis, and Coleman 2014; Cleland et al. 2019); thus, current results suggest potential reasons for active older individuals being not inspired by international sport events (e.g. already happy with their levels of sport and exercise activities).

Thirdly, this research contributes to understanding of the effect of the postponement of international sport events on sport and exercise participation among the host citizens. The

findings indicate that for the majority of study participants the postponement had no impact in interest towards the Tokyo Olympic Games. In fact, the postponement of the event generated even more interest in sport and exercise among some participants. This contrasts with reactions of the stock markets with delaying a new product launch (Su and Rao 2010). Delaying the launch of a new product as preannounced leads to a decline in the firm's market value by an average of 5.25% (Hendricks and Singhal 2008). In addition, the findings from this research contrast with the international survey by Ipsos in 2021, which shows that Japan was the 3rd lowest country (tied with France) out of the 28 countries for their interest towards the Tokyo Olympic Games. This difference might be due to the timing of interviews for this research and the survey by Ipsos. The interviews for this research were conducted in August to October 2020, when the first peak of COVID-19 cases was settling down from mid- to late-August 2020 (NHK 2020a). However, Japan was facing the fourth peak of COVID-19 cases when the survey by Ipsos was conducted (NHK 2021). The results from the current research also suggests that there was no impact of the postponement of the 2020 Tokyo Olympic Games on the attitude and behaviour of Japanese citizens towards sport and exercise participation. To the best of my knowledge, no other research has explored the impact of international sport events' postponement on host citizens' attitude and behaviour towards sport and exercise. Nevertheless, the findings should be considered with caution due to the exploratory nature of the current study. To this end, one should highlight the need to further develop this line of research to provide a deeper understanding of the effects of the postponement of an international sport event on the attitudes towards sport and exercise among the host citizens.

The current research also adds to understanding the impact of the pandemic on attitude and behaviour towards sport and exercise participation. The findings of this research suggest that the pandemic has both improved and reduced attitudes towards participation. For the age group of 20s, more participants highlighted improved attitude than reduced attitude. On the other hand, for the age group of 60-70s, both an improvement and a decline in the attitude towards sport and exercise was noted by interviewees. This suggests that there was no specific pattern linked to the pandemic, supporting the preliminary survey findings by the SSF in Japan (SSF 2020b). In addition, findings from the current research also suggest that the introduction of remote working has contributed to some previously inactive or low active participants increasing their participation in sport and exercise activities (e.g. O8F20, T30F20). This supports Constandt et al.'s (2020) argument that sport and exercise participation among previously less active adults (younger than age 55) increased during the lockdown. Explanation for this may be related to the fact that people had more work flexibility and time to participate

in sport and exercise during the state of emergency or the lockdown in Japan (MIC 2021b). This is in line with Ding et al. (2020) who suggested the change in lifestyle led by the pandemic may have positive changes in sport and exercise participation behaviours. Thus, the current findings also add to existent research conducted in Western countries (e.g. Constandt et al. 2020; Ding et al. 2020) by noting that changes in lifestyle (particularly work-style) may also improve sport and exercise participation behaviours in Eastern countries (e.g. Japan). This is particularly important because Japan is among countries with longer working hours (Gender Equity Bureau Cabinet Office 2020) and less flexible working style (Nishida and Terashima 2019). However, it is worth noting that the increase in sport and exercise participation was smaller compared to the increase in hours that people spent watching television (Ding et al. 2020). Similar trends were observed in Japan according to the report by Japan Broadcasting Corporation (NHK) (Hotaka and Asoda 2021).

The findings of the current research also suggest that all internal constraints were related to concerns with the virus. Unlike other studies (e.g. Fisher et al. 2020), the current findings suggest that a slightly higher ratio of younger participants raised their concern towards the virus when compared to older participants (e.g. O1F20, O3F20, T15F20). This somehow contradicts Fisher et al. (2020) who noted that age was positively associated with use of facial coverings in the US during April and May 2020, which suggests that older citizens were more concerned with COVID-19. This difference might be due to some participants, regardless of age groups, being more concerned about spreading the virus to people around them such as their elder family members and workplace colleagues. Nonetheless, the interpretation of the results should be regarded with caution since more evidence is needed to provide a more in-depth understanding of the pandemic's consequences.

Another interesting aspect about the findings to highlight is that the maintenance of sport and exercise activities was observed for both age groups, but particularly common among the 60-70s (e.g. T12F60-70, O52M60-70). This might be because many of the interviewees in the age group of 60-70s were participating in at least one sport and exercise activity that did not require external facilities (e.g. walking and jogging; weight lifting at home). In the current study, the majority of 60-70s continued their activities. This result contradicts Mutz and Gerke (2020) who argued 53.0% of German individuals who were 65 years-old and above who participated in sport and exercise activities in some degree prior to the pandemic reduced their activity during the early stage of the lockdown. This might be partially due to the difference in the pandemic situation when data were collected. In Mutz and Gerke's research, data were collected during the lockdown when the number of COVID-19 cases was averaging 5,000+ per

day. However, during the state of emergency in Japan, the cases were mostly between 300 to 550 per day (Dong et al. 2022). Also, another research in France by Goethals et al. (2020) argued that at the beginning of the pandemic (prior to the lockdown), many older citizens decided to not attend group physical activity programmes mostly due to fear that other participants might be infected. While some participants in our research also participated in group sports such as tennis, baseball, and golf, many continued except for the period of the state of emergency as they often mentioned that they play their sport outside. Thus, the current research argues that the impact of the pandemic on sport and exercise participation may be relatively smaller in Japan compared to many Western countries. Also, those impacted by the pandemic were able to return to their previous activities in a relatively shorter period as noted by Goethals et al. (2020) and Mutz and Gerke (2020). This was mostly due to the fact that the situation in Japan was relatively better compared to many Western countries and softer restrictions were imposed for a relatively shorter period. This suggests that there might be differences in sport participation style across the country that might have impacted individual responses to the pandemic. Caution is thus important when interpreting the findings, especially in what concerns the implications for different countries due to differences in the impact of the pandemic between countries. More evidence is needed to provide a more in-depth understanding of the pandemic situation globally.

8.4. Limitations and future research directions

As with any research, the current study has limitations that should be considered when interpreting the findings and preparing further research. Firstly, the initial aim of this research of understanding the impact of hosting consecutive international sport events had to be changed and was not possible to be addressed due to the COVID-19 pandemic. While the 2nd wave of interviews was still conducted, it focused on the postponement of the Tokyo Olympic Games and the impact of the health crisis on attitude and behaviour towards sport and exercise participation. Some participants (e.g. T17M20, O45M60-70, O57M20) mentioned that changes in their attitude and behaviour after the 2019 Rugby World Cup remained during the pandemic. However, the impact of hosting consecutive international sport events on the attitude and behaviour towards sport and exercise participation remains to be explored. As the Tokyo Olympic Games were hosted in 2021, and this timeline did not fit the current PhD research, conducting another wave of interviews in 2022 could represent an important step to understand if there were spill-over effects from the 2019 Rugby World Cup towards the 2020 Tokyo

Olympic Games that were hosted in 2021. Also, the trend of hosting multiple international sport events is continuing in short to medium term (e.g. Beijing, Qatar, Paris), so understanding the impact of hosting consecutive international sport events on sport and exercise participation among the host citizens remains a timely topic to be developed in future research.

Secondly, although the proposed framework for addressing the first aim of this study may apply to other international sport events, adjustments in future research may be required in order to better fit with the situation of each context. Based on the findings and literature review, the framework was refined for the 1st wave of interviews (see Figure 6.1) and a new framework was developed for the 2nd wave of interviews (see Figure 6.2). For example, the framework from the 1st wave of interviews is based on the context of the 2019 Rugby World Cup but some findings may be particularly more impactful in this context of the Rugby World Cup being hosted in Japan. As mentioned in section 4.1, rugby is not a very popular sport in Japan and has limited levels of participation in the country. This might lead to the sport characteristics of rugby being mentioned as internal constraints by participants for not being inspired by the 2019 Rugby World Cup to be more active (see as section 6.2.3). Some participants (e.g. O8F20, T50F20, O53M20) mentioned how rugby is different from the sports they play or sports that can be played by them. On the other hand, this might be less observed in international events with multiple sports, especially the Summer Olympic Games that has a variety of sports including some that often have higher levels of participation (e.g. swimming, tennis and running). Similarly, the differences in how the pandemic has been managed across countries and citizens' varied reactions to it may indicate the need for changes to the 2nd framework, if it's used in another context (e.g. another country or future pandemic). For example, both the current research and the study conducted in Canada by Lesser and Nienhuis (2020) argue that some inactive individuals likely become more active during the state of emergency/lockdown caused by the COVID-19 pandemic. On the other hand, the report by the Council of Europe (2020) argued that an increase in completely inactive population was observed in many countries. Even within European countries, the impact of the pandemic on their citizens' participation in sport and exercise varies. About half of the countries experienced a decrease in physical activity during the 1st lockdown and the other half maintained the same levels or increased (Council of Europe 2020). Therefore, adjustment to frameworks might be needed in future research to better fit with the situation of each research context.

Thirdly, this research was conducted in two locations, but future studies could extend data collection to more cities to improve the understanding of the impact of hosting an international sport event and of the pandemic on sport and exercise participation. In the current

study, Tokyo and Oita were selected. Tokyo was the main city for the 2020 Tokyo Olympic Games and one of two main cities for the 2019 Rugby World Cup. Oita was an ideal comparison because the city has one of the venues for the 2019 Rugby World Cup and one of the two venues that hosted the quarter finals for the 2019 Rugby World Cup but did not host any competitions of the 2020 Tokyo Olympic Games. Non-hosting cities were not included during either the 1st wave or the 2nd waves of interviews. However, it was not captured in the 2nd wave due to the changes caused by the pandemic in the current study. It is worth noting that more than 100 interviews were conducted throughout the two waves of interviews (57 interviews in the 1st wave and 49 interviews in the 2nd wave), which is an uncommonly large sample in qualitative studies. However, there is always room for improvement in future research. The current research had participants with specific target age, who either watched match on the TV or at the live venue, which was limitation related to sampling. Future research in non-hosting cities with various age groups and interest in sport may help to understand the wider impact of hosting an international sport event on sport and exercise participation among the host population

Lastly, while this study captured the impact of the pandemic between March and August/September 2020, the pandemic has continued for at least another year and a half (as of March 2022). After the 2nd wave of interviews was conducted, Japan continued to experience an increase of COVID-19 cases and the government declared three additional states of emergency. Also, Tokyo and Oita experienced the pandemic differently after the 2nd wave of interviews (NHK 2021). For example, this research was conducted during the 1st state of emergency and although the length was shorter in Oita than Tokyo during the 1st state of emergency, it was declared nationwide. However, three additional states of emergency were only declared in Tokyo and none of them in Oita (NHK 2021). Similarly, most schools and public facilities were closed during the 1st state of emergency, less actions (e.g. varying from closure of schools, staggered attendance/shorter hours to normal operations) were taken for subsequent states of emergency. Therefore, further research is needed to understand more in depth the impact of the pandemic on individuals' sport and exercise participation.

8.5. Reflection on my journey

I have always loved baseball but also sports in general. As a child, I dreamed of becoming a professional baseball player, but I soon realized the unlikeliness of that due to physical ability. I have started to look for ways to be involved with baseball, and after reading a book titled ‘Money Ball’, I became interested in the field of Sports Management. This book is about Billy Beane, the General Manager who pioneered “sabermetrics” (i.e., use of statistics to decide what is most valuable in creating baseball teams) and has inspired me to realise that sports could be part of my life without being a player, leading me to pursue a career related to sport management.

I graduated from MSc sport management at Coventry University in 2018. When I initiated the MSc I was not considering an academic career, but I got interested in research throughout the process of writing the dissertation. My MSc research was about the ticket pricing strategy of Wasps Rugby Club (a Premiership rugby club in the UK), and I interned at Wasps to gain the data to use for my research. Through this process, I learned that establishing an academic career and conducting research could allow me to become more knowledgeable about sport and get access to data that I would not otherwise encounter. By that time, I was also introduced to EventRights, a project under way at Coventry University related to mega-sport events. As I am from Japan and the 2019 Rugby World Cup and the 2020 Tokyo Olympic Games were planned to be hosted there, I thought it would be a great opportunity to continue to develop my research skills related to these two events.

While various aspects related to international sport events were considered during the initial literature search, I decided to focus on sport and exercise participation because of two reasons. Firstly, I was more interested in the “sport” aspects of impacts and there was a void in the literature about the effects of hosting consecutive sport events on sport and exercise participation. Secondly, as my favourite sport is baseball and this sport is facing a decline in participation, I thought that understanding individuals’ attitude towards participation in general sport and exercise and actual behaviours may also help me to conduct future research related to increasing participation in baseball.

My initial struggle with the PhD research was to decide aims, objectives and target population. For my MSc thesis, due to the nature of internship-based research, the research problem was set by the internship organisation. However, the PhD research required me to consider various aspects related to the missing pieces in the literature, such as including or focusing on general population, specific age group of the population, people with disability and population from specific locations. As mentioned earlier, eventually the initial aim of this study

was to explore the impact of hosting consecutive international sport events on the attitude and behaviours towards participation in sport and exercise among different age groups of the host population. Based on this, I deepened the review of literature, worked on the methodology and planned data collection throughout the 1st year and first few months of the 2nd year of my PhD. During my 1st year, I also struggled with critically analysing the literature and developing a framework to guide the method because of the inconsistencies in the existent literature.

At the end of year 1, I returned to Japan to take holiday and spend some time with my family and friends but also to start identifying potential participants for the data collection. This was definitely one of the most difficult parts of my PhD journey. Firstly, I had limited appropriate contacts in Japan to reach our potential participants, as I had been studying abroad and most of my friends have similar backgrounds. Secondly, conducting interviews increased the difficulty of recruiting participants or getting support for recruiting potential participants in some cases, because interviews are often more time consuming, and the study design implied two waves of data collection with the same individuals. Thirdly, despite support from family and friends, identifying and reaching out to people in the target age and location was not easy. This was particularly challenging in Oita. I started to identify some contacts in Oita, but it was not immediate referral (e.g. two/three referrals before potential participants in most cases), so it was time- and-energy consuming to communicate and organise arrangements. In addition, although Japanese is my native language, Japanese has honorific, humble, and polite language that I only use occasionally. This required more time and energy to prepare emails, messages, and phone calls until I got used to it. While I continued the process of developing connections and identifying potential participants after my return to the UK, the situation started to change in late January to early February as the COVID-19 pandemic started to spread from China to other parts of East Asia including Japan. The first COVID-19 case in Japan was found on the 15th January from a Chinese person who lives in Japan and who had returned from Wuhan City (NHK 2020a) but I was not too concerned until late January or early February when more cases were found in Japan and public fear increased. By early to mid-February, my fear of not being able to conduct the planned number of interviews or only being able to conduct a limited numbers of interviews increased. I was also concern about the hosting of the 2020 Tokyo Olympic Games. I felt that I needed to conduct the maximum number of interviews at the beginning of my stay in Japan before the situation would likely get worse or people's fear increase. So, I planned to visit Oita soon after I returned to Japan to seek further support from referred connections and immediately started to conduct some interviews. While I continued to recruit participants, I contacted those who had already accepted to confirm (1) whether they

could actually participate, (2) if they had a preference for face-to-face or phone/online interviews (3) available dates for interview (if face-to-face, then ideally in the early stages) (4) preference/inputs for places (e.g. less crowded cafes) to conduct the interviews. Then, I returned to Japan on late February 2020 and seeing everyone wearing facial masks made me feel that the time might be running out.

My initial plan was to return to the UK in seven weeks. Two days after I arrived in Japan, I moved to Oita and started to conduct interviews. I struggled in the first few interviews due to lack of practice (despite some mock interviews conducted with friends and relatives mirroring the age groups of my study). For example, controlling the conversation with talkative individuals, mostly older participants, as well as not leading participants who generally provided short answers were areas that I felt were important to improve. I believe these issues were improved as I got used to conducting interviews. Some interviews were conducted by phone or online. Those phone or online interviews generally went similarly to face-to-face interviews, except that less information related to facial expression. Also, I felt that online and phone interviews were less personal compared to face-to-face interviews. Before starting face-to-face interviews, myself or participants often started chitchat such as my background, the pandemic, or about the person who referred participants to me but often those conversations did not occur during online or phone interviews (or only took place after the interviews). I think this chitchat made some differences in my experience.

The 1st wave of data collection was stressful but I was able to conduct 57 interviews (face-to-face, online and by phone). Surprisingly, many participants were willing to take interviews face-to-face. Conducting so many interviews would not happen without the support of my family, friends, and supervisors and associated networks. Also, I was very thankful to all participants who accepted to participate in the study during this difficult time. Before the pandemic, I had conversations with my supervisors and agreed it would be great to have a total of 48 or more interviews with around twelve for each of the four sub-groups (two age groups in two locations). We knew that we would lose some participants between the waves and it would be ideal to have eight to ten participants for each of the four sub-groups in the 2nd wave of interviews. By the 3rd week of my stay in Japan, I had scheduled the targeted number of interviews, but I wanted to conduct as many interviews as possible. At that time, the Tokyo Olympic Games were not postponed but the doubts about hosting the event were rising and I thought the event could be postponed by a year or two. This meant at least that I needed to make changes to the 2nd wave of interviews and subsequent changes to the overall research. Also, I was concerned that the 2nd wave of data collection might be impacted if the situation

got worse. The 1st wave of interviews was the most stressful stage of my PhD and those weeks were among the most difficult times of my life, but it was also a time in which I felt people's kindness. This was a very significant experience for me to relearn the importance of being thankful to those around me, networking, having determination and being patient.

After the postponement of the Tokyo Olympic Games was announced, I started to consider potential new aims and objectives of the 2nd wave of interviews with my supervisors. After the 1st wave of interviews, we decided that the aim of the 2nd wave of interviews had to be changed. The Tokyo Olympic Games were postponed by a year so I could extend my research by a year to maintain my initial objectives of my research. However, I wanted to complete my PhD study within the initial timeline. Also, the pandemic situation was uncertain and I felt that the Tokyo Olympic Games was facing the risk of further postponement or even cancellation. The 2nd waves of interviews were fully conducted online or by phone. This was due to the University guidelines. For the 2nd wave of interviews, 49 participants returned for the interviews. Unlike the 1st wave of interviews, this time, participants and I had built some relationship through the 1st round of interviews, and so everything went smoothly.

Between the 1st and the 2nd wave of the interviews, I transcribed interviews in Japanese and then analysed them using NVivo. It was my 1st time transcribing interviews and transcribing 57 interviews was very time-consuming. The process of transcribing was honestly not the most exciting process, but it was interesting to look back at some interviews and realise some things that I did not notice during the interviews. I was able to use the EventRights budget for a transcribing service for the 2nd wave of interviews. For both the 1st and the 2nd wave of interviews, transcribed interviews were analysed using NVivo. This process was not easy due to the fact that I had to interpret the information in English and then translate into English - it required strong attention to details. Also, translating verbal conversation was difficult as often sentences are not full sentences and subjects are omitted. Therefore, I needed to supplement some words to make quotes being full sentences or a subjects of quotes being clear.

The pandemic had significant impact on the research itself, but also impacted my PhD study environment. My initial plan was to spend 6 weeks to conduct the 1st wave of interviews from late February to early April and then the 2nd wave of interviews would be from October to November. My plan was to return to the UK in between two waves of interviews. However, the COVID-19 pandemic quickly spread in the UK a few weeks after I arrived in Japan for the 1st wave of interviews. Then, the UK decided on a national lockdown from 23rd March 2020 (Institute for Government Analysis 2021) and all university activities moved to online. Therefore, it was safer for me to stay in Japan while I would not be missing any interactions

with supervisors as it was online anyway. In June 2020, some restrictions were lifted in the UK, but it made more sense for me to stay in Japan and conduct the 2nd wave of interviews where I could continue the research without any time zone differences. Also, based on the 1st wave of interviews, I knew that a few older participants would require phone interviews so it would be much more efficient to stay in Japan until completion of the 2nd wave of interviews. I returned to the UK in mid-October after staying Japan for about eight months. Even after my return to the UK, all meetings were kept online until September 2021 as that was the policy of the Doctoral College. While I got great support from my supervisors throughout my PhD studies, the pandemic made my journey different than initially expected.

Despite the impact of the pandemic, I was still able to develop important skills and gained experience that is going to be helpful in my future professional career. I developed analytical skills by analysing the interviews through NVivo. It was my first time using NVivo, so prior to the analysis, I attended NVivo training sessions that were offered by the university. Also, although my PhD research has a qualitative nature, I thought it is important to have quantitative skills, so I attended additional training sessions related to statistical analyses using SPSS. Furthermore, I have been developing my network through the introduction of relevant researchers by my supervisors and other people. I developed some networks through the process of recruiting participants for my data collection where I sought support from other researchers. I also worked to maintain these networks by keeping in touch (e.g. updating my research by sending email) once every few months. In my 3rd year, I was introduced by one of my supervisors to Dr Tiago Ribeiro from the University of Lisbon. With him and other researchers, we submitted an article to the *Journal of Hospitality and Tourism Management* that was published in 2022. The title of the article is “Resident attitudes toward the Rio 2016 Olympic Games: A longitudinal study on social legacy and support behaviours”. This was a great experience for me, to go through the process of submission, revision and publication. Working with other researchers and being critical of what they wrote was not easy, but I learned to be confident in my views and to be critical to others in an appropriate way. In addition, I had two conference abstracts (2020 and 2022) accepted for presentation at the North American Society for Sport Management (NASSM) conference. In 2020, the conference was held online due to the pandemic, and I produced the presentation slides and shared with other participants.

Other areas that I developed throughout the PhD journey were related to oral communications and teaching skills. Regarding oral presentations, I knew I needed to gain experience and build confidence in my public speaking, so I had been presenting my research in internal University events and delivered presentations about my study in undergraduate and

postgraduate classes. Also, I'm planning to present my abstract at the NASSM conference in June 2022. As regards teaching, I enrolled in a postgraduate certification in teaching in higher education at Coventry University. In my 2nd year I had some teaching opportunities to gain experience and got feedback from my supervisors. During my 3rd year, I delivered research method seminars with a few other PhD students. Also, I was supervising and marking undergraduate dissertations. During the summer semester, I delivered two seminars for 6018SSL International Leadership. This was first time I had delivered seminars alone and the first full semester-long module. The module was delivered through face-to-face seminars, but some students attended online during the first few weeks due to their quarantines. Having students both in the classroom and online was challenging, so the 1st week was difficult. However, from the 2nd week onwards, I started to get used to delivering seminars, and I gained confidence each week. At the end, I ended up achieving 90+% of student satisfaction which was very rewarding.

Through my PhD journey, I believe I have gained important skills for my future career and developed myself as a better researcher. Through conducting more than 100 interviews both face-to-face and online, I improved my skills to facilitate interviews and become able to adjust to different participants and environments. In addition, I gained a large amount of experience in transcribing and content analysing interviews. I initially required a longer time to process these tasks but as I gained experience these processes got smoother. I also developed skills related to the use of NVivo and SPSS. Through the presentations of my PhD research and teaching experiences, I acquired important skills and the confidence to talk in public. These skills and experiences are important to the next step of my professional journey.

Through conducting research during these difficult times, I believe I also evolved as a person. There were crucial moments in which I felt the importance of networking and that make me grateful to people around me. Similarly, I have relearned the importance of having determination while simultaneously being patient. I already knew the importance of those things, but my PhD journey helped to reinforce these aspects. I could not complete my PhD research without the kind support from my supervisors and other people who helped me throughout this journey. I would to continue to develop myself as a researcher for my career, but also give back to people who supported me and help others in ways that other people did for me. In addition, I consider that improved determination and patience were other key aspects of my PhD journey. Wanting to solve an issue as quickly as possible so that the study progresses is common. However, through my PhD journey (especially the data collection process), I learned the importance of being patient while maintaining focus and being determined.

Sometimes things are outside of my control, and I need to be determined but at the same time I simply need to wait for other people's responses. My PhD journey had ups and downs, but it was very worthwhile to develop as a researcher but also as a person.

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10. Appendices

Appendix A: Japanese Male Sport and Exercise Participation Rate by Age in 2020

(Data Source: SSF National Sports-Life Survey 2020)

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Appendix B: Japanese Female Sport and Exercise Participation Rate by Age in 2020

(Data Source: SSF National Sports-Life Survey 2020)

This item has been removed due to third party copyright. The unabridged version of the thesis can be viewed at the Lanchester library, Coventry University

Appendix C: Participant information sheet- 1st interview

Understanding the role of consecutive international sport events on sport and exercise participation. A study with different age segments

PARTICIPANT INFORMATION SHEET

You are being invited to take part in research on Understanding the role of consecutive international sport events on sport and exercise participation. A study with different age segments. Ryuta Yoda, PhD student at Coventry University is leading this research. Before you decide to take part it is important you understand why the research is being conducted and what it will involve. Please take time to read the following information carefully.

What is the purpose of the study?

The purpose of the study is to understand the impacts of hosting international sport events consecutively in a city to young and old people's attitude and behaviours towards participating in sport and exercise.

Why have I been chosen to take part?

You are invited to participate in this study because you are either 20's or 60's/70's and watched or attended the 2019 Rugby World Cup match.

What are the benefits of taking part?

By sharing your experiences with us, you will be helping Ryuta Yoda and Coventry University to better understand the impact of hosting international sport events consecutively on young and old individuals' attitude and behaviour towards participation in sport and exercise.

Are there any risks associated with taking part?

This study has been reviewed and approved through Coventry University's formal research ethics procedure. There are no significant risks associated with participation.

Do I have to take part?

No – it is entirely up to you. If you do decide to take part, please keep this Information Sheet and complete the Informed Consent Form to show that you understand your rights in relation to the research, and that you are happy to participate. Please note down your participant number (which is on the Consent Form) and provide this to the lead researcher if you seek to withdraw from the study at a later date. You are free to withdraw your information from the project data set at any time until the data are fully anonymised in our records on June 2020. You should note that your data may be used in the production of formal research outputs (e.g. journal articles, conference papers, theses and reports) prior to this date and so you are advised to contact the university at the earliest opportunity should you wish to withdraw from the study. To withdraw, please contact the lead researcher (contact details are provided below). Please also contact the Research Support Office [email researchproservices.fbl@coventry.ac.uk; telephone +44(0)2477658461] so that your request can be dealt with promptly in the event of the lead researcher's absence. You do not need to give a reason. A decision to withdraw, or not to take part, will not affect you in any way.

What will happen if I decide to take part?

You will be asked a number of questions regarding your experience with the 2019 Rugby World Cup and attitude and behaviour towards participation in sport and exercise. The pre-interview initial questionnaire and interview will take place in a safe environment at a time that is convenient to you. Ideally, we would like to audio record your responses (and will require your consent for this), so the location should be in a fairly quiet area. The pre-interview initial questionnaire and interview should take around 45 minutes to 1 hour to complete.

Data Protection and Confidentiality

Your data will be processed in accordance with the General Data Protection Regulation 2016 (GDPR) and the Data Protection Act 2018. All information collected about you will be kept strictly confidential. Unless they are fully anonymised in our records, your data will be referred to by a unique participant number rather than by name. If you consent to being audio recorded, all recordings will be destroyed once they have been transcribed. Your data will only be viewed by the researcher/research team. All electronic data will be stored on a password-protected computer file on the university system. All paper records will be stored in a locked filing cabinet at Coventry University. Your consent information will be kept separately from your responses in order to minimise risk in the event of a data breach. The lead researcher will take responsibility for data destruction and all collected data will be destroyed on or before January 2022.

Data Protection Rights

Coventry University is a Data Controller for the information you provide. You have the right to access information held about you. Your right of access can be exercised in accordance with the General Data Protection Regulation and the Data Protection Act 2018. You also have other rights including rights of correction, erasure, objection, and data portability. For more details, including the right to lodge a complaint with the Information Commissioner's Office, please visit www.ico.org.uk. Questions, comments and requests about your personal data can also be sent to the University Data Protection Officer - enquiry.ipu@coventry.ac.uk

What will happen with the results of this study?

The results of this study may be summarised in published articles, reports and presentations. Quotes or key findings will always be made anonymous in any formal outputs unless we have your prior and explicit written permission to attribute them to you by name.

Making a Complaint

If you are unhappy with any aspect of this research, please first contact the lead researcher, Ryuta Yoda, yodar@uni.coventry.ac.uk. If you still have concerns and wish to make a formal complaint, please write to my supervisor:

Rui Biscaia
Associate Professor
Coventry University
Coventry CV1 5FB
Email: ac4231@coventry.ac.uk

In your letter please provide information about the research project, specify the name of the researcher and detail the nature of your complaint.

Appendix D: Pre-interview initial questionnaire for interview participants - 1st interview

Pre-interview initial questionnaire for interview participants

PARTICIPANT INFORMATION STATEMENT

The aim of this study is to understand the impacts of hosting international sport events consecutively in a city to young and old people's attitude and behaviours towards participating in sport and exercise. The study is being conducted by Ryuta Yoda at Coventry University. You have been selected to take part in this questionnaire survey because you are either 20's or 60's/70's and watched or attended the 2019 Rugby World Cup match. Your participation in the survey is entirely voluntary, and you can opt out at any stage by stop answering to the questionnaires. If you are happy to take part, please answer the following questions relating to your experience with the 2019 Rugby World Cup and attitude and behaviour towards sport and exercise. Your answers will help us to facilitate the interview as well as better understand the impact of hosting international sport events consecutively on young and old individuals' attitude and behaviour towards participation in sport and exercise. The survey should take approximately 10 minutes to complete. Your answers will be treated confidentially and the information you provide will be kept anonymous in any research outputs/publications. Your data will be processed in accordance with the General Data Protection Regulation 2016 (GDPR) and the Data Protection Act 2018. Your electronic data will be held securely on a password-protected computer file on the university system and all paper records will be stored in a locked filing cabinet at Coventry University. Your data will only be viewed by the researcher/research team. All data will be deleted by January 2022.

You are free to withdraw your questionnaire responses from the project data set at any time until the data are fully anonymised in our records on June 2020. You should note that your data may be used in the production of formal research outputs (e.g. journal articles, conference papers, theses and reports) prior to this date and so you are advised to contact the university at the earliest opportunity should you wish to withdraw from the study. To withdraw, please contact the lead researcher (contact details are provided below). Please also contact the Faculty Research Support Office (email researchproservices.fbl@coventry.ac.uk; telephone +44(0)2477658461) so that your request can be dealt with promptly in the event of the lead researcher's absence. You do not need to give a reason. A decision to withdraw, or not to take part, will not affect you in any way.

Coventry University is a Data Controller for the information you provide. You have the right to access information held about you. Your right of access can be exercised in accordance with the General Data Protection Regulation and the Data Protection Act 2018. You also have other rights including rights of correction, erasure, objection, and data portability. For more details, including the right to lodge a complaint with the Information Commissioner's Office, please visit www.ico.org.uk. Questions, comments and requests about your personal data can also be sent to the University Data Protection Officer - enquiry.ipu@coventry.ac.uk.

The project has been reviewed and approved through the formal Research Ethics procedure at Coventry University. For further information, or if you have any queries, please contact the lead researcher, Ryuta Yoda, yodar@uni.coventry.ac.uk. If you have any concerns that cannot be resolved through the lead researcher, please contact my supervisor Rui Biscaia, ac4231@coventry.ac.uk.

I have read and understood the above information.	Yes	No
I agree to take part in this questionnaire survey.	Yes	No
I confirm that I am aged 18 or over.	Yes	No

Thank you for taking the time to participate in this survey. Your help is very much appreciated.

Pre-interview initial questionnaire for interview participants

Participant number: _____ **Name (optional):** _____

1. How many of the 2019 Rugby World Cup match did you watch on TV? _____
2. Did you watch any non-Japanese matches on TV? Yes / No
If yes, which matches? _____
3. Did you attend any match at the venue during the 2019 Rugby World Cup? Yes / No
If yes, how many times? _____
4. Did you watch any match at the fan zone? Yes / No
5. In a scale of 0 (not interested at all) to 10 (very interested), how interested were you in rugby before the 2019 Rugby World Cup? _____
6. In a scale of 0 (not interested at all) to 10 (very interested), how interested were you in the 2019 Rugby World Cup during the event?
7. In a scale of 0 (not inspired at all) to 10 (strongly inspired), how inspired by anything were you by the 2019 Rugby World Cup? _____
8. In a scale of 0 (very poor) to 10 (excellent), how do you evaluate the atmosphere of Oita or Tokyo during the 2019 Rugby World Cup? _____
9. In a scale of 0 (not satisfied at all) to 10 (very satisfied), how satisfied are you with the 2019 Rugby World Cup? _____
10. In a scale of 0 (not interested at all) to 10 (extremely interested), how interested were you in rugby currently? _____
11. In a scale of 0 (don't miss at all) to 10 (miss a lot), how do you feel about the fact that the 2019 Rugby World Cup has finished? _____
12. Considering the activity level by Sasakawa Sports Foundation, how active were you before the 2019 Rugby World Cup? Level _____
Level 0: For the past year, no sports/physical activities at all
Level 1: At least once a year, less than twice a week (1-103 times a year)
Level 2: At least twice a week (at least 104 times a year)
Level 3: At least twice a week, at least 30 min at a time
Level 4 (Active Sports Participant): At least twice a week, at least 30 min at a time, moderate intensity at least slightly hard
And immediately after the 2019 Rugby World Cup? _____
And currently? _____
13. What is your occupation? _____

Appendix E: Informed consent form - 1st interview

Participant
No.

INFORMED CONSENT FORM:

Understanding the role of consecutive international sport events on sport and exercise participation. A study with different age segments

You are invited to take part in this research study for the purpose of collecting data on the research to understand the impacts of hosting international sport events consecutively in a city to young and old people's attitude and behaviours towards participating in sport and exercise.

Before you decide to take part, you must **read the accompanying Participant Information Sheet.**

Please do not hesitate to ask questions if anything is unclear or if you would like more information about any aspect of this research. It is important that you feel able to take the necessary time to decide whether or not you wish to take part.

If you are happy to participate, please confirm your consent by circling YES against each of the below statements and then signing and dating the form as participant.

1	I confirm that I have read and understood the <u>Participant Information Sheet</u> for the above study and have had the opportunity to ask questions	YES	NO
2	I understand my participation is voluntary and that I am free to withdraw my data, without giving a reason, by contacting the lead researcher and the Research Support Office <u>at any time</u> until the date specified in the Participant Information Sheet	YES	NO
3	I have noted down my participant number (top left of this Consent Form) which may be required by the lead researcher if I wish to withdraw from the study	YES	NO
4	I understand that all the information I provide will be held securely and treated confidentially	YES	NO
5	I am happy for the information I provide to be used (anonymously) in academic papers and other formal research outputs	YES	NO
6	I am happy for the interview to be <u>audio recorded</u>	YES	NO
7	I agree to take part in the above study	YES	NO

Thank you for your participation in this study. Your help is very much appreciated.

Participant's Name	Date	Signature
Researcher	Date	Signature

Consent form

Appendix F: Participant information sheet- 2nd interview

Understanding the role postponement of international sport events on sport and exercise participation. A study with different age segments

PARTICIPANT INFORMATION SHEET

You are being invited to take part in research on the postponement of international sport events on sport and exercise participation. Ryuta Yoda, PhD student at Coventry University is leading this research. Before you decide to take part, it is important you understand why the research is being conducted and what it will involve. Please take time to read the following information carefully.

What is the purpose of the study?

The purpose of the study is to understand the impacts of postponement of international sport events on people's attitude and behaviours towards participating in sport and exercise.

Why have I been chosen to take part?

You are invited to participate in this study because you have participated in first round of interviews related to the 2019 Rugby World Cup and we would like to your views in face of the postponement of the Olympic Games.

What are the benefits of taking part?

By sharing your experiences with us, you will be helping Ryuta Yoda and Coventry University to better understand the impact of postponement of international sport events on the attitude and behaviour towards participation in sport and exercise.

Are there any risks associated with taking part?

This study has been reviewed and approved through Coventry University's formal research ethics procedure. There are no significant risks associated with participation.

Do I have to take part?

No – it is entirely up to you. If you do decide to take part, please keep this Information Sheet and complete the Informed Consent Form to show that you understand your rights in relation to the research, and that you are happy to participate. Please note down your participant number (which is on the Consent Form) and provide this to the lead researcher if you seek to withdraw from the study at a later date. You are free to withdraw your information from the project data set at any time until the data are fully anonymised in our records on January 2021. You should note that your data may be used in the production of formal research outputs (e.g. journal articles, conference papers, theses and reports) prior to this date and so you are advised to contact the university at the earliest opportunity should you wish to withdraw from the study. To withdraw, please contact the lead researcher (contact details are provided below). Please also contact the Research Support Office [email researchproservices.fbl@coventry.ac.uk; telephone +44(0)2477658461] so that your request can be dealt with promptly in the event of the lead researcher's absence. You do not need to give a reason. A decision to withdraw, or not to take part, will not affect you in any way.

What will happen if I decide to take part?

You will be asked about your experience with the 2019 Rugby World Cup and the postponement of the Olympic Games, the impacts of COVID-19 and associated social changes on your attitude and behaviour towards sport and exercise. The pre-interview initial questionnaire will be sent by email or box mail prior to interview. Then, the interview will be conducted online (e.g. Teams/Skype/Line) or by phone at a time that is convenient to you. If you allow, the interview is audio recorded. The pre-interview initial questionnaire and interview should take around 35 to 50 minutes in total.

Data Protection and Confidentiality

Your data will be processed in accordance with the General Data Protection Regulation 2016 (GDPR) and the Data Protection Act 2018. All information collected about you will be kept strictly confidential. Unless they

Participant Information Sheet



are fully anonymised in our records, your data will be referred to by a unique participant number rather than by name. If you consent to being audio recorded, all recordings will be destroyed once they have been transcribed. Your data will only be viewed by the researcher/research team. All electronic data will be stored on a password-protected computer file on the university system. All paper records will be stored in a locked filing cabinet at Coventry University. Your consent information will be kept separately from your responses in order to minimise risk in the event of a data breach. The lead researcher will take responsibility for data destruction and all collected data will be destroyed on or before January 2022.

Data Protection Rights

Coventry University is a Data Controller for the information you provide. You have the right to access information held about you. Your right of access can be exercised in accordance with the General Data Protection Regulation and the Data Protection Act 2018. You also have other rights including rights of correction, erasure, objection, and data portability. For more details, including the right to lodge a complaint with the Information Commissioner's Office, please visit www.ico.org.uk. Questions, comments and requests about your personal data can also be sent to the University Data Protection Officer - enquiry.ipu@coventry.ac.uk

What will happen with the results of this study?

The results of this study may be summarised in published articles, reports and presentations. Quotes or key findings will always be made anonymous in any formal outputs unless we have your prior and explicit written permission to attribute them to you by name.

Making a Complaint

If you are unhappy with any aspect of this research, please first contact the lead researcher, Ryuta Yoda, yodar@uni.coventry.ac.uk. If you still have concerns and wish to make a formal complaint, please write to my supervisor:

Rui Biscaia
Associate Professor
Coventry University
Coventry CV1 5FB
Email: ac4231@coventry.ac.uk

In your letter please provide information about the research project, specify the name of the researcher and detail the nature of your complaint.

Appendix G: Pre-interview initial questionnaire for interview participants - 2nd interview

Pre-interview initial questionnaire for interview participants (2nd interview)

Participant number: _____ Name (optional): _____

For the following questions (1&3~10), please answer using a scale from 0 to 10 (0= not at all, 5= normal, 10=very strongly or very often).

1. Do you miss the 2019 Rugby World Cup? _____
2. Please answer in a few words or a short sentence. How do you feel about the dissolution of Sunwolves (Japanese team in Super Rugby)? _____

3. Please answer in a few words or a short sentence. How do you feel about the postponement of the Tokyo Olympic Games? _____

4. How interested were you in the Tokyo Olympic Games before the announcement of postponement? _____
5. How interested are you with the Tokyo Olympic Games after the announcement of postponement? _____
6. How had the postponement or cancellation of live sport due to COVID-19 impacted you? _____
7. How excited were you when Nippon Professional Baseball, J-league, and other sports started or restarted their season? _____
8. How concerned are you with COVID- 19? _____
9. How has COVID-19 impacted your work? _____
10. How has COVID-19 impacted your leisure/hobbies? _____
11. How has COVID-19 impacted your attitude towards participation in sport and exercise? _____

For the questions below, please answer in scale of 0 to 4 based on the box below

12. How physically active were you

In the 1st interview, you said your current participation level is _____

- ① From the end of March to early April _____
- ② During the state of emergency declared by the government (Tokyo: 7th April to 25th May & Oita: 16th April to 14th May)? _____
- ③ In the month of June? _____
- ④ Currently? _____

Level 0: No sports/physical activities at all
Level 1: Less than twice a week
Level 2: At least twice a week, at less than 30 min at a time
Level 3: At least twice a week, at least 30 min at a time
Level 4: At least twice a week, at least 30 min at a time, moderate intensity at least slightly hard

13. (If it changed since the 1st interview) What is your occupation? _____

Appendix H: Informed consent form - 2nd interview

Participant
No.

INFORMED CONSENT FORM:

Understanding the role of postponement of international sport events on sport and exercise participation. A study with different age segments

You are invited to take part in this research study to help understand the impacts of postponement of international sport events on attitudes and behaviours towards participating in sport and exercise.

Before you decide to take part, you must **read the accompanying Participant Information Sheet.**

Please do not hesitate to ask questions if anything is unclear or if you would like more information about any aspect of this research. It is important that you feel able to take the necessary time to decide whether or not you wish to take part.

If you are happy to participate, please confirm your consent by circling YES against each of the below statements and then signing and dating the form as participant.

1	I confirm that I have read and understood the <u>Participant Information Sheet</u> for the above study and have had the opportunity to ask questions	YES	NO
2	I understand my participation is voluntary and that I am free to withdraw my data, without giving a reason, by contacting the lead researcher and the Research Support Office <u>at any time</u> until the date specified in the Participant Information Sheet	YES	NO
3	I have noted down my participant number (top left of this Consent Form) which may be required by the lead researcher if I wish to withdraw from the study	YES	NO
4	I understand that all the information I provide will be held securely and treated confidentially	YES	NO
5	I am happy for the information I provide to be used (anonymously) in academic papers and other formal research outputs	YES	NO
6	I am happy for the interview to be <u>audio recorded</u>	YES	NO
7	I agree to take part in the above study	YES	NO

Thank you for your participation in this study. Your help is very much appreciated.

Participant's Name	Date	Signature
Researcher	Date	Signature

Consent form

Appendix I Interview Guideline for the First Wave

Interview Guideline

Introductory Question	Potential Following-up Questions
Were you physically active before the 2019 Rugby World Cup?	What kind of activity were you participating in? How frequently and what was intensity level? Were you participating in sport and exercise in any point of your life? When and for how long? Why did you stop?
Were you inspired by anything at the 2019 Rugby World Cup? Why? (ask example)	Did athletes or teams inspire you? Why? (ask example) Did you feel motivated by athletes to participate in sport and exercise? Why? Is your attitude towards sport and exercise better now because of athletes or teams from the 2019 Rugby World Cup? Why?
Did you enjoy Tokyo or Oita's atmosphere created by the 2019 Rugby World Cup? (before, during and after) Why? (ask examples)	Was the atmosphere important to improve attitude towards sport and exercise? (ask examples)
Overall are you satisfied with the 2019 Rugby World Cup? Did it fulfil your expectation?	What were the most important aspects contributing for your event satisfaction? Was the event atmosphere important for your (dis)satisfaction? (ask examples) Was the performance and the behaviours of teams/players important for your (dis)satisfaction? (ask examples) Did that affect your willingness to be more active?
Did you follow any specific athlete or team from the 2019 Rugby World Cup? Do you feel identified with the event?	If yes, when did you start to follow them? If no, why? Did you feel inspired by them to be more active? Do you think the local community is supportive of the event?
Based on the initial questionnaire, could you explain your current attitude towards sport and exercise?	Do you have plans to participate in sport and exercise now? If yes, which sports or exercise and where? Are there reasons not to participate in sport and exercise? Are there reasons not to participate in sport and exercise as frequently or intensely as you want? Are you aware of any incentives to help people become more active? Are you aware of local sporting and exercise facility? (ask examples) Are you aware of any local program to help people become more active? If yes, do you take advantages of these programs? If not, what kind of program you think should be promoted?
Based on the initial questionnaire, could you elaborate on your current participation levels in sport and exercise?	If currently participating, what kind of activity are you doing? How many times per week are you doing it? Are you planning to continue doing it? Why or why not? If not, why? Do you have plans to start? If yes, what is the plan? (ask examples) Are you planning to watch/attend the 2020 Tokyo Olympic games? Which events? And how (live vs TV)?
Is sport and exercise important to you? Why?	What is your motivation to do it?

Appendix J: Interview Guideline for the Second Wave

Interview Guideline 2

Introductory Question	Potential Following-up Questions
Do you think (or talk) about the 2019 Rugby World Cup? If yes, ask example.	When do you think about the Rugby World Cup? And who do you talk with about the Rugby World Cup? (Only for participants who mentioned in the 1 st interview that they become more interested in rugby through the Rugby World Cup): Are you still interested in a similar level? Why or why not? (Only for participants who were inspired by the Rugby World Cup): Do you still feel inspired? Why? Any behaviour changed? Do you (still) follow any specific athlete or team from the Rugby World Cup?
Are you interested in the Tokyo Olympic Games?	Were you interested in the Tokyo Olympic Games since Tokyo won the bid? If not, since when did you become interested? Why? How has the postponement impacted your interest on the Tokyo Olympic Games? Why? Did the postponement impact your attitude towards sport and exercise? Did it impact your participation in sport and exercise?
Based on the initial questionnaire, could you explain how has COVID-19 impacted you?	How has COVID-19 impacted your work? How has COVID-19 impacted your leisure/hobbies? (ask example) If it impacted, what did you do? (e.g. not able to do previous activities, what were alternative activities?) (Only for participants who said time constraint is a barrier to participate in sport and exercise): Did COVID-19 give you time to participate in exercise and sport activities?
Based on the questionnaire (for this interview), could you explain your current attitude towards sport and exercise? Did it change in any way recently?	If your attitude towards sport and exercise changed recently, why? If not changed, why not?
Based on the questionnaire (for this interview), could you elaborate on your participation levels in sport and exercise before and during the state of emergency was declared by the government?	What kind of activity were you participating in? How frequently and what was the intensity level? If your level of sport activity has changed over that period, why? How (or why) did you choose a new activity? If your participation level didn't change over that period, why not? (Only for participants who answered their participation level changed from the 1 st interview), what caused the change in participation level?
Based on the questionnaire (for this interview), could you describe your current participation levels in sport and exercise after the state of emergency was lifted by the government? And currently?	If you changed sport activity levels during the state of emergency declared by the government, did you return to previous sport and exercise after the state of emergency was lifted? If not, why? And what about now? If not restarted currently, why? Do you have plans to (re)start? If yes, what is the plan? (ask examples) If currently participating, what kind of activity are you doing? How many times per week are you doing it? Are you planning to continue doing it? Why or why not? Are you aware of any incentives to do sport and exercise promoted by the (local) Government? (For those who do not engage in sport and exercise). What is the main reason for you not to do sport and exercise?
Have you entered the ticket lottery for the Tokyo Olympic Games? Why? Why not? Are you planning to watch the live broadcasting of the Tokyo Olympic Games? Why? Why not?	Which events did you entered the ticket lottery? Did you win the lottery? Which event? With whom are you planning to attend? Do you follow any team or athlete who is going to the Tokyo Olympic Games? For 60's & 70's participants, do you remember anything from the 1964 Tokyo Olympic Games? If you do, what do you remember? Also, did it have any impact on your life?

Appendix K: Ethical application P88132

Understanding the role of sport mega-events on sport participation: Systematic Review

P88132



Low Risk Research Ethics Approval

Project Title

**Understanding the role of sport mega-events on sport participation:
Systematic Review**

Record of Approval

Principal Investigator

I request an ethics peer review and confirm that I have answered all relevant questions in this checklist honestly.	X
I confirm that I will carry out the project in the ways described in this checklist. I will immediately suspend research and request new ethical approval if the project subsequently changes the information I have given in this checklist.	X
I confirm that I, and all members of my research team (if any), have read and agreed to abide by the Code of Research Ethics issued by the relevant national learned society.	X
I confirm that I, and all members of my research team (if any), have read and agreed to abide by the University's Research Ethics, Governance and Integrity Framework.	X

Name: Ryuta Yoda

Date: 20/02/2019

Student's Supervisor (if applicable)

I have read this checklist and confirm that it covers all the ethical issues raised by this project fully and frankly. I also confirm that these issues have been discussed with the student and will continue to be reviewed in the course of supervision.

Name: Rui Biscaia.....

Date: 21/02/2019

Reviewer (if applicable)

Date of approval by anonymous reviewer: 26/02/2019

Low Risk Research Ethics Approval Checklist

Project Information

Project Ref	P88132
Full name	Ryuta Yoda
Faculty	Faculty of Business and Law
Department	Centre for Business in Society
Supervisor	Rui Biscaia
Module Code	FBL-PHD
EFAAF Number	
Project title	Understanding the role of sport mega-events on sport participation: Systematic Review
Date(s)	21/01/2019 - 31/01/2022
Created	20/02/2019 20:57

Project Summary

The aim of this research is to analyse the impacts of hosting multiple mega-events consecutively in a city. The research will conduct systematic review to understand findings and gaps from previous studies in this area.

Names of Co-Investigators and their organisational affiliation (place of study/employer)	
Is the project self-funded?	NO
Who is funding the project?	
Has the funding been confirmed?	NO
Are you required to use a Professional Code of Ethical Practice appropriate to your discipline?	NO
Have you read the Code?	NO

Project Details

What is the purpose of the project?	The purpose of this systematic review is to find out what are current knowledge and gaps in the study of understanding impact of hosting mega-sport events on sport participation. Research questions are 1. Does people's attitude towards doing sport and exercise change through hosting multiple mega-event consecutively in a city? If the attitude towards doing sport and exercise changes, will this change in attitude lead to change in sport and exercise behaviour? 2. Does the planning stage of sport mega-event have greater impacts on people's attitude towards doing sport and exercise and exercise behaviour than the event itself? 3. Does hosting multiple mega-events consecutively in a city lead to larger impact on people's participation in sport and exercise? Do different sport mega-events impact sport participation similarly or differently? 4. Are there similar or different impacts at main hosting cities, other hosting cities and non-hosting cities in hosting countries?
What are the planned or desired outcomes?	This systematic review plans to find out findings and gaps of the previous researches in this area of the study, which can be used in further research to understanding role of sport mega-event on sport an exercise participation. Overall this research is expected to better understand people's attitude towards doing exercise changed through hosting multiple mega-event consecutively in a city and how this change in attitude led to change in exercise behaviour.
Explain your research design	I will be conducting systematic review of previous researches. I will use various database such as Google Scholar, Scopus, EBSCO, G-Star, ProQuest and ScienceDirect to search for peer reviewed journal, PhD dissertations and books and use conference website to search for conference papers. For the searching database, I will use combination of keywords like "sport participation", "exercise participation" and "participation" and "mega-event", "major event", "Olympic", "World cup" or "Commonwealth Game". In addition to those keywords, I

	will use any synonyms or similar words for the search.
Outline the principal methods you will use	This systematic review will include peer reviewed journal, conference paper, PhD dissertations and books from various databases. The systematic review plans to use databases like Google Scholar, Scopus, EBSCO, G-Star, ProQuest and ScienceDirect as well as conference papers from established conferences in this area of study like North American Society for Sport Management, European Association for Sport Management, Sport Management Association of Australia and New Zealand, North American Society for the Sociology of Sport and European Association for Sociology of Sport.
Are you proposing to use an external research instrument, validated scale or follow a published research method?	NO
If yes, please give details of what you are using	
Will your research involve consulting individuals who support, or literature, websites or similar material which advocates, any of the following: terrorism, armed struggles, or political, religious or other forms of activism considered illegal under UK law?	NO
Are you dealing with Secondary Data? (e.g. sourcing info from websites, historical documents)	YES
Are you dealing with Primary Data involving people? (e.g. interviews, questionnaires, observations)	NO
Are you dealing with personal or sensitive data?	NO
Will the Personal or Sensitive data be shared with a third party?	
Will the Personal or Sensitive data be shared outside of the European Economic Area ("EEA")?	
Is the project solely desk based? (e.g. involving no laboratory, workshop or off-campus work or other activities which pose significant risks to researchers or participants)	YES
Are there any other ethical issues or risks of harm raised by the study that have not been covered by previous questions?	NO
If yes, please give further details	

External Ethical Review

Question		Yes	No
1	Will this study be submitted for ethical review to an external organisation? (e.g. Another University, Social Care, National Health Service, Ministry of Defence, Police Service and Probation Office)		X
	If YES, name of external organisation		
2	Will this study be reviewed using the IRAS system?		X
3	Has this study previously been reviewed by an external organisation?		X

Risk of harm, potential harm and disclosure of harm

Question		Yes	No
1	Is there any significant risk that the study may lead to physical harm to participants or researchers?		X
	If YES, please explain how you will take steps to reduce or address those risks		
2	Is there any significant risk that the study may lead to psychological or emotional distress to participants?		X
	If YES, please explain how you will take steps to reduce or address those risks		
3	Is there any risk that the study may lead to psychological or emotional distress to researchers?		X
	If YES, please explain how you will take steps to reduce or address those risks		
4	Is there any risk that your study may lead or result in harm to the reputation of participants, researchers, or their employees, or any associated persons or organisations?		X
	If YES, please explain how you will take steps to reduce or address those risks		
5	Is there a risk that the study will lead to participants to disclose evidence of previous criminal offences, or their intention to commit criminal offences?		X
	If YES, please explain how you will take steps to reduce or address those risks		
6	Is there a risk that the study will lead participants to disclose evidence that children or vulnerable adults are being harmed, or at risk or harm?		X
	If YES, please explain how you will take steps to reduce or address those risks		
7	Is there a risk that the study will lead participants to disclose evidence of serious risk of other types of harm?		X
	If YES, please explain how you will take steps to reduce or address those risks		
8	Are you aware of the CU Disclosure protocol?	X	

Risk of harm, potential harm and disclosure of harm

Question		Yes	No
1	Is there any significant risk that the study may lead to physical harm to participants or researchers?		X
	If YES, please explain how you will take steps to reduce or address those risks		
2	Is there any significant risk that the study may lead to psychological or emotional distress to participants?		X
	If YES, please explain how you will take steps to reduce or address those risks		
3	Is there any risk that the study may lead to psychological or emotional distress to researchers?		X
	If YES, please explain how you will take steps to reduce or address those risks		
4	Is there any risk that your study may lead or result in harm to the reputation of participants, researchers, or their employees, or any associated persons or organisations?		X
	If YES, please explain how you will take steps to reduce or address those risks		
5	Is there a risk that the study will lead to participants to disclose evidence of previous criminal offences, or their intention to commit criminal offences?		X
	If YES, please explain how you will take steps to reduce or address those risks		
6	Is there a risk that the study will lead participants to disclose evidence that children or vulnerable adults are being harmed, or at risk or harm?		X
	If YES, please explain how you will take steps to reduce or address those risks		
7	Is there a risk that the study will lead participants to disclose evidence of serious risk of other types of harm?		X
	If YES, please explain how you will take steps to reduce or address those risks		
8	Are you aware of the CU Disclosure protocol?	X	

Online and Internet Research

Question		Yes	No	
1	Will any part of your study involve collecting data by means of electronic media (e.g. the Internet, e-mail, Facebook, Twitter, online forums, etc)?		X	
	If YES, please explain how you will obtain permission to collect data by this means			
2	Is there a possibility that the study will encourage children under 18 to access inappropriate websites, or correspond with people who pose risk of harm?		X	
	If YES, please explain further			
3	Will the study incur any other risks that arise specifically from the use of electronic media?		X	
	If YES, please explain further			
4	Will you be using survey collection software (e.g. BoS, Filemaker)?		X	
	If YES, please explain which software			
5	Have you taken necessary precautions for secure data management, in accordance with data protection and CU Policy?	X		
	If NO	please explain why not		
	If YES	Specify location where data will be stored	I will record the information in a folder with a password and I will use and save the folder in the University systems only.	
		Planned disposal date	31/01/2023	
		If the research is funded by an external organisation, are there any requirements for storage and disposal?		X
		If YES, please specify details		

Project Title

Understanding the role of sport mega-events on sport participation: Systematic Review

Comments

Comment	Posted
3. Explain your research design - Provide more details about the systematic review (e.g. databases, keywords)	Rui Biscaia 21/02/2019 02:54 PM
4. Outline the principal methods you will use - There are some typos in this section (e.g. Scopes should be Scopus; Scholer should be scholar)	Rui Biscaia 21/02/2019 02:55 PM
Specify location where data will be stored - IN addition to what is written, you should mention that you are going to use the "University systems only"	Rui Biscaia 21/02/2019 02:56 PM
See my previous comments, improve the application based on these comments and then submit again	Rui Biscaia 21/02/2019 02:57 PM
Evaluation of the ethics of the proposal: Low risk research involving collection and review of publicly available secondary data sources for a PGR project.	Philip Dunham 26/02/2019 03:45 PM
Evaluation of the participant information sheet and consent form: Not required.	Philip Dunham 26/02/2019 03:45 PM
Conditions or reasons that support your recommendation: Proceed with good ethical practice.	Philip Dunham 26/02/2019 03:45 PM

Appendix L: Ethical application P98672

Understanding the role of consecutive international sport events on sport and exercise participation. A study with different age segments P98672



Medium to High Risk Research Ethics Approval

Project Title

Understanding the role of consecutive international sport events on sport and exercise participation. A study with different age segments

Record of Approval

Principal Investigator

I request an ethics peer review and confirm that I have answered all relevant questions in this checklist honestly.	X
I confirm that I will carry out the project in the ways described in this checklist. I will immediately suspend research and request new ethical approval if the project subsequently changes the information I have given in this checklist.	X
I confirm that I, and all members of my research team (if any), have read and agreed to abide by the Code of Research Ethics issued by the relevant national learned society.	X
I confirm that I, and all members of my research team (if any), have read and agreed to abide by the University's Research Ethics, Governance and Integrity Framework.	X

Name: Ryuta Yoda

Date: 26/11/2019

Student's Supervisor (if applicable)

I have read this checklist and confirm that it covers all the ethical issues raised by this project fully and frankly. I also confirm that these issues have been discussed with the student and will continue to be reviewed in the course of supervision.

Name: Rui Biscaia.....

Date: 07/01/2020

Reviewer (if applicable)

Date of approval by anonymous reviewer: 21/01/2020

Medium to High Risk Research Ethics Approval Checklist

Project Information

Project Ref	P98672
Full name	Ryuta Yoda
Faculty	Faculty of Business and Law
Department	Centre for Business in Society
Supervisor	Rui Biscaia
Module Code	CBIS-PHD
EFAAF Number	
Project title	Understanding the role of consecutive international sport events on sport and exercise participation. A study with different age segments
Date(s)	21/01/2019 - 31/01/2022
Created	26/11/2019 19:39

Project Summary

The aim of this research is to understand the impacts of hosting international sport events consecutively in a city to young and old individuals' attitude and behaviours towards participating in sports and exercise. This research plans to use mixed method approach. This research plans to use mixed method approach. For quantitative approach, the research plans to use secondary data to analyse the impact of international sport events' planning stage may affect sport and exercise participation. For qualitative approach, the research will conduct semi-structured interviews to understand the organizers of international sport events' approaches to increasing sport and exercise participation. Also, the research will conduct semi-structured interviews to general population to understand how hosting international sport events may impact individuals with focusing on young and old people. This research plans to understand old and young people's attitude and behaviour towards participating in sports and exercise are impacted by hosting consecutive international sport events.

Names of Co-Investigators and their organisational affiliation (place of study/employer)	
Is the project self-funded?	NO
Who is funding the project?	
Has the funding been confirmed?	NO
Are you required to use a Professional Code of Ethical Practice appropriate to your discipline?	NO
Have you read the Code?	NO

Project Details

What is the purpose of the project?	The purpose of this project is to understand if old and young people's attitude and behaviour towards participating in sport and exercise changes when either host international sport event consecutively. Also the research aims to critically analyse how and if the international sport event planning may affect sport and exercise participation among young and old people. In addition, this research will examine the spillover impacts of hosting multiple international sport events consecutively in a city on young and old people's participation in sport and exercise.
What are the planned or desired outcomes?	This research plans to find out the process of how hosting consecutive international sport events may impact old and young people's attitude and behaviour towards participating in sports and exercise. Overall this research is expected to better understand people's attitude towards participating in sports and exercise changed through hosting multiple international sport event consecutively in a city and how this change in attitude led to change in exercise behaviour.
Explain your research design	<p>This research plans to use mixed method approach. Using quantitative approach to analyse the impact of international sport events' planning stage may affect sport and exercise participation. The secondary data with raw data is publicly available by the Sasakawa Sports Foundation (SSF) and the Tokyo Metropolitan Government (TMG). The survey by the SSF focus on frequency, intensity and type of participated sport, the survey by the TMG collects additional information like the purpose and the constraints to participate in sport and exercise.</p> <p>Qualitative approach has two parts. First, through interviewing organisers and the hosting cities of the events to find out the purpose of the bidding, the initial leverage plan related to increase in sport and exercise participation and the relevant activities that were executed, which help to understand the background of this</p>

	topic. Second, conducting two sets of semi-structured interviews with the same participants in two cities (hosting a single event and multiple events) to analyse how hosting consecutive international sporting events have impacted citizen's attitude and behaviours towards participating in sport and exercise.
Outline the principal methods you will use	<p>For quantitative approach, the secondary data by the SSF and the TMG will be used. The data is available in Japanese, which is going to be translated by the researcher who is fluent in both Japanese and English. The SSF conduct the Japanese National Sport-Life Survey to collect the data every 2 years. The most recent survey by the SSF was conducted in July to August 2018 and the next one is expected in the Summer of 2020. It means that it is suitable for measuring the impact of planning stage. For the survey conducted by the TMG, the most recent survey was conducted in September 2018 and the next one is expected in September 2020. Both surveys collect data related to frequency, intensity and type of participated sport. The data will be analysed using SPSS.</p> <p>For qualitative approach, two types of semi-structured interviews are planned. First, interviewing organisers and hosting cities will be conducted to understand strategy used by stakeholders of the 2019 Rugby World Cup to increase rugby, other sports and exercise participation. To find out the purpose of the bidding and the initial leverage plan related to increase in rugby participation, an interview with a member of the Japan Rugby Football Union, who involved in the bidding process, is planned. To find out the initial leverage plan related to increase in sports and exercise, interviews with hosting cities of the 2019 Rugby World Cup are planned. To find out the relevant activities that were executed, interviews with a member of the Japan Rugby Football Union and/or the Rugby World Cup 2019 Organising Committee, who involved in coordination or operation of rugby development programs are planned.</p> <p>Second, the interviews with general population will be conducted in two cities;</p>

	<p>Tokyo and Oita. Tokyo is the main venue for the 2020 Tokyo Olympic Games. Oita is an ideal comparison because the city was one of venues for the 2019 Rugby World Cup and one of the two venues that host quarter finals but will not host any events for the 2020 Tokyo Olympic Games. The interviews will be conducted twice, and with the same individuals. By conducted the interviews to the same participants at two locations, where one with a single event and another with consecutive events, the research can measure the impact of hosting consecutive events to individual's attitude and behaviours towards sport and exercise. The plan is to interview approximately 24 individuals in each location. The gender of participants will be balanced. Target sample of this research is 20 to 29 and 60 to 79 years old (approximately 12 individual each). In terms of criteria for selecting the individuals, they must have watched at least one match (equivalent of 80 minutes) of rugby, which could be either at the venues or through the live broadcasting. The participants will be recruited using snow-bowl sampling which is an effective way to reach individual where it is hard to identify if they meet required characteristics (Saunders et al. 2019). In this case, using snow-bowl sampling, the information provided by 3rd person allow the research to identify potential participants, who watched the 2019 Rugby World Cup match, meet age requirement and residency. In addition, this method allow research to identify occupational status (student, employed, retired, housewife/husband) of potential participants before officially inviting them to participates, which allows the research to have participants with different status.</p>
Are you proposing to use an external research instrument, validated scale or follow a published research method?	NO
If yes, please give details of what you are using	
Will your research involve consulting individuals who support, or literature, websites or similar material which advocates, any of the following: terrorism, armed struggles, or political, religious or other forms of activism considered illegal under UK law?	NO
Are you dealing with Secondary Data? (e.g. sourcing info from websites, historical	YES

documents)	
Are you dealing with Primary Data involving people? (e.g. interviews, questionnaires, observations)	YES
Are you dealing with personal or sensitive data?	YES
Will the Personal or Sensitive data be shared with a third party?	NO
Will the Personal or Sensitive data be shared outside of the European Economic Area ("EEA")?	NO
Is the project solely desk based? (e.g. involving no laboratory, workshop or off-campus work or other activities which pose significant risks to researchers or participants)	NO
Are there any other ethical issues or risks of harm raised by the study that have not been covered by previous questions?	NO
If yes, please give further details	

DBS (Disclosure & Barring Service) formerly CRB (Criminal Records Bureau)

Question		Yes	No
1	Does the study require DBS (Disclosure & Barring Service) checks?		X
	If YES, please give details of the serial number, date obtained and expiry date		
2	If NO, does the study involve direct contact by any member of the research team:		
	a) with children or young people under 18 years of age?		X
	b) with adults who have learning difficulties, brain injury, dementia, degenerative neurological disorders?		X
	c) with adults who are frail or physically disabled?		X
	d) with adults who are living in residential care, social care, nursing homes, re-ablement centres, hospitals or hospices?		X
	e) with adults who are in prison, remanded on bail or in custody?		X
	If you have answered YES to any of the questions above please explain the nature of that contact and what you will be doing		

External Ethical Review

Question		Yes	No
1	Will this study be submitted for ethical review to an external organisation? (e.g. Another University, Social Care, National Health Service, Ministry of Defence, Police Service and Probation Office)		X
	If YES, name of external organisation		
2	Will this study be reviewed using the IRAS system?		X
3	Has this study previously been reviewed by an external organisation?		X

Confidentiality, security and retention of research data

Question		Yes	No
1	Are there any reasons why you cannot guarantee the full security and confidentiality of any personal or confidential data collected for the study?		X
	If YES, please give an explanation		
2	Is there a significant possibility that any of your participants, and associated persons, could be directly or indirectly identified in the outputs or findings from this study?		X
	If YES, please explain further why this is the case		
3	Is there a significant possibility that a specific organisation or agency or participants could have confidential information identified, as a result of the way you write up the results of the study?		X
	If YES, please explain further why this is the case		
4	Will any members of the research team retain any personal or confidential data at the end of the project, other than in fully anonymised form?		X
	If YES, please explain further why this is the case		
5	Will you or any member of the team intend to make use of any confidential information, knowledge, trade secrets obtained for any other purpose than the research project?		X
	If YES, please explain further why this is the case		
6	Will you be responsible for destroying the data after study completion?	X	
	If NO, please explain how data will be destroyed, when it will be destroyed and by whom		

Participant Information and Informed Consent

Question		Yes	No
1	Will all the participants be fully informed BEFORE the project begins why the study is being conducted and what their participation will involve?	X	
	If NO, please explain why		
2	Will every participant be asked to give written consent to participating in the study, before it begins?	X	
	If NO, please explain how you will get consent from your participants. If not written consent, explain how you will record consent		
3	Will all participants be fully informed about what data will be collected, and what will be done with this data during and after the study?	X	
	If NO, please specify		
4	Will there be audio, video or photographic recording of participants?	X	
	Will explicit consent be sought for recording of participants?	X	
	If NO to explicit consent, please explain how you will gain consent for recording participants		
5	Will every participant understand that they have the right not to take part at any time, and/or withdraw themselves and their data from the study if they wish?	X	
	If NO, please explain why		
6	Will every participant understand that there will be no reasons required or repercussions if they withdraw or remove their data from the study?	X	
	If NO, please explain why		
7	Does the study involve deceiving, or covert observation of, participants?		X
	Will you debrief them at the earliest possible opportunity?		
	If NO to debrief them, please explain why this is necessary		

Risk of harm, potential harm and disclosure of harm

Question		Yes	No
1	Is there any significant risk that the study may lead to physical harm to participants or researchers?		X
	If YES, please explain how you will take steps to reduce or address those risks		
2	Is there any significant risk that the study may lead to psychological or emotional distress to participants?		X
	If YES, please explain how you will take steps to reduce or address those risks		
3	Is there any risk that the study may lead to psychological or emotional distress to researchers?		X
	If YES, please explain how you will take steps to reduce or address those risks		
4	Is there any risk that your study may lead or result in harm to the reputation of participants, researchers, or their employees, or any associated persons or organisations?		X
	If YES, please explain how you will take steps to reduce or address those risks		
5	Is there a risk that the study will lead to participants to disclose evidence of previous criminal offences, or their intention to commit criminal offences?		X
	If YES, please explain how you will take steps to reduce or address those risks		
6	Is there a risk that the study will lead participants to disclose evidence that children or vulnerable adults are being harmed, or at risk or harm?		X
	If YES, please explain how you will take steps to reduce or address those risks		
7	Is there a risk that the study will lead participants to disclose evidence of serious risk of other types of harm?		X
	If YES, please explain how you will take steps to reduce or address those risks		
8	Are you aware of the CU Disclosure protocol?	X	

Payments to participants

Question		Yes	No
1	Do you intend to offer participants cash payments or any kind of inducements, or reward for taking part in your study?	X	
	<div>If YES, please explain what kind of payment you will be offering (e.g. prize draw or store vouchers)</div> <div>I'm planning to offer store vouchers or small merchandise (e.g. pen, keyring) from the 2019 Rugby World Cup, the 2020 Tokyo Olympics or relevant national teams.</div>		
2	Is there any possibility that such payments or inducements will cause participants to consent to risks that they might not otherwise find acceptable?		X
3	Is there any possibility that the prospect of payment or inducements will influence the data provided by participants in any way?		X
4	Will you inform participants that accepting payments or inducements does not affect their right to withdraw from the study at any time?	X	

Capacity to give valid consent

Question	Yes	No																		
1 Do you propose to recruit any participants who are: <table border="1"> <tr> <td>a) children or young people under 18 years of age?</td> <td></td> <td>X</td> </tr> <tr> <td>b) adults who have learning difficulties, mental health condition, brain injury, advanced dementia, degenerative neurological disorders?</td> <td></td> <td>X</td> </tr> <tr> <td>c) adults who are physically disabled?</td> <td></td> <td>X</td> </tr> <tr> <td>d) adults who are living in residential care, social care, nursing homes, re-ablement centres, hospitals or hospices?</td> <td></td> <td>X</td> </tr> <tr> <td>e) adults who are in prison, remanded on bail or in custody?</td> <td></td> <td>X</td> </tr> <tr> <td colspan="3">If you answer YES to any of the questions please explain how you will overcome any challenges to gaining valid consent</td> </tr> </table>	a) children or young people under 18 years of age?		X	b) adults who have learning difficulties, mental health condition, brain injury, advanced dementia, degenerative neurological disorders?		X	c) adults who are physically disabled?		X	d) adults who are living in residential care, social care, nursing homes, re-ablement centres, hospitals or hospices?		X	e) adults who are in prison, remanded on bail or in custody?		X	If you answer YES to any of the questions please explain how you will overcome any challenges to gaining valid consent				
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b) adults who have learning difficulties, mental health condition, brain injury, advanced dementia, degenerative neurological disorders?		X																		
c) adults who are physically disabled?		X																		
d) adults who are living in residential care, social care, nursing homes, re-ablement centres, hospitals or hospices?		X																		
e) adults who are in prison, remanded on bail or in custody?		X																		
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Recruiting Participants

Question	Yes	No
1 Do you propose to recruit any participants who are:		
a) students or employees of Coventry University or partnering organisation(s)?		X
If YES, please explain if there is any conflict of interest and how this will be addressed		
b) employees/staff recruited through other businesses, voluntary or public sector organisations?		X
If YES, please explain how permission will be gained		
c) pupils or students recruited through educational institutions (e.g. primary schools, secondary schools, colleges)?		X
If YES, please explain how permission will be gained		
d) clients/volunteers/service users recruited through voluntary public services?		X
If YES, please explain how permission will be gained		
e) participants living in residential care, social care, nursing homes, re-ablement centres hospitals or hospices?		X
If YES, please explain how permission will be gained		
f) recruited by virtue of their employment in the police or armed forces?		X
If YES, please explain how permission will be gained		
g) adults who are in prison, remanded on bail or in custody?		X
If YES, please explain how permission will be gained		
h) who may not be able to refuse to participate in the research?		X
If YES, please explain how permission will be gained		

Online and Internet Research

Question		Yes	No	
1	Will any part of your study involve collecting data by means of electronic media (e.g. the Internet, e-mail, Facebook, Twitter, online forums, etc)?		X	
	If YES, please explain how you will obtain permission to collect data by this means			
2	Is there a possibility that the study will encourage children under 18 to access inappropriate websites, or correspond with people who pose risk of harm?		X	
	If YES, please explain further			
3	Will the study incur any other risks that arise specifically from the use of electronic media?		X	
	If YES, please explain further			
4	Will you be using survey collection software (e.g. BoS, Filemaker)?		X	
	If YES, please explain which software			
5	Have you taken necessary precautions for secure data management, in accordance with data protection and CU Policy?	X		
	If NO	please explain why not		
	If YES	Specify location where data will be stored	I will record the information in a folder with a password and I will use and save the folder in the University systems only.	
		Planned disposal date	31/01/2022	
		If the research is funded by an external organisation, are there any requirements for storage and disposal?		X
		If YES, please specify details		

Languages

Question		Yes	No
1	Are all or some of the consent forms, information leaflets and research instruments associated with this project likely to be used in languages other than English?	X	
	If YES, please specify the language[s] to be used	Japanese	
2	Have some or all of the translations been undertaken by you or a member of the research team?	X	
	Are these translations in lay language and likely to be clearly understood by the research participants?	X	
	Please describe the procedures used when undertaking research instrument translation (e.g. forward and back translation), clarifying strategies for ensuring the validity and reliability or trustworthiness of the translation	First I translated the documents from English to Japanese. I am fluent in both language. Then the original document and translated document will be compared and checked by another person who is fluent in both language. Although I'm fluent in both language but I received education in English since middle school til now, so the person who checked the document is native Japanese speaker who is also fluent in English.	
3	Have some or all of the translations been undertaken by a third party?		X
	If YES, please specify the name[s] of the persons or agencies performing the translations		
	Please describe the procedures used when undertaking research instrument translation (e.g. forward and back translation), clarifying strategies for ensuring the validity and reliability of the translation		

Laboratory/Workshops

Question		Yes	No
1	Does any part of the project involve work in a laboratory or workshop which could pose risks to you, researchers or others?		X
	<p>If YES:</p> <p>If you have risk assessments for laboratory or workshop activities you can refer to them here & upload them at the end, or explain in the text box how you will manage those risks</p>		

Research with non-human vertebrates

Question		Yes	No
1	Will any part of the project involve animal habitats or tissues or non-human vertebrates?		X
	If YES, please give details		
2	Does the project involve any procedure to the protected animal whilst it is still alive?		
3	Will any part of your project involve the study of animals in their natural habitat?		
	If YES, please give details		
4	Will the project involve the recording of behaviour of animals in a non-natural setting that is outside the control of the researcher?		
	If YES, please give details		
5	Will your field work involve any direct intervention other than recording the behaviour of the animals available for observation?		
	If YES, please give details		
6	Is the species you plan to research endangered, locally rare or part of a sensitive ecosystem protected by legislation?		
	If YES, please give details		
7	Is there any significant possibility that the welfare of the target species of those sharing the local environment/habitat will be detrimentally affected?		
	If YES, please give details		
8	Is there any significant possibility that the habitat of the animals will be damaged by the project, such that their health and survival will be endangered?		
	If YES, please give details		
9	Will project work involve intervention work in a non-natural setting in relation to invertebrate species other than <i>Octopus vulgaris</i> ?		
	If YES, please give details		

Blood Sampling / Human Tissue Analysis

Question		Yes	No
1	Does your study involve collecting or use of human tissues or fluids? (e.g. collecting urine, saliva, blood or use of cell lines, 'dead' blood)		X
	If YES, please give details		
2	If your study involves blood samples or body fluids (e.g. urine, saliva) have you clearly stated in your application that appropriate guidelines are to be followed (e.g. The British Association of Sport and Exercise Science Physiological Testing Guidelines (2007) or equivalent) and that they are in line with the level of risk?		
	If NO, please explain why not		
3	If your study involves human tissue other than blood and saliva, have you clearly stated in your application that appropriate guidelines are to be followed (e.g. The Human Tissues Act, or equivalent) and that they are in line with level of risk?		
	If NO, please explain why not		

Travel

Question	Yes	No
<p>1 Does any part of the project require data collection off campus? (e.g. work in the field or community)</p> <p>If YES: You must consider the potential hazards from off campus activities (e.g. working alone, time of data collection, unfamiliar or hazardous locations, using equipment, the terrain, violence or aggression from others). Outline the precautions that will be taken to manage these risks, AS A MINIMUM this must detail how researchers would summon assistance in an emergency when working off campus. For complex or high risk projects you may wish to complete and upload a separate risk assessment</p> <p>The research will be conducted in Japan, where I'm from and speak thier language as my first language. The country itself is known to be developed and a safe place. The semi-structured interviews will be conducted in either local public building (e.g. community centre, city hall, and library) or cafe, where open public area to insure safety of participants and myself.</p>	X	
<p>2 Does any part of the project involve the researcher travelling outside the UK (or to very remote UK locations)?</p> <p>If YES: Please give details of where, when and how you will be travelling. For travel to high risk places you may wish to complete and upload a separate risk assessment</p> <p>I will be traveling to Japan using airplane. I will be in Japan from late February to beginning of April 2020. In Japan, I will be staying in Tokyo and Oita. Tokyo is my main place to stay and my family lives there. I will be taking airplane to Oita. Within each city, I will be taking public transportation. I will provide my DoS/Supervisors with my mobile phone number, as well as the address and phone number of my accommodation in Tokyo and the hotel in Oita. I will also email an itinerary of my whereabouts to my DoS/Supervisors when this is clearer.</p>	X	
<p>3 Are all travellers aware of contact numbers for emergency assistance when away (e.g. local emergency assistance, ambulance/local hospital/police, insurance helpline [+44 (0) 2071 737797] and CU's 24/7 emergency line [+44 (0) 2476 888555])?</p>	X	
<p>4 Are there any travel warnings in place advising against all, or essential only travel to the destination?</p> <p>NOTE: Before travel to countries with 'against all travel', or 'essential only' travel warnings, staff must check with Finance to ensure insurance coverage is not affected. Undergraduate projects in high risk destinations will not be approved</p>		X
<p>5 Are there increased risks to health and safety related to the destination? e.g. cultural differences, civil unrest, climate, crime, health outbreaks/concerns, and travel arrangements?</p>		X

	If YES, please specify		
6	Do all travelling members of the research team have adequate travel insurance?	X	
7	Please confirm all travelling researchers have been advised to seek medical advice regarding vaccinations, medical conditions etc, from their GP	X	

Project Title

Understanding the role of consecutive international sport events on sport and exercise participation. A study with different age segments

Comments

Comment	Posted
Title: update the title based on the last supervisory meetings (i.e. sport participation?)	Rui Biscaia 06/01/2020 04:17 PM
Project summary: briefly explain the method and expected outcomes	Rui Biscaia 06/01/2020 04:18 PM
Research design: provide more details about the quantitative part (e.g. are you going to use secondary data? what kind of data and what sources?)	Rui Biscaia 06/01/2020 04:25 PM
Principal methods: Two ideas: 1. Simplify. An ethics application is not an article submission 2. What about the interviews with the organisers mentioned above?	Rui Biscaia 06/01/2020 04:28 PM
Attachments: - Update the title in all documents	Rui Biscaia 06/01/2020 05:22 PM
Health and safety form: You need the signature of your supervisor and/or director of studies	Rui Biscaia 06/01/2020 05:32 PM
See the comments on what to change	Rui Biscaia 06/01/2020 05:39 PM
Evaluation of the ethics of the proposal: Medium risk ethics application involving research into the impact of hosting consecutive sports mega events in Japan on participation in sport/exercise, and whether 'age' and 'consecutive events' are determining factors. The research involves interviewing mega event organisers, but also interviewing members of the wider population (targeting younger people and older people) in two cities in Japan – one city with a one-off event and another city with consecutive events. Before-event(s) and after-event(s) interviews will take place with members of the wider population (24 participants in each city). The wider population interviewees will be asked to complete a pre-interview questionnaire. Existing secondary survey data from Japanese agencies, available to the public, will also be utilised. There are a small number of things that need to be changed before this application can be approved: 1) Whilst a Risk Assessment has been undertaken, in Section 14 (Travel), under Question 2, I would also like you to add something like "I will provide my DoS/Supervisors with my mobile phone number, as well as the address and phone number of my accommodation in Tokyo and the hotel in Oita. I will also email an itinerary of my whereabouts to my DoS/Supervisors when this is clearer." 2) Documents attached: The only thing that needs changing is the "pre-interview questionnaire" for participants. This needs to have an "information and consent statement" at the start (for both versions –	Kevin Broughton 21/01/2020 01:55 PM

English and Japanese). I will email the correct version to you directly. Complete this statement with the appropriate information and tick boxes and insert this before the questionnaire questions.	
Evaluation of the participant information sheet and consent form: See above - just a small change to the pre-interview questionnaire. Apart from this, all other documentation to be utilised is correct and there are Japanese translations for all of these, where appropriate.	Kevin Broughton 21/01/2020 01:55 PM
Conditions or reasons that support your recommendation: In summary, the following changes need to be made (then the application can be rapidly approved): 1) In Section 14, Question 2, add the statement about keeping your DoS/Supervisors informed of your whereabouts and addresses/phone numbers. 2) Insert the appropriate information and consent statement into your Pre-Interview Questionnaire (for both English and Japanese versions).	Kevin Broughton 21/01/2020 01:55 PM
Evaluation of the ethics of the proposal: Both requested changes (see Reviewer's previous comments) to the application and pre-interview questionnaire have now been addressed. The application can be approved.	Kevin Broughton 21/01/2020 05:33 PM
Evaluation of the participant information sheet and consent form: See above - the changes to the pre-interview questionnaire have now been made.	Kevin Broughton 21/01/2020 05:33 PM
Conditions or reasons that support your recommendation: Both requested changes have been made. Approved.	Kevin Broughton 21/01/2020 05:33 PM

Appendix M: Ethical application P109219

Understanding the role of success and postponement of international sport events on sport and exercise participation. A study with different age segments P109219



Medium to High Risk Research Ethics Approval

Project Title

Understanding the role of success and postponement of international sport events on sport and exercise participation. A study with different age segments

Record of Approval

Principal Investigator

I request an ethics peer review and confirm that I have answered all relevant questions in this checklist honestly.	X
I confirm that I will carry out the project in the ways described in this checklist. I will immediately suspend research and request new ethical approval if the project subsequently changes the information I have given in this checklist.	X
I confirm that I, and all members of my research team (if any), have read and agreed to abide by the Code of Research Ethics issued by the relevant national learned society.	X
I confirm that I, and all members of my research team (if any), have read and agreed to abide by the University's Research Ethics, Governance and Integrity Framework.	X

Name: Ryuta Yoda

Date: 16/07/2020

Student's Supervisor (if applicable)

I have read this checklist and confirm that it covers all the ethical issues raised by this project fully and frankly. I also confirm that these issues have been discussed with the student and will continue to be reviewed in the course of supervision.

Name: Rui Biscaia.....

Date: 26/07/2020

Reviewer (if applicable)

Date of approval by anonymous reviewer: 28/07/2020

Medium to High Risk Research Ethics Approval Checklist

Project Information

Project Ref	P109219
Full name	Ryuta Yoda
Faculty	Faculty of Business and Law
Department	Centre for Business in Society
Supervisor	Rui Biscaia
Module Code	CBIS-PHD
EFAAF Number	
Project title	Understanding the role of success and postponement of international sport events on sport and exercise participation. A study with different age segments
Date(s)	21/01/2019 - 31/01/2022
Created	16/07/2020 08:18

Project Summary

The aim of this research is to understand the impacts of success and postponement of international sport events hosted in a city to young and old individuals' attitude and behaviours towards participating in sports and exercise. This research plans to use mixed method approach. For quantitative approach, the research plans to use secondary data to analyse the impact of international sport events' planning stage may affect sport and exercise participation. For qualitative approach, the research will conduct semi-structured interviews to general population to understand how hosting international sport events may impact individuals with focusing on young and old people. This research plans to understand old and young people's attitude and behaviour towards participating in sports and exercise are impacted by success and postponement of international sport events hosted. This application is for 2nd semi-structured interview, which will be conducted online or by phone.

Names of Co-Investigators and their organisational affiliation (place of study/employer)	
Is the project self-funded?	NO
Who is funding the project?	
Has the funding been confirmed?	NO
Are you required to use a Professional Code of Ethical Practice appropriate to your discipline?	NO
Have you read the Code?	NO

Project Details

What is the purpose of the project?	The purpose of this project is to understand if old and young people's attitude and behaviour towards participating in sport and exercise changes when international sport event is successfully hosted and postponed due to the crisis. Also the research aims to critically analyse how and if the international sport event planning may affect sport and exercise participation among young and old people. In addition, this research will examine the impacts of crisis and social change caused by it on young and old people's participation in sport and exercise.
What are the planned or desired outcomes?	This research plans to find out the process of how hosting international sport events may impact old and young people's attitude and behaviour towards participating in sports and exercise by examining successful and postponed events. Overall this research is expected to better understand people's attitude towards participating in sports and exercise changed through hosting international sport event in a city and how this change in attitude led to change in exercise behaviour.
Explain your research design	<p>This research plans to use mixed method approach. Using quantitative approach to analyse the impact of international sport events' planning stage may affect sport and exercise participation. The secondary data with raw data is publicly available by the Sasakawa Sports Foundation (SSF) and the Tokyo Metropolitan Government (TMG). The survey by the SSF focus on frequency, intensity and type of participated sport, the survey by the TMG collects additional information like the purpose and the constraints to participate in sport and exercise.</p> <p>Using qualitative approach analyse how hosting international sport events have impacted citizen's attitude and behaviours towards participating in sport and exercise through focusing on two international sport events. By conducting two sets of semi-structured interviews with the same participants in two cities to analyse how</p>

	hosting an international sporting event successfully and postponement of a planned international sporting event have impacted citizen's attitude and behaviours towards participating in sport and exercise.
Outline the principal methods you will use	<p>This ethics application covers, the second round of interviews which is to understand the impacts of postponed international sport events in a city to young and old people's attitude and behaviours towards participating in sport and exercise. Interview participants will be the same as the first round of interview, which was about their experience with the 2019 Rugby World Cup and their attitude and behaviour towards participation in sport and exercise. By conducting the interviews to the same participants, the research can examine changes in their attitude and behavior towards participation in sport and exercise through impact of the 2019 Rugby World Cup after nearly one year and impact of postponement of the 2020 Tokyo Olympic Games as well as impact of COVID-19 pandemic and social changes lead by COVID-19 pandemic.</p> <p>For the second round of interviews, it will be conducted through phone or online using Teams, Skype or Line (most widely used communication application in Japan). The pre-interview initial questionnaire will be sent by email or mail prior to interview. Following the first round of interview, target sample of this research is 20 to 29 and 60 to 79 years old who live in Tokyo or Oita. There were 57 interview participants overall in the first round of interview and all participants were positive about participating in the second interviews, but they will be contacted again to confirm that if they are still willing to participate in this interview.</p>
Are you proposing to use an external research instrument, validated scale or follow a published research method?	NO
If yes, please give details of what you are using	
Will your research involve consulting individuals who support, or literature, websites or similar material which advocates, any of the following: terrorism, armed struggles, or political, religious or other forms of activism considered illegal under	NO

UK law?		
Are you dealing with Secondary Data? (e.g. sourcing info from websites, historical documents)		NO
Are you dealing with Primary Data involving people? (e.g. interviews, questionnaires, observations)		YES
Are you dealing with personal or sensitive data?		YES
Will the Personal or Sensitive data be shared with a third party?		NO
Will the Personal or Sensitive data be shared outside of the European Economic Area ("EEA")?		NO
Is the project solely desk based? (e.g. involving no laboratory, workshop or off-campus work or other activities which pose significant risks to researchers or participants)		NO
Are there any other ethical issues or risks of harm raised by the study that have not been covered by previous questions?		NO
If yes, please give further details		

DBS (Disclosure & Barring Service) formerly CRB (Criminal Records Bureau)

Question		Yes	No
1	Does the study require DBS (Disclosure & Barring Service) checks?		X
	If YES, please give details of the serial number, date obtained and expiry date		
2	If NO, does the study involve direct contact by any member of the research team:		
	a) with children or young people under 18 years of age?		X
	b) with adults who have learning difficulties, brain injury, dementia, degenerative neurological disorders?		X
	c) with adults who are frail or physically disabled?		X
	d) with adults who are living in residential care, social care, nursing homes, re-ablement centres, hospitals or hospices?		X
	e) with adults who are in prison, remanded on bail or in custody?		X
	If you have answered YES to any of the questions above please explain the nature of that contact and what you will be doing		

External Ethical Review

Question		Yes	No
1	Will this study be submitted for ethical review to an external organisation? (e.g. Another University, Social Care, National Health Service, Ministry of Defence, Police Service and Probation Office)		X
	If YES, name of external organisation		
2	Will this study be reviewed using the IRAS system?		X
3	Has this study previously been reviewed by an external organisation?		X

Confidentiality, security and retention of research data

Question		Yes	No
1	Are there any reasons why you cannot guarantee the full security and confidentiality of any personal or confidential data collected for the study?		X
	If YES, please give an explanation		
2	Is there a significant possibility that any of your participants, and associated persons, could be directly or indirectly identified in the outputs or findings from this study?		X
	If YES, please explain further why this is the case		
3	Is there a significant possibility that a specific organisation or agency or participants could have confidential information identified, as a result of the way you write up the results of the study?		X
	If YES, please explain further why this is the case		
4	Will any members of the research team retain any personal or confidential data at the end of the project, other than in fully anonymised form?		X
	If YES, please explain further why this is the case		
5	Will you or any member of the team intend to make use of any confidential information, knowledge, trade secrets obtained for any other purpose than the research project?		X
	If YES, please explain further why this is the case		
6	Will you be responsible for destroying the data after study completion?	X	
	If NO, please explain how data will be destroyed, when it will be destroyed and by whom		

Participant Information and Informed Consent

Question	Yes	No
1 Will all the participants be fully informed BEFORE the project begins why the study is being conducted and what their participation will involve? If NO, please explain why	X	
2 Will every participant be asked to give written consent to participating in the study, before it begins? If NO, please explain how you will get consent from your participants. If not written consent, explain how you will record consent	X	
3 Will all participants be fully informed about what data will be collected, and what will be done with this data during and after the study? If NO, please specify	X	
4 Will there be audio, video or photographic recording of participants? Will explicit consent be sought for recording of participants? If NO to explicit consent, please explain how you will gain consent for recording participants	X X	
5 Will every participant understand that they have the right not to take part at any time, and/or withdraw themselves and their data from the study if they wish? If NO, please explain why	X	
6 Will every participant understand that there will be no reasons required or repercussions if they withdraw or remove their data from the study? If NO, please explain why	X	
7 Does the study involve deceiving, or covert observation of, participants? Will you debrief them at the earliest possible opportunity? If NO to debrief them, please explain why this is necessary		X

Risk of harm, potential harm and disclosure of harm

Question	Yes	No
1 Is there any significant risk that the study may lead to physical harm to participants or researchers? If YES, please explain how you will take steps to reduce or address those risks		X
2 Is there any significant risk that the study may lead to psychological or emotional distress to participants? If YES, please explain how you will take steps to reduce or address those risks		X
3 Is there any risk that the study may lead to psychological or emotional distress to researchers? If YES, please explain how you will take steps to reduce or address those risks		X
4 Is there any risk that your study may lead or result in harm to the reputation of participants, researchers, or their employees, or any associated persons or organisations? If YES, please explain how you will take steps to reduce or address those risks		X
5 Is there a risk that the study will lead participants to disclose evidence of previous criminal offences, or their intention to commit criminal offences? If YES, please explain how you will take steps to reduce or address those risks		X
6 Is there a risk that the study will lead participants to disclose evidence that children or vulnerable adults are being harmed, or at risk or harm? If YES, please explain how you will take steps to reduce or address those risks		X
7 Is there a risk that the study will lead participants to disclose evidence of serious risk of other types of harm? If YES, please explain how you will take steps to reduce or address those risks		X
8 Are you aware of the CU Disclosure protocol?	X	

Payments to participants

Question		Yes	No
1	Do you intend to offer participants cash payments or any kind of inducements, or reward for taking part in your study?	X	
	If YES, please explain what kind of payment you will be offering (e.g. prize draw or store vouchers)	I'm planning to offer store vouchers or small merchandise (e.g. pen, keyring) from the Tokyo Olympics or relevant sporting events or teams.	
2	Is there any possibility that such payments or inducements will cause participants to consent to risks that they might not otherwise find acceptable?		X
3	Is there any possibility that the prospect of payment or inducements will influence the data provided by participants in any way?		X
4	Will you inform participants that accepting payments or inducements does not affect their right to withdraw from the study at any time?	X	

Capacity to give valid consent

Question	Yes	No
1 Do you propose to recruit any participants who are:		
a) children or young people under 18 years of age?		X
b) adults who have learning difficulties, mental health condition, brain injury, advanced dementia, degenerative neurological disorders?		X
c) adults who are physically disabled?		X
d) adults who are living in residential care, social care, nursing homes, re-ablement centres, hospitals or hospices?		X
e) adults who are in prison, remanded on bail or in custody?		X
If you answer YES to any of the questions please explain how you will overcome any challenges to gaining valid consent		
2 Do you propose to recruit any participants with possible communication difficulties, including difficulties arising from limited use of knowledge of the English language?	X	
If YES, please explain how you will overcome any challenges to gaining valid consent	The research will be conducted in Japan using Japanese. Informed consent form and participation information sheet are translated to Japanese.	
3 Do you propose to recruit any participants who may not be able to understand fully the nature of the study, research and the implications for them of participating in it or cannot provide consent themselves?		X
If YES, please explain how you will overcome any challenges to gaining valid consent		

Recruiting Participants

Question	Yes	No
1 Do you propose to recruit any participants who are:		
a) students or employees of Coventry University or partnering organisation(s)?		X
If YES, please explain if there is any conflict of interest and how this will be addressed		
b) employees/staff recruited through other businesses, voluntary or public sector organisations?		X
If YES, please explain how permission will be gained		
c) pupils or students recruited through educational institutions (e.g. primary schools, secondary schools, colleges)?		X
If YES, please explain how permission will be gained		
d) clients/volunteers/service users recruited through voluntary public services?		X
If YES, please explain how permission will be gained		
e) participants living in residential care, social care, nursing homes, re-ablement centres hospitals or hospices?		X
If YES, please explain how permission will be gained		
f) recruited by virtue of their employment in the police or armed forces?		X
If YES, please explain how permission will be gained		
g) adults who are in prison, remanded on bail or in custody?		X
If YES, please explain how permission will be gained		
h) who may not be able to refuse to participate in the research?		X
If YES, please explain how permission will be gained		

Online and Internet Research

Question		Yes	No	
1	Will any part of your study involve collecting data by means of electronic media (e.g. the Internet, e-mail, Facebook, Twitter, online forums, etc)?		X	
	If YES, please explain how you will obtain permission to collect data by this means			
2	Is there a possibility that the study will encourage children under 18 to access inappropriate websites, or correspond with people who pose risk of harm?		X	
	If YES, please explain further			
3	Will the study incur any other risks that arise specifically from the use of electronic media?		X	
	If YES, please explain further			
4	Will you be using survey collection software (e.g. BoS, Filemaker)?		X	
	If YES, please explain which software			
5	Have you taken necessary precautions for secure data management, in accordance with data protection and CU Policy?	X		
	If NO	please explain why not		
	If YES	Specify location where data will be stored	I will only use OneDrive.	
		Planned disposal date	31/01/2022	
		If the research is funded by an external organisation, are there any requirements for storage and disposal?		X
		If YES, please specify details		

Languages

Question		Yes	No
1	Are all or some of the consent forms, information leaflets and research instruments associated with this project likely to be used in languages other than English?	X	
	If YES, please specify the language[s] to be used	Japanese	
2	Have some or all of the translations been undertaken by you or a member of the research team?	X	
	Are these translations in lay language and likely to be clearly understood by the research participants?	X	
	Please describe the procedures used when undertaking research instrument translation (e.g. forward and back translation), clarifying strategies for ensuring the validity and reliability or trustworthiness of the translation	First I translated the documents from English to Japanese. I am fluent in both language. Then the original document and translated document will be compared and checked by another person who is fluent in both language. Although I'm fluent in both language but I received education in English since middle school till now, so the person who checked the document is native Japanese speaker who is also fluent in English.	
3	Have some or all of the translations been undertaken by a third party?		X
	If YES, please specify the name[s] of the persons or agencies performing the translations		
	Please describe the procedures used when undertaking research instrument translation (e.g. forward and back translation), clarifying strategies for ensuring the validity and reliability of the translation		

Laboratory/Workshops

Question		Yes	No
1	Does any part of the project involve work in a laboratory or workshop which could pose risks to you, researchers or others?		X
	<p>If YES:</p> <p>If you have risk assessments for laboratory or workshop activities you can refer to them here & upload them at the end, or explain in the text box how you will manage those risks</p>		

Research with non-human vertebrates

Question		Yes	No
1	Will any part of the project involve animal habitats or tissues or non-human vertebrates?		X
	If YES, please give details		
2	Does the project involve any procedure to the protected animal whilst it is still alive?		
3	Will any part of your project involve the study of animals in their natural habitat?		
	If YES, please give details		
4	Will the project involve the recording of behaviour of animals in a non-natural setting that is outside the control of the researcher?		
	If YES, please give details		
5	Will your field work involve any direct intervention other than recording the behaviour of the animals available for observation?		
	If YES, please give details		
6	Is the species you plan to research endangered, locally rare or part of a sensitive ecosystem protected by legislation?		
	If YES, please give details		
7	Is there any significant possibility that the welfare of the target species of those sharing the local environment/habitat will be detrimentally affected?		
	If YES, please give details		
8	Is there any significant possibility that the habitat of the animals will be damaged by the project, such that their health and survival will be endangered?		
	If YES, please give details		
9	Will project work involve intervention work in a non-natural setting in relation to invertebrate species other than <i>Octopus vulgaris</i> ?		
	If YES, please give details		

Blood Sampling / Human Tissue Analysis

Question		Yes	No
1	Does your study involve collecting or use of human tissues or fluids? (e.g. collecting urine, saliva, blood or use of cell lines, 'dead' blood)		X
	If YES, please give details		
2	If your study involves blood samples or body fluids (e.g. urine, saliva) have you clearly stated in your application that appropriate guidelines are to be followed (e.g. The British Association of Sport and Exercise Science Physiological Testing Guidelines (2007) or equivalent) and that they are in line with the level of risk?		
	If NO, please explain why not		
3	If your study involves human tissue other than blood and saliva, have you clearly stated in your application that appropriate guidelines are to be followed (e.g. The Human Tissues Act, or equivalent) and that they are in line with level of risk?		
	If NO, please explain why not		

Travel

Question	Yes	No
<p>1 Does any part of the project require data collection off campus? (e.g. work in the field or community)</p> <p>If YES: You must consider the potential hazards from off campus activities (e.g. working alone, time of data collection, unfamiliar or hazardous locations, using equipment, the terrain, violence or aggression from others). Outline the precautions that will be taken to manage these risks, AS A MINIMUM this must detail how researchers would summon assistance in an emergency when working off campus. For complex or high risk projects you may wish to complete and upload a separate risk assessment</p>	X	
<p>The research will be conducted in Japan, where I'm from and speak their language as my first language. The country itself is known to be developed and a safe place. The semi-structured interviews will be conducted online or by phone from my home in Japan.</p>		
<p>2 Does any part of the project involve the researcher travelling outside the UK (or to very remote UK locations)?</p> <p>If YES: Please give details of where, when and how you will be travelling. For travel to high risk places you may wish to complete and upload a separate risk assessment</p>	X	
<p>I will be conducting interview online or by phone from my home in Tokyo Japan but it will not require any travel since I have been in Japan since Feb 23rd to conduct my data collection and currently I am staying in Tokyo with my family (I'm from Japan and my family live in Tokyo).</p>		
<p>3 Are all travellers aware of contact numbers for emergency assistance when away (e.g. local emergency assistance, ambulance/local hospital/police, insurance helpline [+44 (0) 2071 737797] and CU's 24/7 emergency line [+44 (0) 2476 888555])?</p>	X	
<p>4 Are there any travel warnings in place advising against all, or essential only travel to the destination? NOTE: Before travel to countries with 'against all travel', or 'essential only' travel warnings, staff must check with Finance to ensure insurance coverage is not affected. Undergraduate projects in high risk destinations will not be approved</p>		X
<p>5 Are there increased risks to health and safety related to the destination? e.g. cultural differences, civil unrest, climate, crime, health outbreaks/concerns, and travel arrangements?</p> <p>If YES, please specify</p>	X	
<p>As most parts of the world is facing the COVID-19 pandemic and Japan is not exception. There is increased health risk compared to normal circumstance but the situation in Japan is better than most places in the world. Also, the COVID-19 pandemic haven't cause any other issues,</p>		

		so security and safety is maintained in high level and currently health care system is providing normal services.	
6	Do all travelling members of the research team have adequate travel insurance?	X	
7	Please confirm all travelling researchers have been advised to seek medical advice regarding vaccinations, medical conditions etc, from their GP	X	

Project Title

Understanding the role of success and postponement of international sport events on sport and exercise participation. A study with different age segments

Comments

Comment	Posted
<p>I included following information in risk assessment form but in case this information is helpful.</p> <p>I have been in Japan since Feb 23rd to conduct my data collection and currently I am staying in Tokyo with my family (I'm from Japan and my family lives in Tokyo). My original plan was to return to the UK on 12th April from my initial remote study, but I decided to continue staying and studying in Tokyo until the situation in the UK improves and the university facilities reopen. I would like to conduct my 2nd interview (phone/online interview) from late August to early October in Japan before I return to Coventry for the following reasons:</p> <p>(1) While it is phone/online interview, it would be much easier for me to conduct around 57 online/phone interview from Japan, where there is no time difference.</p> <p>(2) Some interviews can't be conducted online and require phone interview due to the limited or no internet access of the interview participants (I'm interviewing participants of the 1st wave of data collection) and would be difficult to conduct from Coventry</p> <p>(3) As mentioned above, I'm already in Japan so it would not require additional travel</p>	<p>Ryuta Yoda 25/07/2020 04:01 AM</p>
<p>Evaluation of the ethics of the proposal:</p> <p>Thanks for submitting this application.</p> <p>This application is for second round of interviews with participants already contacted before</p> <p>All is ok, just need a couple of amendments:</p> <p>please change the answer to the following questions:</p> <p>-Project details Q9: YES, since interviews are considered personal data.</p> <p>- Q9.5: Please only use OneDrive since it's the permitted storage location for research at CU</p>	<p>Evronia Azer 27/07/2020 11:18 PM</p>