



**VICTORIA UNIVERSITY**  
MELBOURNE AUSTRALIA

*Are they ‘worth their weight in gold’? Sport for older adults: benefits and barriers of their participation for sporting organisations*

This is the Accepted version of the following publication

Jenkin, Claire, Eime, Rochelle, Westerbeek, Hans, O'Sullivan, Grant and van Uffelen, Jannique (2016) Are they ‘worth their weight in gold’? Sport for older adults: benefits and barriers of their participation for sporting organisations. *International Journal of Sport Policy and Politics*, 8 (4). 663 - 680. ISSN 1940-6940

The publisher’s official version can be found at  
<http://www.tandfonline.com/doi/full/10.1080/19406940.2016.1220410>  
Note that access to this version may require subscription.

Downloaded from VU Research Repository <https://vuir.vu.edu.au/32211/>

# **Are they ‘worth their weight in gold’?**

## **Sport for older adults: benefits and barriers of their participation for sporting organisations**

Claire R Jenkin <sup>a</sup>, Rochelle M Eime <sup>ab</sup>, Hans Westerbeek <sup>a</sup>, Grant O’Sullivan <sup>a</sup> & Jannique GZ van Uffelen <sup>a</sup>

<sup>a</sup> Institute of Sport, Exercise and Active Living (ISEAL), Victoria University, Melbourne, VIC 8001, Australia

<sup>b</sup> Faculty of Health, Federation University, PO Box 663, Ballarat, 3353, Victoria, Australia

### **Abstract**

The ageing global population has led to an increased focus on health for older adults. However, older adults have not been a specific priority for some sporting organisations. Thus there is an emerging opportunity for this age group to be considered within international sport policy. The aim of this study was to understand the benefits and barriers that sporting organisations encounter when engaging older adults. Eight focus group interviews (n=49) were held with representatives of Australian National Sporting Organisations, and older adults who were either sport club or non-sport club members. The socio-ecological model domains: interpersonal; organisational; and policy, were used as a framework for thematic analysis, and organisational capacity building concepts were utilised to explain the findings. Common perceived benefits included interpersonal benefits (intergenerational opportunities; role models) and organisational benefits (volunteering; financial contributions; maximised facility usage) for engaging older adults. Common perceived barriers included interpersonal barriers (competing priorities; perceived societal expectations), organisational barriers (lack of appropriate playing opportunities; lack of facility access; lack of club capacity), and policy barriers (strategic organisational focus on children and elite sport; risk management). Whilst participation in sport is not common for older adults, their involvement can be invaluable for sport clubs. It is not anticipated that any policy focus on older adults will significantly increase active participation for this age group. However, any increase in older adults’ sport participation either through actively playing, supporting

family and friends and/or volunteering, will contribute to the positive health of individuals, sport clubs and the community.

**Key words:** *older adults; participation in sport; sport policy; sport clubs; socio-ecological model; qualitative study.*

## **Introduction**

The populations of developed countries such as Australia are ageing, and the proportion of people aged 50 years and over in Australia is projected to increase to 39% by 2061 (Australian Bureau of Statistics, 2015). This is a public health issue as ageing is typically associated with a decline in physical (Paterson et al., 2007), mental (Bishop et al., 2010) and social health (Sirven and Debrand, 2008).

Research on older adults has linked participation in physical activity to improved physical (Rydwik et al., 2013, Haskell et al., 2007), mental (Chodzko-Zajko et al., 2009) and social health (Toepoel, 2012). Furthermore, regular physical activity can also prevent or delay the onset of many chronic conditions, such as cardiovascular disease or diabetes (Haskell et al., 2007). However, participation in physical activity tends to decline with age (Australian Bureau of Statistics, 2013-14).

An ageing population therefore has a number of policy implications relating to chronic diseases and associated health care resources. As participation in physical activity is a modifiable behaviour that can result in health benefits at the population level, the role that physical activity can play to prevent or delay the onset of age-related diseases is a national government health priority (Australian Institute of Health and Welfare, 2014).

### *Australian national preventative health policy*

In Australia, there have been a number of previous preventative health initiatives that promoted healthy lifestyles, such as the 'Life, be in it!' campaign launched in 1975 (Fullagar, 2002). The establishment of the Australian National Preventative Health Agency (ANPHA) in 2009 resulted in a more structured federal approach, with specific funding for preventative health management. The

2009 'Australia: the healthiest nation by 2020', and the 2010 'Taking Preventative Action' strategies were also developed (Australian Department of Health and Ageing, 2010). However, the ANPHA was abolished in 2014. Despite the lack of a current specific preventative health department, the Department of Health does provide physical activity guidelines, indicating the minimum amount of physical activity that is needed for health benefits, with specific guidelines for older adults (Australian Department of Health, 2014).

The decline in physical activity amongst older adults and the implications this has on their health and the national health system, is clearly a priority for the national health policy agenda. In Australia, the State and National governments have identified connections between health and sport specifically. In State Government, Sport and Recreation is within the health portfolio, and in the Commonwealth Government, there is an appointed Minister for Health, Aged Care and Sport. Also, sport clubs have been identified as a potential setting for health promotion activities internationally (Eime et al., 2010, Kokko et al., 2009). Therefore the nexus between sport, older adults and health are connected in principle.

#### *Australian national sport policy*

Sport is a form of leisure-time physical activity which, similar to physical activity more broadly, sees participation decrease with age (Eime et al., 2009b, Breuer and Wicker, 2009, Palacios-Cena et al., 2012). Sport participation rates for older adults in Australia are very low. A recent Australian study of 520,102 sport participants reported that fewer than 10% were over the age of 50 years (Eime et al., 2016). This low participation rate may in part be an effect of national sport policy which typically has a stronger focus on youth sport participation.

In Australia, the Australian Sports Commission (ASC) is the principal government agency that is responsible for sport. It allocates both elite and community-based federal funding for sport. The ASC also provides structure and funding to the National Sporting Organisations (NSOs), the national governing bodies of sport, and their respective State/Territory Sporting Organisations (SSOs). Most

sport in Australia is participated within community-based sport clubs that are registered with their respective SSO.

A main focus of Australian sport policy is elite sport and international sporting success, which is an integral part of Australia's national identity (Stewart et al., 2004). This is identifiable through the allocation of federal funding. The 2015-16 Australian federal government's budget for sport is \$134m, with 84% of this funding allocated to elite sport, and only 16% to community-based sport (Australian Sports Commission, 2015a). This focus is also identifiable through the ASC 2015-19 Corporate Plan, which has four focus areas: 'Win' (international success); 'Play' (increase participation); 'Thrive' (develop sustainable national sporting organisations); and 'Perform' (ensure the ASC achieves organisational excellence) (Australian Sports Commission, 2015b). As 'Win' is the first focus area, this suggests that elite sport is the priority participation group. For community-based sport, the main focus in the 'Play' area is children through the Sporting Schools programme. Thus older adults are not a main priority group in the national sport policy agenda and are therefore unlikely to be prioritised by NSOs.

As has been identified in Australian and other national sport systems (Green, 2007, Phillips and Newland, 2014), Australian national sport policies promote two contesting policies for sporting organisations to consider when consolidating their own implementation priorities. As funding is often specifically linked to success in achieving policy objectives, engaging under-represented population groups such as older adults may be intentionally not prioritised, as organisations strive to achieve outcomes in line with state and national policy.

There are many reasons why older adults are less likely to participate in sport. The socio-ecological model can be used to understand sport participation behaviour from various perspectives. The model states that there are four interrelated domains that can influence behaviour: intrapersonal; interpersonal; organisational; and policy (Sallis et al., 2008), and that these domains often include themes that can link and influence each other. With respect to the policy domain of the model, there are clear agendas towards elite sport and younger sport participants and not older adults specifically in Australia.

There has been extensive research in regard to the participation determinants of physical activity and some research on the determinants of sport participation, but mainly from the perspective of children and young adults (Casey et al., 2009a, Dwyer et al., 2006, Kalakanis et al., 2001). Of the current research on the determinants of older adults participating in sport, these predominantly focus on specific sports that are recognised as traditional for older adults, such as bowls (Heuser, 2005) or golf (Cann et al., 2005, Siegenthaler and O'Dell, 2003) rather than sports in general. Further research has investigated mainly the intrapersonal determinants and partially interpersonal determinants of older adult sport participation (Litchfield and Dionigi, 2012, Dionigi, 2002, Heo et al., 2013a, Kolt et al., 2004). Whilst the intrapersonal determinants are an important consideration, to our knowledge there is no known research that investigates the determinants of participation in sport for older adults from an organisational and policy perspective and only limited research from the interpersonal perspective. Therefore, these domains are the focus of investigation in this study. To fully understand the reasons why older adults either do or do not participate in sport, and to develop sport policy accordingly, the perspective of sporting organisations must be taken into consideration.

Studies on organisational determinants of sport and physical activity participation have mainly focused on sports' organisational capacity building through resources, volunteer capacity (Cuskelly, 2004, Shibli, 1999) and in health promotion initiatives (Cairns et al., 2005, Casey et al., 2009b, Joffres et al., 2004). Capacity building of sporting organisations is stated as a priority of national sport policy (Australian Sports Commission, 2015b). However there is limited knowledge of how factors at the organisational level, including policies that drive strategic direction, may affect participation in sport for older adults. Therefore this study investigated the potential benefits and barriers of trying to engage older adults for sporting organisations, from the perspective of both older adults and representatives from NSOs. The findings will be interpreted through the lens of the interpersonal, organisational and policy domains of the socioecological model and implications will be related to concepts of organisational capacity building.

## **Methods**

This study utilised qualitative research methods and collected data via eight focus group interviews with 49 participants.

These interviews were used to gain the perspectives of representatives of National Sporting Organisations (NSOs), older adults who were involved in a sport club, and older adults who were not involved in a sport club. Due to a lack of research within this specific area, focus group interviews were used to provide breadth of data, as the inclusion of diverse points of view were deemed important to understand organisational context more broadly. Focus group interviews enable participants to discuss and challenge their own, and their peers' views, in a social situation (Patton, 2002). We also wanted to explore potential differences in gender; different sports; and with those involved or not involved in sport clubs. As such, two of these focus group interviews were with representatives of NSOs (Tennis Australia and Cricket Australia); four with sport club members (female tennis club members, male tennis club members, female cricket club members, and male cricket club members); and two with non-sport club members (female non-sport club members and male non-sport club members). For this study, sport has been defined as 'a human activity capable of achieving a result requiring physical exertion and/or physical skill which, by its nature and organisation, is competitive and is generally accepted as being a sport' (Australian Sports Commission, 2009).

### *Sport selection*

To gain a broader understanding of how sporting organisations (SOs) can engage with older adults, representatives of one sport with a high proportion of older adults' participation, and another sport with a low proportion of older adults' participation, were interviewed for this study. These sports were identified using the Australian national Exercise, Recreation and Sport Survey (ERASS) 2010 data. ERASS was a joint initiative between the Australian Sports Commission (ASC) and State and Territory Departments of Sport and Recreation in Australia, to determine the proportion of adults aged

15 years and older who participated in sport (Australian Sports Commission, 2010). This survey was used to identify participation of people aged 50+ years in a range of sports in Australia.

The ten most frequently played sports and the ten least frequently played sports for older adults (defined for this study as adults aged 50 years and older) were ranked according to participation rates in this age group. The sports were also considered in the context of existing relations with NSOs, and each sport's appropriateness for older adults. The research team defined a sport's appropriateness as one that could be realistically played by older adults with a range of physical abilities. From this analysis, tennis was selected from the ten most frequently played sports, and cricket was selected from the ten least frequently played sports for both genders.

#### *Participant recruitment*

NSOs were recruited with the support of the ASC. The ASC was consulted for appropriate contacts within the two NSOs, who then recruited colleagues for the NSO focus group interviews. Paid employees of Tennis Australia and Cricket Australia with an interest in community-based sport participation were eligible to participate. Sport club members were recruited with the support of the two NSOs, who recommended sport clubs to contact for focus group interview participation.

Additional sport clubs were also contacted independently by the research team for participation. Sport club Presidents or Secretaries were initially contacted, and they recruited eligible participants from their respective clubs. Eligible participants were aged 50 years or over, and either actively played the sport in the club, or were involved in the coaching or administrative aspect of the club. Two interviews were held with tennis club members and two interviews with cricket club members. Each sport club member interview was stratified for gender. For the remaining two interviews, non-sport club members were invited to participate. These participants were recruited through public advertisements or community groups. Eligible participants for the non-sport club member interviews were aged 50 years or over and did not belong to a sport club. These two interviews were also stratified for gender.



## *Procedures*

The focus group interviews were semi structured interviews, and the socio-ecological model was used as a framework to develop the interview schedule. The socio-ecological model (Sallis et al., 2008) can be used to understand sport participation behaviour from various perspectives. As previously stated, current research on older adults and sport has mainly focused on the intrapersonal domains of participation, with some research on the interpersonal domains. Thus this study focused on the interpersonal, organisational and policy domains of the model, and how themes within these domains may influence each other. The socioecological model is increasingly being used within the area of sport participation, including with adolescents (Casey et al., 2009a, Toftegaard-Støckel et al., 2011, Eime et al., 2013) and people living in socio-economically deprived neighbourhoods (Cleland et al., 2010). It has also been used in ageing literature for understanding health behaviours (Marquez et al., 2009) and mobility limitation (Yeom et al., 2008).

The NSOs' focus group interviews were the first interviews held. As the focus of this study was on the organisational perspective of older adults' participation, themes arising from their discussions were used to inform the subsequent focus group discussions for the sport club and non-sport club members.

Potential participants received an information sheet, an informed consent form and a demographic questionnaire before their respective interviews. The interviews were held in a variety of settings, including the respective NSO offices; sport clubs; and in a university setting. Two academic facilitators attended each interview, with one leading the discussions and the other taking notes of any non-verbal communication. Discussions about benefits and barriers for sporting organisations lasted for 20-30 minutes, and the interviews were recorded using voice recorders. Ethics approval was obtained from the Victoria University Human Ethics Committee, and all participants signed informed consent forms.

## *Analysis*

After each focus group interview, the two facilitators undertook a debriefing meeting to discuss the issues that arose in each interview. These discussions influenced the initial coding of the data. The interview recordings were transcribed by a professional transcription service. The transcriptions were then reviewed by the lead author/focus group facilitator for accuracy of the transcription and this process provided initial emersion in the data. The authors decided to analyse the data using a mixture of realist and constructionist epistemological approaches, with a greater emphasis on the realist approach. A realist approach suggests treating participants' responses as 'potentially "true" pictures of "reality" ' (Silverman, 2010) and a constructionist approach involves 'accessing various stories or narratives through which people describe their world' (Silverman, 2010).

The transcripts were analysed using a hybrid approach of content and thematic analyses (Patton, 2002) by the lead author. Content analysis utilised the socio-ecological model as the analysis framework to determine the main themes within each of the socio-ecological domains (Sallis et al., 2008) that were deemed appropriate for this study (interpersonal; organisational; and policy). The transcripts were coded using NVIVO 10, and thematic analysis with a mix of latent and semantic coding was then used to develop emerging themes within the socio-ecological domains.

Semantic coding involved analysis of what the participant had said, whereas latent coding involved analysis of the reasoning why a statement was made (Braun and Clarke, 2006). Semantic coding was mostly used, but where body language and group dynamics or tensions impacted verbal responses, latent coding was used. Data for the latent coding were derived from non-verbal communication, such as group agreement or raised eyebrows, noted by the secondary academic facilitator during the interviews. The themes and subthemes of the coding tree were discussed throughout the coding process by the wider research team as a form of peer debriefing and this contributed to analytical rigour (Lincoln and Guba, 1985).

## Findings

There were 49 participants in the eight focus group interviews. Average group size was six participants and group size ranged from four to nine participants. Although the recommended optimal interview includes 6-12 participants (Morgan, 1996), it has been suggested that smaller interview size of 3-4 participants can also provide useful results (Peek and Fothergill, 2009, Morgan, 1995).

Participants in the National Sporting Organisation (NSO) focus group interviews were mainly male (85%) and their mean age was 41 years (range of 23 to 67 years). Their positions within their respective organisations ranged from Community Sport Officers to Senior Development Managers. Both the tennis and cricket sport club member interviews had an equal spread of male and female participants, and the mean age was 62 years (range of 50 to 85 years). There was also an equal spread of male and female participants in the non-sport club member interviews. The mean age of these participants was 57 years (range of 51 to 65 years).

Data from each interview was analysed separately, but as common themes emerged across groups, and agreed upon by authors, it was decided to group the findings from the focus group interviews according to the relevant domains of the socio-ecological model (interpersonal; organisational; policy) (Sallis et al., 2008). Themes that were most commonly discussed are presented under each domain heading, and themes that influenced other themes are discussed in a separate section. The findings of the study are presented through the lens of the perceptions of the study and are representative of the participants within this study. Therefore the opinions and quotes presented may not be reflective of all older adults (Anderson, 2010).

### *Organisational benefits for sporting organisations*

#### Interpersonal benefits

The main perceived interpersonal benefit described was **intergenerational opportunities**. Minor benefits such as role modelling, mentoring and member diversity were also discussed.

Participants discussed various social **intergenerational opportunities** that sporting organisations (SOs) could derive from engaging older adults. It was felt that parents or grandparents who were

engaged with a sport often introduced their child or children to that sport, thus increasing youth participation and club membership. Furthermore, older adults who had children or grandchildren playing in a sport club can have a vested interest in the club, to ensure it provided a safe environment for their families: *'We do it for the kids...it's like a big family'* (51 year old female cricket club member). Thus the sport club could be strengthened by the social relationships and the influence of family members.

Participants felt that older adults were often **role models** for younger club members, as older adults who played sport were often seen as local heroes in the community: *'I think that they're worth their weight in gold those guys. And they have great stories, and they should be celebrated. I'd love to have a beer with them'* (39 year old male NSO participant). It was further suggested by participants that older adults could provide **mentoring**, in addition to teaching sport etiquette and sport specific knowledge, to younger players. Also, participants believed that if sport clubs encouraged older adults' to become club members, it can provide the club with greater **member diversity** and would therefore be more representative of the wider community.

#### Organisational benefits

The main organisational benefit discussed was **volunteering**. Other common benefits mentioned were financial contributions and maximised facility usage. Minor themes included increased volunteer capacity to run a sport club, and maintaining a sporting fan base.

All of the groups felt that older adults contributed to sport clubs through **volunteering**, and therefore club capacity, mainly through being involved on the club committee. In particular, it was believed that older adults often undertook more volunteering roles than younger adults, and were also more likely to do this over a longer time period than younger people: *'They're home and hosed if you get people our age because we slot into all the volunteer roles'* (51 year old female cricket club member). This links to an increased volunteer capacity to run a sport club. One group mentioned that older adults sometimes undertook the maintenance of club facilities for free, to reduce club expenditure. This enabled club income to be used elsewhere to benefit the club.

Numerous participants believed that older adults were often more **financially stable** than some younger adults. They discussed the perception that older adults would be more disposed to support club functions, and to socialise in club facilities after a match than younger players: *‘With the sporting clubs, financially they need members, so if you’re involved with it, you tend to put your hand in your pocket more as well’* (54 year old non-sport club member). Also discussed was the assertion that older adults could provide an additional revenue stream through membership fees.

Another organisational benefit identified was **maximised facility usage**. Participants believed that if sport clubs engaged retired older adults, they could utilise club facilities during off peak periods, such as during the school day: *‘In most states there are [facilities] everywhere, they are underutilised’* (67 year old male NSO participant). This could benefit SOs by providing additional income for the sport club.

Maintaining a **sporting fan base** was another organisational benefit discussed. One NSO identified the importance of older adults to SOs: *‘They love the game. So they pay for subscriptions on TV. They pay, you know, as members of clubs. They pay as fans to attend games. So both in a development sense and a commercial sense, they are important’* (49 year old male NSO participant). This NSO felt that older adults were an age group that were already engaged as fans, and so were eager to explore new avenues to enhance this engagement through providing opportunities to play sport.

#### *Organisational barriers for sporting organisations*

##### Interpersonal barriers

The two main interpersonal barriers were **competing priorities** and **perceived societal expectations**.

Participants felt that their life schedules had changed and many felt older adults faced **competing priorities** that left less time for participation in sport. For example, they discussed how the retirement age had risen in recent times; meaning adults were working to a later age. Even when older adults were retired, it was discussed how these adults were often responsible for caring for their children, grandchildren or elderly parents, and so may not have time to participate in sport themselves: *‘People*

*are so committed now and so many older people mind their grandchildren'* (70 year old female tennis club member). Groups also discussed how working patterns had changed, which resulted in increased weekend and evening work, when sporting activities were often scheduled. Another competing priority discussed was the prioritisation of spectatorship over active participation for some non-sport club members. SOs are in competition with these other priorities, and as some of these, such as work and caring, are often non-negotiable, older adults may be less likely to spend their time in a sport club or playing sport.

One of the NSOs felt that the media and the general public influenced their organisational priorities: *'I think the media and the general population make that decision [which participants to prioritise] for us and unless we are successful [at elite sport], we're not viewed as being serious about our sport. So we have to create our champions in order to maintain some sort of ... level of importance out within the community'* (58 year old male NSO participant).

**Perceived societal expectations** of older adults who played sport were also discussed as a barrier for SOs to engage older adults: *'I'll say I'm going to tennis. "Oh do you still play tennis?" Like hell, once you get over fifty, you shouldn't be playing'* (70 year old female tennis club member). Another participant agreed with this statement: *'Some people also perceive it as culturally, or as not really appropriate, to play competitive [sport] any longer once you're getting older, especially on the female side'* (43 year old female NSO participant). If older adults playing sport is not common within society, SOs may be persuaded to focus on age groups that are more likely to play sport, thus be reluctant to specifically focus on this older age group.

#### Organisational barriers

The main organisational barriers were a **lack of appropriate playing opportunities**; a **lack of access to playing facilities** for older adults; and a **lack of volunteer capacity within sport clubs**. Other less discussed barriers included competitiveness and marketing.

A **lack of appropriate playing opportunities** was widely discussed. Numerous participants felt that there was a lack of age appropriate teams for older adults to play sport with or compete against: *'At*

some point the realisation came “I can’t compete with those kids anymore” and there’s really nowhere else to go’ (62 year old male cricket club member), and ‘If ... they’re just playing Sat comp or something, they quite often could play against a 12-year-old, which I think puts off a lot of our 50+ people’ (27 year old male NSO participant).

Similarly, it was felt that there was a **lack of access** to playing facilities. There was also sometimes a lack of facility capacity for all to participate. Consequently, where senior sport teams did exist, there was often a struggle to access community sport facilities. Inappropriate sport facilities were also discussed by both male and female tennis club members: ‘Flexi-paved courts are absolutely detrimental to knees, any joints, they are not good for older people to play on... I can’t play on a flexi-paved court anymore, because my knees hurt’ (64 year old female tennis club member).

Another common barrier discussed was a **lack of volunteer capacity**. Participants felt that most sport clubs were run by voluntary committees. Therefore there was often a lack of capacity to engage an additional age group or to run beginner sessions for older adults, as the clubs’ priorities were often participation for children and youth: ‘If you’re bringing in players on a level where there’s a club [that] doesn’t have enough volunteers to spend the time with them and teach someone those skills, it becomes a little hard’ (29 year old female NSO participant).

Numerous older adult participants discussed that whilst competition was often still important to them, a **drive to participate in competition tended to decline with age**, as older adults tended to prefer more social forms of participation. These participants felt that sport clubs were inherently traditionally competitive, and therefore often unattractive to older adults, as competitive sport was perceived to increase the likelihood of injury: ‘If you play competitive sports, you’re still going to compete. You’re not going to say, “Oh no, you can get it”. It doesn’t work that way, because it just naturally happens’ (51 year old male non-sport club member). It was also felt that sport clubs may not want older adults who cannot adhere to high playing standards.

**Marketing** was also discussed by participants. Participants felt that player representation on marketing materials needed to be diversified to show that sport was for all ages: ‘It would be really

*good if they showed a range of women who are playing, not just the young uns [sic], perhaps a few older women?’* (69 year old female cricket club member). Other participants discussed that there was a lack of awareness or misconceptions of current participation opportunities for older adults: *‘I think there has to be a lot of older men and women out there that would like to play. But they don’t know how to go about it’* (85 year old female tennis club member).

Conversely, one older adult participant felt that there were no disadvantages for sport clubs to engage older adults: *‘I don’t see any disadvantages at all, and I think there are many advantages to the clubs [to attract older adults]’* (51 year old female cricket club member).

### Policy barriers

The main policy barriers identified were a **strategic organisational focus on younger age groups** and **elite level sport**, in addition to **risk management** specifically for older adults. A minor barrier was potential difficulties of working with organisations outside of the traditional NSO structure.

The main barrier discussed was the **strategic organisational focus of SOs**. One focus was elite sport, and the other focus was on younger age groups in community-based sport. Participants felt that organisations tended to focus on children and younger age groups for numerous reasons. One reason given was that younger people were a larger age group than older adults, and thus more economically viable to target. A second reason was that organisations often focused on the maintenance of fan bases, and as older adults were usually already fans of a sport, there were limited incentives for further engagement: *‘We tend to focus on the players that we currently have and then recruiting new players and fans, so that’s very much pitched at younger age groups’* (49 year old male NSO participant). The final discussed reason was that children who engaged in sport at a young age would become “hooked for life”: *‘I think all our research says that you have to engage them early... and they’re likely to play for a club or play for longer’* (31 year old male NSO participant). However, a number of the sport club participants in this study started playing that sport in their adult years. This was often influenced by their family or friends: *‘My daughter roped me into doing a bit of cricket and I thought, “Oh that looks like fun!”’* (69 year old female cricket club member), and *‘A friend of mine*



*played tennis, so I joined in [as an adult] and actually from then we played every week'* (68 year old male tennis club member).

Another commonly discussed barrier was **risk management**. This consisted of insurance concerns and additional resources that may be needed for older adults. There were perceived concerns about the cost and additional paperwork involved in insuring older adults to play sport: *'It's [insurance] a lot of money ... and that would have an age factor in it, so if you're over a certain age I'm guaranteeing that insurance wouldn't cover you'* (54 year old male non-sport club member). Another concern was that older adult competitions would require additional resources, such as extra first aid facilities. Participants felt that these risks could deter sport clubs from engaging with older adults.

**Working and communicating with external sporting organisations** was also discussed as a policy barrier by the NSOs. Participants felt that there can be a lack of structure or communication with some external organisations, and thus it may be difficult to fully maximise the engagement opportunities available.

#### *Linked themes of the socio-ecological model*

In line with the socio-ecological model, there were links between the different domains and key themes (see Figures 1 and 2). This occurred both within the individual domains, and also across different domains.

Organisational benefits of sport participation:

<FIGURE 1 HERE>

Four linked themes (represented by arrows) emerged for the benefits SOs could receive when engaging older adults. One linkage was within the interpersonal domain; one within the organisational domain; and two between interpersonal and organisational domains (see Figure 1). For example, volunteering was associated with intergenerational opportunities and this association could go in both directions. If an older adult was volunteering in a sport club, and thus engaged with the club, their children or grandchildren were often introduced to that sport. Also, if an older adults' family were

involved within a sport, older adults were likely to have a vested interest in that club, and thus may help to run the club. Volunteering was also linked with the organisational domain of an increased capacity to run a sport club.

The findings of role modelling and enabling a greater member diversity (to include older adults) were linked. As older adults were often seen as role models for younger players, the higher number of older adults in a club may result in more role models. Greater member diversity was also linked with maximised facility usage. If sport clubs diversified their membership to include older adults, there would be an opportunity for the club to encourage retired older adults to use the facilities during off peak periods.

Organisational barriers of sport participation:

<FIGURE 2 HERE>

Ten linked themes (represented by arrows) emerged for barriers that SOs may encounter when engaging older adults across the three domains. Seven were mutually linked, and the main theme was a focus on children and youth, and the subsequent focus of strategic organisational priorities (see Figure 2), as this was most influential on other themes. The focus on children and youth can result in a lack of appropriate playing opportunities or lack of club volunteer capacity for older adults. As the findings suggest, there was a lack of age appropriate teams for older adults to play sport with, or compete against, their peers. Sport is most popular for younger age groups, as they have the highest participation rates in sport (Eime et al., 2014). Consequently, sporting opportunities are usually directed towards children. Children and young people's sport participation is often prioritised by sport clubs, as they are the priority age group for SOs and national sport policy. Therefore, older adults may not be able to access playing facilities to play sport during peak hours. Sport clubs are run by volunteers, and as such will have finite resources to engage with participants and also finite playing/facility capacity, as they may be "full" with younger participants. SOs may prioritise engaging with younger people, and may not always have the capacity to also engage a new group, such as older adults.

Another linked theme to the organisational focus on children and youth was perceived societal expectations. As sport was most commonly played by children and young people, it could be unusual for older adults to be seen actively playing sport. Therefore older adults' sport participation may go against perceived societal expectations. This can be negatively linked to competing priorities in two different ways. Older adults prioritise their children's sport participation over their own, as national sport policy, SOs and the media heavily promote the health and social benefits of sport participation for children. From a SO perspective, if the priorities of NSOs are influenced by the media and the general public (and vice versa), then older adults may experience a lack of appropriate playing opportunities, as SOs may focus on children's playing opportunities instead. Older adults could also lack access to playing facilities, as youth sport is deemed to be more important and therefore given priority to the limited community sport facilities.

Marketing was another barrier that was linked to other themes. Sport marketing materials often reflect organisational priorities or what the general public expect to see, so usually depicts children or young people playing sport, or elite sport people. As such, these materials can perpetuate societal norms, and imply that it is unusual for older adults to play sport.

## **Discussion**

The study explores the benefits and barriers that sporting organisations (SOs) encounter when engaging older adults in sport from the perspective of SOs, older sport club members and older non-sport club members. These findings can provide guidance to SOs on how to better engage more older adults in sport participation. There were a number of key interpersonal and organisational benefits, in addition to interpersonal; organisational; and policy barriers identified and discussed. Furthermore, links were discovered between these three domains of the socio-ecological model. Whilst this study focused on the Australian context, the findings can be relevant internationally. For example, the findings could be applicable in countries that have similar socio-demographic characteristics and for similar sports used in this study.

The majority of the themes were common across the diverse groups interviewed. This suggests that the organisational benefits and barriers discussed may be relevant for both high and low participation sports, for both SOs and sport clubs, in addition to men and women. Consequently, if national sport policy was amended to also prioritise older adult participation, the findings from this study may benefit other similar sports.

#### *Benefits of sport participation for sporting organisations*

The main benefits that emerged from this study for SOs engaging older adults were the organisational domain of volunteering and the interpersonal domain of intergenerational opportunities.

Previous research has shown the importance of volunteers to the continued survival of community sport, and sport clubs in particular (Cuskelly et al., 2006, Breuer et al., 2012, Hoyer et al., 2008). Most of the research has shown that parents of children who play within sport clubs are the primary club volunteers (Doherty, 2006, Whittaker and Holland-Smith, 2014). The findings of this study suggest there is further scope for older adults to contribute to the capacity of sport clubs through volunteering. Furthermore, the findings suggest that older adults may be stimulated to undertake this role for a longer period than younger people. The role of older adults in the management of sport clubs has been recognised in some literature (Adamson and Parker, 2006), and the findings from this study reinforce this. Whilst volunteering by older adults may occur without their active participation in a sport club, opportunities for them to participate in sport can make them feel valued. This further development of already engaged people (Chaskin, 2001) is likely to ensure a vested interest to continue supporting that sport club. Adults are a critical human capital resource for sport clubs and reductions in club membership by adults may have medium to long-term impact on sport clubs' capacity to support junior participants (Eime et al., 2009a).

Intergenerational opportunities were also identified as a key benefit for sport clubs, and can be linked to volunteering. The influence of interpersonal factors on the sports children play, such as family members, and parents in particular, has been previously documented (Greendorfer and Lewko, 1978, Ullrich-French and Smith, 2006). The findings of this current study suggest that engagement of older

adults in sport clubs may influence the participation in sport by their children and grandchildren. The role of older adults in sport clubs should be promoted by providing active participation opportunities to further engage this age group in age appropriate social play or competitive teams. Engaging older adults will help sport clubs to remain sustainable, and could increase their capacity. However, there are barriers that may hinder this engagement.

#### *Barriers to sport participation for sporting organisations*

The main identified barrier to participation in sport for older adults was a policy focus on children and young people in community-based sport.

The two National Sporting Organisations (NSOs) in this study stated that their strategic organisational focus for community-based sport was on children and youth. This can result in a lack of organisational capacity to engage other age groups, such as older adults. Due to the national sport policy priorities, it is likely that this focus is reflected in most other NSOs in Australia, so is not unique to the organisations who participated in this study. Targeting organisational capacity could offer an opportunity for intervention through engaging concepts of capacity building. For example, engagement with relevant external, non-sporting community organisations could offer a possible solution (van Uffelen et al, 2015). Relevant non-sporting organisations, such as community organisations for the aged, have experience with engaging this population group, and could be used as an additional resource. An example of this would be the Rusty Rackets programme that Tennis South Australia ran in conjunction with Active Ageing Australia (van Uffelen et al, 2015). Whilst research has suggested that engaging with non-sporting community organisations may require sporting organisations to devote more time to engage and consolidate these relationships (Casey et al., 2012), developing these relationships could prove beneficial in the long term. However organisational capacity building strategies specific to the population group of older adults are unlikely to be widely adopted, when the current sport policy landscape prioritises younger age groups.

The focus on children and youth contributes to both interpersonal and organisational barriers to engage older adults. The current research suggested that there was a lack of appropriate playing

opportunities for older adults within sport clubs, for example, they wanted to play against their peers rather than younger players. Thus older adults may be less inclined to play sport if there is a lack of appropriate opportunities to do so. This concept supports previous literature (Alexandris and Carroll, 1999, Scheerder et al., 2005), indicating that appropriate playing opportunities need to be developed if older adults' sport participation is to increase.

A lack of appropriate playing opportunities was also linked to a lack of access to playing facilities. It has been previously discussed that there are limited community sport facilities for all people who play sport (Estabrooks et al., 2003). Some sport club facilities will lack the capacity to cater for more participants. High priority age groups for sport clubs, such as children, are likely to be given priority access to these limited facilities. However, this barrier could be partially overcome by encouraging sport clubs to offer their facilities to retired older adults during off peak periods.

This lack of access and appropriate playing opportunities can also be linked to perceived societal expectations. There is evidence that older adults wishing to play sport can experience some resistance from society (Grant, 2001). Sport is often seen as the realm of young people within society, and for older adults to participate, they may have to overcome the barrier of societal expectations. However, as populations are ageing (World Health Organisation, 2015), societal expectations of older adults have the potential to change. If appropriate playing opportunities were developed in partnership with non-sporting external community organisations, this could create the opportunity to challenge current societal expectations. This awareness and societal acceptance could then provide support for a change in focus of national policy.

Another engagement barrier identified within this organisational focus was marketing. Sport marketing for increasing participation is often in line with strategic organisational priorities, showing sports that are most often played by younger people (Hunt et al., 2001), which means imagery or reference to (offerings for) other age groups may be absent. This can discourage other age groups from participating in sport, and being active members of sport clubs, as they may feel that there is not a place for them within sport. If marketing was diversified to reflect all age groups, then older adults

may see sport as being a viable physical activity option, and could also help to change societal perceptions about adults playing sport throughout their lifespan.

The final interpersonal domain barrier linked with a focus on children and youth was that of competing priorities. Older adults often experience competing priorities, such as caring for their children and/or elderly parents; as well as working responsibilities. In sport, parents often prioritise their children's participation over their own. This can be due to the idea that sport provides vital developmental benefits for children, which is widely promoted by national sport policy, SOs and the media (Alexander et al., 2011). Sport clubs could perhaps navigate around the issue of competing priorities by developing intergenerational opportunities. They could for example run concurrent sessions, where older adults can play sport with their peers, whilst their children or grandchildren are also playing sport at the same venue. This example could complement the capacity building suggestions to further provide opportunities for older adults to play sport.

National identity and the longstanding federal sport policies have a powerful influence on sports' organisational strategies and focus. With projections indicating a dramatic increase in the proportion of older adults worldwide (World Health Organisation, 2015), a shift in national policies from prioritising elite sport might start occurring, with an obvious move towards favouring the targeted inclusion of older adults in sport. Studies such as this may well be the early drivers of such policy change. However, the SO's and club capacity to strategically focus on older adults requires consideration.

In this study, a number of participants had started playing sport during their adult years, and this was influenced by their children's sport participation, and also related to motivation to maintain their own physical health. Therefore, there is scope to engage older adults in active sport participation, even if they had not previously participated. In addition to this, sport clubs, and consequently SOs, can also benefit from engaging older adults. These opportunities are in volunteering; maximised facility usage; and the use of older adults to attract and retain young people. SOs and clubs can start to engage older

adults by providing appropriate playing opportunities, such as age specific competitions or social play sessions; and modify the way sport is advertised to show a breadth of participants.

Despite these suggestions, some of the barriers to engage older adults in sport may be difficult to practically overcome for numerous reasons. Although beyond the scope of this paper, it is acknowledged and noted that contemporary sport and its club structures is often anchored in a performance (elite sport) driven framework. This socialises club participants (positively or negatively) into sport participation experiences for life. Future research into the participation of older adults in sport could further investigate how much a sport performance focus earlier in life detracts from (re)engaging with sport and its structures later in life. Also, as previously discussed, research confirms that sport clubs are largely run by volunteers, and thus often lack the capacity to develop participation opportunities for a new age group (Jurbala, 2006). Furthermore within certain sport clubs, there may be insufficient facility playing space or time to accommodate more people or programmes. The present study's findings support this previous research. To mitigate this lack of capacity, SOs could support sport clubs to develop their capacity using the suggested partnerships with external non-sporting community organisations to implement age appropriate participation programmes for older adults.

All of the socioecological domains play a role in influencing behaviour. This paper focuses on the under-researched areas of interpersonal, organisational and policy domains, but acknowledges that the intrapersonal domain is also an influence that can contribute to older adult behaviour change. The influence of this domain on older adults has been widely researched, including elements of social gerontology such as the development of social identity (Heo et al., 2013b) or ageing identity (Dionigi, 2006) through sport, in addition to intrapersonal benefits and barriers that may influence older adults' sport participation, such as their physical health (Kolt et al., 2004) or to have fun (Heo et al., 2013a). Thus any practical implementations must consider the determinants broadly and include all domains of the socio-ecological model, to ensure a holistic and multi-layered approach to engaging older adults in sport is undertaken.



The intrapersonal health benefits, identified in previous research, on how sport has contributed towards a positive ageing process (Dionigi, 2002, Kolt et al., 2004), suggests that this area provides a great opportunity to develop a collaborative relationship between sport and health organisations. Older adults are not always considered specifically in sport policy, and health policy does not specifically promote sport as a preventative health measure. Thus health policy should consider giving sport a stronger role in preventative health for older adults, to diversify the physical activity options available to this age group.

A strength of this study was that the perspectives of older adults who played sport, and those who did not play sport, were sought, in addition to perspectives of NSOs' representatives. This provided a more holistic approach to understanding the organisational benefits and barriers of engaging older adults from the contexts of these various groups. As this was a qualitative study, there was limited scope to engage a wide variety of NSOs and sport clubs. Two NSOs, and members of eight sport clubs, participated in this study. Therefore the opinions expressed by these organisations may not always be reflected in other sports or other sport clubs. However, the findings were often common across the different focus group interviews, thus suggesting that the findings could be related to other sports with similar attributes to tennis and cricket for both male and female participants. Future research should engage other NSOs and sport clubs in different geographical areas and with different socio-demographic populations to investigate if similar themes emerge. There are also opportunities to conduct and evaluate implementation strategies such as a trial programme in a sport club, in partnership with one or a number of NSOs and external non-sporting community organisations, to determine if these strategies increased the sport participation of older adults.

## **Conclusion**

This research illustrates that there are wide ranging potential benefits for sporting organisations (SOs) to engage older adults, but that there were also barriers to this engagement. Whilst the participation rate of older adults in sport is unlikely to increase dramatically, the findings of this study suggest that they are 'worth their weight' in terms of participating in sport clubs, through sheer engagement and

volunteering. Currently, the national sport policy priorities of children/youth participation and the focus on elite sport is likely to be a contributing factor to low sport engagement for older adults. This may be further facilitated by a lack of organisational capacity and resources that specifically prioritise strategies for SOs to engage older adults. It is not anticipated that any policy and/or strategic focus on older adults will significantly increase active participation in sport for this age group. However any increase in older adults' sport participation either through actively playing, supporting family and friends and/or volunteering, will contribute to the positive health of individuals, sport clubs and the community.

#### Acknowledgements:

Claire Jenkin is supported by an Australian Sports Commission–ISEAL Victoria University PhD scholarship. Jannique van Uffelen is supported by an Australian Sports Commission–ISEAL Victoria University Senior Research Fellowship. We thank the Australian Sports Commission for their help with recruiting the National Sporting Organisations who participated in this study.

## References

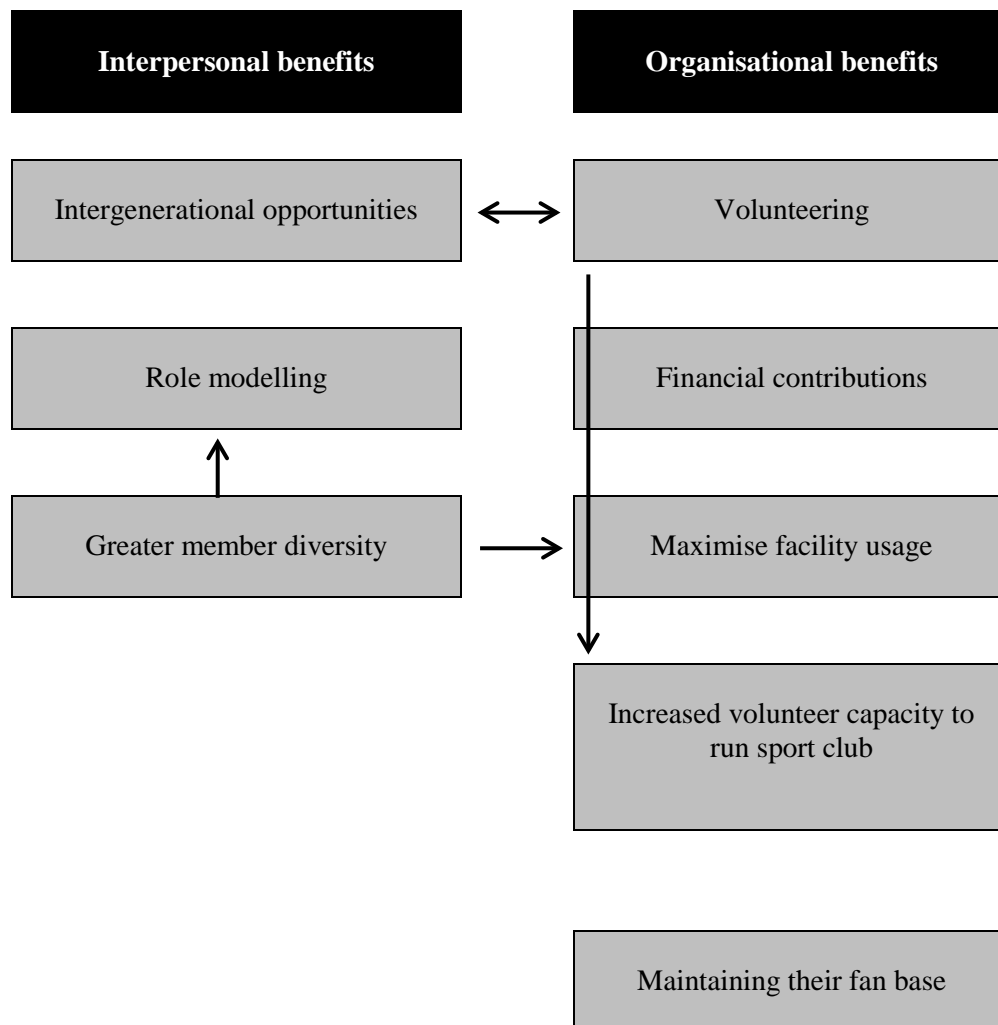
- Adamson, L. & Parker, G. 2006. "There's more to life than just walking": older women's ways of staying healthy and happy. *Journal of aging and physical activity*, 14, 380.
- Alexander, K., Stafford, A. & Lewis, R. 2011. The experiences of children participating in organised sport in the UK. *London: NSPCC*.
- Alexandris, K. & Carroll, B. 1999. Constraints on Recreational Sport Participation in Adults in Greece: Implications for Providing and Managing Sport Services. *Journal of Sport Management*, 13, 317.
- Anderson, C. 2010. Presenting and Evaluating Qualitative Research. *American Journal of Pharmaceutical Education*, 74, 141.
- Australian Bureau of Statistics 2013-14. Participation in Sport and Physical Recreation [online]. Available from <http://www.abs.gov.au/ausstats/abs@.nsf/mf/4177.0> [Accessed 8 June 2015].
- Australian Bureau of Statistics 2015. Animated population pyramids [online] Available from <http://www.abs.gov.au/websitedbs/d3310114.nsf/home/Population%20Pyramid%20-%20Australia> [Accessed 10 July 2015].
- Australian Department of Health 2014. Australia's Physical Activity and Sedentary Behaviour Guidelines [online]. Available from <http://www.health.gov.au/internet/main/publishing.nsf/Content/health-publth-strateg-phys-act-guidelines#chba> [Accessed 8 October 2015].
- Australian Department of Health and Ageing 2010. Taking Preventative Action - a response to Australia: The healthiest country by 2020. The report of the National Preventative Health Taskforce. Canberra: Australia.
- Australian Institute of Health and Welfare 2014. Preventing and treating ill health [online]. Available from <http://www.aihw.gov.au/australias-health/2014/preventing-ill-health/> [Accessed May 2014].
- Australian Sports Commission 2009. ASC recognition. What is defined as a sport? [online] Available from [http://www.ausport.gov.au/supporting/nso/asc\\_recognition](http://www.ausport.gov.au/supporting/nso/asc_recognition) [Accessed 10 August 2015].
- Australian Sports Commission 2010. Exercise, Recreation and Sport Survey [online]. Available from <http://www.ausport.gov.au/information/casro/ERASS> [Accessed 20 September 2015].
- Australian Sports Commission 2015a. Australian Sport Policy [online]. Available from [https://secure.ausport.gov.au/clearinghouse/knowledge\\_base/organised\\_sport/sport\\_and\\_government\\_policy\\_objectives/australian\\_sport\\_policy\\_documents](https://secure.ausport.gov.au/clearinghouse/knowledge_base/organised_sport/sport_and_government_policy_objectives/australian_sport_policy_documents) [Accessed 31 August 2015]
- Australian Sports Commission 2015b. 2015-19 Corporate Plan [online]. Available from [http://www.ausport.gov.au/\\_data/assets/pdf\\_file/0004/643207/Corp\\_plan\\_web.pdf](http://www.ausport.gov.au/_data/assets/pdf_file/0004/643207/Corp_plan_web.pdf) [Accessed 28 October 2015].
- Bishop, N. A., Lu, T. & Yankner, B. A. 2010. Neural mechanisms of ageing and cognitive decline. *Nature*, 464, 529-535.
- Braun, V. & Clarke, V. 2006. Using thematic analysis in psychology. *Qualitative research in psychology*, 3, 77-101.
- Breuer, C. & Wicker, P. 2009. Decreasing sports activity with increasing age? Findings from a 20-year longitudinal and cohort sequence analysis. *Res Q Exerc Sport*, 80, 22-31.
- Breuer, C., Wicker, P. & Von Hanau, T. 2012. Consequences of the decrease in volunteers among German sports clubs: is there a substitute for voluntary work? *International Journal of Sport Policy and Politics*, 4, 173-186.
- Cairns, B., Harris, M. & Young, P. 2005. Building the Capacity of the Voluntary Nonprofit Sector: Challenges of Theory and Practice. *International Journal of Public Administration*, 28, 869-885.
- Cann, A. P., Vandervoort, A. A. & Lindsay, D. M. 2005. Optimizing the benefits versus risks of golf participation by older people. *Journal of geriatric physical therapy (2001)*, 28, 85-92.
- Casey, M. M., Eime, R. M., Payne, W. R. & Harvey, J. T. 2009a. Using a socioecological approach to examine participation in sport and physical activity among rural adolescent girls. *Qual Health Res*, 19, 881-93.

- Casey, M. M., Payne, W. R. & Eime, R. M. 2009b. Building the health promotion capacity of sport and recreation organisations: A case study of Regional Sports Assemblies. *Managing Leisure*, 14, 112-124.
- Casey, M. M., Payne, W. R. & Eime, R. M. 2012. Organisational readiness and capacity building strategies of sporting organisations to promote health. *Sport Management Review*, 15, 109-124.
- Chaskin, R. J. 2001. Building community capacity a definitional framework and case studies from a comprehensive community initiative. *Urban affairs review*, 36, 291-323.
- Chodzko-Zajko, W. J., Proctor, D. N., Fiatarone Singh, M. A., Minson, C. T., Nigg, C. R., Salem, G. J. & Skinner, J. S. 2009. Exercise and physical activity for older adults. *Medicine and Science in Sports and Exercise*, 41, 1510-1530.
- Cleland, V., Ball, K., Hume, C., Timperio, A., King, A. C. & Crawford, D. 2010. Individual, social and environmental correlates of physical activity among women living in socioeconomically disadvantaged neighbourhoods. *Social science & medicine*, 70, 2011-2018.
- Cuskelly, G. 2004. Volunteer retention in community sport organisations. *European Sport Management Quarterly*, 4, 59-76.
- Cuskelly, G., Auld, C. J. & Hoye, R. 2006. *Working with volunteers in sport theory and practice*, New York, NY : Routledge, 1st ed.
- Dionigi, R. 2006. Competitive sport as leisure in later life: Negotiations, discourse, and aging. *Leisure sciences*, 28, 181-196.
- Dionigi, R. A. 2002. Resistance and empowerment through leisure: The meaning of competitive sport participation to older adults. *Loisir et Societe*, 25, 303-328+245.
- Doherty, A. 2006. Sport Volunteerism: An Introduction to the Special Issue. *Sport Management Review (Sport Management Association of Australia & New Zealand)*, 9, 105-109.
- Dwyer, J. J., Allison, K. R., Goldenberg, E. R. & Fein, A. J. 2006. Adolescent Girls' Perceived Barriers To Participation In Physical Activity. *Adolescence*, 41, 75.
- Eime, R., Harvey, J., Charity, M. & Casey, M. 2014. Sport participation in Victoria and the contribution of sport to physical activity levels. *Ballarat: Federation University, Victoria University*.
- Eime, R., Payne, W. & Harvey, J. 2009a. Trends in organised sport membership: impact on sustainability. *J Sci Med Sport*, 12, 123-9.
- Eime, R., Payne, W. & Harvey, J. 2009b. Trends in organised sport membership: Impact on sustainability. *Journal of Science and Medicine in Sport*, 12, 123-129.
- Eime, R. M., Harvey, J. T., Charity, M. J., Casey, M. M., Westerbeek, H. & Payne, W. R. 2016. Age profiles of sport participants. *BMC Sports Science, Medicine and Rehabilitation*, 8, 1.
- Eime, R. M., Young, J. A., Harvey, J. T., Charity, M. J. & Payne, W. R. 2013. A systematic review of the psychological and social benefits of participation in sport for children and adolescents: informing development of a conceptual model of health through sport. *Int J Behav Nutr Phys Act*, 10, 98.
- Estabrooks, P. A., Lee, R. E. & Gyurcsik, N. C. 2003. Resources for physical activity participation: does availability and accessibility differ by neighborhood socioeconomic status? *Annals of behavioral medicine*, 25, 100-104.
- Fullagar, S. 2002. Governing the healthy body: Discourses of leisure and lifestyle within Australian health policy. *Health*, 6, 69-84.
- Grant, B. C. 2001. 'You're never too old': beliefs about physical activity and playing sport in later life. *Ageing and society*, 21, 777-798.
- Green, M. 2007. Olympic glory or grassroots development?: Sport policy priorities in Australia, Canada and the United Kingdom, 1960 - 2006. *International Journal of the History of Sport*, 24, 921-953.
- Greendorfer, S. L. & Lewko, J. H. 1978. Role of family members in sport socialization of children. *Research Quarterly. American Alliance for Health, Physical Education and Recreation*, 49, 146-152.
- Haskell, W. L., Lee, I. M., Pate, R. R., Powell, K. E., Blair, S. N., Franklin, B. A., Macera, C. A., Heath, G. W., Thompson, P. D. & Bauman, A. 2007. Physical activity and public health:

- updated recommendation for adults from the American College of Sports Medicine and the American Heart Association. *Med Sci Sports Exerc*, 39, 1423-34.
- Heo, J., Culp, B., Yamada, N. & Won, Y. 2013a. Promoting successful aging through competitive sports participation: Insights from older adults. *Qualitative Health Research*, 23, 105-113.
- Heo, J., Culp, B., Yamada, N. & Won, Y. 2013b. Promoting successful aging through competitive sports participation: insights from older adults. *Qual Health Res*, 23, 105-13.
- Heuser, L. 2005. We're not too old to play sports: The career of women lawn bowlers. *Leisure Studies*, 24, 45-60.
- Hoye, R., Cuskelly, G., Taylor, T. & Darcy, S. 2008. Volunteer motives and retention in community sport: A study of Australian rugby clubs. *Australian journal on volunteering*, 13, 40.
- Hunt, K., Ford, G. & Mutrie, N. 2001. Is sport for all? Exercise and physical activity patterns in early and late middle age in the West of Scotland. *Health Education*, 101, 151-158.
- Joffres, C., Heath, S., Farquharson, J., Barkhouse, K., Latter, C. & Maclean, D. R. 2004. Facilitators and challenges to organizational capacity building in heart health promotion. *Qualitative Health Research*, 14, 39-60.
- Jurbala, P. 2006. Sport, the voluntary sector, and Canadian identity. Retrieved September, 20, 2007.
- Kalakanis, L. E., Goldfield, G. S., Paluch, R. A. & Epstein, L. H. 2001. Parental activity as a determinant of activity level and patterns of activity in obese children. *Research quarterly for exercise and sport*, 72, 202-209.
- Kolt, G. S., Driver, R. P. & Giles, L. C. 2004. Why Older Australians Participate in Exercise and Sport. *Journal of Aging and Physical Activity*, 12, 185-198.
- Lincoln, Y. S. & Guba, E. G. 1985. *Naturalistic inquiry*, Sage.
- Litchfield, C. & Dionigi, R. A. 2012. The meaning of sports participation in the lives of middle-aged and older women. *International Journal of Interdisciplinary Social Sciences*, 6, 21-36.
- Marquez, D. X., Bustamante, E. E., Blissmer, B. J. & Prohaska, T. R. 2009. Health promotion for successful aging. *American Journal of Lifestyle Medicine*, 3, 12-19.
- Morgan, D. L. 1995. Why things (sometimes) go wrong in focus groups. *Qualitative health research*, 5, 516-523.
- Morgan, D. L. 1996. *Focus groups as qualitative research*, Sage publications.
- Palacios-Cena, D., Fernandez-De-Las-Penas, C., Hernandez-Barrera, V., Jimenez-Garcia, R., Alonso-Blanco, C. & Carrasco-Garrido, P. 2012. Sports participation increased in Spain: a population-based time trend study of 21 381 adults in the years 2000, 2005 and 2010. *Br J Sports Med*, 46, 1137-9.
- Paterson, D. H., Jones, G. R. & Rice, C. L. 2007. Ageing and physical activity: evidence to develop exercise recommendations for older adults This article is part of a supplement entitled Advancing physical activity measurement and guidelines in Canada: a scientific review and evidence-based foundation for the future of Canadian physical activity guidelines co-published by Applied Physiology, Nutrition, and Metabolism and the Canadian Journal of Public Health. It may be cited as Appl. Physiol. Nutr. Metab. 32 (Suppl. 2E) or as Can. J. Public Health 98 (Suppl. 2). *Applied Physiology, Nutrition, and Metabolism*, 32, S69-S108.
- Patton, M. Q. 2002. *Qualitative Research & Evaluation Methods*, SAGE Publications.
- Peek, L. & Fothergill, A. 2009. Using focus groups: lessons from studying daycare centers, 9/11, and Hurricane Katrina. *Qualitative Research*, 9, 31-59.
- Phillips, P. & Newland, B. 2014. Emergent models of sport development and delivery: The case of triathlon in Australia and the US. *Sport Management Review*, 17, 107-120.
- Rydwik, E., Welmer, A. K., Kareholt, I., Angleman, S., Fratiglioni, L. & Wang, H. X. 2013. Adherence to physical exercise recommendations in people over 65--The SNAC-Kungsholmen study. *Eur J Public Health*, 23, 799-804.
- Sallis, J. F., Owen, N. & Fisher, E. B. 2008. Ecological models of health behavior. *Health behavior and health education: Theory, research, and practice*, 4, 465-486.
- Scheerder, J., Vanreusel, B. & Taks, M. 2005. STRATIFICATION PATTERNS OF ACTIVE SPORT INVOLVEMENT AMONG ADULTS Social Change and Persistence. / Stratification de la participation sportive chez les adultes: changement social et persistance. *International Review for the Sociology of Sport*, 40, 139-162;273;375;277-278.

- Shibli, S. T., P.; Nichols, G., Gratton, C., and Kokolakis, T. 1999. The characteristics of volunteers in UK sports clubs. *European Journal for Sport Management*, 6, 10-27.
- Siegenthaler, K. L. & O'dell, I. 2003. Older golfers: Serious leisure and successful aging. *World Leisure Journal*, 45, 45-52.
- Silverman, D. 2010. *Doing qualitative research: A Practical Handbook*, 3rd ed. London: Sage.
- Sirven, N. & Debrand, T. 2008. Social participation and healthy ageing: An international comparison using SHARE data. *Social Science & Medicine*, 67, 2017-2026.
- Stewart, B., Nicholson, M., Smith, A. & Westerbeek, H. 2004. *Australian sport - better by design: the evolution of Australian sport policy*, London; New York; Routledge.
- Toepoel, V. 2012. Ageing, Leisure, and Social Connectedness: How could leisure help reduce social isolation of older people? . *Soc Indic Res*, 113, 355-372.
- Toftegaard-Støckel, J., Nielsen, G., Ibsen, B. & Andersen, L. B. 2011. Parental, socio and cultural factors associated with adolescents' sports participation in four Danish municipalities. *Scandinavian journal of medicine & science in sports*, 21, 606-611.
- Ullrich-French, S. & Smith, A. L. 2006. Perceptions of relationships with parents and peers in youth sport: Independent and combined prediction of motivational outcomes. *Psychology of sport and exercise*, 7, 193-214.
- van Uffelen, J. G. Z., Jenkin, C.R., Westerbeek, H.M., Biddle, S.J.H. & Eime, R.M. 2015. *Active and Healthy Ageing through Sport*. Report prepared for the Australian Sports Commission. Victoria University, Institute of Sport, Exercise and Active Living (ISEAL).
- Whittaker, C. G. & Holland-Smith, D. 2014. Exposing the dark side, an exploration of the influence social capital has upon parental sports volunteers. *Sport, Education and Society*, 1-18.
- World Health Organisation 2015. *World Report on Ageing and Health* [online] Available from [http://apps.who.int/iris/bitstream/10665/186468/1/WHO\\_FWC\\_ALC\\_15.01\\_eng.pdf?ua=1](http://apps.who.int/iris/bitstream/10665/186468/1/WHO_FWC_ALC_15.01_eng.pdf?ua=1) [Accessed 16 June 2016].
- Yeom, H. A., Fleury, J. & Keller, C. 2008. Risk factors for mobility limitation in community-dwelling older adults: a social ecological perspective. *Geriatr Nurs*, 29, 133-40.

**Figure 1:** Linked themes of the socio-ecological model: benefits for sporting organisations of engaging older adults



**Figure 2:** Linked themes of the socio-ecological model: barriers to sporting organisations of engaging older adults

