The value of intersectoral partnerships in sport

Promoting sport participation, physical activity, social capital and mental health through a sport development program in disadvantaged communities

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The value of intersectoral partnerships in sport
Promoting sport participation, physical activity, social capital and mental health through a sport development program in disadvantaged communities

BACKGROUND

The main task of the sport sector is to enable EVERY INDIVIDUAL to participate in sport (Council of Europe, 2001).

The sport sector struggles to reach ethnic minorities and people of lower social class.

PARADOX

Health, social and other organizations use sport to reach these same target groups in order to improve physical, social and mental health.

SOLUTION: to resolve this paradox, intersectoral collaborations are needed.

METHOD: THREE STUDIES

AIM OF THIS DISSERTATION:
To provide insights into if and how intersectoral partnerships can create value to promote sport participation, physical activity, social capital and mental health through a COMMUNITY SPORT DEVELOPMENT PROGRAM (CSDP)

1. How does sport relate to physical, social and mental health?
2. Can intersectoral partnerships resolve the sport delivery paradox?
3. What are the key success factors of intersectoral partnerships that create more knowledge, resources and build stronger partnerships?
RESULTS

STUDY 1:

THE MORE SOMEONE SPORTS, THE HIGHER HIS/HER LEVEL OF PHYSICAL ACTIVITY AND MENTAL HEALTH, BUT NOT HIS/HER SOCIAL CAPITAL. Sport participation was only related to social capital if the sport took place in a social context with neighbours, friends or family.

Marler et al. (2015). Interrelation of Sport Participation, Physical Activity, Social Capital and Mental Health in Disadvantaged Communities: A SEM-Analysis. PLOS One

STUDY 2:

Quantitative: MORE PEOPLE ENGAGE FOR A LONGER TIME in sport and physical activity IN CSDP - COMMUNITIES. This is also the case for ethnic minorities and people of lower social class (not for social capital and mental health).

Qualitative: CSDP FILLS A GAP IN THE SPORTS DELIVERY SYSTEM. The CSDP connects sport organizations with health, social, cultural and youth organizations. These links enable a sport offer tailored to the needs of the residents and organizations in the communities.


STUDY 3:

13 KEY SUCCES FACTORS of intersectoral partnerships that build capacity at different levels:

Capacity Building Level | Key elements of cross-sector partnerships | Evaluating mutual activities and having trust in each other | Creating mutual interdependence and policy support | To prove the value of the partnership by objective metrics |
---|---|---|---|---|
Individual | 1. Process evaluation 2. Trust 3. Personal contact 4. Coordination 5. External focus 6. Period of collaboration-time | Evaluation of mutual activities and having trust in each other | To prove the value of the partnership by objective metrics | To prove the value of the partnership by objective metrics | To prove the value of the partnership by objective metrics |


Do you want to learn to collaborate better and to get more out of sport in your community? Try I-SAM, our interactive collaboration game. Contact: mathieu.marlier@ugent.be
List of abbreviations and definitions

**Capacity building.** The development of knowledge, skills, commitment, structures, systems and leadership to enable effective health promotion (Smith et al., 2006, p. 198).

**Community development.** The strengthening of the social resources and processes in a community by developing those contacts, relationships, networks, agreements and activities outside the household that residents themselves identify will make their locality a better place in which to live and work (Vail, 2007, p. 2).

**CSDP.** Community Sport Development Program.

**Disadvantaged communities.** Communities which suffer acute social problems such as increasing population densities, low socio-economic status, high rates of chronic disease, high levels of migration and multiculturalism and young people at risk of exclusion/disaffection from society (Skinner & Zakus, 2008, p. 264).

**Health.** A state of complete physical, mental and social well-being and not merely the absence of disease (WHO Constitution, 2006).

**Mental health.** A state of well-being in which an individual realises his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community (WHO, 2004).

**Metabolic equivalent (MET).** A unit used to estimate the metabolic cost (oxygen consumption) of physical activity. One MET equals the resting metabolic rate of approximately 3.5 ml O2 x kg-1 x min-1. (US Department of Health and Human Services, 1996, p. 21).

**Physical activity (PA).** Any bodily movement produced by skeletal muscles that results in energy expenditure above resting level (Caspersen, Powell, & Christenson, 1985). When physical activity is used in the thesis it relates to the sum of leisure time PA, active transportation, leisure-time PA, household-related PA, work-related PA.
**Structural equation modelling (SEM).** A statistical method which enables to simultaneously examine a set of relationships between one or more independent variables and one or more dependent variables (Muthén & Muthén, 1998).

**Sense of community.** A feeling that members have of belonging, a feeling that members matter to one another and to the group and a shared faith that members need will be met through their commitments to be together (McMillan, 1996, p. 9).

**Social capital.** Features of social organisations, such as trust, norms, and networks. These features have value and are potential resources (e.g., to get information, assistance, help) for individuals and communities (Putnam, 2000).

**Social sector.** The social sector encompasses all organisations that are committing effort to help in the provision of a minimal level of wellbeing and social support for all citizens both at community, city and governmental level. Often their services are directed at the poor and the disadvantaged. Several examples are outreach organisations, organisations fighting against drug abuse and homelessness, organisations focussing on building community cohesion and empowering disadvantaged individuals.

**Sport.** 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 (Council of Europe, 2001, p. 2).

**Sport development.** Processes, practices and policies that centre upon increasing levels of sport participation and promoting the wider benefits of sport (Bolton, Fleming, & Elias, 2008, p. 94).

**Sport for development.** The use of sport to exert a positive influence on public health, the socialisation of children, youths and adults, the social inclusion of the disadvantaged, the economic development of regions and states, and on fostering intercultural exchange and conflict resolution (Lyras & Peachey, 2011, p. 311).
Summary

Societal changes in the 20\textsuperscript{th} and 21\textsuperscript{st} century have led to a bigger gap between rich and poor, an increased social diversity and a decrease in social cohesion and social capital in our Western civilization. These changes cause multidimensional challenges for sport, social, health, youth and cultural sectors that cannot be handled by a single organisation and call for an integrated approach. One of these challenges is including ethnic minorities and people of lower social class into society.

Asides these mutual challenges, these sectors offer potential joint solutions. Participation in sport has namely been regarded as a popular tool to reach disadvantaged groups and found to be related with higher levels of physical activity and social capital and better mental health. Previous research has indicated that, when these sectors partner together, an increased sport participation in the community can be attained. Although partnerships between the sport, health, social and other sectors seem obvious, on the field, this is far from being the standard. Most sport organisations operate in silos, which causes a sports delivery paradox. On the one hand sport organisations want to inspire every individual to participate in sport, but struggle to reach disadvantaged target groups due to a lack of skills and knowledge to deal with these groups. On the other hand, health, social, youth and cultural organisations use sport as a vehicle to capture the attention of these disadvantaged groups and to reach physical, social and mental health gains, but lack sport specific skills and resources to reach their goals. To dissolve this paradox and in order to reach and strengthen each other’s goals, the need to collaborate between sport, health, social and other sectors is pertinent.

The main purpose of this doctoral thesis is therefore to provide insights into if and how these sectors create value when they collaborate. A community sport development program (CSDP) in Antwerp (Belgium) was chosen as case study in order to deliver these insights. The CSDP interacts with both sport, health, social and other organisations. The main ambition of CSDP is to enable sport participation and to lower thresholds concerning sport participation for everyone residing in the community, with special attention for the disadvantaged groups. The CSDP additionally uses sport as a means for social inclusion and health promotion. The present doctoral thesis incorporates three studies with the purpose of answering how intersectoral partnerships can deliver added value in sports.

A first study aimed to provide insight into the interrelation of sport participation, total physical activity (PA) (i.e. active transportation, leisure-time PA, household-related PA, work-related PA), community social capital (a measure for the trust in the people of the community), individual social
capital (a measure for the trust in the people in general) and mental health. These relations are often the reason for social, health and other organisations to partner with the sport sector. Structural Equation Modelling (SEM-)analysis showed that sport participation was associated with better mental health but not with both types of social capital. Social capital was only generated when individuals indicated that they participated in sport with friends or family. Higher levels of community and individual social capital were linked with higher levels of mental health. Only community social capital was related to higher levels of physical activity. No relation was found between physical activity and mental health. **Results of this study imply that supporting initiatives aiming at bringing the neighbours together by means of sport has beneficial effects in different ways.**

A second study investigated whether adults from CSDP-communities engaged in more sport participation than adults from control communities (without CSDP) and if this also resulted in higher levels of physical activity, social capital and mental health. Multilevel-model analysis revealed that **adults from program communities engaged in significantly more sport and in more physical activity than their counterparts living in control communities.** Sport participation of respondents in CSDP-communities was 61.3% whereas in control communities, such participation was only 42.4%. Furthermore, individuals of CSDP-communities participated on average 96 min longer than in control communities. Moreover, participation in sport clubs was also significantly higher for adults in program communities (15.7%) compared to that of adults of control communities (6.5%) and the average of adults in Belgium (10.9%). These results apply to the entire community, however, they also apply to ethnic minorities and people of lower social class. To illustrate, in CSDP-communities 46.2% of ethnic women of lower social class indicated to participate in sport, whereas in control communities this was only 10%. Concerning physical activity, adults from CSDP-communities were approximately 50% more physically active than their counterparts in control communities. No differences were found, however, for social capital and mental health between the respondents of the different communities.

Mechanisms underpinning these outcomes could be derived by analysis of both quantitative and qualitative data. Findings indicated that, for the context of sport promotion, it is crucial to have an organisation that can bridge the gap between sport organisations on the one hand and health, social, culture and youth organisations on the other. The links between these organisations provide a better sport offer tailored to the needs of the residents in the disadvantaged communities. **The CSDP was able to undo the sports delivery paradox by bridging this gap between sport and health, social, cultural and youth organisations.** The CSDP started from the available capacities in the communities and aimed to strengthen the organisations using different strategies, making them an added value.
for multiple organisations. Regarding the staff members of the CSDP it appears that a combination of both sport and social workers is best to reach the objectives of the CSDP. Furthermore, one of the reasons why the CSDP remains sustainable is because they support sport clubs open to disadvantaged groups both with cultural, organisational and financial capacity.

The third and final study targeted to identify the key success factors of intersectoral partnerships in a community sport development context according to the ‘capacity building theory’. Thirteen key success factors were identified that build capacity at the practitioner, organisational and partnership level in the context of the CSDP. First, at the practitioner level, more knowledge and competences are gained between partners that evaluate their mutual activities during the process, and that foster mutual trust by having an open attitude toward the partners, having clarity about their role in the partnership, looking for opportunities in the environment and by understanding that fostering trust does not happen overnight, but takes time to be built. Second, at the organisational level, more resources are shared by organisations that create interdependence between their partners and that build support from policy makers. The support from policy makers can be positively influenced by objective metrics that prove the value of the partnership and by the support of partners who convince the policy makers of the added value of the organisation and the partnership. Third, at the partnership level, stronger and broader partnerships are built by organisations that dispose of unique qualities that are complementary and compatible with the other organisations in the community and that diversify in their activities. This facilitates the connection with multiple organisations and over time creates credibility that convinces other organisations to join the partnership.

In conclusion, empirical results of our studies indicate that intersectoral partnerships in sport have value, especially to promote sport participation and physical activity. It appears that the sharing of skills, competences and resources between the sport sector on one hand and the social, health, youth and cultural sector on the other hand, are crucial to resolve the sport delivery paradox.
Samenvatting

Een eerste studie bestudeerde de relaties tussen sportparticipatie, fysieke activiteit (zowel actief transport, als tijdens huishoudstaken, tijdens werk en tijdens de vrije tijd), buurt sociaal kapitaal (maat voor het vertrouwen in de buurt), individueel sociaal kapitaal (maat voor het vertrouwen in de mens in het algemeen) en mentaal welzijn. Deze relaties vormen vaak de argumentatie om intersectoraal samen te werken met de sportsector. Resultaten geven aan dat sportparticipatie gerelateerd is aan een beter mentaal welzijn maar niet aan een hoger sociaal kapitaal. Om sociaal kapitaal te genereren door sport, is de context van het sporten belangrijk. Sociaal kapitaal wordt immers enkel gegenereerd als er gesport wordt samen met vrienden, buren of familie. Een hoger sociaal kapitaal is gelinkt aan een beter mentaal welzijn en heeft ook deels een verband met meer fysieke activiteit. Er kon geen relatie gevonden worden tussen fysieke activiteit en mentaal welzijn. De resultaten van deze studie tonen aan dat het samenbrengen van buren door middel van sport op verschillende manieren effect heeft.

Een tweede studie onderzocht of er in wijken met buurtsportinitiatieven meer gesport wordt, en of dit ook een gevolg heeft voor het sociaal kapitaal, de fysieke activiteit en het mentaal welzijn. Resultaten geven weer dat volwassen uit buurtsportwijken significant meer sporten dan volwassen uit controlewijken. 61.3% van de inwoners van buurtsportwijken gaven aan te sporten ten opzichte van 42.4% in de controlewijken. De respondenten uit buurtsportwijken gaven aan ook 96 minuten per week meer aan sport te doen dan in controlewijken. Ook de participatie in sportclubs in buurtsportwijken was significant hoger (15.7%) in vergelijking met de participatie van volwassenen in controlewijken (6.5%) en zelfs met het gemiddelde van volwassenen in België (10.9%). Deze resultaten golden voor de hele buurt, maar waren ook van toepassing op etnisch culturele minderheden en individuen uit de lagere sociale klassen van deze wijken. Ter illustratie, in buurtsportwijken sport 46.2% van vrouwen met etnische afkomst uit de lage sociale klasse, terwijl in controlewijken slechts 10% van hen sport. Wat fysieke activiteit betreft, waren volwassen uit buurtsportwijken ongeveer 50% meer fysiek actief dan volwassen uit controlewijken. Er werden echter geen verschillen gevonden voor sociaal kapitaal en mentaal welzijn. Verschillende processen lagen aan de basis van deze resultaten. Analyses van de interviews toonden aan dat het cruciaal is dat er in de buurt een organisatie aanwezig is die bruggen vormt tussen sportorganisaties enerzijds en gezondheids-, sociale, cultuur- en jeugdorganisaties anderzijds. Dit laat toe dat de sportorganisaties de kwetsbare doelgroepen beter kunnen bereiken en dat de andere organisaties een sportaanbod hebben dat aangepast is aan de noden van de doelgroep. Buurtsport vult op deze manier een hiat in het sportlandschap. Buurtsport werkt in de eerste plaats versterkend voor de aanwezige organisaties in de buurt en slaagt erin een meerwaarde te zijn voor de organisaties en de inwoners in de buurt en dat met behulp van verschillende strategieën. Wat
medewerkers betreft, blijkt een mix van sport, sociale werkers en werkers die zelf uit de kwetsbare groep komen, de beste combinatie om de doelstellingen van buurtsport te verwezenlijken. Eén van de belangrijke redenen waarom het succes van buurtsport in Antwerpen duurzaam is, ligt aan de sportorganisaties die openstaan voor het ontvangen van kwetsbare doelgroepen zowel extra financiële, culturele als organisatorische assistentie krijgen.

Ten slotte werden in een derde studie de kritische succesfactoren van samenwerkingsverbanden in een sportcontext geïdentificeerd volgens de theorie van ‘capacity building’. **Concreet werden in de context van buurtsport dertien succesfactoren gevonden die belangrijk zijn bij het samenwerken om capaciteit te creëren** op het niveau van de (1) individuele medewerkers (meer kennis) (2) de organisatie (meer middelen) en (3) het volledige netwerk (uitbreiden en versterken netwerk). (1) Om meer kennis te delen tussen de medewerkers in de samenwerking moeten organisaties het proces evalueren van hun gemeenschappelijke activiteiten en vertrouwen hebben in elkaar. Dit vertrouwen kan gestimuleerd worden door het etaleren van een open houding ten opzichte van partners, te waken over de duidelijkheid van taken en afspraken in de samenwerking, te zoeken naar de manieren waarop de eigen organisatie een meerwaarde kan zijn voor de partners en in te zien dat er niet onmiddellijk resultaten mogen verwacht worden. Het creëren van vertrouwen en het delen van kennis vergen immers tijd. (2) Om meer middelen en steun te verkrijgen, is het van belang om wederzijdse verbondenheid te creëren met de partners en steun te bekomen bij de beleidsmakers. Deze beleidsmakers kunnen positief beïnvloed worden door getuigenissen van partners die openlijk de meerwaarde aangeven van de samenwerking en door meetbare resultaten die objectief de waarde van de eigen organisatie aantonen. (3) Om het netwerk te versterken en uit te breiden moet de organisatie zorgen dat ze beschikt over unieke expertise die verenigbaar en complementair is met de expertise van andere organisaties en diversifieert in het eigen aanbod. Op die manier krijgt ze verschillende aanknopingspunten met andere organisaties en kunnen andere organisaties na een bepaalde tijd ook overtuigd worden van de meerwaarde van de samenwerking.

Samenvattend kunnen we uit deze doctoraatstudie besluiten dat intersectorale samenwerkingsverbanden in sport een meerwaarde betekenen, in de eerste plaats voor het promoten van sport en fysieke activiteit in de wijken. Door het delen van kennis, competenties en middelen tussen de sportsector enerzijds en de sociale, gezondheids-, jeugd- en culturele sector anderzijds blijkt de paradox in het sportlandschap opgelost te kunnen worden.
Chapter I
General Introduction
1. Introduction

The overall purpose of the present thesis is to provide insights into if and how intersectoral partnerships can create value to promote sport participation, physical activity, social capital and mental health in the community by studying different community sport development programs (CSDPs) in disadvantaged communities.

Sport, health, social, youth and cultural sectors deal with multidimensional problems that cannot be dealt with by a single organisation alone, but call for an integrated approach (Mandell & Keast, 2008b; Sam, 2009). Studies have furthermore indicated that sport participation is related to physical activity, social capital and mental health (Eime, Young, Harvey, Charity, & Payne, 2013). Although partnerships seem evident between these sectors, they have proven to be a difficult endeavour to accomplish (Babiak & Thibault, 2009). Researchers, policy makers and practitioners have stressed that more insights need to be gained regarding how sport, social and health needs are interrelated and how partnerships might influence these outcomes. An existing CSDP using a capacity building approach in different disadvantaged communities in Antwerp was chosen as a case study to research the value of intersectoral partnerships between these sectors. This CSDP was selected as it is regarded as a best case in Flanders and because one of the defining characteristics of the program is the collaboration with both sport organisations and health, social, youth and cultural organisations. By describing the associations of sport participation, physical activity, mental health and social capital, and by uncovering key success factors of an intersectoral partnership based community sport development program in Flanders, the researcher seeks in this dissertation to expand the knowledge base regarding how intersectoral partnerships can create value.

This general introduction opens with a discussion of several 20th and 21st century societal changes that bring intersectoral challenges to the sport sector. Then, the interrelation between the concepts of sport participation, physical activity, social capital and mental health are explained. Subsequently, intersectoral partnerships are discussed with specific attention directed at the need to collaborate between and within the sport, health and social sectors and the key aspects of what makes intersectoral partnership thrive, flourish and sustain. The next main section focuses on CSDPs and how they build capacity in the community. Finally, shortcomings of the current literature are highlighted, and an outline of the dissertation is provided.
2. Evolutions of the 20th and 21st century and the intersectoral challenge they bring to the sport sector

Sport, health, social and other sectors face mutual challenges. One of these mutual challenges is the need to reach ethnic minorities and people of lower social class to obtain goals of health equality, social inclusion and sport participation for all individuals. These goals are considered multidimensional problems because they defy precise definition, cut across policy and resist service solutions offered by a single agency (Keast, Mandell, Brown, & Woolcock, 2004). Several evolutions of the 20th and 21st century as social polarisation, social diversity and individualisation have impacted the urgency to address these problems. First, this section portrays how sport has evolved over the last century. Second, it frames how evolutions in this century have influenced society and have influenced the role of sport in that society in particular. The aim of this section is to inform how these evolutions have brought the intersectoral challenge of reaching ethnic minorities and people of lower social class to the sport sector.

2.1. Evolution of sport and Sport for All policy
Consistent throughout most countries, sport policy covers roughly two broad policy areas: elite sport and sport for all. Sport for All policy, which is the focus of this dissertation, targets to inspire every individual to participate in sport whether it is for competition, recreation, joy, health, education or other purposes. Sport participation has changed vastly over the last century. In the first half of the 20th century, sport was predominantly an activity reserved for the young, white, upper class male. Starting from the second half of the 20th century, however, sport grew to be one of the most popular leisure activities in society (Hooghe, 2003). A complex interaction of several factors contributed to this phenomenon: increased affluence, increased leisure time, increased concerns over health issues, the development of an active Sport for All policy in most western European countries, the growth of public and private sport facilities and provisions (Scheerder, Vanreusel, & Taks, 2005). Although sport participation rates have increased over the last 40 years, the basic aims of the Sport for All movement have not been fully realised for two main reasons. First, the level of non-participation in sport remains quite high. In Europe, 41% of adults (18-56 year) report to engage in sport once per week (Van Bottenburg, Rijnen, & Van Sterkenburg, 2005). In the participation survey in Flanders (Belgium) of 2009, 56% of adults (18-54 years) participate in sport on weekly basis (Lievens & Waege, 2011). This fact also means that, in Europe, almost 60% and in Flanders 44% are not engaging in weekly sport participation. Second, among those non-participants, ethnic minorities and people of lower social class are overrepresented (Crespo, Smit, Andersen, Carter-Pokras, & Ainsworth, 2000;
Van Tuyckom & Scheerder, 2010b). Disadvantaged groups are furthermore less likely to engage in sport clubs (Vandermeerschen, Vos, & Scheerder, 2013). Moreover, to reach new participants, sport administrators and other public and private agencies have frequently relied on sport events and sport camps. Evidence points out, however, that these initiatives predominantly reach people already engaged in sport (Bowles, Rissel, & Bauman, 2006; Chin & Phillips, 2004). Reaching ethnic minorities and individuals of lower social class is among the greatest challenges for sport and government organisations attempting to reach Sport for All goals. This challenge is even more prominent because of several societal evolutions as social polarisation, increased social diversity and individualisation that ask of sport to take up a more prominent role to counter negative aspects of these evolutions.

2.2. Neoliberalism and social polarisation
A first evolution that influences the role of sport in society is the bigger gap between rich and poor, stimulated by the economical reform at the late 70’s known as neoliberalism. Neoliberalism is defined as: a theory of political economic practices that proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets and free trade (Harvey, 2005). Neoliberalism originated in the 1970’s and was an attempt to solve high unemployment and inflation-rates (Gilpin & Gilpin, 2000). Some scholars say that it was an attempt to restore power to the upper classes (Harvey, 2005). Others say that the balancing forces of growth, competition and technological progress will lead in later stages of development to reduced inequality and greater harmony among the classes (Gilpin & Gilpin, 2000). However, in a recent well documented essay of Piketty and Goldhammer (2014), which describes the evolution of distribution of capital in the 21st century, findings have shown that the gap between rich and poor has become greater since the 1970’s (Piketty & Goldhammer, 2014). In Belgium income inequality is smaller compared to most other countries of Europe and the world (OECD, 2015).

The wealth gap between the most and least affluent in society is matched by a disparity in health across the socio-economic spectrum (Goldman, 2001). This disparity is called health inequity and is among the top priorities of the World Health Organisation (WHO). The least well off are disproportionately affected by chronic disease. An example in Belgium: people of the lowest class who are 25 years old, expect to live 21 years less long in good health than their counterparts of the highest class (Van Oyen Herman, Vincent, & Rana, 2011). Researchers say that this social injustice kills people on a large scale (Marmot, Friel, Bell, Houweling, & Taylor, 2008).
Specific for the sport sector, this social polarisation is leading to an increased divide between those with and those without access to sport and recreation opportunities and facilities (Collins & Kay, 2003). Poverty is a core issue of social exclusion, and it also impacts participation in leisure activities as sport participation (Collins, 2004). This is evident in several ways. The richest 10% have almost seven times the income of the poorest, but spend about ten times as much on leisure activities per week (€280 vs €29) (Collins, 2004). Moreover in England around 57% of adults from middle and higher income classes participate in sport, whereas in the lower classes this amounts only to 23% (Collins & Kay, 2003). In Flanders about the same difference of 30% is noted in sport participation between people of high and low social class (Theeboom et al., 2015).

Another consequence is that, throughout the evolution of neo-liberalist agendas, sport has become a tool to reduce longer-term (financial) costs associated with poor health, poor educational achievement and, by association, small contribution to the economic well-being of the country (Green, 2006; Skinner & Zakus, 2008).

2.3. Migration and social diversity

A second evolution that impacts the role of sport in society is the increase in ethnic and social heterogeneity in virtually all advanced countries. The most certain prediction that we can make about almost any modern society is that it will be a more diverse generation from now than it is today (Putnam, 2007). Although diversity and immigration are not identical, as a general rule, it can be said that the heightened immigration will lead to an increased ethnic diversity in the receiving countries.

Immigration holds a number of benefits for both outgoing and receiving countries: it is associated with more rapid economic growth; it has an offset for fiscal effects of the retirement of the baby boom generation; it enhances development of the South by remittances from immigrants to their families back home and transfer of technology and new ideas through immigrant networks (Putnam, 2007). However, although in general, migration is linked with beneficial outcomes, native populations might not always perceive these ethnic groups as beneficial to their nation, city or neighbourhood. Three of the most mentioned theories that try to explain how native and ethnic populations will interact are contact hypothesis, conflict theory and constrict theory. Contact hypothesis states that, as we have more contact with people who are unlike us, we overcome our initial hesitation and ignorance and come to trust them more. A study of American soldiers after the Second World War showed that soldiers who had been assigned to units with black soldiers were much more relaxed about the idea of racial integration compared to soldiers serving in all-white platoons (Stouffer et al., 1949). Conflict theory argues that, for various reasons, diversity fosters out-group distrust and in-group solidarity. One of the main reasons for this distrust is the contention over
limited resources (Bobo & Tuan, 2006). **Constrict theory** is a combination of both theories. It claims that social distance will be decisive on regarding how people perceive racial integration. Alba and Nee (2009) explain that ‘When social distance is small, there is a feeling of common identity, closeness, and shared experiences; but, when social distance is great, people perceive and treat the ‘other’ as belonging to a different category (Alba & Nee, 2009, p. 32). Social distance depends, in turn, on social identity — our sense of who we are. This concept will be further explored in the next section when the concept of social capital and capacity building will be dealt with.

In Belgium, migration has more or less stabilized over the last twenty years (United Nations, 2009). However, even if immigration would somehow stay stable, ethnic diversity would continue to grow over time because immigrant groups demonstrate higher fertility rates than ethnic majority populations (Smith & Edmonston, 1997).

Migration and social diversity affect the sport sector in multiple ways. First, ethnic minorities report to engage in less sport participation than their native counterparts, making them a target group in order to reach sport-for-all goals (Breedveld & de Haan, 2000; Crespo et al., 2000; Lievens, Siongers, & Waege, 2015).

Second, although sport participation of these ethnic minorities is lower, it has been indicated that sport is one of the most important leisure activities that enjoys growing popularity among ethnic minorities (Schulenkorf, 2015; Theeboom, Schailée, & Nols, 2012). Policy therefore looks at the sport sector as a mean for social inclusion of ethnic minorities (Schulenkorf, 2015; Skinner & Zakus, 2008).

### 2.4. Individualisation and social disconnectedness

A third evolution that affects the role of sport in society is the disconnectedness from families, friends and communities induced (to a certain extent) by individualisation. Individualisation is one of the defining characteristics of neoliberal societies (Beck & Beck-Gernsheim, 2002). A quote of the Iron lady in 1996 illustrates this claim: ‘There is no such thing as society, there are only individuals’ (Schuller, Baron, & Field, 2000). Individualisation has been described as the consequence of the complex society where people need to organise and choose individual life courses and are self-responsible for the composition of their biography (Schwier, 2003). This notion is in contrast to the period before World War II where traditional guidelines contained severe restrictions and prohibitions on choices in life (Beck & Beck-Gernsheim, 2002). Roughly said, instead of marrying the girl/boy next door, taking over the farm of the parents, and believing in God, one needs to choose his own love, interests, work and beliefs. Individualisation of society holds several consequences. First is the increased pressure; when someone fails to succeed, this will be perceived as a personal failure because everyone is responsible for the choices he/she makes. This creates a constant pressure. This
pressure is also fuelled by competition. In the neoliberal state, it is believed that everybody can create his own success. To reach success, one has to be better than the other and win, not only once, but day after day (Beck & Beck-Gernsheim, 2002). In such individualised society, disadvantaged people are regarded by some as failures, who did not work hard enough as them to reach success. The belief, however, that everybody can create his own success if he only works hard enough, is a dream that, for many, cannot be achieved. Where and by whom one is raised defines, to a large extent, his/her possibilities in later life (Piketty & Goldhammer, 2014). A second consequence of individualisation is the increasing heterogeneity. People who are no longer bounded by directions of traditional institutions and make their own choices will probably make different choices, leading to different changes and dilemma’s that again can create additional pressure. These pressures have an effect on today’s society, which is identified by differentiation and disintegration (Putnam, 2000). Putnam argues that, along with individualisation also secularism, hours spent watching television and increased time pressure, have disconnected us from families, friends and communities (Hooghe, 2003; Putnam, 2000).

Throughout the decline of social provision and the active break down of social solidarity, sport has been regarded as a way to foster social inclusion (Skinner & Zakus, 2008). One of the greatest challenges for ethnic minorities and disadvantaged people is finding a community in which to identify and belong (Cassity & Gow, 2005). Sport is considered a platform for people to meet, enjoy being together and is therefore seen as a means to social inclusion and community development (Baum & Ziersch, 2003; Putnam, 2000).

In conclusion, under neoliberal agendas, the increasing ethnic diversity and the active break down of social solidarity, sport is increasingly seen as a vehicle to reach non-sport related goals (Green, 2006; Skinner & Zakus, 2008). A first step for the sport sector in fulfilling this role, is to reach its own Sport for All goal. However to fulfil this goal, the sport sector will need to reach the increasing number of ethnic minorities and people of lower social class, an activity that over the course of the last decades has not resulted in unanimously good outcomes. It seems therefore logical to use the experience of different health, social, cultural and youth organisations that are dealing with these people on a daily basis to help the sport sector in reaching their sport for all goals and simultaneously reducing health inequality, stimulating social integration and connecting people in the communities.
3. Interrelatedness of sport participation, physical activity, social capital and mental health

The sport sector finds itself at the intersection of different policy sectors. This is illustrated in the definition of sport according to the Council of Europe (2011): ‘Sport are 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’ (Council of Europe, 2001, p. 2). Furthermore, the Health through Sport model of Eime et al. (2013) also links sport participation with social outcomes as social capital and psychological outcomes as mental health. To gain better understanding of sport participation, physical activity, social capital and mental health, the researcher defines and discusses how these concepts are related to each other in this section.

3.1. Definitions

3.1.1. Sport participation
Defining sport participation has been described as a difficult task. Depending on the context, sport means different things to different people (Breedveld & Hoekman, 2011). A legal battle whether the card game ‘bridge’ is a sport serves as an interesting case to illustrate this difficulty (adapted from Lagaert and Roose (2014)):

In 2014 the English Bridge Union argued that its members should not have to pay VAT on competition entry fees because they were taking part in a pursuit that is recognised as a sport by the International Olympic Committee, the Charity Commission and several other European countries. It pointed out that croquet, darts, billiards and gliding were regarded as sport by HM Revenue and Customs (HMRC) even though ‘physical skill or activity plays second fiddle to mental skill’. Playing bridge regularly promotes both physical and mental health, and studies have shown that it may benefit the immune system and reduce the risk of developing Alzheimer’s Disease or suffering mental deterioration, the English Bridge Union argued. The Tax Chamber of the First-Tier Tribunal, however, rejected the claim, concluding that contract bridge does not involve a ‘significant amount’ of physical activity (Marsden, 2014). The English Bridge Union challenged this decision and a High Court judge ruled that players of bridge, chess and other ‘mind games’ could be recognised as a sport because the brain could be seen as a ‘muscle’. He gave the English Bridge Union the go-ahead to bring a legal challenge against rules excluding it from official recognition as a sport. He added that, in
In some cases, games requiring intense mental activity could even involve more physical strain than pursuits such as shooting which are recognised as sport (Bingham, 2015). Finally, in a hearing at High Court the judge refused to recognize Bridge as a sport because the adoption of the definition of sport required physical activity as an essential element of sport (Harley, 2015).

Many researchers have argued that differences in the meaning and interpretation of sport do influence the sport participation rates. Gender seemingly has an influence on what people label as sport (Lagaert & Roose, 2014). Men are more likely to report fishing, bowling or darts as a sport, whereas women do not perceive these activities as being sport (Lagaert & Roose, 2014). Cultural differences also appear to effect the perception of what sport signifies (Van Tuyckom, Bracke, & Scheerder, 2011). Across the ocean in the United States and Australia, for example, sport is very much perceived as organised and competitive (Eime et al., 2015). There, sport is defined as ‘a human activity 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’ (Eime et al., 2013).

This study adopts the definition of Scheerder et al. (2005): ‘sport participation is defined as a physical activity that requires a sufficient rate of exertion and takes place in an athletic context during leisure time’. In this study, we focus both on competitive and recreational sport activities. Sport can thus both refer to formally organised (e.g. playing competitive tennis in a sport clubs) or non-organised sport activities (e.g. running in the park with some friends). Sport activities such as billiards, chess, finch sport (‘vinkensport’ in Dutch) are excluded because they do not require a sufficient activity rate. Biking and hiking do qualify as sport as long as they take place during leisure time and adhere to the other criteria noted. Dancing in bars in most cases requires sufficient physical activity, but does not take place in an ‘athletic context’ so consequentially does not comply with our definition of sport participation. It must be noted that definitions are always arbitrary and can lead to discussions whether something should be regarded as sport or not. Biking as a means for transport to go to and from work, is not considered as sport participation because it has an utilitarian aim. However, when someone biked to his work as part of his triathlon training it did count as sport participation, as the main purpose, in this specific case, is training, and not transport to work. During the data collection with interview based questionnaires, the researchers were able to help the respondents to categorise their physical activities into sport participation or not.

3.1.2. Physical activity
Physical activity can be defined as ‘any bodily movement produced by skeletal muscles that results in energy expenditure’ (Caspersen et al., 1985). Physical activity can be performed in different settings...
and is usually categorized into occupational, household-related, transport-related and leisure-time physical activity. Sport participation is part of leisure-time physical activity. It is important to note that leisure time physical activity embodies next to sport participation also all activities which do not take place in an athletic context, for example, as mentioned before, dancing at bars or at wedding parties. The different types and forms of physical activity can be performed at varying intensities (US Department of Health and Human Services (USDHHS), 1996). Light-intensity physical activities include daily living activities (e.g. ironing, grocery shopping) and require an energy expenditure of less than three metabolic equivalents (METs: one MET is the resting metabolic rate or the energy expenditure for sitting quietly, approximately 3.5 ml of oxygen per kg body weight per minute; USDHHS (1996)). Moderate-intensity physical activities are activities that require a level of effort at which an individual should experience some increase in breathing or heart rate (e.g. brisk walking or bicycling at a moderate pace) and are performed at an intensity of three to six METs. Examples are (USDHHS, 1996). Vigorous-intensity physical activities are activities that require a level of effort at which an individual experiences a significant increase in heart and breathing rate (e.g. jogging, playing soccer) and are performed at an intensity of six METs or more (USDHHS, 1996).

3.1.3. Social capital

In life, who you know is often more important than what you know (Putnam, 2007). This quote summarizes the essence of social capital, namely that social networks have value (Putnam, 2000). Social capital is a broad concept that consists of different aspects. These aspects are discussed here below and are illustrated in figure 1.

First, a distinction is made between cognitive social capital and structural social capital (Putnam, 1993). Cognitive social capital is related to general trust and reciprocity. Trust encompasses the decision to give most people - even those whom one does not know from direct experience - the benefit of the doubt (Rahn & Transue, 1998). Reciprocity refers to the believe that, if you give something to another person, you will also get something in return. More than a tit-for-tat reasoning, it means that the help you give will be repaid at some unspecified time, perhaps even by an unknown stranger (Baum & Ziersch, 2003). High levels of cognitive social capital are thought to lead to more cooperative and well functioning societies (Baum & Ziersch, 2003).

Structural social capital is related to social networks. These networks refer to the ties between individuals or groups (Baum & Ziersch, 2003) and can be further split up into formal and informal networks. Where informal networks represent the ties between friends, neighbours, and family, formal networks involve the ties in formal organisations such as work.
A second distinction is made between community social capital and individual social capital (Bourdieu & Wacquant, 1992; Putnam, 2000). Community social capital regards social capital as a collective attribute of the communities, which uniformly benefits all individuals living in that same community. Individual social capital, in contrast, attributes the beneficial properties of social capital to the individuals and their social relationships (Kawachi, Kim, Coutts, & Subramanian, 2004). Concerning the relationship between both types of social capital, it is believed that higher levels of community social capital will boost individual social capital as people’s identity and behaviour are partly shaped by their interactions with their social environment (McMillan, 1996).

Fig. 1. Overview of the different types and distinctions of social capital, inspired by Islam, Merlo, Kawachi, Lindstrom, and Gerdtham (2006).

A third distinction is established between bonding and bridging social capital (Putnam, 1993). Bonding social capital refers to the strong ties within homogeneous groups, for instance, ties with family, colleagues. Groups who are strongly bonded may be exclusionary and often do not promote cooperation and trust in society (Narayan, 1999). They may also have adverse consequences for others as e.g. Maffia, Neo Nazi groups. Bridging social capital stands for the relationship between individuals who are dissimilar in power and social identity. It encourages people to feel a sense of responsibility for people beyond their bonded group and reduces inequities (Szreter, 2002) e.g. ties in sport, politics, religion. To make this distinction more tangible, bonding social capital is said to be good for ‘getting by’, and bridging social capital is crucial for ‘getting ahead’ (Putnam, 2000, p. 23) (p23). Important is that these two types can perfectly coexist. One example is the black church, which brings people together of the same race and religion (bonding) across class lines (bridging) (Putnam, 2000). In general, the assumption is that social capital is important because it improves the
efficiency of communities by facilitating coordinated actions and enabling communities to be more effective in pursuit of their interests (Putnam, 2000).

3.1.4. Health
Health is defined by the World Health Organization Constitution (2006) as a state of complete physical, mental and social well-being and not merely the absence of disease. This definition of health stresses the importance of the physical, social and mental dimensions of health. The two most essential parts of health to address in this dissertation are community health and mental health because the case study of this dissertation involves community sport development programs which aim to improve (among others) mental health through sport in the community.

3.1.4.1. Mental Health
Mental health is an integral and essential component of health (Prince et al., 2007). It is a state of well-being in which an individual realises his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community (WHO, 2004). Mental illness is placed in the top three causes of years lost due to disability according to the estimates of global burden of disease (Mathers & Loncar, 2006). This makes mental health one of the most pressing problems of our society (Prince et al., 2007). In Belgium, 74% of the population (older than fifteen years) report themselves to be in positive mental health. Conversely, 26% have mental health problems (Gisle, 2008). Results of the report further shows that 12% of the population have seriously considered committing suicide and 5% have already tried to commit suicide (Gisle, 2008). People of low social class globally and in Belgium experience most mental health problems and illness (Gisle, 2008; Saxena, Thornicroft, Knapp, & Whiteford, 2007). International reports show that populations with high rates of socioeconomic deprivation have the highest need for mental health care, but the lowest level of access to appropriate services (Saxena et al., 2007). According to some studies, mental health problems are on the rise particularly in disadvantaged groups (Rutter, Smith, & Europaea, 1995) cited in Fox (1999).

3.1.4.2. Community health
Traditionally, interventions focusing on promoting healthy lifestyles at the individual level (knowledge, attitudes, skills) have shown limited results in promoting long-term maintenance of health behaviours (Marmot et al., 2010; Spence & Lee, 2003). Especially in disadvantaged groups and in the field of reducing health inequities, they have been ineffective (Marmot et al., 2008). Community-level interventions, on the contrary, encompass an ecological vision of health. Next to factors at the individual level they focus on the importance of factors on the social and physical environment (Sallis, Owen, & Fisher, 2008). Community health suggests that the distribution of
health outcomes is often similar among people living within the same geographic community (Marmot, Allen, Bell, Bloomer, & Goldblatt, 2012). The promise of focusing on communities is that, although individual economic and social resources may vary, people living within the same community often share similar social and physical environments and levels of access to health care (Durch, Bailey, & Stoto, 1997) cited in (Edwards, 2015). Community health is therefore closely linked to the concept of social determinants of health. These social determinants are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life (WHO, 2015). Community-level interventions have been identified as one of the most promising practices in public health to improve the social determinants of health, especially in disadvantaged communities (Marmot et al., 2008). One precondition is that these interventions are strengthened by community insight and the mobilization of resources to solve locally identified health problems (Marmot et al., 2008).

3.2. How sport participation, physical activity, social capital and mental health are interrelated

In the next part, the relations between sport participation, physical activity, social capital and mental health will be theoretically underpinned based on current literature concerning these concepts. Figure 2 presents an overview of how these concepts are related. It must be noted that, although the relations are drawn in a specific direction, most research is based on cross-sectional studies. This precludes us from any conclusions about causality. In the next section we thus describe the associations (e.g. sport participation to mental health, social capital to physical activity) in a certain direction, but acknowledge that the direction of some of the relations may be partially the reverse.

3.2.1. Sport participation & social capital

Sport participation has been associated with social capital through participation in social and civic activities. Participation in civil society is according to most theorists a crucial element of social capital (Baum & Ziersch, 2003). Sport are considered a platform for people to meet and to enjoy being together (Putnam, 2000). Furthermore, in many western countries, voluntary sport organisations make up the largest part of the voluntary sector (Seippel, 2006). One anecdotal example stated in the important work of Putnam, ‘bowling alone’, describes how sport can have value to social capital (p29):

*John Lambert and Andy Boschma knew each other only through their local bowling league at the Ypsi-Arbor Lanes in Ypsilanti, Michigan. Lambert, a 64-year old retired employee of the University of Michigan hospital, had been on a kidney transplant waiting list for three years when Boshma, a 33-year old accountant, learned casually of Lambert’s need for a kidney,*
unexpectedly approached him to offer to donate one of his own kidneys. In addition to their differences in profession and generation, Boschma is white and Lambert is African American. That they bowled together made all the difference.

Several authors warn, however, that the relation between sport and social capital is ambiguous. Coakley (2015) for one argues that the belief in the purity and goodness of sport has been abused for reasons that contribute little to the common good in any representative manner. Collins (2004) reasons that sport participation is exclusionary in itself as sport participation rates decline with lower socio-economic status. Another aspect regards the strong bonds that may exist within a sporting club or team that is homogeneous in its membership (Perks, 2007; Tont, 2005). It has therefore been argued that different types of sport and contexts where the sport take place are crucial for the social capital outcome (Coalter, 2007; Okayasu, Kawahara, & Nogawa, 2010).

### 3.2.2. Sport participation, physical activity & (mental) health

The effects of sport participation and physical activity on health are well understood. Physical activity is related to a lower risk of obesity, diabetes, coronary heart disease and particular types of cancer (USDHHS, 1996). In 2009, the World Health Organisation reported that, globally, physical inactivity contributed to 6% of deaths and was the fourth leading risk factor for mortality (WHO, 2009). The need to increase physical activity is therefore considered a public health priority (USDHHS, 1996). Despite the well-known health benefits of regular physical activity, the majority of adults in developed countries do not engage in sufficient physical activity (Haskell et al., 2007). In Belgium, only 36% of people older than fifteen years accumulate the recommended 150 min of moderate-to-vigorous physical activity per week (Gisle & Stefaan, 2013).

Important to note is that in last decades occupational physical activity is decreasing, whereas leisure time physical activity is rising (Hallal et al., 2012). This stresses the importance of sport participation to reach health related physical activity levels. Health related levels of physical activity can also be achieved with ≥20 minutes of vigorous-intensity physical activity performed on ≥3 days/week (Garber et al., 2011). Due to its intensity, sport participation is mostly related to vigorous physical activity (Hallal et al., 2012). In Flanders, participation surveys indicate that 56% of the adults weekly participate in sport (Lievens & Waege, 2011). Two groups of people that engage in less sport participation are ethnic minorities and people of lower social class (Crespo et al., 2000; Van Tuyckom & Scheerder, 2010b)). The same tendency is noted for these groups in physical activity (USDHHS, 1996). Since the year 2000, national health objectives have called to reduce the disparity in physical activity between the general population and disadvantaged groups (Marshall et al., 2007).
Sport and physical activity are not only beneficial to physical health, they have also proven to benefit mental health (Bize, Johnson, & Plotnikoff, 2007; Penedo & Dahn, 2005). The Physical Activity Guidelines for Americans (2008) acknowledges that physical activity protects and reduces depression and anxiety, delays cognitive decline and contributes to the overall quality of life, such as self-esteem and feelings of energy or fatigue. Mechanisms underpinning these association are partly to be found in physiological effects of aerobic exercise, which among other effects, increases serotonin (which is one of the effects of most anti-depressant drugs) (Wipfli, Landers, Nagoshi, & Ringenbach, 2011). Another part is to be found in the psychological processes (Wijndaele et al., 2007). Research demonstrates that people who are able to master difficult exercise tasks enjoy feelings of competence, higher self-esteem and perceive problems as less threatening. Furthermore, people with higher self-esteem and energy are believed to use more problem-focused coping strategies (Wijndaele et al., 2007). Of the different types of physical activity, leisure time physical activity and more specifically, sport participation has been most consistently associated with better mental health in adults (Asztalos et al., 2009; Eime, Harvey, & Payne, 2013; Wijndaele et al., 2007).

3.2.3. Social capital & physical activity
The relationship between social capital and total physical activity still remains largely to be discovered (Kim, Subramanian, Gortmaker, & Kawachi, 2006). However, in contrary to the relationship of sport participation and social capital, the relationship between social capital and physical activity, as described in most international literature, is inverse. This means that increased levels of social capital (=predictor) contribute to physical activity (=outcome), whereas sport participation (=predictor), influences social capital (=outcome). The hypothesized mechanisms that underpin the positive effect of social capital on physical activity are threefold (Lindstrom, 2011; Ueshima et al., 2010). First, communities with more social capital have higher levels of informal social control, which contributes to the prevention of crime. This promotes perceptions of safety and consequently stimulates residents to do for example their grocery shopping by foot or to bike to their local activities. Second, communities with more social capital enjoy higher collective efficacy among residents which improves for example the building of bike paths, or maintaining the upkeep of public spaces. Finally, more social capital increases the diffusion of healthy norms. For example, seeing the neighbours going out to jog every day or walking their dog has a socially influence on people, which encourages the other residents to be more physically active (Lindstrom, 2011; Ueshima et al., 2010).

3.2.4. Social capital & (mental) health
Wide variations in the rates of mental illness between geographical areas underline the need to investigate social and environmental causes. As mentioned before community health is a crucial aspect to improve health conditions of the residents (Marmot et al., 2008). Moreover, building or
sustaining healthy communities is now considered an important weapon in a state’s strategy to prevent mental illness (De Silva, McKenzie, Harpham, & Huttly, 2005). Social capital has been gaining interest by researchers and policy makers because of its potential to create these healthy communities and to address the social determinants of health (Hamano et al., 2010). As mentioned before, under declining social provision and the active break down of social solidarity, one of the biggest challenges for disadvantaged people is to find a community with which to identify and belong (Cassity & Gow, 2005). Social capital is believed to induce more social solidarity, and social provision (Putnam, 2000).

However, not all types of social capital are related to good mental health. Ziersch and Baum (2004) for instance, found that having a lot of structural social capital is related to poor mental health. They conclude that high structural social capital may be good for the community, but not necessarily for the individual because of the stress that is inferred by having too many responsibilities towards these connections (Ziersch & Baum, 2004).

**Fig. 2.** Hypothesized model of relationships between sport participation, total physical activity, community social capital, individual social capital and mental health.
4. Towards a more unified policy: intersectoral partnerships

In the first section we discussed how several evolutions in the 20th and 21st century have brought several intersectoral challenges to the sport sector. In the second section we examined how different outcomes of the sport, social and health sector such as sport participation, physical activity, social capital and mental health are related to each other. The next section is focused on intersectoral partnerships as a way to overcome these mutual challenges and strengthen the mutual outcomes. In the following paragraphs the need and key success factors of intersectoral partnerships are discussed as also how the effectiveness of these partnerships can be measured.

4.1. The need for intersectoral partnerships in sport, health and social policy

Addressing multidimensional, wicked challenges such as poverty, health inequity and sport for all cannot be managed by one organisation alone (Turrini, Cristofoli, Frosini, & Nasi, 2010). These wicked issues present a special challenge to government because they defy precise definition, cut across policy and resist service solutions offered by a single agency (Keast et al., 2004). Traditional bureaucratic hierarchical arrangements such as departmental programs not only fail to overcome these issues, they add to the problem by further fragmenting services and people (Clarke & Stewart, 2003). Solving these wicked problems requires a collaborative, intersectoral approach (Provan, Beagles, Mercken, & Leischow, 2013). The use of these intersectoral partnerships is intuitively appealing because they enable integrated and holistic responses to these wicked problems (Zakocs & Edwards, 2006). This is one of the reasons why governments and public agencies are engaging increasingly in intersectoral collaborations, networks, alliances or partnerships with public, non-profit and for-profit organisations (Graddy & Chen, 2006).

The health sector is well aware that it will not reach its ambitions and goals without the use of networks and partnerships. This is apparent from the definition that Beaglehole, Bonita, Horton, Adams, and McKee (2004) gave to public health: “collective action for sustained population-wide health improvement”. Since long the health sector have realised that the drivers of health lie outside the health sector (Marmot, 1999). The WHO goes even further in emphasizing the need for intersectoral collaborations: “There is a need to break through traditional boundaries within government sectors, between government and nongovernment organisations, and between public and private sectors. Cooperation is essential ... this requires the creation of new partnerships” (WHO, 1997, p. 3). The health sector advocates a multidisciplinary approach involving research, policy, and practice in employment, education, justice, welfare, arts, sport, and the built environment with the aim to improve mental health through increased participation and social connectedness (WHO...
In the light of findings that occupational physical activity is declining and leisure time physical activity takes up a larger role in total physical activity, many developed nations are investing resources in the sport and recreation sector as a new strategy to improve people’s health and reduce obesity (Casey, Payne, Eime, & Brown, 2009). In this dissertation the aim is to research whether intersectoral partnerships in sport and non-sport organisations can be a good strategy to reach those objectives.

The social sector also depends heavily on partnerships to reach their goals. Eradicating poverty, unemployment, homelessness, drug abuse, social integration, social disconnection are all considered wicked problems (Keast et al., 2004). The potential value of sport in a social context is described by Nelson Mandela (cited in Coakley (2015)):

‘Sport has the power to change the world. It has the power to inspire, it has the power to unite people in a way that little else does. It speaks to youth in a language they understand. Sport can create hope, where once there was only despair. It is more powerful than governments in breaking down racial barriers. It laughs in the face of all types of discrimination.’

More institutionally sport and physical education have been acknowledged by the United Nations Educational Scientific and Cultural Organisation (UNESCO) as a ‘fundamental right for all’ (UNESCO, 1978). Another important recognition for sport as a mean to reach social goals was the establishment of the United Nations Office for Sport for Development and Peace in 2001. However, it was until 2003 the United Nations General Assembly adopted a resolution that recognized the significant role that sport can play in accelerating progress towards the achievement of the Millennium Development Goals (United Nations, 2003). The United Nations further emphasized the significance of the role of sport by declaring 2005 to be the International Year of Sport and Physical Education (Burnett, 2010). Most of the resources that the social sector spend on sport are to include minority groups into society and to augment social capital in the communities.

In contrast with the health and the social sector, the sport sector still operates mostly within silos (Barnes, Cousens, & MacLean, 2007). This might be a legacy of the dependency on top down sport promotion initiatives to increase sport participation (Lawson, 2005). Vail (2007, p. 572) gives the following argumentation:

Regardless of the reason for concern or the rationale for action, sport managers have typically relied on traditional marketing promotions to entice individuals to join their organisations (e.g., ads in local papers, flyers, etc.) or have used traditional sport development strategies, often limited to the launching of national programs (top-down versus
input from bottom-up) to increase participation delivered either nationally or regionally in a uniform manner across the country for a fixed period of time. Most communities are exposed briefly (e.g., one season or one camp) to such an initiative (sometimes referred to as the shotgun approach to increasing participation).

Additionally, to reach new participants, sport administrators and other public and private agencies have frequently relied on sport events and sport camps. Evidence, however, points out that these initiatives predominantly reach people already engaged in sport (Bowles et al., 2006; Chin & Phillips, 2004). This is despite efforts by the Council of Europe and other international actors which voiced in the European Sport Charter, that enabling every individual to participate in sport, is the primary task of governments (Council of Europe, 2001). The Charter also states that ‘measures shall be taken to ensure that all citizens have opportunities to take part in sport and where necessary, additional measures shall be taken aimed at enabling . . . disadvantaged or disabled individuals or groups to be able to exercise such opportunities effectively’ (p. 3). The more inclusive and democratic participation in sport is, the more health benefits and social integrating effects for both the individual and society. This rhetoric has more recently been rejuvenated by the European Commission’s White Paper on Sport (Commission, 2007; Theeboom, Haudenhuyse, & De Knop, 2010).

In order to reach Sport for All goals, sport policy makers, sport professionals and sport volunteers will need to attract groups who do not (yet) engage in sport. Among them ethnic minorities and groups of lower social class are overrepresented (Crespo et al., 2000; Van Tuyckom & Scheerder, 2010b; Vandermeerschen et al., 2013). Many sport organisations do, however, experience difficulties in reaching these hard to reach groups. In general sport organisations, both sport clubs as sport administrations lack the knowledge and skills to deal with these groups and do not understand which thresholds they experience in participating in the current sport offer (Crabbe, 2007).

As a consequence, social, health and other organisations have taken the lead in organizing sport for development programs. These programs use the popularity of sport to capture or ‘hook’ a large number of disadvantaged people (Schulenkorf, 2010). However, these organisations in many occasions lack specific sport skills, knowledge and resources. It seems therefore that the sport delivery system is currently dealing with a paradox. On the one hand the sport organisations struggle to reach the disadvantaged target groups, whereas on the other hand sport is used as a tool to engage the disadvantaged target groups. To dissolve this paradox and in order to reach and strengthen each other’s goals the need to collaborate is pertinent.
4.2. Key success factors of partnerships

“There is a fine balance to be struck between gaining the benefits of collaborating and making the situation worse” (Huxham & Macdonald, 1992, p. 50). This quote explains why partnerships in itself will not be able to solve aforementioned wicked problems. It is crucial to understand how and under which circumstances partnerships can be effective. Before we can attend to that question, we need to understand what is meant by partnerships and partnership effectiveness.

A partnership can be defined as ‘a dynamic relationship among diverse actors which actions concern sharing ‘goods’ and ‘knowledge’ between the partners’ (adapted definition from Brinkerhoff (2002) and Boutin and Le Cren (2004)). Partnership effectiveness is described as ‘the effects, outcome, impact and benefits that are produced by the network as a whole and that can accrue to more than just the single member organisations in terms of increasing efficiency, client satisfaction, increased legitimacy, resource acquisition, and reduced costs’ (Turrini et al., 2010, p. 529).

The question whether and under what specific circumstances partnerships are effective is one of crucial importance (Kenis & Provan, 2009). To our knowledge, four frameworks exist that provide a comprehensive view on the determinants of intersectoral partnership effectiveness. The models of Emerson, Nabatchi, and Balogh (2012), Turrini et al. (2010), Parent and Harvey (2009) and Ansell and Gash (2008). In all four models three parts are noted: a contextual and structural part, a management and process part and a part on outcomes or effectiveness of the partnerships. The focus of the models are however different. The model of Ansell and Gash (2008) focuses on partnerships in policy making and developing, the model of Emerson et al. (2012) aims to be an integrative framework for all types of partnerships, the model of Turrini et al. (2010) fixates more on partnerships to deliver services and Parent and Harvey (2009) focus on community based partnerships in a sports context. We decided to apply the framework of Parent and Harvey (2009) for three reasons. First, the model is built out of widespread and broadly accepted concepts of network effectiveness. Second, the model is specifically applied to the context of physical activity community-based partnerships. Third, the model was already tested, applied and deemed successful in analyzing success factors in the context of physical activity community based partnerships (Lucidarme, Marlier, Cardon, De Bourdeaudhuij, & Willem, 2013). Figure 3 depicts this model and the determinants.

Parent & Harvey (2009) make a distinction between three larger groups of determinants: the antecedents, the management and the evaluation. The next part carries the fruits of intensive research of others. Especially the labour of a review on these determinants by Lucidarme, Cardon, and Willem (2015) needs to be mentioned. In the next section a short overview is presented of the

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2 Although the term partnership is used in this dissertation, in the literature of interorganisational relationships different concepts as coalitions, alliances, networks are used interchangeably. The basis of these concepts is that they constitute of relations between two or more organisations in order to perform a common task or to create a certain benefit.
meaning of these determinants of intersectoral partnership effectiveness. It is important to realise that these determinants do not stand alone, in contrary, they are interrelated and can both exert positive and negative effects to other determinants of partnership effectiveness.

Fig. 3. Theoretical Partnership model for sport and physical activity community-based partnerships of (Parent & Harvey, 2009).

4.2.1. Partnership antecedents
The partnership antecedents include three main groups of determinants: the project purpose or partnership goal, the environment and the partnership structure.

4.2.1.1. Partnership purpose
The purpose or the reason why several actors engage into a partnership is critical. Depending on whether the partnership can live up to its purpose and reach it goals will define in many cases the added value of the partnership. Some partnerships have a clear purpose at the outset, for other partnerships a clear purpose develops over time (Waddock, 1988). The former are characterized as goal-directed networks, the latter as serendipitous networks (Provan & Kenis, 2008). Whether this purpose is clear from the beginning or develops over time, is not of crucial importance. What is, is whether there is an agreement on the partnership goals (Kenis & Provan, 2009). Conflicts between the individual organisational goals and the partnership goals impedes performance of the partnership (Mandell & Keast, 2008b). In partnerships to have a clear purpose that is aligned with the organisational goals is thus considered as one of the crucial determinants of partnership effectiveness.
4.2.1.2. Environment
The environment concerns political, demographic, economic, socio-cultural, legal, ecological and technological dimensions (Parent & Harvey, 2009). In the first part of this dissertation we already discussed the importance of several societal evolutions to the intersectoral challenge that the sport sector faces. Asides these evolutions, other context factors influence the functioning and eventually the effectiveness of the network (Mandell & Keast, 2008a). Size of the city and population density for instance will determine the number of potential partners available to collaborate. Problems and partnership goals will differ between prosperous and disadvantaged communities. Depending on the reigning political party, several policy topics are of more priority. As a result to analyze intersectoral partnership effectiveness it is essential to understand the environmental context (McNamara, 2012; Pawson & Tilley, 1997).

4.2.1.3. Nature of the partners
Complementarity and fit
Bringing the right partners together is indispensable. Partners can be complementary by bringing new resources and knowledge to the partnership (O’Leary & Vij, 2012). However, whether they will add value to the partnership will depend heavily on the way these partners can fit the differences in values, aims, governance and culture (Robins, Bates, & Pattison, 2011). This is what the determinant complementarity and fit is about. In the complementarity lies the promise, in the fit the challenge. This is no different in intersectoral partnerships between the health, social and sport sector. Adding to this difficulty is that the sport sector depends heavily on voluntary non-profit sport clubs. Non-profit executives are known to exhibit a stronger undercurrent of negativity toward intersectoral partnership than do their public sector counterparts (Gazley & Brudney, 2007). Non-profit organisations fear that, in exchange for funding of the public organisation, they might lose part of their autonomy (Gazley & Brudney, 2007; Phillpots, Grix, & Quarmby, 2011).

Motives
Organisations only engage in partnerships when they expect organisational benefits (McNamara, 2012; Provan & Kenis, 2008). In a study of Babiak (2007) motives to enter a sport-based partnership were legitimacy in the eyes of the external environment, efficiency of input-output ratios, stability (or simple survival) and reciprocity. In public-non-profit partnerships the motivation to partner is driven by a desire to secure those resources most scarce for the respective sector: expertise and capacity for government, funding for non-profits (Gazley & Brudney, 2007). The difference between the purpose of the partnership and the motives to engage into the partnership is subtle. The motives to engage in the partnership refer to their own organisational goals. The purpose of the partnership is the goal that the different actors try to accomplish together. For instance the motive of a health
organisation to partner with a sport club could be to increase exercise opportunities and reach higher physical activity levels for their target group, the motive for the sport club could be to engage more members and attain more resources. The purpose of the partnership in this case could be to have a more inclusive leisure offer for the people in the community.

4.2.1.4. Nature of the partners

Type of partnerships

Many researchers have tried to classify networks into clear typologies in order to better assess effectiveness and performance of these partnerships. Kenis and Provan (2009) identify three forms: a shared governance form, a lead organisation form and a network administrative form. The shared governance form works without distinct governance entity, is flexible and best suited in small, geographically concentrated networks. One downside is its inefficiency. The lead organisation form is often used in buyer-supplier and funder-recipient organisation, and requires that the most powerful organisation takes the lead (hence the name). This form is quite efficient and adds legitimacy to the partners in and outside the network. However, partnership members might lose interest in network-level goals as they are less involved in the decision-making. Network administrative form consists of a separate administrative entity set up specifically to manage and coordinate the network and its activities. In a community sport development context, a shared governance is mostly the form of network that is utilized, as the geographical area wherein the partnerships function is very specific and a flexible form of governance is best suited to address the sporting needs of the community members.

Kenis and Provan (2009) furthermore distinguish partnerships based on mandatory or voluntary formation. Voluntary partnerships are created bottom-up by the professionals and organisations that want to participate in the network, whereas ‘mandated partnerships are created by policy dictate, typically by a government agency. Ideally, in community sport development settings, the formation is voluntary. However, if these partnerships in community sport development do not emerge voluntary, government agencies are sometimes inclined to integrate this way of working, by adapting their subsidizing policy.

Another typology by Keast, Brown, and Mandell (2007) is based on the tie strength and integration of the different partners. They distinguish between cooperation, coordination and collaboration. These types find themselves on a continuum where cooperation represents partnerships with limited connections and low intensity and collaboration represents high intensity and high connection, coordination find itself in the middle of this continuum. Other types of partnership classification exist according to their functional roles (Head, 2008), their type of interorganisational innovation (Mandell & Steelman, 2003) and the lifecycle of networks (Sydow, 2004).
Governance

It is important for new partnerships to know which type and structure would best address their needs. This enables them to apply the right governance for their partnership. Central to governance is the delineation of roles, responsibilities and decision-making among the partners (Provan et al., 2013). For example partnerships with weak ties, and weak integration need less formalization and rules than partnerships with strong ties and strong integration (McNamara, 2012). This because the organisations are less interdependent of each other and accompany less risk (Keast et al., 2007; Mandell & Steelman, 2003). Another example is that mandated networks require more time to convince all participating organisations of the value of the network compared to voluntary networks (Van Raaij, 2006). Within the partnership a range of different governance mechanisms can be present. In a study in health-care networks a combination of trust-based, formal and hierarchical governance mechanisms proved to be most effective (Willem & Gemmel, 2013).

4.2.2. Management

The management group of determinants of partnership effectiveness consists out of three parts: the attributes of the partnership, communication and decision-making. The attributes of the partnership are the determinants which are characterized by the relations in the partnership. As interpersonal relationships are a core component of intersectoral partnerships, identifying the determinants of effectiveness for these relationships is of utmost importance. The main function of partnerships is namely to link members and their resources, facilitate joint action, learn and leverage these links in order to respond in new and innovative ways to issues (Mandell & Steelman, 2003). Communication constitutes of the determinants dealing with quality, information sharing, and participation in the communication within the partnerships. The decision-making determinants involve structure, conflict resolution, power balance and leadership.

4.2.2.1. Attributes of the partnership

Commitment

Commitment is related to the willingness and belief of network partners that the relationship is worth the effort (Lucidarme et al., 2015). According to Mandell and Keast (2008b), commitment among participants is the glue that keeps the network together. The rationale behind commitment is that in the event of unanticipated problems, committed partners will exert more effort to overcome these problems in order to attain long-term goal achievement (Mohr & Spekman, 1994). Leadership is said to play an important role in establishing and maintaining this commitment (McNamara, 2012).
Coordination
The next partnership characteristic is coordination which refers to the clarity of the role, task and expected input in the relationship for each partner (Lucidarme et al., 2013; Mohr & Spekman, 1994). Good coordination enables to steer network efforts towards the network goals (Lucidarme et al., 2015) or making the connection between resources and processes to achieve desired outcome (Jennings, 1994). Some examples of coordination tools are regular meetings, workshops, joint planning, or training programs (Lucidarme et al., 2015).

Trust
In a previous section the importance for trust to the concept of social capital was already addressed. Not surprisingly, in interorganisational relationships this trust is also a key aspect and it is probably considered as one of the most agreed upon determinants of intersectoral partnerships. Whether you read in public management literature, health science or social science literature, trust is a key determinant in each of these fields. It relates to the mutual confidence in the abilities and intentions of the actors in the partnership (Willem & Lucidarme, 2014). For any relationship between two or more partners, trust takes time to develop, and its development should not be rushed, it need to grow through a process of mutual learning or through shared accomplishments (Head, 2008; Parent & Harvey, 2009; Waddock, 1988). Measuring effectiveness of partnerships is therefore linked to the duration of the partnership (Sydow, 2004).

Organisational / partnership identity
Identity can both refer to the identity of the partnerships as the identity of the organisation. It refers to the core values, mission and culture of the organisation or the partnership (Parent & Harvey, 2009). Organisations may fear that collaboration in a network will result in a loss of their own organisational identity (Lee et al., 2012). For example sport organisations which enter a partnership of social and health organisation might fear that activities for ‘sport for sport’s sake’, for enjoyment or to express oneself will have to clear the path for sport for development reasons as social integration. One aspect that helps to create a shared partnership identity is to obtain objectives that the individual partners could never have produced on their own (McNamara, 2012). For example increase membership rates in sport clubs for all social classes and ethnic minorities and majorities.
Organisational learning
Through partnerships, organisations learn to work with each other and consequently increase their capacity to compete effectively for future contracts and improve the ability to achieve the mission and goals of the partnership (Chen & Graddy, 2010). During partner interactions, organisations learn to develop and review common goals, adjust strategies, build long-term relationships, avoid a culture of blame, provide sufficient time for processes to work, and deal with the dual identity of the own organisation and the identity of the partnership (Head, 2008; Lucidarme et al., 2015). However, in the theory of capacity building, which will be discussed in the next chapter, organisational learning is seen as one of the outcomes of interorganisational relationships (Simmons, Reynolds, & Swinburn, 2011). Although we follow to a large extent the framework of Parent and Harvey (2009), in this dissertation organisational learning is perceived rather an outcome than attribute of the partnership.

Mutuality
Mutuality covers the mutual dependence or interdependence of the network partners (Lucidarme et al., 2015). This implies that the partners have several responsibilities to each other. Although this might be paired with a loss of autonomy, the perception is that the mutual benefits will result in better outcomes (Mohr & Spekman, 1994). Higher mutuality between the different partners is also related to a higher commitment towards the relation, because the stakes are higher (Graddy & Chen, 2006). If you got nothing to lose, it is more likely that other priorities can take you away from your partnership goals.

Synergy
Synergy is defined as the degree to which partners successfully combine their knowledge, resources and skills (Weiss, Anderson, & Lasker, 2002)(p. 683). It is a concept which is closely related to leadership effectiveness and partnership efficiency (Weiss et al., 2002). Partnerships that are synergistic are thought to use more innovative and more effective thinking in the analysis and solving of complex community-based social, health and sport issues (Parent & Harvey, 2009). It must be noted that Weiss et al. (2002) identified synergy more as an intermediate outcome than as an attribute of the partnership like it is framed in the theoretical model of Parent and Harvey (2009).

Staffing
‘Partnership success ultimately rest on the shoulders of those doing program implementation’ (Waddock, 1988) (p.22). Selection of the representatives of each organisation is therefore crucial. Not surprisingly, competences (e.g. motivation, skills, expertise,...) of the representatives of each organisation will influence the overall partnership effectiveness (Robins et al., 2011). Equally
important is how the partners perceive each other (Hudson, 2004). In general, members with an open attitude and which are more committed to the partnerships are able to share more information and skills obtain better outcomes (Foster-Fishman, Berkowitz, Lounsbury, Jacobson, & Allen, 2001).

4.2.2.2. Communication
It is safe to say that without communication there is no collaboration. The communication between different partners is largely defined by the quality of the communication, the extent of information sharing between partners and the degree of participation in goal setting and planning of the partnership (Mohr & Spekman, 1994).

Communication quality
Communication quality is related to the accurateness, timeliness, adequacy and credibility of information as features of communication quality (Mohr & Spekman, 1994).

Information sharing
Information sharing is regarded as the distribution of necessary information to reach the partnership goals (McNamara, 2012). In better integrated partnerships that display higher levels of trust, generally more information is shared (Ospina & Yaroni, 2003). Sharing of information can both happen in informal as in formal coordination structures as meetings and conferences (Lucidarme et al., 2015). This accentuates the interrelatedness of many of the presented determinants of partnership effectiveness.

Participation
Participation in goal setting and planning goes one step beyond information sharing (Keast et al., 2007). Joint planning in goal setting allows for a good determination of mutual expectations and delineation of efforts between the partners (Parent & Harvey, 2009).

4.2.2.3. Decision-making
The structure of making decision, how conflicts are managed, whether there is an even or uneven balance in power between the different organisations and how the partnerships are guided and steered, play a crucial role in the management of the partnership (Agranoff & McGuire, 2001) and are discussed here below.
Structure

A definition of structure of decision-making is given by Caudle (2007): ‘this concerns the whole of processes and capabilities that govern partnership decisions, allocation of resources to implement the decisions, and resolution of the unavoidable conflicting priorities and concerns within the partnership’. The structure of decision-making can be independent, centralized or participative (McNamara, 2012) and is often related to the type of partnership. For instance co-operations, where partners are less integrated, have an independent structure. Collaborations, where partners are strongly integrated, have a more participative decision-making structure. Furthermore the form of partnership, whether the form is shared governance, lead organisation or network administrative form will also influence the structure. For example lead organisation networks have generally a centralized decision-making structure (Provan & Kenis, 2008).

Conflict resolution

Conflicts are evident and intrinsic to the structure of partnerships (Borzel, 1998). Some say in order to evolve as a partnership conflicts are positive and sometimes needed (Provan & Kenis, 2008). However, even more important are the clear agreements on how to deal with these conflicts (Lucidarme et al., 2015). Five different methods are identified by Mohr and Spekman (1994): joint problem solving, persuasion, smoothing, domination, harsh words, and arbitration. Joint problem solving is in most cases the best option, because it has most chances of reaching a mutually satisfactory solution (Mohr & Spekman, 1994). In many cases, however, persuasion of a partner with more power is used to adopt particular solutions (Mohr & Spekman, 1994). Leadership skills will have a great effect on the outcome of this persuasion and influence (Mandell & Steelman, 2003). Domination, harsh words and arbitration, but also ignoring the problem, affect the trust between the different partners which has a negative influence on partnership outcomes (Robins et al., 2011; Willem & Lucidarme, 2014).

Power balance

Ideally the power balance to make decisions is evenly distributed, however, in reality is this rarely the case (Huxham & Vangen, 2004). Differences in power balance may come forth out of the amount of resources or skills a partner can bring to the table (Huxham & Vangen, 2004). It can also stem from a lack of equal distribution of roles and responsibilities in governance and coordination (Huxham & Vangen, 2004). Parent and Harvey (2009) illustrate this power balance with an example: a partnership dedicated to providing more physical activity opportunities for underprivileged children might bring together strong institutional actors, such as schools and the city’s recreation department, with small community, voluntary organisations having very limited resources. Although the power
between these organisations is different, the challenge exists in managing the decision making so everyone feels respected in his role.

**Leadership**

Generally, public sector managers are used to working in a top-down hierarchical manner. This traditional use of leadership does not apply to the management of partnerships. There are no ‘followers’ in partnerships, instead there are equal, horizontal relationships (Mandell & Keast, 2009). This shifts the focus of leaders in partnerships to embracing, empowering, involving and mobilizing the partners (Vangen & Huxham, 2003).

Lucidarme et al. (2015) point out that leadership in the partnership literature can be viewed from mainly two different perspectives. One part of the literature describes leadership as the facilitating role of the network manager focusing on his personal characteristics and interpersonal skills (Turrini et al., 2010; Weiss et al., 2002). Another part of literature views leadership as a form of coordination that shapes the overall conditions under which the network operates and that guides the activities of the independent organisations (Müller-Seitz, 2012). In this dissertation, we regard leadership in its coordination form.

**4.2.3. Evaluation**

Throughout the literature an abundance of models aim at measuring effectiveness of programs, organisations and interventions. They all fail to some extent to address the complexity of measuring partnerships effectiveness for mainly three reasons.

First, different stakeholders have varying reasons and motives to engage in a partnership and therefore have different views of what constitutes effectiveness. Babiak (2009) found that the criteria of how stakeholders perceived effectiveness were interrelated, competing or shared depending on the partner.

Second, partnerships with the aim of delivering community effects as increasing sport participation, social capital, and mental health must measure outcomes at the community, network and organisational levels to have a full scope of the effectiveness (Provan & Milward, 2001). The community level represents the contribution partnerships make to the community they are trying to serve (Provan & Milward, 2001). In our case this would be the amount that the intersectoral partnerships contribute to the level of sport participation, physical activity, social capital and mental health in the community. The network level embodies the number of organisations in the network and the services provided by the partnership as a whole (Provan & Milward, 2001). Effectiveness of the CSDP at this level will depend on the quantity of organisations in their network and the amount of activities and services they provide to those organisations and to the inhabitants of the
community. The organisational level reflects the effect of the partnership in attracting resources, or enhancing client outcomes for the specific organisation involved (Provan & Milward, 2001). Lastly, the duration of the program delivery (or program tenure) needs to be considered, because partnerships are dynamic entities and take time before they can produce tangible outcomes (Mandell & Keast, 2009; Sydow, 2004). One study in health care networks found that improved client outcomes for people with serious illness may not occur for at least three to five years after initial network formation (Kenis & Provan, 2009). Another study focusing on crime-prevention networks found that in order for networks to be effective, the network needed to exist for at least three years (Raab, Mannak, & Cambré, 2015).

Measuring and evaluating partnership effectiveness is thus a complex endeavour whereby views of a variety of stakeholders, outcomes at different levels, and the duration of program delivery need to be taken into account.
5. Intersectoral partnerships in sport

The previous sections described how wicked challenges as the Sport for All policy need partnerships within the sport sector and between health, social and other sectors to reach its goals. However, the sport sector finds itself isolated due to a legacy of top down sport initiatives, which have largely failed to reach ethnic minorities and people of lower social class. Simultaneously, other sectors have initiated sport for development programs that use sport as a vehicle to reach their own organisational goals. These facts lead to a sport delivery paradox: on the one hand, the sport sector struggles to reach the disadvantaged target groups and, on the other hand, health, social and other sectors use sport to reach these disadvantaged target groups. In the light of these findings CSDPs have emerged that use a capacity building approach. These CSDPs find themselves in the middle of the sport delivery continuum between traditional sport organisations on one end and sport for development organisations on the other end, mostly initiated from the social, health, youth and cultural organisations. CSDPs integrate intersectoral partnerships at the core of their functioning and show great potential to resolve the sport delivery paradox. In the next section the sport delivery continuum in sport provision is first discussed. Then, CSDPs are defined, capacity building is explained, and the effect of CSDPs on sport participation, physical activity, social capital and mental health is illustrated. Finally, based on current literature, the pitfalls, the value and the key success factors of partnerships in these CSDPs are addressed.

5.1. The sport delivery continuum

Sport programs can be distributed on a sport delivery continuum (fig. 4). On one extreme of the sport delivery continuum are sport development programs (Hylton & Totten, 2008). These programs focus on the practice of sport as an end in itself. On the other end of the continuum are sport for development programs of the community, where sport is a mean to reach community developmental goals (Hylton & Totten, 2008). Similarly, Coalter (2007) divides sport activities in three types: a) traditional sport, which assumes inherent development properties of sport participation, b) sport plus, which adapt sport to maximize developmental objectives, and c) plus sport, which leverages the popularity of sport to attract participants to a program where education or other developmental objectives are primary (Coalter, 2007; Edwards, 2015). In most cases, CSDPs fit in the sport plus category.
Being in the middle of the sport delivery continuum the promise of community sport development programs is that they can dissolve the sport delivery paradox. This implies that traditional sport organisations would exchange their specific sport skills, sport knowledge and sport infrastructure to social, health, culture and youth organisations and that these organisations would share the knowledge and skills to deal with disadvantaged target groups and to understand which thresholds they experience in participating in the current sport offer.

The reason why traditional sport managers have been unable to attract the disadvantaged target groups has largely been attributed to the use of top down sport promotion initiatives and the isolated approach of sport organisations in the municipalities and communities. CSDPs in contrary typically use a capacity building approach that relies heavily on intersectoral partnerships in the community. In the next paragraph capacity building will therefore be explained.

5.1.1. Capacity building theory
Capacity building is a response to the question how organisations can help communities to best develop themselves. To better understand capacity building it is therefore necessary to comprehend community and community development. Community can refer to both a specific geographical region as a group of people sharing the same ideas, beliefs and interests (Hylton & Totten, 2008; Schulenkorf, 2012). Throughout the present dissertation, community is defined as a geographical region. Community development can be defined as ‘the strengthening of the social resources and processes in a community by developing, networks and activities, that residents themselves identify will make their locality a better place in which to live and work’ (Thomas, 1995, p. 2). Basically it concerns people helping people to improve their life conditions by addressing common interest (Vail, 2007). Community development touches one of the most fundamental needs for human beings: to develop a sense of belonging and to further develop a self-identity. In social and psychological theory, identity refers to the development of a sense of self. This sense of self develops as a result of social interaction (Maslow, 1943). Community development is therefore strongly related with concepts as social capital, social inclusion and community health (see sections 3.1.4.2. and 3.2.5. for more explanation concerning these topics).
Capacity building is commonly used in health promotion but has also proven its value in other policy domains (Hawe, Noort, King, & Jordens, 1997). In the context of this dissertation, it can be defined as ‘the identification and leveraging of knowledge, skills, commitment, structures, systems and leadership to enable promotion of sport participation, social capital, physical activity and mental health’ (Simmons et al., 2011, p. 198). It has effect on three dimensions of sport, health and social promotion in the community (Smith et al., 2006). First, it affects the practitioners by improving their knowledge and skills. Second, it influences the organisations by expanding resources, infrastructure and promotion. Third, it impacts partnerships by building and/or strengthening collaboration and cohesiveness amongst different partners in the community.

Four principles underpin good capacity building (NSW Health Departement, 2001). First, pre-existing capacities in the community should be valued. Therefore it is important for CSDPs to identify key agents (Schulenkorf, 2010) and work with skills, structures, partnerships and resources which are already in place. Second, trust needs to be developed (NSW Health Departement, 2001). Trust is key in sharing skills, knowledge and resources both for those participating in the activities as for partners collaborating to deliver those activities. A participatory approach in program design, delivery and evaluation is crucial in developing trust (Coalter, 2007). A third important aspect is being responsive to context (NSW Health Departement, 2001). Political, physical, economic and historical factors will partially decide whether a CSDP will be successful or not. Fourth, well planned and integrated strategies with clear purposes are required. Action therefore will need to be taken on practitioner, organisational and partnership dimensions in order to increase effectiveness of the program (NSW Health Department, 1999). Figure 5 illustrates the principles of capacity building and the dimensions affected by it.

**Fig. 5.** Graphical representation of capacity building theory according to the underpinning principles of capacity building (NSW Health Departement, 2001) and the dimensions that are affected by capacity building (Smith et al., 2006).
5.2. Community sport development programs (CSDPs)

5.2.1. Defining CSDPs
A univocal definition of CSDPs has not yet been clearly formulated. This is mainly due to a widespread variety of programs. However, certain general characteristics can be distilled from the literature: CSDPs start from the experienced needs and desires of residents in the community (Frisby & Millar, 2002), collaborate with different stakeholders in the community (Vail, 2007), and use sport to address declining sport participation (Vail, 2007) or to promote health (Casey et al., 2009), foster social inclusion (Frisby & Millar, 2002), create personal development (Armour & Sandford, 2013) or a combination of those objectives. Groups at the receiving end of CSDPs can vary in age, gender, race and socio-economic status. In the broader meaning they are focused on the people living in the immediate neighbourhood and community. However, as the community sport development programs mainly focus on reaching groups that are not attracted by mainstream activities, specific target population often involves people of lower social class, disaffected youth, ethnic cultural minorities, people with disabilities, homeless, drug and alcohol dependent individuals in rehabilitation, ex-offenders, long-term unemployed, refugees and asylum seekers.

5.2.2. Examples of CSDPs
CSDPs have developed all over the world. Some examples are ‘Street League’, a CSDP in the United Kingdom that aims at engaging disadvantaged people over sixteen years of age in organised sport and to develop social and other transferable skills in a fun environment (Skinner & Zakus, 2008). ‘Sport in the community’ in Holland which aims to increase sport and recreation in the community by supporting or organizing sport activities which are tailored to the needs and desires of the community members (Van Lindert et al., 2014). ‘Active Community Clubs Initiative’ in South Africa which intends to be a catalyst of developing networks and active citizenship (Burnett, 2010). Also in Flanders CSDPs have been developed under the name of ‘neighbourhood sport’. The method used by these CSDPs depends largely on the needs of the city and the type of organisation in charge (Theeboom et al., 2010). Central in these CSDPs is the focus on groups that are not, or only to a limited extent, participating in sport (Theeboom et al., 2010).

It is important to note that it is difficult to divide programs and organisations into strict categories of traditional sport, sport for development and community sport development. Much depends on the purpose and the intensity of the ties between sport and non-sport organisations. This link is discussed in the next section.
5.2.3. Link between traditional sport promotion initiatives and CSDPs

Activities and organisations more linked to traditional sport, can also be regarded as CSDPs. Whether they are ‘classified’ as community sport development is largely attributed to the goals, and the method they use to achieve their goals.

Community sport clubs with an outreach focus can also be considered as community sport development organisations. In the study of Misener and Doherty (2012), one example is given to how these sport clubs differentiate from most of the other clubs:

From a purely [sport] standpoint, it has nothing to do with it, but one of our mandates and our motto is that [our club] is a community club and so part of our mandate is to ensure that we’re giving back to the community . . . Many sport organisations are purely into the thought process that they’re developing athletes but we like to think that we’re developing little citizens . . . We want to do a whole lot more than that so by having partnerships with [other community organisations], we’re able to do all of that (Misener & Doherty, 2012, p. 252).

One known example in the Belgian context is Brusel BX, originated by team captain Vincent Company of the Belgian soccer team. This sport club aims to be a place in the city where youth can develop self-respect and self-esteem, competitive results are secondary goals (BxBrussels, 2015).

Furthermore, professional sport clubs increasingly incorporate a part of their Corporate Social Responsibility (CSR)-policy to initiatives that help to develop the community in which they are located (Babiak & Wolfe, 2009).

Extracurricular sport activities at schools that make use of sustainable school-community partnerships can also be thought of as CSDPs. Schools are namely regarded as a setting that brings together young people of diverse socio-economic backgrounds and are therefore an interesting setting to promote physical activity and sport participation (De Meester, Aelterman, Cardon, De Bourdeaudhuij, & Haerens, 2014). Other research has stressed the importance for partnership links between school and organisations from other sectors of the community to increase sport development opportunities (Cale & Harris, 2006; Van Acker et al., 2011).

A final example are sport events. These activities are often used to increase sport participation of non-participants, but hardly reach their goal (Bowles et al., 2006). There is some evidence to suggest that the ‘demonstration effect’ of events will increase sport participation of those already involved in the sport, but not for new sport participants (Taks, Green, Misener, & Chalip, 2014). Nonetheless, one of the often used arguments to legitimate investment of governments in events are social impacts that come forth of a wider involvement of new sport participants (Coakley, 2015). When using a capacity building approach, sport events can, however, leverage sport participation for non-participants (Girginov & Hills, 2008). Partnerships with community organisations and relationships
with community members need to be activated in order to attract new participants and create legacy of sport events (Taks et al., 2014). The same argument can also be used for sport camps (Chin & Phillips, 2004).

5.3. CSDPs and sport, social and health outcomes at community level

Few studies have examined the quantitative outcomes of CSDPs of sport participation, physical activity, social capital and mental health at the community level. The ones that we found are outlined here below.

There is evidence to suggest that CSDPs can have a deeper impact in providing access and opportunities in sport participation for a range of target groups. One example is a CSDP (Sport Action Zones) which was implemented in multiple disadvantaged communities (Sport England, 2006). The program aimed at assisting local communities in helping themselves, by getting local people to play a role in identifying the critical community needs (Sport England, 2006). In this longitudinal study the authors noted a significant increase in participation in two of the researched communities both for the general population as well as for the disadvantaged target groups (Sport England, 2006).

CSDPs aiming at increasing physical activity have also shown to be effective. In a longitudinal study, physical activity-levels were increased in disadvantaged communities from the intervention region (Brownson et al., 1996). Physical activity in this region was promoted by developing walking clubs and aerobic exercise classes. Another CSDP (Be Active Eat Well) showed that the BMI of children living in program communities increased slower than children of control communities (Sanigorski, Bell, Kremer, Cuttler, & Swinburn, 2008). In control communities, children from lower SES gained more weight and had a higher increase of BMI compared to children of higher SES, whereas in program communities no such increase was noted (Sanigorski et al., 2008). One of the methods to stimulate physical activity in the latter study comprised the training of coaches of sport clubs and the investment in sporting club equipment.

Some CSDPs showed potential to increase mental health. One such program that taught sport and life skills to adolescents, resulted in better self-esteem and body image for these adolescents (Debate, Pettee Gabriel, Zwald, Huberty, & Zhang, 2009).

To the best of our knowledge we did not find CSDPs which measured several social outcomes at the community level with quantitative data. One sport for development initiative did show better social life in communities with a longer program tenure in a football project aiming to empower young Kenyan women (Woodcock, Cronin, & Forde, 2012).
5.4. Mechanisms of CSDPs that underpin results of sport, social and health outcomes

Several studies have examined the mechanisms that underpin outcomes of CSDPs. Throughout the literature three common pitfalls can be identified that are related to the failure of integrating sport and non-sport organisations. In the following part these pitfalls are addressed. Subsequently, the way intersectoral partnerships in CSDPs can resolve these pitfalls are described.

5.4.1. Pitfalls of intersectoral partnerships in CSDPs

Lack of specific capacities

One of the conclusions of an evaluation of CSDPs targeting disaffected youth through sport, was that employees from youth and social organisations, and not sport staff, were best suited to deliver a CSDP (Crabbe, 2007). The authors argued that effectiveness for the sport staff was merely concentrated on sport participation of the target group, whereas youth and social workers were more focused on leveraging social competences in a sport context (Armour & Sandford, 2013; Crabbe & O’Connor, 2006). Additionally these employees from youth and social work organisations had more experience dealing with this disadvantaged target group and were therefore also more successful in engaging participants and partners. Other research found that sport coaches in CSDPs were characterized by inadequate social and pedagogical skills (Theeboom et al., 2010). The other way around, when youth welfare workers were in charge of the CSDPs, they were confronted with a lack of sufficient means and adequate sport equipment, limited sport pedagogical skills among their guidance staff, as well as no or limited opportunities to make use of the existing local sport facilities (Theeboom et al., 2010).

Furthermore, Crabbe and O’Connor (2006, p 4) found that ‘the social value of sport can only be fully realised within a social and personal developmental approach’. They suggested that youth, community, and social workers are better suited to build social capital through sport as they have more experience in this personal developmental approach. This approach views people as a resource to be developed rather than a problem to be solved (Armour & Sandford, 2013). This implies that programs are not only about preventing undesirable behaviours but about the promotion of desired outcomes. Research has indicated that the motives for several local sport services to target disadvantaged groups were triggered by local policy makers wanting to prevent undesirable behaviours (e.g. vandalism, offensive behavior) (Theeboom et al., 2010). This seems a matter of perception, however, research into self-fulfilling prophecy and the ‘Pygmalion’-effect show that this ‘positive’ belief makes a big difference (Rosenthal, 1994). In the setting of a classroom for example the Pygmalion-effect refers to the positive effect children experience when their teachers believe in
their intellectual capacity (Rosenthal, 1994). Likewise, seeing people as resources rather than as potential vandals, might result in very different and positive outcomes.

**Lack of resources in sport clubs**

Coalter (2007) warned that identifying and engaging with hard to reach groups is not the core-activity of sport clubs and that imposing this agenda could be damaging for their sustainability. Specifically, he argued that this strategic focus could put several extra financial, organisational, and cultural pressures on the voluntary sport clubs. From a resource based perspective, the sport sector is already heavily understaffed and underpaid: a study of Sport England estimated that volunteers make up more than three times the total number of people in paid employment in sport-related activities (Sport England, Nichols et al., 2005; 2003). These volunteers reduce both the cost and provision of participation in sport. Organisationally, many believe that the main focus of sport policy should be on helping sport clubs to overcome infrastructure deficits, declining volunteer rates and increasingly complex stakeholder demands and other sport performance specific issues, rather than addressing issues beyond their inherent mission (Misener & Doherty, 2012). Furthermore, findings of other studies claim that sport clubs cannot play a significant role in creating equal participation conditions for disadvantaged target groups because sport clubs are less confronted with these groups and therefore do not feel a need to become involved in specific sport stimulation initiatives (Theeboom et al., 2010).

**Cultural differences**

An important aspect to take into account is that the sport sector has relied more on top down sport promotion initiatives to increase sport participation (Lawson, 2005). For most sport administrators, sport promotion through bottom-up community development strategies is new (Vail, 2007). Although some sport leaders will perceive this as an opportunity, others will see it as a threat and initial resistance will need to be overcome. Not surprisingly, Casey (2009) found that sport organisations with experience in community development, collaborating and using sport not solely as a purpose, had better outcomes for health programs than others (Casey et al., 2009).

**5.4.2. Value of intersectoral partnerships of CSDP**

Several studies have shown that, to address some of previous pitfalls, the answer resides in intersectoral partnerships.
Lack of capacities

According to the capacity building theory, one of the main added values of engaging in partnerships is facilitating the sharing of capacities. Youth welfare and social staff would in this respect be able to give workshops to sport staff to learn how to apply a positive development approach, whereas sport staff could transfer sport pedagogical skills and enable the use of local sport facilities. This was the case in one CSDP (street league) where the expert advice of different partners was identified as a success factor to support the delivery of programs and outcomes (Skinner & Zakus, 2008).

Specific for sport clubs, Misener and Doherty (2013) indicated that engaging in relationships with other organisations was one way to acquire the needed resources and develop their overall capacity to enhance their sport programs. Moreover Vail (2007) found that involving non-traditional partners and community leaders outside of sport was key to fill the lack of capacities in both sectors and enhance the delivery of CSDPs.

Lack of resources in sport clubs

Regarding resource-deficiency of sport clubs, resource dependency theory states that organisations draw upon interorganisational relationships to address the need for additional resources (Pfeffer & Salancik, 2003). In the setting of sport clubs Allison (2001) claimed that engaging in multiple utilitarian relationships with organisations across different sectors (e.g. facilities, suppliers, sponsors, media, schools, other clubs, sport councils and granting agencies) may be one mean for sport clubs to effectively meet the lack of resources, and ensure sustainability and sport provision for participants. Similarly, research has shown that developing linkages and partnerships is one way for non-profit sport organisations to reduce uncertainty while acquiring needed resources and knowledge, and maintaining and enhancing service quality (Babiak, 2007; Cousens, Barnes, Stevens, Mallen, & Bradish, 2006; Shaw & Allen, 2006). Findings from a quantitative study in sport clubs showed that clubs with serious resource problems were more likely to engage in interorganisational relationships with schools or commercial sport providers (Wicker, Vos, Scheerder, & Breuer, 2013). These findings were confirmed in CSDPs. For example, in ‘Street League’, sustainability was achieved through the funding by non-sport focused government agencies and private business. In ‘Right to Play’, a CSDP that aimed to create a healthier and safer place for children of disadvantaged communities through sport and play, partnerships with international volunteers, local coaches and local organisations were one of the elements that filled the lack of volunteer capacity (Skinner & Zakus, 2008).
Cultural differences

The main cultural difference between sport and other organisations (e.g. health, social, culture and youth organisations), come forth of being isolated and working in a top-down structure (Barnes et al., 2007; Lawson, 2005; Vail, 2007). However, changing the culture of a sector is a slow and time-consuming process (Jones, Aguirre, & Calderone, 2004). Several possibilities can fasten this process. First, according to the diffusion of innovations of Rogers (2010), several sport administrations of municipalities and sport clubs could serve as innovators and early adopters. Good results of these innovators, as already noted in some studies (Sport England, 2006), could convince other sport organisations to engage in this different modus operandi. Second, an intermediate organisation could aid to bridge cultural differences (Robins et al., 2011). Finally, pressures of policy can make partnerships a necessity. Already several authors declared there is a certain urgency to learn to collaborate and engage in bottom-up capacity building approaches to remain sustainable (Bolton et al., 2008; Mackintosh, 2011). Mackintosh (2011) asserted that the need to work in partnership in sport development has come to such a point whereby partnerships are less of a policy option and more of a necessity. Bolton et al. (2008) further stressed that the partnership imperative has moved from being a desirable tactic for the advancement of sport and recreation development to its current status of necessity for prosperity and survival (p. 101).

5.4.3. Key success factors of partnerships in CSDPs

Based on the framework of Parent and Harvey (2009), the next section addresses several of the most pertinent success factors that have been found in partnerships in CSDPs.

5.4.3.1. Antecedents

Purpose

The purpose of collaboration must be clear and a shared concern about a social problem requiring action is needed. These elements deemed crucial in a CSDP that aimed to include low income populations in local sport and recreation (Frisby & Millar, 2002). Furthermore, in an evaluation report of more than 100 CSDPs, it appeared that the most successful sport-related programs and projects were those that understood what is possible and clearly articulated and implemented what they were trying to achieve (Crabbe & O’Connor, 2006). For example, if the purpose of the CSDP is to increase self confidence and social capacities of the participants, than this must be clear for every partnering organisation and, consequently, specific planning for skill transfer from the athletic context to real life should be built into the project design (Armour & Sandford, 2013). The purpose can also be multidimensional, i.e. sport organisations can see the program as a way to increase sport participation of the target group, social organisations can see it as a way to increase inclusion of the
target group, and health organisations can see it as a mean to boost the participants’ health. In this case, coordination and the clarity of the role, task and expected input in the relationship for each partner will be extra important to delineate (Mohr & Spekman, 1994).

Environment: governmental structure and policy support

One key element that encourages cross-sector collaborations is unity across policy domains at the macro-level. In the Netherlands an investment of 261 million euro’s (spread over four years) was allocated in 2012 for the program ‘Sport in the community’. This investment was made possible through a mutual investment of the ministries of Public Health, Well-being and Sport on the one hand, and by the ministries of Education, Culture and Science on the other hand. In addition, the slogan of UK County Sport Partnerships seems to capture this right approach: ‘National reach, local impact’ (County Sport Partnerships 2015). They stand for a powerful national network demonstrating leadership and connectivity in sport and physical activity.

5.4.3.2. Management

It was interesting to see that most key success factors of partnerships in CSDPs were aligned with the principles of capacity building.

Leadership: importance of a key figure, change agent, community champion

Several studies indicated that identifying and mobilizing change agents is crucial for program success (Armour & Duncombe, 2012; Schulenkorf, 2010; Vail, 2007). They are the catalyst from within the community that are needed to spark action (Vail, 2007). In one specific program (Right to Play) leadership by committed and enthusiastic change agents with vision and determination appeared to be one of the most crucial elements for success (Skinner, Zakus, 2007). In another CSDP (Sport Action Zones) one specific recommendation to achieve results was to appoint a highly motivated charismatic leader who can quickly establish local credibility and respect (Sport England, 2006). Several functions are attributed to such a change agent. In general, he/she needs to be able to empower, involve and mobilize the partners in the community (Vangen & Huxham, 2003). In another CSDP (Positive Futures) - a sport and activity based social inclusion program that aimed to support young people in helping them to find routes back into education, volunteering and employment - frontline experience of grassroots youth work appeared to be important (Crabbe & O’Connor, 2006).

Participation of target group

Essential in a capacity building approach is the participation of the target group and community residents to design, delivery and evaluation of the program (Coalter, 2007; Schulenkorf, 2015). This
active participation is central in the very definition of community development and capacity building. Not surprisingly, active involvement of the target group was identified as one of the most crucial aspects to the success of many CSDPs (Frisby & Millar, 2002; Skinner & Zakus, 2008; Sport England, 2006).

**Specific for CSDP**  
**Diversity of activities: sport and non-sport**

In one CSDP, projects that had embraced a range of sporting and non-sporting activities in their work were more successful than those relying on sport alone (Crabbe & O’Connor, 2006). A similar conclusion was deducted in other CSDPs; partnerships with people from both sport and non-sport organisations resulted in better outcomes (Sport England, 2006). Some evidence suggested that sustained results will only apply to the ones most engaged in the program (Armour & Sandford, 2013). This implies that programs not solely focusing on sport might have broader results as they can appeal to more people.

**Innovation / Flexibility**

A key success factor of CSDPs was freedom to find ways of engaging with and inspiring those young people who have been alienated by more structured mainstream approaches, free from bureaucratic structures and traditional sport clubs (Crabbe & O’Connor, 2006; Skinner & Zakus, 2008). It is possible that this element is associated with a new way of consuming sport in general, related to the individualisation of society. These new organisational formats of sport are sometimes referred to as ‘light sport communities’ and are characterized by a more flexible way of engaging in sport, with weaker ties between participants (Scheerder & Vos, 2011).

**Place & Space**

Sport activities of CSDPs that took place in a safe and familiar place for the target group were more likely to be successful, e.g. the street, local parks, or community centres (Skinner & Zakus, 2008). This is an argument for building or using decentralized infrastructure in the immediate environment of the community which is easy accessible by foot, bike or public transport for the community members (Spaaij & Schulenkorf, 2014).

**5.4.3.3. Evaluation**

Evaluation was another important element to implement in CSDPs, however, it seemed that evaluation is not always executed in a good systematic manner (Coalter, 2005). In a review on the role of physical activity/sport in promoting positive development for disaffected youth, the conclusion was that a wide disparity existed between believe and weight of evidence to support the
claim that these programs brought positive changes (Sandford, Armour, & Warmington, 2006). Armour and Sandford (2013) suggested that, in general, a need for more long-term, credible monitoring and evaluation of these initiatives were needed in order to better understand how these CSDPs impacted the young individuals. Finding the appropriate assessment tool deemed challenging as fixed, inflexible and exclusively quantitative methods showed to be limited in capturing the effectiveness of project and program performance (Crabbe, 2007).
6. Problem analysis and outline of the thesis

In recent years, research on multidimensional challenges have focused increasingly on the benefits of intersectoral collaborations. Sport promotion as such is regarded as a wicked, multidimensional challenge (Sam, 2009). After 40 years of Sport for All policy ethnic minorities and people from lower social class still experience more difficulties to participate in sport (Crespo et al., 2000; Lievens & Waege, 2011). Sport organisations often lack knowledge, skills and experience to deal with these disadvantaged groups. Simultaneously health and social organisations use sport progressively as a vehicle to reach disadvantaged groups and to improve their physical, social and mental health (Schulenkorf, 2015). This paradox creates a window of opportunity for intersectoral collaborations in sport. In order to make use of this opportunity, current research needs more knowledge and evidence regarding if and how intersectoral partnerships can create value. The present dissertation aims to contribute to filling some of the most pressing shortcomings in current literature.

First, studies have shown that sport participation, physical activity, social capital and mental health are linked concepts (Eime et al., 2013), but limit their analysis to one- to one relationships e.g. how does sport participation relate to mental health or to what extent are higher levels of social capital associated with higher levels of mental health. This restricts these studies from showing how these concepts might multiply health gains. For instance, if sport participation relates to higher levels of mental health and higher levels of social capital and social capital is related to better mental health; effects of sport participation on mental health could be strengthened by the indirect effect of sport participation over social capital to mental health. Furthermore one- to one relationships also hinder comparison between the different associations, that could give precious information to which relation is more important than the other.

Study 1 therefore aspires to disentangle the different associations of sport participation, physical activity, social capital and mental health in one overarching model. To do so, structural equation modelling (SEM)-analysis were executed. This SEM-analysis enables the measurement of indirect effects and the comparison of the strength of associations between these sport, physical, social and psychological outcomes. Figure 6 presents the hypothesized relations that are tested in the first part of the original research of this dissertation.
Fig. 6. Hypothesized model of relationships between sport participation, total physical activity, community social capital, individual social capital, and mental health.

Second, few studies have tried to research the relation of intersectoral partnerships with sport participation, physical activity, social capital and mental health.

To fill this gap, the second part of the original research of the present thesis studied a capacity building sport program (Community Sport Development Program =CSDP) that interacts closely with sport, health, social and other organisations. The aim of part two was to find out if and how such CSDPs are able to promote sport participation, physical activity, social capital and mental health in disadvantaged communities.

Study 2.1. examined therefore if individuals living in disadvantaged communities where the CSDP was implemented engaged in more sport participation than individuals living in disadvantaged communities without CSDP. The CSDP is implemented at the community level and thus affects directly or indirectly all residents in the community. Multilevel-analysis were therefore executed. The multilevel-analysis further enabled to take both compositional as contextual variances between these two types of communities into account.

Study 2.2. concentrated on which mechanisms underpin the sport, social and health outcomes of the CSDPs. An explanatory mixed method design was used, including interviews with different stakeholders to uncover these mechanisms. Figure 7 provides an overview of the associations that were hypothesized.
Third, and last, although the value of partnerships has been acknowledged to solve wicked challenges as Sport for all policy, only a limited number of studies have examined what elements are key in providing the desired outcomes in such a sport context. This is a pity, the more, because sport organisations have been described to work in silos and could be benefited by working more in synergies (Barnes et al., 2007). Moreover, the importance of partnerships in CSDPs to promote physical activity and sport have repeatedly been emphasized (Labonte, Woodard, Chad, & Laverack, 2002; Roussos & Fawcett, 2000; Smallwood et al., 2015; Vail, 2007). No studies, however, have focused on the specifics of how these partnerships build capacity at the practitioner, organisational and partnership levels.

**Study 3** tries to fill this gap by identifying the key context and management elements of intersectoral partnerships that enable the sharing of skills, knowledge (practitioner level), resources (organisational) and that strengthen partnerships (partnership level). This study relies on qualitative analysis to derive these key elements. Figure 8 depicts the model which we will investigate in study 3.
Fig. 8. Partnership model of Parent and Harvey (2009) linked with capacity building model of NSW Health Departement (2001).

Finally, a full graphical representation of the different studies of the present doctoral thesis is depicted in figure 9. From right to left the figure illustrates study 1 and the associations between sport participation, physical activity, social capital and mental health. In the middle, studies 2.1 and 2.2 are presented with the relation between the CSDP and the outcome variables and the mechanisms that underpin these associations. On the left, study 3 is portrayed with the determinants of intersectoral partnerships that have been linked with greater partnership effectiveness and that will be studied in this study, in regard to how these build capacity at the different levels.
Fig. 9. Overview of the different chapters in the section: original research

Part 1: Interrelatedness of sport, social and health outcomes
   1.1. Interrelation of sport participation, physical activity, social capital and mental health in disadvantaged communities: A SEM-Analysis.

Part 2: Value of cross-sector partnerships in a sport context
   2.1. A capacity building approach to increase sport participation in disadvantaged urban communities: A multilevel analysis.
   2.2. Community sport development programs as a vehicle for sport, social and health outcomes.

Part 3: key elements of intersectoral partnerships that build capacity
   3.1. Capacity building through cross-sector partnerships: Results from a community sport program in disadvantaged communities in Belgium
7. References


Samenvatting van de onderzoeksresultaten: Wetenschappelijk instituut volksgezondheid.


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NSW Health Department. (1999). Indicators to help with capacity building in health promotion. : NSW Health Department.


Chapter 2: Original Research
Part 1:
Interrelatedness of sport, social and health outcomes
PART 1

Study 1. Interrelation of sport participation, physical activity, social capital and mental health in disadvantaged communities: A SEM-analysis.

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Interrelation of Sport Participation, Physical Activity, Social Capital and Mental Health in Disadvantaged Communities: A SEM-Analysis

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Abstract

Background
The Health through Sport conceptual model links sport participation with physical, social and psychological outcomes and stresses the need for more understanding between these outcomes. The present study aims to uncover how sport participation, physical activity, social capital and mental health are interrelated by examining these outcomes in one model.

Methods
A cross-sectional survey was conducted in nine disadvantaged communities in Antwerp (Belgium). Two hundred adults (aged 18–56) per community were randomly selected and visited at home to fill out a questionnaire on socio-demographics, sport participation, physical activity, social capital and mental health. A sample of 414 adults participated in the study.

Results
Structural Equation Modeling analysis showed that sport participation (β = .095) and not total physical activity (β = .027) was associated with better mental health. No association was found between sport participation and community social capital (β = .009) or individual social capital (β = .045). Furthermore, only community social capital was linked with physical activity (β = .114), individual social capital was not (β = -.013). In contrast, only individual social capital was directly associated with mental health (β = .152), community social capital was not (β = .070).

Conclusion
This study emphasizes the importance of sport participation and individual social capital to improve mental health in disadvantaged communities. It further gives a unique insight into the functionalities of how sport participation, physical activity, social capital and mental
health are interrelated. Implications for policy are that cross-sector initiatives between the sport, social and health sector need to be supported as their outcomes are directly linked to one another.

Introduction

Increasing rates of depression and low mental health are one of the most pressing problems of our society [1]. Sport participation, physical activity and social capital have been at the center of academic and policy interest for their positive effects on mental health [2–4]. Recently a conceptual model of Health through Sport has been conceived linking sport participation with social and psychological outcomes. The model includes three major elements: (a) sport participation, (b) determinants of sports participation, based on the socio-ecological model [5], (c) physical, social and psychological outcomes of sport participation [6]. Eime et al. articulate that more research should focus on investigating how sport, physical, social and psychological outcomes are associated [6]. The present study therefore aims to contribute to the existing literature by examining how sport participation, physical activity, social capital and mental health are interrelated. Incorporating these variables in one model enables insight into how they affect each other and which one is more important in increasing mental health. Having a better understanding of the complex interrelation of these variables should allow clarification of which activities could result in a multiplication of effects of physical, social and psychological outcomes. This study takes place in disadvantaged communities as mental health of residents in these communities is generally worse [7], sport participation rates lower [8], physical activity levels inferior [9] and social capital standards lower [10] compared to those living in more prosperous communities. Moreover, action and research in these communities have been advocated to achieve greater health equity and to understand how this can be accomplished [11]. In following paragraphs a theoretical description is given of how these variables interrelate.

Sport participation and physical activity protect against and reduce symptoms of depression and anxiety, delay cognitive decline, increase self-esteem and feelings of energy, and contribute to the overall quality of life [2]. Mechanisms underpinning these association are partially allocated to physiological effects of aerobic exercise [12] and partially in psychological processes; (a) people being able to master difficult
exercise tasks induce feelings of competence stimulating self-esteem (b) people with higher self-esteem and energy are believed to use more problem-focused coping strategies [13]. However, it is not clear yet how much physical activity is needed to improve mental health; findings about which type, duration, level or intensity of physical activity improves mental health, remain contradictory [14]. A large study in Europe reported different relationships across different nations in the European Union between physical activity and mental health [15]. In some studies, data suggested that there might exist a dose-response relationship, while in other studies this relationship could not be observed [15]. Of the different types of total physical activity (PA) (e.g., active transportation, leisure-time PA, household-related PA, work-related PA), leisure time PA has been found most related with higher levels of mental health [16]. In turn, of the different forms of leisure-time PA, sport participation has been consistently associated with better mental health in adults [4, 13, 17]. In this study sport participation is defined as physical activities that require a sufficient rate of exertion and that take place in an athletic context during leisure time [18]. It refers both to organised as well as non-organised and individual as team sport activities. The reason why sport participation is more closely related to higher levels of mental health has been assigned to intrinsic motivation to participate in sport as enjoyment and challenge which are key to an enhanced psychological well-being [19].

In recent years, research on the link between social capital and mental health has been stimulated by the growing recognition of social determinants of health [20]. These social determinants encompass among other poor social policies and bad access to education, health care, and leisure in the community [21]. Interventions focusing on individual factors (knowledge, attitudes, skills) to improve health through behavioural change have resulted in limited effects, especially in disadvantaged populations [22]. In contrary, interventions focusing on social determinants of health have led to much better results [21]. Social capital has been acknowledged to reduce vulnerability to mental distress by impacting the social determinants, also in a disadvantaged context [23, 24]. Nevertheless, the concept of social capital is complex and much debated. Two main schools of thought are represented by Putnam and Bourdieu [25]. Putnam defines social capital as ‘features of social organisations, such as trust, norms, and networks’ (p. 67) [26]. Bourdieu’s definition is more focused on the resources that accrue to people as a result of participation in social networks [27]. As a consequence of these different views, it is essential for researchers to define how they conceptualize social capital. The literature discusses several different types of social capital which have different associations with mental health [3]. The most common distinction is
made between cognitive and structural social capital [28]. The cognitive component refers to trust and reciprocity between individuals, whereas the structural component relates to the ties between friends, family and other social groups. Another debate in this field considers whether social capital is an individual or community level construct or a combination of the two [29, 30]. Community social capital regards social capital as a collective attribute of the communities, which uniformly benefits all individuals living in that same community. Individual social capital in contrast, attributes the beneficial properties of social capital to the individuals and their social relationships [31]. The present study examines both cognitive community social capital and cognitive individual social capital. Only the cognitive type is investigated, as this type is most researched and consistently been related to positive mental health [3]. In contrast, the association between structural social capital and mental health remains ambiguous [3, 32]. In this study therefore community social capital refers to the trust and reciprocity one has of people in their immediate community [27, 33], and individual social capital refers to the trust and reciprocity one has of people in general [26, 34]. Some studies found that only individual social capital had better protective effects against mental illness [35, 36], while other studies detected that both community and individual social capital were related to better mental health [37, 38]. Concerning the relation between both types of social capital it is believed that higher levels of community social capital will boost individual social capital as people’s identity and behavior is partly shaped by their interactions with their social environment [39].

As previously mentioned, sport participation and mental health are closely related [2]. Sport participation has also been associated with social capital through participation in social and civic activities. Sports are considered a platform for people to meet, to enjoy being together and thus to create social networks [25, 30]. Furthermore, in many western countries, voluntary sport organisations make up the largest part of the voluntary sector [40]. According to most theorists, volunteering and active participation in civil society is a crucial element of social capital [25]. This has made the belief in the socially integrative effects of participation in sport and in voluntary organisations so strong, that it appears as self-evident [41]. Several authors warn however that the relation between sport and social capital is ambiguous. Coakley argues that this inherent belief in the purity and goodness of sport has been abused to sponsor sport events which contribute little to the common good in any representative manner [42]. Collins reasons that sport participation is exclusionary in itself as sport participation rates decline with lower socio-economic status [43]. Furthermore, studies have indicated that sport can also lead to inequalities and social exclusion as a result of the strong bonds that may exist within a sporting club or team that is homogeneous in its
membership [44, 45]. The strong bonds may be beneficial to in-group members but negative for out-group members. It has therefore been argued that different types of sports and contexts where the sports take place are crucial for the social capital outcome [46, 47]. For instance, a study that focused on the relation of individual and organisational characteristics of sport clubs with social capital, found that members of team sports have stronger bonds with each other than in individual sports [41]. Another study in Japan showed that sport clubs open to people from all ages, from all levels providing various sports in the neighborhood scored higher on social capital compared to more traditional sport clubs, which were more focused on providing the technical practice of sport [46]. One context and type of sports activities which have been most explicitly linked with beneficial social and health outcomes are sport for development programs [47]. Many sport for development programs have recently been implemented in disadvantaged communities to reach United Nations Millennium Development Goals [48]. These programs use sport to exert a positive influence on public health, the socialization of children, youths and adults, the social inclusion of the disadvantaged, the economic development of regions and states, and on fostering intercultural exchange and conflict resolution (p. 311) [49].

The relationship between social capital and total physical activity still remains largely to be discovered [50]. Most studies that have investigated this relationship argue that both individual and community social capital are related to higher levels of physical activity [51, 52]. Their arguments are generally based on three mechanisms: (a) decline in crime rate which promotes perceptions of safety and consequently increases physical activity; (b) higher norms of health related behaviour which encourages residents to be more physically active; (c) higher collective efficacy among residents which improves access to resources for physical activity [52, 53]. This direction of the association between social capital and physical activity is reverse when compared with the previous argument regarding the relationship between sport participation (= predictor) and social capital (= outcome). However, total physical activity is much broader than sport participation only, so probably other types of physical activity such as active transportation, housekeeping, gardening and work-related physical activity interact differently with social capital, which could justify this reverse association.

In conclusion, the Health through Sport conceptual model has indicated that sport is related to psychosocial outcomes and that this should be further investigated [6]. The present study aims to fill this gap by examining how sport participation, total physical activity, social capital and mental health are interrelated.
This study differentiates from other studies by researching these associations in one model, enabling comparison of strength of associations between the different outcomes and measurement of indirect effects. Fig 1 represents the model that will be tested in this paper, showing hypothesized associations based on the results currently available in the literature. As a side note, the association between sport participation and total physical activity should not be regarded as a hypothesis, but rather as a fact. This subdivision has been made as a result of the different associations between sport participation and total physical activity with social capital and mental health, described in the previous section.

**Methods**

**Participants**
The study was conducted in Antwerp, Belgium (506,225 inhabitants, 204.26km², 2,478 inhabitants/km²), which is the city in Flanders (Belgium) where most disadvantaged communities are located [54].

![Diagram](https://example.com/diagram.png)

*Fig. 1. Hypothesized model of relationships between sport participation, total physical activity, community social capital, individual social capital, and mental health.*

Data were collected between January and March 2013. The study was approved by the Ethics Committee of the Ghent University Hospital and all respondents signed an informed consent. In the context of this study, disadvantaged communities were defined as ‘communities which suffer acute social problems such as increasing population densities, low socio-economic status, high rates of chronic disease, high levels of
Interrelation of Physical Activity, Social Capital and Mental Health

migration and multiculturalism and young people at risk of exclusion/disaffection from society’ (p. 264) [55]. Based on this definition four criteria were chosen for which data of the Public Service of Antwerp (2012) were available. For each of these categories the median was chosen as the cutoff point as this is the most common approach for dichotomizing continuous variables when no clear cutoff points are indicated by previous studies [56]. In total nine disadvantaged communities in Antwerp were selected based on four criteria: (1) average income (median declaration of net taxable income) lower than the city’s median of €19845; (2) unemployment rate (proportion of unemployed people looking for a job between 18 and 64 years) higher than city’s median of 8.9%; (3) ethnicity rate (percentage of parents born outside Belgium) higher than the city’s median of 30.0%; (4) population density (number of inhabitants per square kilometer), higher than 8005 inh/km². Two communities only met three out of four requirements but were still regarded as the best options when compared to other communities. The socio-economic characteristics of the selected communities of the Public Service of Antwerp are provided in S1 Table.

After the selection of the communities, potential respondents were selected. Prior power analysis indicated a total sample size of 400 adults living in the nine communities was needed. This implied that 45 respondents per community had to be included to have an equal sample distribution over the nine communities. Since recruiting respondents in disadvantaged communities presents itself as a complicated endeavour, a response rate of 25% was expected (estimated rate of people answering to the survey divided by the total number of people in the sample). The Public Service of Antwerp selected in each community a random sample of 200 addresses of adults (aged 18–56 years; 1800 adults in total) who had already resided more than two years in the community. Up to three attempts were made on different days (during the week and weekends) and different times (afternoon, evening) of the day to find these persons at home.

Participating respondents were asked to complete a written informed consent. Researchers conducting the visits were able to fluently speak English and French next to Dutch, to assist if participants showed difficulties responding in any particular language. If language remained a barrier, the help of a family member or friend was asked to assist during the interview. Respondents were asked to answer survey questions on socio-demographics, physical activity, sport participation, social capital and mental health. As incentive to participate, nine city bikes (one per community) could be won. When people opened the door and did not want to participate, this was considered a rejection. When people did not open the door it was
coded as ‘not at home’. People who were not home after three attempts, were not visited anymore. In most communities three rounds of home-visits were needed to recruit 45 participants.

**Measures**

**Socio-demographics**
Participants were asked to give information about age, gender, education, ethnicity, tenancy, and civil status. Ethnicity was assessed by birth country of the respondents’ parents. These socio-demographic variables have been added to the model because evidence from both national and international literature suggests that sport participation [57], community social capital [58], individual social capital [58], total physical activity [59], and mental health [60] are differently distributed according to several of these socio-demographic characteristics. Moreover, the interaction effects of the socio-demographics have been added to the model, as socio-ecological models have emphasized the importance of interaction effects to explain health behaviours [5].

**Sport Participation**
Sport participation was assessed using the sport index of the Flemish Physical Activity Questionnaire (FPAQ) [61]. The criterion validity of this sport index, assessed against accelerometers was good with a $\rho$ of 0.52 [62]. Respondents were asked to select up to three organised and non-organised sports they practiced. For each of these sports, data on frequency (from once a year to more than once a day) and duration (from some hours per year to more than 20 hours per week) was collected. Fluctuation of sport participation during different periods of the year was taken into account by questioning the number of months one practiced the sport throughout the year. A sport participation index was computed by summing hours per week spent in total for the different sports.

**Total Physical Activity**
Self-reported total physical activity was collected using the short Dutch IPAQ (last seven days interview version). The interview version was chosen because adults tend to over report their physical activity levels with the self-administered version [63]. The short IPAQ has good reliability (intra-class range from 0.66 to 0.88). Criterion validity, assessed against accelerometers is fair-to-moderate with a median $\rho = 0.29$ [62]. Scoring was applied according to the guidelines of the short form IPAQ [64]. The metabolic equivalent (MET) values were derived for walking, moderate PA and vigorous PA and summed to create the total PA MET-minutes/week.
Social Capital
To capture the multidimensionality of social capital both community and individual social capital were assessed. Community-level social capital was evaluated using a 5-item scale based on the theoretical work of Bourdieu [27] and further developed by Carpiano [33] (see Fig 2). An example item was: “People in this neighborhood are willing to help their neighbors?”. Five-point answer categories were applied (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree). The Cronbach’s alpha of the instrument in this study was 0.82.

Individual social capital was evaluated using a 3-item scale based on the ‘social capital community benchmark survey’ of Putnam [26]. Moreover, these items were core questions in the European Social Survey [34] (see Fig 2). An example item was: “Generally speaking, would you say that most people can be trusted, or that you can’t be too careful in dealing with people”. The questions had an 11-point answer scale ranging from 0 (e.g., you can never trust people) to 10 (e.g., you can always trust people). The Cronbach’s alpha of the instrument in this study was 0.73.

Mental Health
Mental health was measured using Goldberg’s General Health Questionnaire (GHQ-12) of [65]. The scale was a valid self-report instrument to assess a person’s wellbeing in the community and non-psychiatric clinical settings [66–68]. It consisted of 12 items (see Fig 2) with 4-point answer categories: ‘not at all’, ‘same as usual’, ‘rather more than usual’, or ‘much more than usual’. A sample item was: “Have you lately felt like you couldn’t overcome your difficulties?”. The bimodal GHQ-scoring method (1-1-0-0) was applied, as recommended by Goldberg [65]. The resulting total scores ranged from 0 to 12, with higher scores indicating higher perceived health and mental wellbeing. The Cronbach’s alpha of the instrument in this study was 0.83.
Fig. 2. Structural equation analysis of sport participation, total physical activity, community social capital, individual social capital and mental health. Standardized parameter coefficients are shown.

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**Statistical analyses**

MANOVA-models were conducted to determine socio-demographic differences in the latent variables of sport participation, physical activity, community social capital, individual social capital and mental health. Before estimation of the parameters, assumption of normality and equal factor loadings of latent variables were tested. First, concerning normality, sport participation and physical activity were positively skewed as is often the case with these variables. Therefore, skewness of physical activity and sport participation was improved with respectively a Log10 transformation and a Box-Cox transformation. Second, concerning equal factor loadings, the items of the scales of community social capital, individual social capital and mental health did not have equal contributions. As a result, factor loadings were used instead of summarized scales, to have more accurate estimates of community social capital, individual social capital and mental health. Factor loadings are depicted in Fig 2. Transformed variables were used to calculate F and p-values of MANOVA-analysis. To improve ease of interpretation however mean scores of raw data will be reported. Parameter estimates of the socio-demographics are shown in Table 1. This table does not show interaction effects; however, these are mentioned at the bottom of the table. These analyses were conducted with SPSS version 22.0 (IBM Corporation, Armonk, NY, USA).

Structural equation modeling (SEM) was used to identify how sport participation, physical activity, community social capital, individual social capital and mental health (latent variables) were interrelated. SEM allows the simultaneous examination of a set of relationships between one or more independent variables and one or more dependent variables which makes it particularly useful to measure interrelationships of the latent variables set out in the hypothesized model of this study (Fig 1) [69]. Socio-demographic variables that were found to be related to the latent variables in the previous MANOVA-analyses were incorporated as covariates into the final model that tests the interrelations between the sport participation, community social capital, individual social capital, total physical activity and mental health variables. Not significant relations were discarded from the model. SEM-models were analyzed using MPLUS 7 (Muthen & Muthen). The bias-corrected bootstrap method (5,000 iterations) was used for measuring indirect effects and mediation as advocated by Preacher and Hayes [70].

To examine whether the hypothesized model fit the observed data, four indices were recommended as result of a lack of a standard format for reporting fit [71]: (a) the Root Mean Square Error of Approximation (RMSEA); a good fit is indicated when RMSEA is less than 0.05, (b) The Tacker- Lewis index (TLI) and comparative fit index (CFI); a good fit is indicated when TLI and CFI values are greater than 0.90, (c) the Standardized Root Mean Square Residual (SRMR); a good fit is indicated when SRMR is less than 0.05, (d)
the normed $\chi^2$ chi square test, which is the chi-square fit index divided by degrees of freedom (this makes the test less dependent on sample size); a good fit is indicated when $\chi^2/df$ is less than 3 [69, 71]. If all indices demonstrate values close to or higher than the presented cutoff values, it is generally accepted that the model fits the observed data [72].

Finally multiple group analyses in SEM were executed to verify if relations in our structural model (presented in Fig 1), differed for male or female respondents, native or ethnic residents, high or low educated people and for other groupings of socio-demographic variables. The model was therefore fitted separately for the different groups of the socio-demographic variables. To assess whether differences between groups were significant, WALD-tests were completed [69].

Results

From the 1800 randomly selected residents, 656 participants were found at home (36%). In total 242 declined to participate, resulting in a total of 414 valid questionnaires and a response rate of 63.1% (414 participants/656 participants found at home). The socio-demographic characteristics of the sample are presented in Table 1, a more detailed version of socio-demographic characteristics of the respondents per community can be retrieved in S2 Table. Although communities were selected on several criteria appropriate to disadvantaged communities, significant differences for the respondents of the communities were noted for ethnicity rate, education and tenancy. Meaning that some communities were more disadvantaged than others. In general, results showed that younger men participated more in sport; people with lower education had higher levels of physical activity; owners of a house and adults with higher education demonstrated higher levels of community and individual social capital; and married people and adults owning a house indicated having better mental health.
Table 1. Mean of the raw scores of sport participation, total physical activity, average scores of community social capital, individual social capital and sum score of mental health for the different socio-demographic variables.

<table>
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<tr>
<th>Groups</th>
<th>n (%)</th>
<th>Sport Participation (Hours/week)</th>
<th>F-value</th>
<th>Physical Activity (MET-minutes/week)</th>
<th>F-value</th>
<th>Community Social Capital (Range=0-5)</th>
<th>F-value</th>
<th>Individual social capital (Range=0-10)</th>
<th>F-value</th>
<th>Mental Health (Range=0-12)</th>
<th>F-value</th>
</tr>
</thead>
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<td>Age group</td>
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</tr>
<tr>
<td>Young adults (18-37)</td>
<td>201 (48.6)</td>
<td>2.217 (3.636)</td>
<td>4799.677 (3512.898)</td>
<td>3.548 (.722)</td>
<td>5.877 (1.735)</td>
<td>9.924 (2.280)</td>
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<tr>
<td>Older adults (38-56)</td>
<td>213 (51.4)</td>
<td>1.561 (3.018)</td>
<td>4373.773 (3426.767)</td>
<td>.645</td>
<td>3.629 (.725)</td>
<td>1.201</td>
<td>5.766 (1.759)</td>
<td>.008</td>
<td>9.730 (2.505)</td>
<td>.872</td>
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</tr>
<tr>
<td>Gender</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>189 (45.6)</td>
<td>2.293 (3.859)</td>
<td>4742.325 (3652.982)</td>
<td>.645</td>
<td>3.628 (.684)</td>
<td>5.750 (1.714)</td>
<td>9.931 (2.303)</td>
<td></td>
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<tr>
<td>Women</td>
<td>225 (54.4)</td>
<td>1.529 (2.800)</td>
<td>4443.187 (3312.155)</td>
<td>.042</td>
<td>3.558 (.756)</td>
<td>1.322</td>
<td>5.878 (1.775)</td>
<td>.021</td>
<td>9.973 (2.476)</td>
<td>.719</td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
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</tr>
<tr>
<td>Native (parents born in Belgium)</td>
<td>222 (53.6)</td>
<td>1.782 (2.856)</td>
<td>4479.942 (3688.914)</td>
<td>3.658 (.673)</td>
<td>6.086 (1.688)</td>
<td>9.973 (2.528)</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic (parents born abroad)</td>
<td>192 (46.3)</td>
<td>1.990 (3.839)</td>
<td>4696.376 (3201.583)</td>
<td>.016</td>
<td>3511 (.774)</td>
<td>.823</td>
<td>5.510 (1.766)</td>
<td>5.627*</td>
<td>9.651 (2.230)</td>
<td>.101</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>College, university</td>
<td>194 (46.9)</td>
<td>1.718 (2.687)</td>
<td>3600.913 (2849.090)</td>
<td>3.702 (.665)</td>
<td>6.297 (1.516)</td>
<td>10.141 (2.123)</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Primary, secondary</td>
<td>220 (53.1)</td>
<td>2.019 (3.833)</td>
<td>5446.207 (3738.124)</td>
<td>20.347***</td>
<td>3.491 (.760)</td>
<td>4.427*</td>
<td>5.398 (1.830)</td>
<td>22.108***</td>
<td>9.544 (2.587)</td>
<td>2.973*</td>
<td></td>
</tr>
<tr>
<td>Tenancy</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Owner</td>
<td>267 (64.5)</td>
<td>1.758 (3.022)</td>
<td>4479.194 (3460.036)</td>
<td>3.685 (.690)</td>
<td>6.042 (1.583)</td>
<td>10.102 (2.109)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No owner</td>
<td>147 (35.5)</td>
<td>2.099 (3.868)</td>
<td>4765.388 (3495.612)</td>
<td>.011</td>
<td>3.415 (.754)</td>
<td>6.134*</td>
<td>5.412 (1.953)</td>
<td>3.923*</td>
<td>9.312 (2.790)</td>
<td>3.978*</td>
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<tr>
<td>Civil Status</td>
<td></td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Married / stable partner</td>
<td>290 (70.0)</td>
<td>1.678 (2.927)</td>
<td>4502.681 (3477.808)</td>
<td>3.651 (.707)</td>
<td>5.888 (1.757)</td>
<td>10.039 (2.259)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>124 (30.0)</td>
<td>2.313 (4.131)</td>
<td>4759.637 (3462.652)</td>
<td>.526</td>
<td>3.449 (.746)</td>
<td>3.137*</td>
<td>5.661 (1.719)</td>
<td>.800</td>
<td>9.325 (2.635)</td>
<td>9.541*</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>414 (100.0)</td>
<td>1.868 (3.327)</td>
<td>4598.640 (3487.352)</td>
<td>3.585 (.724)</td>
<td>5.825 (1.741)</td>
<td>9.826 (2.393)</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

P-values are calculated from the transformed variables of sports participation and physical activity and the factor scores of community social capital, individual social capital and mental health

*p<0.10, *p<0.05, **p<0.01; ***p<0.001

Significant two-way interaction-effects are not mentioned in this table, these were:

a) the interaction of gender and ethnicity with sport participation: F = 5.232 *
b) the interaction of gender and education with total physical activity: F = 4.056*
Table 2. Path coefficients for the direct and indirect associations for sport participation, community social capital, individual social capital, total physical activity and mental health.

<table>
<thead>
<tr>
<th>Latent variables</th>
<th>Community Social Capital</th>
<th>Individual Social Capital</th>
<th>Physical Activity</th>
<th>Mental Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sport Participation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct</td>
<td>0.045</td>
<td>0.000</td>
<td>0.247***</td>
<td>0.095*</td>
</tr>
<tr>
<td>Indirect</td>
<td>-</td>
<td>0.009</td>
<td>0.005</td>
<td>0.011</td>
</tr>
<tr>
<td>Total</td>
<td>0.045</td>
<td>0.009</td>
<td>0.252***</td>
<td>0.107*</td>
</tr>
<tr>
<td>Community Social Capital</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct</td>
<td>-</td>
<td>0.207***</td>
<td>0.114*</td>
<td>0.070</td>
</tr>
<tr>
<td>Indirect</td>
<td>-</td>
<td>-</td>
<td>-0.003</td>
<td>0.035*</td>
</tr>
<tr>
<td>Total</td>
<td>-</td>
<td>0.207***</td>
<td>0.111*</td>
<td>0.105*</td>
</tr>
<tr>
<td>Individual Social Capital</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct</td>
<td>-</td>
<td>-</td>
<td>-0.013</td>
<td>0.152**</td>
</tr>
<tr>
<td>Indirect</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.000</td>
</tr>
<tr>
<td>Total</td>
<td>-</td>
<td>-</td>
<td>-0.013</td>
<td>0.152**</td>
</tr>
<tr>
<td>Physical Activity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.027</td>
</tr>
<tr>
<td>Indirect</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.027</td>
</tr>
</tbody>
</table>

*p<0.05, **p<0.01; ***p<0.001

doi:10.1371/journal.pone.0140196.t002

Subsequently, socio-demographic variables which were related to one of the latent variables were added as covariates in the SEM-analyses (i.e., for sport participation, age and gender were added; for physical activity, education was added; for community social capital, education, tenancy and civil status were added, for individual social capital ethnicity, education and tenancy were added; for mental health, civil status and tenancy were added).

Parameter estimates were calculated by a series of multiple regression analyses based on the hypothesized model (see Fig 1). The final model had a good fit with RMSEA = .000; CFI = 1.000; TLI = 1.000; SRMR = .021; \( \chi^2/df = .702 \). The model showed that five out of ten of the initial hypotheses were confirmed. Fig 2 illustrates the model and its path estimates. Table 2 shows both the direct and indirect associations between sport participation, individual social capital, community social capital, total physical activity, and mental health. The interrelationship of the latent variables are presented below.
**Sport Participation**
Sport participation had a direct association with total physical activity ($\beta = .247; p < .001$) and mental health ($\beta = .095, p < .05$). No direct associations were found between sport participation and community social capital ($\beta = .045, p>.05$) or individual social capital ($\beta = .009, p>.05$).

**Community Social Capital**
Community social capital had a direct association with individual social capital ($\beta = 0.247, p < .001$) and physical activity ($\beta = .114, p < .05$) but not with mental health ($\beta = .070, p>.05$). However, a significant indirect association ($\beta = .032, p < .05$) of community social capital with mental health was discovered through individual social capital. Thus, individual social capital partially mediates the relation between community social capital and mental health. This made the total association of community social capital on mental health significant ($\beta = .103, p <.05$).

**Individual Social Capital**
Individual social capital had a direct association with mental health ($\beta = .152, p < .01$), but no direct association was found with total physical activity ($\beta = -.013, p>.05$).

**Total Physical Activity**
Total physical activity had no direct association with mental health ($\beta = .027, p>.05$).

Explained variances for the latent variables are depicted in Fig 2. Explanatory variables accounted for 5.3% of the variance in explaining sport participation, 13.8% of the variance in explaining physical activity, 6.3% in explaining community social capital, 14.3% in explaining individual social capital and 8.8% in explaining mental health.

Finally, findings of the multiple group analyses verified that in most cases the model did not differ between the different groupings of socio-demographic variables. This means that independent of being a man, or woman, high or low educated, married or single, the relations as presented in the model are valid. Two exceptions were noted. The first was a difference between native and ethnic respondents. Findings showed that higher levels of community social capital led to better mental health for native residents, whereas for ethnic residents this was not the case. The second was a difference between young and older adults. Results indicated that higher levels of sport participation led to better individual social capital for older residents, whereas for younger residents this was not the case. In S1 Appendix, details can be found for all multiple group analyses.
Discussion

To our knowledge this is the first study to empirically examine the interrelatedness of sport participation, physical activity, social capital and mental health in one model. Six of the ten hypothesized relations (depicted in Fig 1) were confirmed. This study took place in disadvantaged communities where mental health condition of residents are known to be worse compared to those living in more prosperous communities [7].

One of the main findings was that sport participation and not total physical activity was associated with better mental wellbeing. This explains the ambiguous relationship of physical activity with mental health found in other studies [15]. Previous studies also concluded that sport participation and no other types of physical activity (e.g., active transportation, household- or work-related PA) is associated with better mental health [4, 13]. A plausible explanation for this result is that sport participation usually represents a chosen leisure-time activity aiming for recreation and enjoyment, which helps to improve mood and self-perception which are key to an enhanced psychological well-being [73]. This in contrast with other types of total physical activity as housekeeping, gardening and activity at work which rather imply compulsion [4]. For clarity purposes, we repeat that the used short version of the IPAQ used in this study did not allow us to differentiate between different types of physical activity. As such, we can only derive from our data that total physical activity does not relate with mental health. It is further important to note that other kinds of leisure-time physical activity (besides sport participation) (e.g., recreational walking) have also been associated with higher levels of mental health [74].

Surprisingly, results showed that sport participation did not have an association with any type of social capital, which is counter to the main claims in research that it operates as a platform for people to meet and create social networks [30]. According to Coakley this was to be expected as he has repeatedly stressed that social benefits of sport participation do not just happen, they need to be leveraged [42]. This finding might be a result of the tendency of respondents participating in sport in an isolated environment (e.g. running or working out alone), which disabled them from leveraging their social capital through sport [30]. In a post analysis 32.0% of our respondents, who indicated participating in sport, expressed that they did this in an isolated environment. In a subsequent ANOVA-analysis significant higher levels of both individual and community social capital were noted for people performing sport with friends and colleagues (when adding all other covariates however only a marginal significant difference remained). Other studies also concluded that sport in itself will not lead to better individual and community social.
capital, it is the social and organisational context that will determine if social capital is leveraged through sport participation [46, 47]. An interesting difference was found between younger (18–37 years old) and older residents (38–56 years old): for older residents higher levels of sport participation led to better individual social capital, whereas for younger residents this was not the case. A review of understanding participation in sport indicated that older adults mainly engaged in sport for reasons of social support, while younger people were more concerned about weight management [75]. It might be that older adults valued the social connection that sport provided more than younger adults did. In contrast, another study found that younger adults who participated in sports showed stronger social bonds compared to older adults [41]. In that study the sport context only included organised sports which might explain the different findings. Future studies investigating the relation between sport participation and social capital should therefore distinguish between socio-demographic characteristics (e.g. age), the social context (e.g. participating in sport activities alone or with other people) and the organisational context (e.g. organised, non-organised). Moreover, it would be especially interesting to see, if communities where sport for development programs aim explicitly at improving social capital of participants, show higher levels of individual and community social capital.

Respondents indicating higher community social capital had higher levels of total physical activity, concordant with results of another study [50]. No such relation however was found for adults reporting higher levels of individual social capital, which is partially counter to the findings of other studies [52, 53]. Explanations for these differences might be the consequence of different measures (i.e., one study measured physical inactivity rather than total physical activity [52], another used structural social capital rather than cognitive social capital [53]). Furthermore, the mechanisms offered by these studies relate to the effects social capital has on creating a stimulating environment to engage in total physical activity (i.e., better safety perception in the community, better health norms in the community, better collective efficacy in the community). These mechanisms are more related to the community and add credence to our findings that community social capital rather than individual social capital is important in increasing physical activity levels. Moreover, many physical activities take place in the immediate neighborhood, which adds importance to this argument [76]. However, in general little knowledge exists concerning the relationship between types of social capital and types of physical activity [50]. Future studies should therefore investigate how different types of social capital relate to different types of physical activity. Second, general studies have posited that social capital stimulates total physical activity [52]. However, several arguments can be found for the inverse relationship (i.e., that total physical activity fosters
community social capital). For instance, people walking their dog, jogging in streets, running errands by bike or on foot are more likely to make contact with neighbors, which results in more connections and by doing so these people consequently foster higher social capital in their neighborhood. Studies incorporating a longitudinal design are needed to clarify the relationship between physical activity and social capital.

Consistent with previous studies, adults with higher levels of social capital reported better mental health [23, 24]. Individual social capital had a direct effect on mental health, whereas the effect of community social capital on mental health was partially mediated through its positive effect on individual social capital. This reaffirms results of other studies which concluded that individual social capital rather than community social capital is related with mental health [35, 36]. The core finding however was that individual social capital predicted mental health better than all other variables in the model. This study shows that even more substantial than being married or owning a house, the trust and reciprocity one has of people in general is most essential for better mental health. As this is the first study being able to compare the strength of relations with these variables, other studies will need to confirm or contradict this finding. Another interesting result was that higher levels of community social capital led to better mental health for native residents, whereas for ethnic residents this was not the case. To the best of our knowledge, no previous research has investigated this association. One explanation might be that for native people higher community social capital is more important to feel safe and to be able to go outdoors and interact with the neighbors, whereas for ethnic people a higher trust and feeling of reciprocity of the neighbors does not make them interact with the neighbors and does little to enhance their mental health. Future studies are needed to explain this relationship.

Apart from the significant indirect association of community social capital to mental health, no other significant indirect associations were noted. These indirect associations were mainly absent because only half of the direct associations between the different variables were significant. The explained variance of sport participation, total physical activity, social capital and mental health show that they played a significant role in explaining the variance of each other. However, it must be noted that for most variables about ninety percent of the variance remains to be explained. It would therefore be interesting to see in future studies how certain psychosocial factors and environmental factors would interact in the model. An interesting psychosocial factor to incorporate in the model would be social support from friends and family as this factor is known to be related to higher levels of sport participation, total physical activity, social capital and mental health [24, 77]. Interesting environmental variable to consider would be
community crime rate and perception of safety as these interact both with total physical activity, community social capital and mental health [33, 52].

Finally, findings of the multiple group analyses added credibility to the tested model as in most cases the model did not differ between the different groupings of socio-demographic variables.

**Strengths and limitations**

This study has three main strengths. The first is the incorporation of sport participation, total physical activity, social capital and mental health in one SEM-analysis, which enables us to explain the relationship and relative importance of each factor and to examine the direct and indirect relations among the variables. A second strength is the use of validated and reliable questionnaires to assess the latent variables. Finally, the study was conducted in disadvantaged communities. These communities are often understudied due to high time investment, low response rates and biased samples. The methodology of visiting respondents at home moderated these limitations.

Some limitations should be considered in interpreting the findings. A first limitation was the cross-sectional design of the study which hampers definite inference regarding causal relations. A second limitation of our study was that only cognitive social capital was captured and no other common aspects as structural, bonding and bridging social capital. This reduces full comprehensibility of how social capital interacts with sport participation, physical activity and mental health. However, to reduce complexity of the model only cognitive social capital was incorporated in the model as this type has been most consistently related to positive mental health. Furthermore, it should be noted that results of this manuscript only apply to disadvantaged communities and future studies should investigate whether these results can be generalized to other, more prosperous communities. For instance other studies have indicated that communities with low population density are better connected and more civically engaged, compared to communities with high population density. However, these differences were not associated with health outcomes [78].

**Implications**

This study answers the call of Eime et al. to investigate how sport, physical, social and psychological outcomes are associated [6]. This study has emphasized the importance of sport participation and individual social capital to improve mental health. It further underscored the importance of community social capital to increase levels of physical activity and individual social capital. On a policy level, results of this study suggest that supporting initiatives aiming at bringing the neighbors together with sport might
have beneficial effects on a multitude of outcomes. These local sport initiatives can leverage interest in sport participation which in turn has positive direct effects on physical activity and mental health. Simultaneously these initiatives can excite community social capital that directly affects higher levels of physical activity and individual social capital, leading to better mental health. These results encourage a better interaction among the sport, social and health sector to combine their forces and reach better outcomes in the multidimensional and interrelated concepts of sport participation, physical activity, social capital and mental health. Furthermore, since these results are relevant in a disadvantaged context, a more collaborative approach could be an important strategy to reach better health equity in hard to reach disadvantaged communities.

Conclusions

This study highlights four important core findings. First, individual social capital is the best predictor of mental health. Second, sport participation and not total physical activity is related with mental health. Third, participating in sport does not improve community or individual social capital in itself; however, engaging in sport with friends, neighbors or families might. Last, community social capital rather than individual social capital predicts higher levels of physical activity. The results of this study imply that cross-sector initiatives between the sport, social and health sector need to be supported as their outcomes are directly linked to one another and can multiply health effects in disadvantaged communities.

Supporting Information

S1 Appendix. Results multiple group analyses. (DOCX)
S2 Appendix. Data file in.dat. (DAT)
S3 Appendix. Data file in.sav for SPSS. (SAV)
S4 Appendix. Input of bootstrapped SEM-analysis executed in M-plus. (INP)
S1 Table. Socio-economic characteristics of the selected communities in Antwerp. (DOCX)
S2 Table. Socio-demographic characteristics of respondents per community. (DOCX)

Author Contributions

Conceived and designed the experiments: MM GC IDB AW. Performed the experiments: MM AW. Analyzed the data: MM DVD. Wrote the paper: MM DVD GC IDB KB AW. Revised the manuscript: MM DVD GC KB AW.
References


Part 2:

Value of intersectoral partnerships in a sport context
PART 2

Study 2.1. A capacity building approach to increase sports participation in disadvantaged urban communities: a multilevel analysis

Mathieu Marlier, Greet Cardon, Ilse De Bourdeaudhuij, Annick Willem

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A Capacity Building Approach to Increase Sports Participation in Disadvantaged Urban Communities: A Multilevel Analysis
Mathieu Marlier, Greet Cardon, Ilse De Bourdeaudhuij, and Annick Willem

ABSTRACT
Recent evidence showed that community capacity building is one of the key methods to reach health improvements within disadvantaged communities. Physical activity and sports participation are important means to reach health improvements. This study investigates a capacity building method which aims at increasing sports participation in the community, especially for individuals at higher risk of sports deprivation. The main aims of the present study, are the following: (1) to examine differences in sports participation between individuals living in communities implementing a sports-based capacity building program and individuals living in communities without such capacity building program and (2) to investigate if the community sports program reaches the individuals known to experience higher barriers to engage in sports. In Flanders, Belgium, five disadvantaged urban communities implementing the community capacity building program (program communities) and four without (control communities) were selected based on similarity of socio-demographic and environmental characteristics. Two hundred adults (aged 18–56 years) per community were randomly selected and visited at home to fill out a questionnaire on socio-demographics, sports participation, and the community sports program. A sample of 414 adults participated in the study. Results showed that adults from program communities reported on average 96 min/week more participation in sports than their counterparts living in control communities. Furthermore, 61.3 % of the individuals of program communities indicated to engage in sports, whereas in control communities, this was only 42.4 %. Respondents at higher risk of sports deprivation also engaged in significantly more sports participation in program communities than those in control communities. This difference was also noted for groups that are not related with sports deprivation. These results are promising and plead for a community capacity building approach to increase sports participation in disadvantaged communities.

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KEYWORDS Sports participation, Capacity building, Community sports

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Introduction

Disadvantaged communities deal with high population densities, low socioeconomic status (SES), high rates of chronic disease, high levels of migration, and multiculturalism and young people at risk of exclusion from society. Health in these marginalized communities is generally poor, and promoting health in these communities often means arduous effort for limited health improvements. One of the methods that has been shown to be effective in decreasing risk factors for unhealthy behavior in these deprived communities is community capacity building. The concept of community capacity building is commonly used in health promotion and its value is widely recognized. In the health promotion glossary, “community capacity” is defined as “the development of knowledge, skills, commitment, structures, systems and leadership to enable effective health promotion.” It has its influences on three levels of health promotion. First, it affects the practitioners’ level, by improving their knowledge and skills. Second, it stimulates the organisational level, by expanding the support and infrastructure. Third, it has an impact on the partnership level by building and/or strengthening partnerships and the cohesiveness among the health promotion organisations.

Concerning physical activity and sports participation, national health objectives have been established to reduce the disparity in physical activity between the general population and disadvantaged minorities. Several studies investigating the effect of a community capacity building program on physical activity showed significant improvements. One study detected a significant decrease in physical inactivity in disadvantaged communities from the intervention region. Physical activity in this region was among other activities promoted by developing walking clubs and aerobic exercise classes. Another study showed a significant lower increase in BMI of children living in the program communities in comparison to children of control communities. Furthermore, the researchers observed a significant enlargement of health inequalities among children of low socioeconomic status (SES) of the control communities, whereas in program communities no such significant enlargement was noted. One of the used methods to stimulate physical activity in the latter study comprised the training of coaches of sports clubs and the investment in sporting club equipment. Two studies in Canada also investigated the relation of sports participation and capacity building. One found that community capacity building has great potential to increase sports participation when community champion are identified, partnerships are built and quality programs are delivered. Another reported that community capacity building shows considerable potential for
including those who are least likely to be involved in the planning and participation of local sports and recreation programs.\textsuperscript{11} As a result of these studies, distinct sports programs are set up in a wide variety of countries and cities to promote sports participation in disadvantaged individuals and communities.

However, despite these promising results, only limited studies have analyzed the relationship between community capacity building and sports participation. Studies in other contexts are needed in order to support the claim that capacity building is an effective method to increase sports participation.\textsuperscript{4,5} The present study tries to extend the current body of knowledge by investigating the relationship between the implementation of a community capacity building approach and sports participation in a Belgian context of disadvantaged communities. The main aims of this study are the following: (1) to investigate differences in sports participation between individuals living in communities implementing the capacity building program and individuals of control communities and (2) to examine if disadvantaged minorities are reached by the community sports program.

**Methods**

**Description of the Community Sports Program**
The community sports program in Antwerp, Belgium (506,225 inhabitants, 204.26 km\(^2\), 2,478 inhabitants/km\(^2\)), which is subject of this study, has been incepted through a bottom-up process of trial and error by sports, social, and health care practitioners. It developed organically over the last 20 years by responding to local needs. Currently, 17 communities of the existing 62 communities located in Antwerp are implementing the community sports program. Communities in the context of this study comprise two to four adjacent statistical sectors, which are the smallest units for which information on income, ethnicity rate, and other socioeconomic factors is available. Since the objective of the community sports program is increasing sports participation in people who experience higher barriers to engage in sports, the program mainly targets communities with a lower average income, a higher percentage of immigrants, or a higher unemployment rate than most of the other communities. As thresholds concerning mobility, financial effort and commitment are perceived as larger barriers for ethnic minorities and low-SES citizens, this program attempts to lower these thresholds.\textsuperscript{12} The mobility thresholds are lowered by locating the activities within the community. The financial effort to participate is reduced by minimizing the participation fee. Finally, commitment on a weekly base is not obligatory, but participants can generally participate when they please.
Another important aspect of the community capacity program is raising awareness of the opportunities to participate in sports in the community. One of the used methods involves visiting people from the target group in their homes and asking about their favorite leisure-time occupation and their main sports interests. When interest is shown, they guide and accompany them to the sports club or sports activity and introduce them to the staff and other participants, again in an attempt to reduce possible barriers. In 2012, a total of 838 people were personally guided to the sports offer of their community.

The main goal of the community sports program is to increase sports participation in the disadvantaged communities. The community sports program applies a community capacity approach and influences on three levels of sports participation promotion. Firstly, the practitioners’ level is affected by organizing a weekly platform where experienced problems and good practices are discussed between the practitioners. Secondly, the organisational level is influenced by expanding support and infrastructure concerning sports facilities. This is put into practice by setting up low-threshold sports activities in the community together with the disadvantaged groups, actively supporting sports activities from partner organisations and by creating new resources for sports. Lastly, partnerships are created which provide, promote, and gather information to and from the sports, health, and social organisations. Building partnerships is one of the core elements of the community capacity building theory determining the success of the program. The researchers of this study were not involved in the initial design of the sports-based capacity building program. Their focus was upon capturing the effect of such program after more than 10 years of implementation.

**Sampling**

The study was conducted in Antwerp, Belgium (506,225 inhabitants, 204.26 km², 2,478 inhabitants/km²). Data were collected between January 2013 and March 2013. The study was approved by the Ethics Committee of the Ghent University Hospital.

For this study, five communities implementing the capacity building program (program communities) and four communities similar to the program communities (control communities) were selected. As described earlier, 17 communities are implementing the community capacity approach. However, some neighbouring communities collaborate to implement the program. As we did not want to measure multiple communities with the same method of implementation, the total was diminished to ten potential program communities. From these ten, five communities were selected.
that had higher scores of intensity at the organisational and the partnership level. At the organisational level, the number of activities held and adults reached with these activities were taken into account. At the partnership level, the number of partners involved was quantified. Data were acquired by the coordinators of each program community. Control community selection was based on similarity to the program communities for population density (number of inhabitants per square kilometre), ethnicity rate (percentage of parents from ethnic origin), unemployment rate (proportion of unemployed people looking for a job between 18 and 64 years and the population between 18 and 64 years), and average income (median declaration of net taxable income). These data were acquired through the Public Service of Antwerp.

The selected communities were further controlled for environmental variables known to correlate with physical activity: walkability, recreational facilities, accessibility to sports infrastructure, accessibility to fitness centers, and number of sports clubs.

Walkability data were acquired through data of population density (number of inhabitants per square kilometer) and street connectivity (number of intersections per square kilometer). An adjusted formula of former research was used: \((2\times z - \text{connectivity}) + (z - \text{population density})\). Recreational area data were calculated as an index of three factors: first, the amount of green and open space available per person for each community; second, the accessibility of that green and open space, expressed by people living in a span of 400 m of that green and open space; and lastly, the population and building density.

Sports infrastructure was measured through the percentages of people of the community that were situated in a certain span of a local sports field (400 m), sports hall (1,600 m), outdoor sports field (1,600 m), or swimming pool (2,400 m).

Fitness center data represent the percentage of people living in a span on 800 m from a fitness center. These data were separately included because urban inhabitants report high levels of sports participation in fitness centers.

Finally, the number of sports clubs were calculated per 1,000 inhabitants for each community. Fisher’s exact test showed no significant differences between program and control communities for the different variables, indicating similarity between the type of community for those variables.

Table 1 depicts these socio-demographic, socio-economic, and environmental characteristics of the selected program, control communities, and the city of Antwerp. From Table 1, some clear differences between the characteristics of the sample communities and the Antwerp values can be distinguished; the sample communities are in general far more densely populated, have a higher
ethnicity rate, have a lower average income, and possess more recreational area. These differences were expected, as the objective of the community sports program exists in targeting the disadvantaged communities, and control communities were selected in function of their similarity to the program communities. No overall differences between the sample communities and Antwerp, however, could be noted for unemployment rate.

After communities’ selection, potential respondents were selected. Prior power analysis indicated a needed total sample size of 400 adults between 18 and 56 years living in the nine communities. This implied that 45 respondents were needed per community to have an equal sample distribution over the nine communities. Since recruiting respondents in disadvantaged communities presents itself as a complicated endeavour, a response rate of 25 % was expected. Therefore, the public service of Antwerp selected in each community, a random sample of 200 addresses of adults (aged 18–56 years) who already resided more than two years in the community. Potential respondents were visited at home. Up to three attempts were made on different days and different times of the day to find these persons at home. Home visits were carried out until 45 participants were recruited in each community. Participating respondents were asked to complete a written informed consent. The researchers conducting the visits were able to speak English and French, next to Dutch, to assist if participants showed difficulties responding in Dutch. If language remained a barrier, the help of a family member or friend was asked to assist in translation during the interview. Respondents were asked to respond to a questionnaire of socio-demographics, sports participation, and the community sports program.
Table 1. Comparison of the socio-demographic, socio-economic and environmental characteristics of the selected program communities, control communities, and Antwerp.

<table>
<thead>
<tr>
<th>Program Community</th>
<th>Population density (inhabitants /km²)</th>
<th>Ethnicity rate (%)</th>
<th>Unemployment rate (%)</th>
<th>Average income (€)</th>
<th>Walkability</th>
<th>Recreational area</th>
<th>Fitness centre (%)</th>
<th>Sports infrastructure (%)</th>
<th>Number of sports clubs (per 1,000 inhabitants)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Den Dam</td>
<td>14,370</td>
<td>65.90</td>
<td>18.87</td>
<td>15,118</td>
<td>-0.17</td>
<td>5.58</td>
<td>64.90</td>
<td>97.40</td>
<td>0.90</td>
</tr>
<tr>
<td>Borgerhout IMZ</td>
<td>19,150</td>
<td>64.60</td>
<td>15.20</td>
<td>16,464</td>
<td>2.58</td>
<td>2.50</td>
<td>90.50</td>
<td>85.70</td>
<td>1.50</td>
</tr>
<tr>
<td>Oud-Berchem</td>
<td>16,818</td>
<td>55.06</td>
<td>11.93</td>
<td>17,891</td>
<td>5.61</td>
<td>4.15</td>
<td>85.50</td>
<td>98.00</td>
<td>1.30</td>
</tr>
<tr>
<td>Hoboken Noord</td>
<td>8,329</td>
<td>41.42</td>
<td>9.55</td>
<td>20,842</td>
<td>-1.14</td>
<td>4.28</td>
<td>69.90</td>
<td>78.50</td>
<td>1.30</td>
</tr>
<tr>
<td>Sint-Andries</td>
<td>16,778</td>
<td>39.86</td>
<td>12.00</td>
<td>16,084</td>
<td>-0.43</td>
<td>3.51</td>
<td>100.00</td>
<td>77.90</td>
<td>0.70</td>
</tr>
<tr>
<td>Profile Program Community</td>
<td>15,089</td>
<td>52.90</td>
<td>13.50</td>
<td>17,280</td>
<td>1.29</td>
<td>4.00</td>
<td>82.16</td>
<td>87.50</td>
<td>1.10</td>
</tr>
<tr>
<td>Control Community</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Centraal-Station</td>
<td>13,577</td>
<td>68.71</td>
<td>10.06</td>
<td>14,819</td>
<td>-1.81</td>
<td>3.46</td>
<td>100.00</td>
<td>64.70</td>
<td>1.20</td>
</tr>
<tr>
<td>Haringrode</td>
<td>14,216</td>
<td>50.46</td>
<td>8.59</td>
<td>17,036</td>
<td>-1.95</td>
<td>3.10</td>
<td>94.10</td>
<td>90.40</td>
<td>0.80</td>
</tr>
<tr>
<td>Brederode</td>
<td>15,328</td>
<td>47.23</td>
<td>11.11</td>
<td>18,572</td>
<td>0.39</td>
<td>2.99</td>
<td>100.00</td>
<td>80.40</td>
<td>1.50</td>
</tr>
<tr>
<td>Tentoonstellingswijk</td>
<td>10,751</td>
<td>42.62</td>
<td>12.22</td>
<td>20,880</td>
<td>-3.02</td>
<td>7.18</td>
<td>68.80</td>
<td>92.50</td>
<td>0.90</td>
</tr>
<tr>
<td>Profile Control community</td>
<td>13,468</td>
<td>52.30</td>
<td>10.50</td>
<td>17,600</td>
<td>-1.60</td>
<td>4.18</td>
<td>90.70</td>
<td>82.00</td>
<td>1.10</td>
</tr>
<tr>
<td>Antwerp</td>
<td>2,919</td>
<td>42.10</td>
<td>10.70</td>
<td>19,310</td>
<td>0.00</td>
<td>5.70</td>
<td>75.70</td>
<td>79.00</td>
<td>1.50</td>
</tr>
</tbody>
</table>
Measures
Differentiation between level one and level two measures were made to account for compositional variation of individuals in communities (level one) and factors relating to contextual variation (level two).

Level One

Socio-demographics
Participants were asked to give information about gender, age, education, and country of birth place of parents. SES was measured by level of education, and ethnicity was assessed by birth country of the respondents’ parents.

Sport Participation
Sport participation was assessed using the sport index of the Flemish Physical Activity Questionnaire (FPAQ). The criterion validity of this sport index, assessed against accelerometers was good with a $p$ of 0.52. Respondents were asked to select up to three organised and non-organised sports they practiced. For each of these sports, frequency (from once a year to more than once a day, 14 possibilities were given) and duration (from some hours per year to more than 20 h per week) were inquired. Fluctuation of sports participation during different periods of the year was taken into account by questioning the number of months one practiced throughout the year. A sports participation index was computed by summing hours per week spent in total for the different sports.

Community Sports Program
Respondents were asked two simple questions concerning the program: “Do you know the community sports program; have you already participated in one of the activities of the community sports program.” (yes or no) These questions provide us information about the visible aspects of the community sports project.

Level Two

Type of Community
Because the community sports program is implemented on a community level, we can categorize communities into program communities, which implement the sports program, and control communities, which do not. The type of community is the only variable at level two in our multilevel analysis.
Data analysis

Descriptive statistics and multilevel regression analyses were conducted using SPSS 20 for Windows. A multilevel model was used because it allows us to attribute differences in physical activity to the characteristics of the people who live in these communities (compositional variation in communities) and to factors that relate to communities themselves (contextual variation). Regression coefficients and variance components are estimated with the full maximum likelihood (FML) method. Only significant predictors that contribute in understanding sports participation were added in the models. Following four models were sequentially developed:

Model 1: This is a one-level model. This model assumes that all variance is situated at one level. Its main purpose is to interpret the fit of the intercept model.

Model 2: This is an intercept model, also referred to as empty model or twolevel null model. This model has no level one or level two predictors, it solely differs from the previous model with the addition of the intercept. If the fit is significantly better, multilevel analyses are needed and variance on first (individual) and second (community) level can be explained by the different predictors. When significant, this intercept model will function as a benchmark for comparing the other models.

Model 3: A model including all individual predictors. This model assesses the effect of individual predictors on sports participation. Individual predictors were entered in the model in three sequential steps: first, the socio-demographic variables age (centered on the grand mean), sex, ethnicity (model 3A); second, socioeconomic status (model 3B); and third, possible significant interactions of the level one predictors (model 3C). The contextual variation in sports participation between communities was estimated before and after taking into account the compositional effect of individual socio-demographic and socioeconomic variables.

Model 4: A model including the second level variable: type of community.

ANOVA models were used to further investigate relations between type of community and socio-demographic and socioeconomic variables. Additionally, the individuals with high SES were excluded from analysis to be able to explore the groups at risk of sports deprivation. Differences for gender, sex, and ethnicity for the low-SES individuals were examined in the different types of community. This model aims at clarifying the potential of the capacity building program to reach out for the individuals who are most at risk of sports deprivation.
Because sports participation was positively skewed, Box-Cox transformation was used to improve normality. When reporting mean sports participation scores for program and control communities, raw data will be reported. For all analysis, significance was set at $p=0.05$.

**Results**

The overall response rate (respondents/potential respondents found at home) was 63.1 %. The final sample consisted of 414 participants (54.3 % females; 38.8± 13.2 years). Table 2 shows the demographic characteristics of the sample for program and control communities. When analyzing the socio-demographic characteristics of the study sample, program community and control community respondents were comparable for all characteristics, except for educational level and working situation. These parameters were significantly lower in the program community sample.

Table 3 presents the results of the different multilevel models in the order they were developed. The second model improved significantly compared to the first model ($p<0.001$), indicating that a part of the variability of sports participation is located at the second level. The covariance parameters of the random effects of model 2 show that 94.6 % of the variance in sports participation is situated at the individual level, meaning that 5.4 % is located at the community level. Model 3A demonstrates significant associations of the socio-demographic variables with people’s sports participation: male ($p<0.05$), young adults ($p<0.01$), whose parents are born in Belgium ($p<0.05$) report higher levels of sports participation ($p<0.001$). Model 3B added educational attainment as proxy for SES. Confirming expectations, higher educated respondents indicated to participate more in sports. Model 3C added possible interaction effects of these predictors. An interaction effect of sex and ethnicity was significant and therefore added to the model. In total age, SES and the interaction effect of sex and ethnicity explained 8.0 % of the individual variance. Before interpreting model 4, we controlled for possible compositional effects of socio-demographic and socioeconomic variables that could explain the variance between the communities. Before entering these variables, 5.4 % of the variance was explained at level two. Afterwards, 7.1 % is explained by variance between communities. The socio-demographic and socioeconomic composition of respondents in communities did not explain a part of the variation of sports participation of level 2; on the contrary, they only added to the importance of contextual predictors.
Table 2. Socio-demographic characteristics of respondents.

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Program community, n=230</th>
<th>Control community, n=184</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex (%)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>45.7</td>
<td>47.4</td>
<td>43.5</td>
</tr>
<tr>
<td>Female</td>
<td>54.3</td>
<td>52.6</td>
<td>56.5</td>
</tr>
<tr>
<td><strong>Age, mean (SD)</strong></td>
<td>38.8 (10.6)</td>
<td>39.0 (11.0)</td>
<td>38.5 (10.1)</td>
</tr>
<tr>
<td><strong>SES (%)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low SES (primary, secondary)</td>
<td>53.1</td>
<td>60.4</td>
<td>44.0</td>
</tr>
<tr>
<td>High SES (college/university)</td>
<td>46.9</td>
<td>39.6</td>
<td>56.0</td>
</tr>
<tr>
<td><strong>Ethnicity (%)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Native (parents born in Belgium)</td>
<td>53.6</td>
<td>50.4</td>
<td>57.6</td>
</tr>
<tr>
<td>Ethnic (parents born abroad)</td>
<td>46.4</td>
<td>49.6</td>
<td>42.4</td>
</tr>
<tr>
<td><strong>Community sports (%)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge of program</td>
<td>39.1</td>
<td>54.3</td>
<td>20.1</td>
</tr>
<tr>
<td>Participated in event/session of program</td>
<td>13.0</td>
<td>17.4</td>
<td>7.6</td>
</tr>
</tbody>
</table>

SD standard deviation
Table 3. Significant fixed and random effects of sports participation for the multilevel model (estimates of parameters with FML).

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3A</th>
<th>Model 3B</th>
<th>Model 3C</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fixed effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>0.990 (0.049) ***</td>
<td>0.991 (0.091) ***</td>
<td>1.205 (0.123) ***</td>
<td>1.295 (0.129) ***</td>
<td>1.159 (0.137) ***</td>
<td>1.381 (0.128) ***</td>
</tr>
<tr>
<td><strong>Level 1</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Sex (ref. male)</td>
<td>-0.194 (0.095) *</td>
<td>-0.203 (0.094) *</td>
<td>0.051 (0.127)</td>
<td>0.052 (0.126)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age (grand mean centered)</td>
<td>-0.015 (0.004) **</td>
<td>-0.015 (0.004) **</td>
<td>-0.016 (0.004)***</td>
<td>-0.015 (0.004)***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity (ref. parents born in Belgium)</td>
<td>-0.231 (0.096) *</td>
<td>-0.192 (0.098)</td>
<td>0.104 (0.140)</td>
<td>0.097 (0.139)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SES (ref. college/univ.)</td>
<td>-0.196 (0.098) *</td>
<td>-0.212 (0.097) *</td>
<td>-0.229 (0.097)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex × ethnicity</td>
<td>-0.546 (0.185)**</td>
<td>-0.533 (0.185)**</td>
<td>-0.533 (0.185)**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Level 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community program</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-0.480 (0.125) **</td>
</tr>
<tr>
<td><strong>Random effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Level 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>1.00 (0.070)</td>
<td>0.943 (0.066)</td>
<td>0.897 (0.063)</td>
<td>0.887 (0.062)</td>
<td>0.868 (0.061)</td>
<td>0.868 (0.061)</td>
</tr>
<tr>
<td><strong>Level 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>0.054 (0.035)</td>
<td>0.062 (0.039)</td>
<td>0.068 (0.041)</td>
<td>0.071 (0.043)</td>
<td>0.015 (0.016)</td>
<td></td>
</tr>
<tr>
<td>2Log likelihood</td>
<td>1173.880</td>
<td>1162.308</td>
<td>1142.888</td>
<td>1138.926</td>
<td>1130.352</td>
<td>1121.618</td>
</tr>
<tr>
<td>Δ 2 Log likelihood (Δ df)</td>
<td>11,572***</td>
<td>19,420***</td>
<td>3,962*</td>
<td>8,574**</td>
<td>8,734**</td>
<td></td>
</tr>
</tbody>
</table>

Age was centered on the grand mean
*p<0.05, **p<0.01, ***p<0.001; ρ null model = 5.4% ; ρ model 3C = 7.1%
Table 4. Differences in sports participation between type of community for several individual characteristics.

<table>
<thead>
<tr>
<th>Individual characteristics</th>
<th>Mean (SD) Overall</th>
<th>F value Individual characteristics</th>
<th>Mean (SD) program community</th>
<th>Mean (SD) control community</th>
<th>F value for type of community</th>
<th>N PC – CC for selected cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>1.092 (0.076)</td>
<td>6.654*</td>
<td>1.404 (0.099)</td>
<td>0.781 (0.115)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Man</td>
<td>0.828 (0.069)</td>
<td></td>
<td>0.996 (0.094)</td>
<td>0.660 (0.101)</td>
<td></td>
<td></td>
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<td>1.054</td>
<td>1.244 (0.091)</td>
<td>0.782 (0.101)</td>
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<td>6.683*</td>
<td>1.156 (0.101)</td>
<td>0.659 (0.115)</td>
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<td>High</td>
<td>1.093 (0.075)</td>
<td>6.683*</td>
<td>1.339 (0.107)</td>
<td>0.846 (0.106)</td>
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<td>9.454**</td>
<td>1.061 (0.085)</td>
<td>0.595 (0.110)</td>
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<td>Sex × Ethnicity</td>
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<td>1.500 (0.147)</td>
<td>0.895 (0.174)</td>
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<td>0.988 (0.100)</td>
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<td>1.308 (0.132)</td>
<td>0.667 (0.150)</td>
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<td>0.529 (0.137)</td>
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<td>0.881 (0.147)</td>
<td>0.178 (0.206)</td>
<td>7.747**</td>
<td>39-20</td>
</tr>
</tbody>
</table>

Results show means of Box-Cox transformed sports participation. If SES was not included as a fixed factor it was included as a covariate in the analysis. *p<0.05, **p<0.01, ***p<0.001
Model 4 considers whether the capacity building community sports program was implemented in the community or not. Living in a program community was associated with significantly more sports participation ($p<0.01$) and accounted for 78.9 % of the contextual variance, thus representing 5.6 % of the total explained variance.

Results showed a participating rate in sports of 52.9 %. In program communities, 61.3 % of the participants reported to engage in sports; whereas in control communities, this was only 42.4 %. Table 4 clarifies this relation by presenting the amount of sports participation between the individual characteristics of the respondents of the different type of community. On average, participants reported a mean of 114 (SD=198)min/week of sports participation. Participants of program communities reported 156 (SD=246)min/week. Participants of control communities reported 60 (SD=102)min/week of sports participation. The group indicating the lowest sports participation rate is the low SES women from ethnic origin. Significant differences were found for all socio-demographic and socioeconomic characteristics between program and control citizens. The second part of Table 4 looks closer to the amount of sports participation for low-SES individuals in relation with their sex and ethnicity. Results showed a significant interaction effect for type of community × sex × ethnicity for the low-SES individuals. After selecting these cases to be able to interpret this effect, results showed that the group of female, low SES from ethnic origin and the male, low-SES individuals from native origin in the program communities reported significantly more ($p<0.01$) sports participation than in the control communities.

**Discussion**

The community capacity program, which is subject of this study, aims at promoting sports participation in disadvantaged communities. The first objective of this study was to examine sports participation differences between adults living in program communities and control communities. The main finding was that adults from program communities reported on average 96 min/week more participation in sports than their counterparts living in control communities. Participants in the program community reported a mean time spent in sports of 156 min/week, which is comparable to the 165 min/week of sports participation found by a representative study on sports participation in Flanders.\textsuperscript{23} Citizens of control communities thus showed an average sports participation far below the average in Flanders. This was expected due to high ethnicity and the low average income of the communities. In contrast, citizens of program communities, having similar ethnicity rates and income of the control communities, bridge this difference with the average sports participation of adults.
living in Flanders. Furthermore, the percentage of people that participate in sports (61.3 %) is 5.6 %
higher for individuals of program communities compared to the average mean of 55.7 % of
Flanders. Individuals of control communities (42.4 %) score 13.3 % lower than the average of
Flanders. Although this seems very promising for the capacity building approach, it must be noted
that the capacity building program only accounts for 5.6 % of the amount of sports someone engages
in. This explained variance, however, is more than the variance explained by any of the other
variables of age, gender, ethnicity, and SES, identified as stable correlates of sports participation and
physical activity. The positive associations using a capacity building approach on sports participation
were earlier demonstrated in Canada. Other studies investigating a community capacity building
approach using sports activities also noted positive effects.

The second aim of this study was to examine whether the community sports program reaches the
individuals experiencing higher barriers to engage in sports. The findings showed that especially
female, low-SES individuals from ethnic origin reported less sports participation. This is similar to
findings of most other research on socio-demographics and sports participation. Results show
that this group of female, low-SES individuals from ethnic origin participate in significantly more
sports in program communities than in control communities. This effect was expected due to the
adjusted offer of sports activities for disadvantaged groups and the lowered mobility, financial, and
commitment barriers, e.g., inexpensive dance lessons for women given by female teachers in nearby
sports infrastructure. Frisby and Miller concluded earlier that community capacity building showed
promise in including those who are least likely to be involved in sports. Additionally, findings
revealed significant differences in sports participation between program communities and control
communities for men and women, native and ethnic groups, high and low-SES individuals. This
exceeded our expectations as we a priori hypothesized that the effect of type of community would
mostly be allocated due to the increase of sports participation among the disadvantaged groups.
Apparently, the capacity building program affects the promotion of sports participation of all
individuals of the community by the impact on the practitioners’ organisational and partnership
level. Specific for our study, the community capacity program created more resources for sports,
promoted the sports activities better by the built partnerships and lowered mobility, financial, and
commitment barriers for everybody living in the program community. Other research also suggests
that the main strength and core value of community capacity building lies in its ability to multiply
health gains.
**Strengths, limitations, and future research**

Tackling social determinants of health inequalities is a major priority in health research. The question how to reach disadvantaged communities and its inhabitants remains however largely unanswered. One of the methods that have shown empirical proof in reaching out and decreasing risk factors for these deprived communities is a community capacity building approach. Current limitations that hamper progress in this area of research are low response rates and consequentially biased samples in the disadvantaged communities, the lack of control communities to compare results with, and the absence of a multilevel design to capture community effects. The major strengths of our research lay in its accountability to these limitations. The first strength relates to the methodology of data collection; all respondents were visited at home to overcome language and cultural barriers, to decrease response bias, and to increase generalizability of findings. Although this method was very time consuming, it eventually resulted in a higher response rate, more accurate answers and a higher external validity. The second strength was the selection of control communities based on their similarity of program communities for several socio-demographic and socioeconomical characteristics linked with physical activity and sports participation. Moreover, data of environmental variables were collected to control for possible mediating or moderating variables of sports participation. Since communities were situated in the same city and had similar environmental, socio-demographic, and economical characteristics, comparability between program and control communities was maximized. This ensures us that results can be allocated to the community capacity program itself and not to other contextual variables. Finally, the present study makes use of multilevel techniques which is advocated to capture community effects of population health.

The claim that a capacity building approach should be advocated and implemented within health promotion programs needed more empirical proof in other domains, contexts, and countries. This research contributed to this claim by delivering empirical proof for the beneficial relation of a capacity building project in raising sports participation in Flanders (Belgium). More specific, this study showed significant higher rates and more time of sports participation in disadvantaged communities implementing a capacity building program compared to control communities without capacity building program. This effect was also present for ethnic minorities and individuals with a lower SES.

The present study also has some limitations. The first limitation of this study was the relatively small number of communities (n=9), which reduced the number of variables that could be added on the second level, as well as the power for more analyses on the random part of the model, such as complex cross-level interactions. Adding more communities to the design was not feasible because comparability between program and control communities would then reduce. The second limitation
was the cross-sectional design which inhibited determination of causality. It takes time, however, to implement such programmes, especially to established partnerships and formed trust between the different partners. Conducting this study with a randomized control trial design could therefore lead to a high drop-out rate and a loss of representativeness due to the big time elapse between the measurements. Lastly, no qualitative data were collected concerning the management of implementation. To better understand how capacity programs should be implemented, it is needed to better comprehend the determinants that affect the outcome of the program.

Implication of these results for policy indicate that a capacity building approach shows great promise in increasing sports participation for all individuals in disadvantaged communities. It also backs up the claim that this approach could be a potential answer in reaching out for disadvantaged groups and tackling health inequalities. Future research should incorporate collection of qualitative data to give better and deeper insight about the functionalities of how community capacity building is exactly implemented and what critical success factors can be deducted. This would improve transfer of knowledge to other contexts and answer the question what works for whom in which context.

Acknowledgments
The authors of the research would like to thank the statistical centre of Antwerp for delivering data on environmental characteristics; the staff of the community sports program for their assistance in the design, feedback, and information concerning the community capacity program; the researchers for interviewing respondents in sometimes arduous situations; and the participating respondents in the communities for their time to answer the questions.

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References

PART 2

Study 2.2. Community sport development programs as a vehicle for sport, social and health outcomes

Mathieu Marlier, Kathy Babiak, Greet Cardon, Ilse De Bourdeaudhuij, Annick Willem

In preparation for submission
Community sport development programs as a vehicle for sport, social and health outcomes

Abstract

Research Question: In response to claims that sport organisations will need to use an intersectoral capacity building approach in order to reach disadvantaged groups and to attain sport participation, and social and health gains, this study investigates community sport development programs (CSDP) using such an intersectoral capacity building approach. The study has two research aims. First, examining the differences between communities with CSDP and communities without CSDP on sport participation, physical activity, social capital and mental health. Second, applying the capacity building theory to identify the processes that underpin these differences.

Research Methods: An explanatory mixed method design was used, including six disadvantaged communities in Antwerp, Belgium. Four communities with a CSDP duration of 15 or 6 years, two control communities without a program were identified for inclusion in this study. A sample of 277 adults filled out a questionnaire on socio-demographics, sport participation, physical activity, mental health and social capital. Additionally 52 face-to-face interviews were held with sport, health and social stakeholders of the community sport development programs.

Results and findings: Quantitative analyses indicated that residents of CSDP-communities noted a higher percentage of sport participation and physical activity than control communities. No differences however were found for social capital and mental health. Qualitative analyses indicated that CSDPs could bridge the gap between traditional sport organisations and sport for development organisations. By connecting the capacities of the different organisations disadvantaged groups had better access to sport.

Implications: The findings provide both quantitative and qualitative support for the value of community sport development programs to attain higher levels of sport participation and physical activity in disadvantaged communities. CSDPs seem to be able to bridge the gap between sport organisations on the one hand and health, social, cultural and youth organisations on the other hand using a capacity building approach.

Keywords: Community sport development, cross-sector partnerships, sport participation, physical activity, social capital, mental health, evaluation
Introduction

Recent societal changes have forced collaboration and coordination across sectors to address major social concerns. Economic reform in the late 70’s introduced a more neoliberal perspective (Harvey, 2005) which brought about greater income inequality and social polarisation between the poor and the rich (Piketty & Goldhammer, 2014). Additionally, lifestyle changes such as secularism, increased digital and technology use, and greater pressures on time, have led to disconnection and isolation from families, friends and communities (Hooghe, 2003; Putnam, 2000). Furthermore, intensified migration has made communities more diverse and multicultural. This could be beneficial to the community if these groups would interact and share their different norms, values and views. However in most communities this ethnic and social heterogeneity results in more alienation and distrust from each other (Putnam, 2007). These changes hold the ingredients of several of the most important challenges of today’s modern society and stretch the capacity of organisations delivering services to those most in need. For example, organisations focussing on delivering social services have to address issues of social isolation and polarisation. Health organisations struggle with high rates of mental disease (Wittchen et al., 2011), health inequalities caused by social injustice (Marmot et al., 2012; Saxena et al., 2007) and high degrees of physical inactivity, certainly within the low-income population (Craig et al., 2012).

In order to tackle downsides of these societal evolutions, sport has been used increasingly by many non-sport organizations as a popular means to reach disadvantaged target groups (Lawson, 2005; Schulenkorf, 2015; Skinner & Zakus, 2008) and attain better physical activity (Casey et al., 2009), social capital (Perks, 2007) and mental health (Asztalos et al., 2009).

Paradoxically, sport organisations struggle with declining and stagnant participation rates (Nichols et al., 2005) much to do with failing to engage the rising number of ethnic minorities and lower socio-economic groups (Van Tuyckom & Scheerder, 2010a).

One promising way in solving this paradox are Community Sport Development Programs (CSPS). These CSDPs have been established in many Western countries with the aim of increasing sport participation of disadvantaged groups (Hylton & Totten, 2008; Sport England, 2006; Vail, 2007). With the active participation of these harder to engage target groups, a secondary aim of the CSDPs is to increase several social and health outcomes (Frisby & Millar, 2002). CSDPs find themselves in the middle of the sports delivery continuum between traditional organisations / clubs and sport for development organisations. The ambition for these CSDPs is that they can bridge the gap between these two different types of organisations and increase sport participation for disadvantaged target
groups. The biggest difference in the delivery of sport in CSDPs contrary to those of traditional sport organisations is that they rely on a capacity building approach where partnerships with other community organisations are key to their functioning (Hylton & Totten, 2008; Phillpots et al., 2011). This is in contrast with traditional sport organisations that generally operate within silos (Barnes et al., 2007) and depend on top down sports promotion initiatives to increase sport participation (Lawson, 2005).

Several qualitative studies have focused on the mechanisms of what works for whom in these CSDPS (Frisby & Millar, 2002; Hylton & Totten, 2008; Skinner & Zakus, 2008; Smith, Thomas, & Batras, 2015; Vail, 2007). Furthermore several studies have found promising quantitative result on how CSDP benefit sport (Sport England, 2006), social (Woodcock et al., 2012) and health outcomes (Debate et al., 2009; Sanigorski et al., 2008). However, to the best of our knowledge, no studies have investigated sport, social and health outcomes at the community level and looked at what mechanisms could explain these outcomes.

To further build on this promising field of research, this study tries to fill this gap by first examining the outcomes of sport participation, physical activity, social capital and mental health of CSDPs in disadvantaged communities and second to investigate the capacity-building processes that underpin these outcomes. The case study concerns a CSDP that has proven to be related to higher levels of sport participation in Antwerp (Flanders) (Marlier et al., 2015).

The following sections aim to give a better understanding of CSDPs and the theory of capacity building. Subsequently, an oversight is given of the impact of CSDPs on sport, social and health outcomes of CSDPs. Finally, mechanisms that underpin success of CSDP-delivery are distilled from literature and framed into the theory of capacity building.
Literature review

CSDPs

A univocal definition of CSDPs has not yet been clearly formulated. This is mainly due to a widespread variety of programs. However, certain general characteristics can be distilled from the literature: CSDPs start from the experienced needs and desires of residents in the community (Frisby & Millar, 2002), collaborate with key stakeholders in the community (Vail, 2007), and use sport to address health promotion (Casey et al., 2009), social inclusion (Frisby & Millar, 2002), personal development (Armour & Sandford, 2013) and declining sport participation (Vail, 2007), or a combination of those objectives. Underlying these programs is typically a capacity building approach (Hylton & Totten, 2008; Phillpots et al., 2011).

Capacity building

Capacity building is a response to the question how organisations can help communities to best develop themselves. To better understand capacity building it is necessary to comprehend community and community development. Community can refer to both a specific geographical region as a group of people sharing the same ideas, beliefs and interests (Hylton & Totten, 2008; Schulenkorf, 2012). Throughout the article, community is defined as a geographical region. Community development can be defined as ‘the strengthening of the social resources and processes in a community by developing, networks and activities, that residents themselves identify will make their locality a better place in which to live and work’ (Thomas, 1995, p. 2). Basically it concerns people helping people to improve their life conditions by addressing common interest (Vail, 2007). The difference between community development and capacity building is that the former refers generally to the members of the community, whereas the latter refers generally to the organisations and practitioners in the community.

Most CSDPs knowingly or unknowingly apply a capacity building approach. The origin of capacity building is to be found in health promotion but has also proven its value in other policy domains (Hawe et al., 1997). In a CSDP context, it can be defined as “the identification and leveraging of knowledge, skills, commitment, structures, systems and leadership to enable sport participation, health promotion and social inclusion” (Simmons et al., 2011). Community capacity building has effect on three dimensions of sport, health and social promotion in the community (Smith et al., 2006). First, it affects practitioners by improving their knowledge and skills. Second it influences organisations by expanding support and infrastructure. Third, it impacts partnerships by building and/or strengthening collaboration and cohesiveness amongst different partners in the community.
Four principles underpin good community capacity building (NSW Health Department, 2001). First, pre-existing capacities in the community should be valued. Therefore it is important for CSDPs to identify key agents and work with skills, structures and partnerships and resources that are already in place.

Second, trust needs to be developed. Trust is key in sharing skills, knowledge and resources both for those participating in the activities as well as for partners collaborating to deliver those activities. A participatory approach in program design, delivery and evaluation is key in developing trust (Coalter, 2007; Edwards, 2015).

A third important aspect is being responsive to context. Political, physical, economic and historical factors will partially decide whether a CSDP will be successful or not.

Fourth, well-planned and integrated strategies with clear purposes are required. Action therefore will need to be taken on practitioner, organisational and partnership dimensions in order to increase effectiveness of the program. Figure one depicts the principles of capacity building and the dimensions that are affected by it.

**CSDP and sport, health and social outcomes**

Few studies of CSDPs explore the quantitative effect on sport, health and social outcomes. Most researchers focus on how and why these programs work (Frisby & Millar, 2002; Skinner & Zakus, 2008; Vail, 2007). Some critiques in the field say there is too little empirical knowledge concerning whether these initiatives can also increase sport participation, physical activity, social capital and mental health (Coalter, 2007; Woodcock et al., 2012). The following part will therefore focus on the quantitative results of CSDPs.
**CSDPs as a vehicle for sport, social and health outcomes**

In a longitudinal study of one CSDP, the authors noted a significant increase in participation in two of the researched communities both for the general population as well as for the disadvantaged target groups (Sport England, 2006). The CSDP aimed at assisting local communities in helping themselves by getting local people to play a role in identifying the critical community needs (Sport England, 2006). Evidence suggested that the CSDPs have a deeper impact in providing access and opportunities for a range of target groups (Sport England, 2006).

CSDPs aiming at increasing physical activity have also shown to be effective. In a longitudinal study a significant decrease was detected in physical inactivity in disadvantaged communities from the intervention region (Brownson et al., 1996). Physical activity in this region was among other activities promoted by developing walking clubs and aerobic exercise classes. Another study showed a significantly lower increase in BMI of children living in the program communities in comparison to children of control communities (Sanigorski et al., 2008). The researchers also observed a significant increase in health inequalities among low SES children of the control communities, whereas in program communities no such increase was noted (Sanigorski et al., 2008). One of the methods to stimulate physical activity in the latter study comprised the training of coaches of sports clubs and the investment in sporting club equipment.

Some CSDPs showed potential to increase mental health. One such program that taught sport and life skills to adolescents, resulted in better self-esteem and body image for these adolescents (Debate et al., 2009).

To the best of our knowledge we did not find CSDPs which measured several social outcomes at the community level with quantitative data. One sport for development initiative did show better social life in communities with a longer program tenure in a football project aiming to empower young Kenyan women (Woodcock et al., 2012).

**Capacity building mechanisms underpinning the delivery of CSDPs**

Several researchers have investigated and tried to identify the pitfalls and success factors of the delivery of CSDPs (Armour & Sandford, 2013; Frisby & Millar, 2002; Skinner & Zakus, 2008; Vail, 2007). The next paragraph aims to explain common indicated pitfalls and success factor with the aid of the capacity building theory.

A first principle of capacity building is valuing pre-existing capacities. Often in the delivery of CSDPs a lack of capacity is noted to reach the goals depending on the type of organisation that is in charge of
the CSDP. In CSDPs with sport coaches in charge, often a lack of capacity was noted to deal with the disadvantaged groups and to engage participants and partners in order to reach these groups (Armour & Sandford, 2013; Crabbe & O’Connor, 2006). In CSDPs with youth and social workers in charge, they were confronted with a lack of sufficient means and adequate sport equipment, limited sport pedagogical skills among their guidance staff, as well as no or limited opportunities to make use of the existing local sport facilities (Theeboom et al., 2010). A first necessity for CSDPs in order to be successful will thus be to link and leverage the capacities of the different sectors to bridge this capacity-gap.

A second principle is developing trust with a participatory approach. In sport action zones, one of the key success factors was to get local people involved in identifying the critical community needs through a participatory approach (Sport England, 2006). Furthermore in a CSDP to promote sport participation of tennis, it appeared that the identification of a community champion that could engage community members and organisation was of utmost importance (Vail, 2007). However, an important aspect to take into account is that the sport sector has relied more on top down sport promotion initiatives to increase sport participation (Lawson, 2005). For most sport administrators, sport promotion through bottom-up community development strategies is new (Vail, 2007).

A third principle of capacity building is being responsive to the context. This is strongly linked with the previous items. In the context of sport promotion, CSDPs will need to be aware of the lack of experience in engaging disadvantaged groups and in using community development strategies of sport organisations. These issues have been discussed in the previous paragraphs. A third important context related item in sport participation are the sport clubs, that are one of the most important stakeholders in sport promotion. Coalter (2007) warned that identifying and engaging with hard to reach groups is not the core-activity of sport clubs and that imposing this agenda could be damaging for their sustainability. Specifically he argues that this strategic focus could put several extra financial, organisational, and cultural pressures on the voluntary sport clubs. CSDPs that want to partner with sport clubs will need to take this context into consideration (Coalter, 2007).

A fourth principle of capacity building is developing well planned and integrated strategies with clear purposes. Several CSDPs found ways to deal with the lack of capacities. For example, In the setting of sport clubs Allison (2001) claimed that engaging in multiple utilitarian relationships with organisations across different sectors (e.g. facilities, suppliers, sponsors, media, schools, other clubs, sport councils and granting agencies) may be one mean for sport clubs to effectively meet the lack of resources, and ensure sustainability and sport provision for participants. In ‘Street League’, a CSDP
that focuses on engaging disadvantaged people over sixteen years of age in organised sport and to develop social and other transferable skills in a fun environment, sustainability was achieved through the funding by non-sport focused government agencies and private business (Skinner & Zakus, 2008). In ‘Right to Play’, a CSDP that aimed to create a healthier and safer place for children of disadvantaged communities through sport and play, partnerships with international volunteers, local coaches and local organisations were one of the elements that filled the lack of volunteer capacity (Skinner & Zakus, 2008).

Method

Description of the Community Sport Development Program

The CSDP in Antwerp, Belgium (506,225 inhabitants), the subject of this study, was established by sport, social, youth and health care practitioners to respond to local social needs. Since 2003, this program has been organised by the Antwerp Sports Administration and is generally accepted as the most advanced CSDP of Belgium. The main goal of the CSDP is to increase sport participation opportunities for people in disadvantaged communities who experience higher financial, mobility and commitment thresholds to participate in sport (Cas, 2005). In total 33 full-time equivalent (FTE) staff members are employed to deliver the CSDP in Antwerp. These employees have several key responsibilities: (a) exchange information from and to the participating partners in the community; (b) support sport activities of partners; (c) organise sport activities to complement the existing initiatives of partners; (d) create new sport infrastructure in the community; (e) search for innovative new ways to reach program goals. Currently 17 of 62 communities located in Antwerp implement the CSDP. Three coordinators manage the CSDP at the city level. They coach and guide 30 staff members delivering the CSDP in the 17 communities and they collaborate with the leaders of partner organisations at the city level.

Design

To detect outcomes and processes of the CSDP, multiple cases were used to enable comparisons between cases and provide a stronger base for theory building (Eisenhardt & Graebner, 2007; Yin, 2013). For this study, six disadvantaged communities were selected, including two ‘experienced’ communities where the CSDP had been implemented for 15 years, two ‘semi-experienced’ communities with a 6-year implementation period and two ‘control communities’, where the CSDP had not been implemented. The duration of program delivery (or program tenure) is one crucial aspect to take into account when evaluating capacity building partnership-based initiatives as CSDPs (Mandell & Keast, 2008b; Sydow, 2004). The reason is that partnerships are dynamic entities that
CSDPs as a vehicle for sport, social and health outcomes

take time before they can produce tangible outcomes (Sydow, 2004). The two ‘experienced’ and
‘semi-experienced’ communities were selected based on number of partners, number of activities
held and number of program participants. As the program had already been implemented before this
study took place, no baseline metrics were available, therefore two control-communities without
CSDP initiatives were also included in the study. The control communities were selected based on
similarity to the program communities for population density (number of inhabitants per square
kilometre), ethnicity rate (percentage of parents from ethnic origins), unemployment rate
(proportion of unemployed people looking for a job between 18 and 64 years), and average income
(median declaration of net taxable income). These data were acquired through the Public Service of
Antwerp. These three settings were chosen to explore exposure (i.e., duration of program efforts)
and ultimately impact of the CSDP on disadvantaged communities.

Data collection and measures
A explanatory mixed method design was used to assess and explain program effects on sport, social
and health outcomes (Creswell & Clark, 2007). An explanatory mixed method design implies that first
quantitative data will be gathered and next qualitative data will be gathered to help explain the
quantitative findings (Creswell & Clark, 2007). This enabled to gather information at the community,
network and organisational levels, which is needed to have a full scope of the outcomes and
processes of partnership initiatives as CSDP (Provan & Milward, 2001).
Quantitative data were gathered at the community level to study differences of sport participation,
physical activity, social capital and mental health dimensions between the CSDP- and control
communities. Two hundred adults (aged 18–56 years) per community were randomly selected and
visited at home to fill out a questionnaire on socio-demographics, sport participation, physical
activity, mental health, social capital and perceptions of the CSDP. Sport participation and physical
activity were assessed using the sports index of the Flemish Physical Activity Questionnaire (FPAQ)
(Philippaerts et al., 2006). Social capital was measured using a 3-item scale based on the ‘Social
Capital Community Benchmark Survey’ (Putnam, 1993). Mental health was measured using the
General Health Questionnaire (GHQ-12) (Goldberg & Williams, 1988). These questionnaires are all
internationally validated and used in many prominent studies. Regarding the CSDP, two questions
were asked: (a) are you familiar with the CSDP?, (b) have you participated in the CSDP?

Qualitative data were then gathered at the organisational and network level to gain more insights
into the mechanisms that underpin outcomes of sport participation, physical activity, social capital
and health outcomes. Interview questions were developed from a review of success and
effectiveness factors in the partnership and sport development literatures (Lucidarme et al., 2013;
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Parent & Harvey, 2009). An overview of the questions can be found in Lucidarme et al. (2013, p. 5). These questions were adapted to the context of the CSDP. Sampling of interview participants was done by asking the CSDP staff members who they considered as their most important sport, health, social and other partner organisations and with whom they had the most contact in those organisations. In control communities, potential stakeholders were selected through snowball sampling of organisations that had sport and community based missions. Taking the views of a variety of stakeholders into account is another important aspect when evaluating partnership-based initiatives as CSDPs (Mandell & Keast, 2008b; Provan & Milward, 2001). The reason is that different stakeholders have varying reasons and motives to engage in a partnership and therefore have different views of what constitutes effectiveness (Babiak & Thibault, 2008; Mandell & Keast, 2008b).

In total 52 face to face interviews were conducted. Table 1 gives an overview of these participants.

Table 1. Overview of study participants (interviewees) per implementation time of the Community Sport Development Program (CSDP).

<table>
<thead>
<tr>
<th></th>
<th>15 years</th>
<th>6 years</th>
<th>Control</th>
<th>City</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Members of CSDP</td>
<td>4</td>
<td>4</td>
<td>/</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Sport Partner (SP)</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Social Partner (SO)</td>
<td>5</td>
<td>4</td>
<td>6</td>
<td>4</td>
<td>19</td>
</tr>
<tr>
<td>Culture Partner (CU)</td>
<td>2</td>
<td>1</td>
<td>/</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Health Partner (HE)</td>
<td>2</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>2</td>
</tr>
<tr>
<td>Youth Partner (YO)</td>
<td>4</td>
<td>/</td>
<td>1</td>
<td>/</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>19</strong></td>
<td><strong>14</strong></td>
<td><strong>8</strong></td>
<td><strong>11</strong></td>
<td><strong>52</strong></td>
</tr>
</tbody>
</table>

Finally, archival records were requested of the number of people that participated to the activities of the tangible offer of the CSDPs in 2013 and the number of organisations that the CSDP-staff members partnered with per community.

Data Analysis

Chi-square analyses were carried out to detect socio-demographic differences in the survey responses between the experienced, semi-experienced and control communities. MANOVA modelling was performed to determine differences in sport participation, physical activity and mental health at the community level between the CSDP-communities and control communities. These analyses were performed using SPSS 22. Analyses of the qualitative data were conducted with Nvivo 10. Four steps were taken to reduce and analyse the 266,144 words of interview transcripts. First, transcripts were coded following deductive and inductive reasoning based on a review of success factors in the capacity building, partnership and sport development literatures (Lucidarme et al., 2013; Parent & Harvey, 2009). Second stakeholder groups and the different communities were categorized in subsets. This enabled the researchers to isolate comments of sport, social, health,
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youth and cultural stakeholders (such as sport clubs) for experienced, semi-experienced or control communities. Third, recurring patterns of capacity building mechanisms were identified that could explain the difference (or the lack of differences) in sport participation, physical activity, social capital and mental health between the different communities were examined. Fourth we looked how these patterns were related to the capacity building theory. Interviews were conducted and transcribed in Dutch, quotes used to illustrate and explain certain results were translated from Dutch to English.

Results and discussion

From the 1200 randomly selected residents, 440 were found at home (36.7%). Of the 440 residents found at home, 161 declined to participate (36.6%). Two questionnaires needed to be discarded because these were not fully completed, resulting in a total of 277 valid questionnaires, representing a response rate of 63.0% (277 respondents/440 participants found at home). The socio-demographic characteristics of the sample are presented in Table 2. Results indicated a significant difference between the different communities for socio-economic status (SES) and ethnicity. Adults in communities with fifteen year program tenure of the CSDP had the lowest SES, followed by communities of six years and control communities. Furthermore the ethnicity rate (percentage of adults whose parents were born outside of Belgium) was found to be higher in communities with a fifteen year program tenure compared to communities with a six year implementation time and control communities.

<table>
<thead>
<tr>
<th>Socio-Demographics</th>
<th>15 Years</th>
<th>6 Years</th>
<th>Control</th>
<th>Chi-square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>49.5</td>
<td>49.5</td>
<td>47.3</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>50.5</td>
<td>50.5</td>
<td>52.7</td>
<td>.114</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Young adults (18-37 years)</td>
<td>53.8</td>
<td>40.9</td>
<td>48.4</td>
<td>3.140</td>
</tr>
<tr>
<td>Older adults (38-56 years)</td>
<td>46.0</td>
<td>59.1</td>
<td>51.6</td>
<td></td>
</tr>
<tr>
<td>SES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High SES (college / university)</td>
<td>31.9</td>
<td>40.9</td>
<td>55.9</td>
<td>11.105**</td>
</tr>
<tr>
<td>Low SES (primary. secondary)</td>
<td>68.1</td>
<td>59.1</td>
<td>44.1</td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic (parents born abroad)</td>
<td>60.4</td>
<td>37.6</td>
<td>44.1</td>
<td>10.174**</td>
</tr>
<tr>
<td>Native (parents born in Belgium)</td>
<td>39.6</td>
<td>62.4</td>
<td>55.9</td>
<td></td>
</tr>
</tbody>
</table>

*aSES = socio-economic status
*p<0.05, **p<0.01; ***p<0.001
The first aim of this study was to examine differences in sport participation, physical activity, social capital and mental health between control and program communities. These differences are presented in Table 3. The second aim was to examine which capacity building mechanisms could explain these differences. In the next section both quantitative and qualitative findings are represented for sport participation, physical activity, social capital and mental health.

Table 3. Outcome of sport participation, physical activity and mental health for experienced, semi-experienced and control communities at the community-level. Outcomes of the CSDP at the community organisational and network levels.

<table>
<thead>
<tr>
<th>Community</th>
<th>15 Years</th>
<th>6 Years</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sport Participation</td>
<td>Hours/week (SD) of sport participation</td>
<td>2.316 (3.775)</td>
<td>2.487 (3.969)</td>
</tr>
<tr>
<td></td>
<td>% Sport participation on weekly basis (SD)</td>
<td>52.75 (50.20)</td>
<td>61.96 (48.82)</td>
</tr>
<tr>
<td></td>
<td>% in sports clubs (SD)</td>
<td>14.61 (35.52)</td>
<td>17.78 (38.45)</td>
</tr>
<tr>
<td>Physical Activity</td>
<td>MET-minutes/week (SD)</td>
<td>6327.19 (3372.02)</td>
<td>4793.64 (3656.31)</td>
</tr>
<tr>
<td>Social Capital</td>
<td>Range=0-10 (0=low 10 = high)</td>
<td>5.695 (1.72)</td>
<td>5.765 (1.71)</td>
</tr>
<tr>
<td>Mental Health</td>
<td>Range=0-12 (0 = low 12 = high)</td>
<td>9.56 (2.58)</td>
<td>9.63 (2.59)</td>
</tr>
<tr>
<td>CSDP</td>
<td>Knowledge of program (%)</td>
<td>68.05</td>
<td>51.7</td>
</tr>
<tr>
<td></td>
<td>Participated in event/session of program (%)</td>
<td>35.1</td>
<td>30.15</td>
</tr>
<tr>
<td>Organisational</td>
<td>CSDP</td>
<td>Number of people guided to sport clubs in 2012</td>
<td>128</td>
</tr>
<tr>
<td></td>
<td>CSDP</td>
<td>Number of people learned how to bike in 2012</td>
<td>108</td>
</tr>
<tr>
<td>Network</td>
<td>CSDP</td>
<td>Average number of partners/community in 2012</td>
<td>44</td>
</tr>
</tbody>
</table>

P-values are calculated from the transformed variables of sport participation and physical activity and sum scores of scales of social capital and mental health.
Covariates in analysis were gender, age, SES, ethnicity
SD= Standard Deviation; MET=Metabolic Equivalent of Task
*p<0.05, **p<0.01; ***p<0.001

Sport Participation
With respect to sport participation, results indicated a significant difference between communities with and without the CSDP for time spent on sport involvement and weekly sport participation. The time that people spent on sport in program communities - both in the 15 and 6 years of program
tenure - is 146 minutes (min)/week. This is 95 min/week more than in control communities and 20 min/week less than the average time on sports participation in Flanders (Asztalos, 2009). The percentage of adults that participate in sport in program communities is 58%. This is 28% higher than the adults in control communities and even slightly higher than the average mean of 56% of Flanders (Lievens, 2014). These findings confirm the results of another study that showed positive effects on sport participation of CSDPs in disadvantaged communities (Sport England, 2006).

Analysis of the interviews indicated that the CSDP valued and leveraged pre-existing capacities in the community by connecting the capacities of sport organisations with the capacities of health, social, youth and cultural organisations. One organisation that operated in both program and control communities indicated that: ‘There is definitely a difference between promoting sport in communities with or without CSDP. Staff of the CSDP know their community and their partners and can therefore promote sport activities much better’. (0 years, SP1). The CSDP connected information, skills, and resources between the sport sector on the one hand and the youth, health, social and cultural sectors on the other. This enabled the CSDP and sport organisations to reach the disadvantaged target groups and enabled the social, health and cultural organisations to have access to sport specific infrastructure, information and skills. Figure one depicts the difference in interconnectedness between CSDP-communities and control communities.

![Fig. 1](image.png)

**Fig. 1.** Graphical representation of the connections between sport, health, social, cultural and youth organisations in CSDP- and control communities.

- → Established connection between two sectors
- - - Moderate connection between two sectors

Furthermore, participation in sport clubs of residents of program communities was 16.2%. This is even more than double the percentage than in control communities (6.59%) and 5.30% more than
the average in Flanders (10.9%) (Bloso, 2012). In line with findings of Vail (2007), our results suggest that CSDPs may be of added value to local sport clubs. Important to understand these results is the ‘guiding-activity’ of the CSDP, an activity that also makes use of leveraging available capacities in the community. This activity guides people from the disadvantaged target groups to sport clubs. These disadvantaged target groups are identified through the network of social, health and other organisations. Staff of the CSDP visits these disadvantaged individuals to discuss their interest and match them with the sporting possibilities available in their community. When interest is shown, they guide them to the sports clubs and introduce them to the trainer, board members and other participants. Coalter (2007), however, warned that identifying and engaging with hard to reach groups is not the core-activity of sport clubs and that imposing this agenda could be damaging for its sustainability. Findings of the interviews revealed that engaging with hard to reach groups indeed introduced new organisational cultural and financial pressures:

> At a certain point 70% of the members of a club were guided through the CSDP and were disadvantaged. This also meant that there were problems getting the membership fee, there was little consumption by this group in the canteen, troubles with transport to the games. Without support (from the CSDP) this club would never be able to sustain themselves. (City, SP3)

The success of the CSDP is partially explained by ameliorating these financial, organisational and cultural pressures for the sport clubs. According to the first principle of capacity building – valuing pre-existing capacities - the CSDP reinforced capacities of sport clubs willing to reach disadvantaged target groups. Financial and organisational pressures were dealt with by supplementing the membership fee of the disadvantaged target group directly to the sport clubs. The CDSP would install a personalised payment plan for the disadvantaged individuals, so the sport club could focus on sport and not the administrative burden. Cultural pressures were dealt with by informing and supporting trainers, board members, on the specific thresholds of different groups of disadvantaged individuals. Additionally, they also helped in explaining formal and informal norms of the sports clubs to the disadvantaged individuals. Misener and Doherty (2012) stated that the biggest organisational pressures for sport clubs are declining membership rates and decreased levels of volunteerism. Interviews with sport club staff revealed that by partnering with the CSDP they were also able to attract more members and volunteers:

> In 2007 only 50 athletes remained. Now, thanks to the partnership with the CSDP, we have 349 members, and 80% of these new members are youth from ethnic cultural minorities (6 years, SP 2).
**Physical Activity**

Regarding physical activity, our results showed that adults from program communities noted a significantly higher level of physical activity than those from control communities. Physical activity levels in program communities - both 15 and 6 years of tenure - were almost twice as high (5585.29 MET min/week) as in control communities (2900.42 MET min/week). These findings support previous research which has demonstrated that a community capacity building approach was effective in raising physical activity (Brownson et al., 2007; Sanigorski et al., 2008).

**Social Capital and Mental Health**

For mental health and social capital however, our quantitative analysis did not uncover significant differences between the communities. Qualitative analyses of interviews of the staff of the CSDP indicated that the main target of the CSDP was to create and support low threshold sport activities in the community with the focus on disadvantaged populations. One of the staff members of the CSDP pointed out: *'I think in the first place we are community sport developers and not community developers.'*(6-years, CSDP1). Other studies have pointed out that social capital will only be built through CSDP if it is an intentional target of the program (Armour & Sandford, 2013; Crabbe & O’Connor, 2006). It might be that the CSDP still lack capacity to leverage social capital and mental health through sport. Crabbe and O’Connor (2006, p 4) found that ‘the social value of sport can only be fully realized within a social and personal developmental approach’. They suggested that youth, community, and social workers are better suited to build social capital through sport as they have more experience in this personal developmental approach. Recently, one of the evolutions in the staff recruitment of the CSDP dealt with this issue:

> In the beginning we only had staff with a degree in physical education. Now we have a mix of social workers with an interest in sport, and sport workers with interest in the target group. I really think this is a reinforcement of our team (15 years, CSDP2).

It could be that the effect of this evolution in staff recruited is not yet permeated in the results at community level. Qualitative findings suggest however that a mix of staff from the different sectors has the potential to fill the lack in capacity to leverage social, and health outcomes through sport. Further we must note that sport is only one of the potential resources to influence social capital and mental health (Baum & Ziersch, 2003). Next to sport, many other variables exist that have an impact on the social capital and mental health of the community members, for instance perception of safety, participation to other community initiatives, the efficiency of social and health organisations.

Although no differences were noted between program and control communities for social capital and mental health, interviews with youth, social, cultural and health organisations indicated that,
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regardless of this finding, these organisations perceived the CSDP as very important to the community. Interview participants from these organisations indicated that their main objectives in the partnership with the CSDP was not improving social capital or mental health. It was the creation of a leisure time experience adapted to the needs of their target groups and the support to their own activities by providing expertise in sports or providing infrastructure, financial or administrative assistance. ‘They (CSDP) know a wide variety of sports that we can’t offer with our background. The way they guide the activities always happens very professionally and is popular in the community.’ (15-years, CU1).

The capacity building mechanism underpinning the added value of the CSDP to youth, social, cultural and health organisations can mainly be explained by the use of well-planned and integrated strategy (NSW Health Departement, 2001). Next to leveraging available capacities in the communities, the CSDP focused on delivering a complementary opportunity, when no other organisation in the community could fulfil specific sporting needs. In the supporting information a table is presented with the stakeholders’ perceived added value of the specific activities, organised by the CSDP (see Table S1). This list is not exhaustive and the added value of these activities transcended stakeholder groups, but it does give a good overview of the well-planned and integrated strategy of the CSDP.

Influence of program tenure on outcomes at network, organisation and community level

Partnerships take time before they can produce tangible outcomes (Sydow, 2004). This study therefore examined how different program tenures of the CSDP affected outcomes on network, organisation and community levels. As expected outcomes at the network and organisational level showed that communities with 15 years of program tenure scored better than communities with 6 years of program tenure and better than control communities with no CSDP. At the network level, results showed that experienced communities collaborated with over 40 partners, whereas in semi-experienced communities a collaboration with only 14 partners was noted. At the organisational level document analysis indicated that more people are aware of and participate in activities of the CSDP. These findings support the importance of experience and sustainability of community sport development programs of other studies (Misener & Doherty, 2012; Vail, 2007). However it is the first study to differentiate between network and organisational level results.

The capacity building mechanism that could best explain this result was the difference in trust of the CSDP between the different communities. Organisations in communities with a longer CSDP-tenure had higher levels of trust compared to the other communities. This heightened trust between partners resulted in higher mutuality and willingness to share resources, what in turn led to higher outcomes at the organisational and network level (NSW Health Departement, 2001). The importance
of time to generate trust has also been found one of the crucial elements in partnerships in other sport for development research (Misener & Doherty, 2012; Vail, 2007; Woodcock et al., 2012). Surprisingly and somewhat contradictory, these findings were not reflected in the results at the community-level. Sport participation of adults in communities with a 6-year program tenure was almost 10% higher than the participation of adults residing in communities with a 15 year program tenure. We suggest that this can (in part) be explained by the difference in socio-demographics, depicted in Table 1, which shows that respondents in more experienced communities had a lower socio-economic status and higher ethnicity rates than in less experienced communities. These socio-demographic characteristics have been known to be correlates of lower sport participation rates (Crespo et al., 2000). Additionally interviewees pointed out that staff members of communities with fewer years of program tenure benefitted from weekly meetings with staff members from experienced communities where they could discuss solutions to experienced problems. A learning network approach has been advocated in other studies to accelerate effectiveness of new CSDP (Crabbe & O’Connor, 2006).

Conclusions & Implications

This study had two main research aims. First, to examine the differences between CSDP- and control communities on sport participation, physical activity, social capital and mental health. Second, to identify the processes that underpin these differences aided by the capacity building theory. To be able to fulfil these aims, data were gathered on outcomes at community, organisational and network levels and perceptions of the different partners and program tenure were taken into account.

Our study contributes to the body of research on CSDPs in four ways. First, quantitative findings at the community level show that CSDPs have the potential to raise sport participation and physical activity in disadvantaged communities. Adults in CSDP-communities engaged in 28 percent more weekly sport participation which lasted on average 95 min longer compared to residents of the control communities. Moreover participation in sport clubs was almost 10 percent higher and physical activity was almost double the amount in CSDP-communities compared to control communities. No differences were found for social capital and mental health between CSDP and control communities.

Second, our findings indicate that CSDPs have the potential to bridge the gap between traditional sport organisations and sport for development organisations. Several capacity building principles suggest why the CSDP could bridge this gap. CSDPs identified the hard to reach individuals through
the network of social, health and youth organisations and guided them to local sport activities. Furthermore, the CSDP provided complementary sport activities which originated from the needs and desires of the residents of the community. Thanks to this integrated strategy the CSDP was able to deliver an added value for each of the participating partner organisations.

Third, our study provides some answers to the question posed by Skinner and Zakus (2008) regarding which organisations would be best placed to deliver sport development programs. Our findings suggest that sport organisations with a mix of staff of both sport, social, youth and other workers are possibly best suited to raise sport participation rates for disadvantaged target groups. Finally, this study adds empirical evidence and offers some insights on the importance of experience and sustainability of CSDPs. More trust with more organisations was the key for having better results at the network and organisational level. This was however not reflected in the results at community level.

Implications for the sport sector are that in order to enable every individual to participate in sport CSDPs might be viable alternative to consider. When guiding the disadvantaged target groups to the community sport clubs, these clubs need to be provided with cultural, financial and organisational capacity in order to deal with these pressures.

Implications for policy makers of sport, social, health and other organisations are that intersectoral funding for these programs should be provided as these different organisations reported to be benefited by the CSDP in multiple ways. This funding should aim to increase sustainability of successful CSDPs as a multiplication of outcomes on organisational and network level are seen in programs with a longer time of implementation.

**Limitations**

The main limitation of this study is the issue of the generalizability of the findings. This study looked at a CSDP in the specific context of disadvantaged communities in one specific city. The researchers acknowledge the importance of context to the effectiveness of the program. It is very likely that implementation of the same program in different communities in different cities could result in rather distinct outcomes depending on the characteristics of the people living in the community, the sport and recreational infrastructure and the experience of the key stakeholders with community development and partnerships (Trickett et al., 2011). The mixed method design tried to amend for this limitation by not solely describing the ‘effects’ but also to explain the processes of how and why these effects took place (Mandell & Keast, 2008b). A second item used to encompass this limitation was by using multiple cases for each time-condition which enabled comparisons between those cases.
and provided a stronger base for theory building (Eisenhardt & Graebner, 2007; Yin, 2013). Other studies in other cities are needed to confirm or contradict the robustness of our findings. A second limitation of the study was the cross-sectional design which inhibited determination of causality. The study looked at the CSDP at one point in time. No baseline study was executed, which makes it harder to attribute the effects to the program. This study however tried to cover this limitation by adding control communities with similar socio-economic profiles. Future studies are encouraged to implement a design with a baseline and a follow up study so importance of time and effect could be better attributed.
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References


Bloso. (2012). Number of members (19 to 54 years old) associated to subsidized sports federations Retrieved 10 September, 2013, from http://www.bloso.be/


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CSDPs as a vehicle for sport, social and health outcomes


### Supporting information

**Table S1.** Indicated added value of the integrated and well-planned strategy of activities of the CSDP for sport, social, health, cultural and youth organisations.

<table>
<thead>
<tr>
<th>Organisation Group</th>
<th>Added Value</th>
<th>Specific examples of how added value was created</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sport</strong></td>
<td></td>
<td>Guiding disadvantaged target group to sport clubs</td>
</tr>
<tr>
<td></td>
<td>- More members for sport clubs</td>
<td>- Social and other organisations indicate to the staff of CSDP which families would want to participate in sport. Staff of CSDP visits these families, discuss the possibilities in the community, and introduce and guide them to the sport club.</td>
</tr>
<tr>
<td></td>
<td>- Learning how to deal with cultural thresholds of disadvantaged target group</td>
<td>- Staff of CSDP know the specific situation of the family and make it clear to trainers or board members what might be difficulties and sensibilities for the kids or parents.</td>
</tr>
<tr>
<td></td>
<td>- Dealing with financial thresholds of disadvantaged target group</td>
<td>- Assembling a financial plan so disadvantaged target group can spread the expenses of the membership fee at the club</td>
</tr>
<tr>
<td></td>
<td>- Better fulfillment of social role in the community</td>
<td>- By recruiting members of all social layers in the community, clubs and volunteers become more committed to the community</td>
</tr>
<tr>
<td></td>
<td>- More volunteers</td>
<td>- Organisations which are more involved in the community have less difficulties attracting volunteers from their community</td>
</tr>
<tr>
<td><strong>Social</strong></td>
<td></td>
<td>The bike school</td>
</tr>
<tr>
<td></td>
<td>- Able to empower target group by means of sport</td>
<td>- People who are not confident on a bike, learn how to bike in group. Doing so creates self esteem and confidence by acquiring the new skills of riding a bike.</td>
</tr>
<tr>
<td></td>
<td>- More job opportunities for target group</td>
<td>- By being able to ride a bike, the people are more mobile, creating more chances on the labour market.</td>
</tr>
<tr>
<td></td>
<td>- More places to meet for the target group</td>
<td>- The weekly appointment with other peers learning to ride a bike, is a place for these people to meet, interact and exchange experiences and information and consequently build social capital.</td>
</tr>
<tr>
<td><strong>Health</strong></td>
<td></td>
<td>Consultation with staff of CSDP</td>
</tr>
<tr>
<td></td>
<td>- Greater insight and opportunity to access sport and movement programs and events in the community which enables better prevention of disease</td>
<td>- Staff member of the CSDP is located in the health organisation in order to give information regarding opportunities to be physically active and sport in the community to the target group (e.g., who to contact, when and where activities take place, the price and how they could get financial support).</td>
</tr>
<tr>
<td></td>
<td>- An adapted low threshold sport opportunities that enables target groups to be more physically active and to participate in sport</td>
<td>- These activities take place in a safe environment adapted to the needs of those experiencing difficulties engaging in the sport opportunities in the community. For instance swimming and dance classes for women only, yoga in infrastructure of health organisations</td>
</tr>
<tr>
<td><strong>Cultural + youth</strong></td>
<td></td>
<td>Sport and culture youth camps</td>
</tr>
<tr>
<td></td>
<td>- More man power and bearing surface to promote activities</td>
<td>- CSDP, youth, culture organisations ask their network to promote these mutual activities for the disadvantaged target groups</td>
</tr>
<tr>
<td></td>
<td>- More participants of target group to activities</td>
<td>- Broader promotion results in more participants of the disadvantaged target groups</td>
</tr>
<tr>
<td></td>
<td>- More efficient: less staff needed</td>
<td>- Morning sport activities, afternoon cultural activities. --- Consequently partners do not need staff for the entire day.</td>
</tr>
<tr>
<td></td>
<td>- More effective: broader leisure time offer</td>
<td>- Children get a broader array of leisure time activities which makes it more likely for them to find something they like and want to continue doing.</td>
</tr>
</tbody>
</table>
Part 3:

Key elements of intersectoral partnerships that build capacity
PART 3

Study 3. Capacity building through cross-sector partnerships: Results from a community sport program in disadvantaged communities in Belgium

Mathieu Marlier, Steffie Lucidarme, Greet Cardon, Ilse De Bourdeaudhuij, Kathy Babiak, Annick Willem

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Capacity building through cross-sector partnerships: a multiple case study of a sport program in disadvantaged communities in Belgium

Mathieu Marlier, Steffie Lucidarme, Greet Cardon, Ilse De Bourdeaudhuij, Kathy Babiak and Annick Willem

Abstract

Background: Recent research has illustrated the need for cross-sector partnerships to tackle multidimensional problems such as health inequalities and sport and physical activity promotion. Capacity building is based on partnerships and has demonstrated effectiveness in tackling these multidimensional problems. This study aims to explain how cross-sector partnerships build capacity at the practitioner, organisational and partnership levels. The subject of this study is a community sport program (CSP) that aims to increase sport participation rates and physical activity levels.

Methods: The study examined multiple cases in four disadvantaged communities in Antwerp, Belgium where the CSP was implemented. Forty-four face-to-face interviews were held with leaders from sport, social, health, culture and youth organisations that collaborated with the CSP.

Results: Thirteen elements of cross-sector partnerships were identified as critical to building capacity at each of the different levels. These include: process evaluation, trust, mutuality, policy support, partner complementarity and fit, diversity of activities and period of collaboration-time. Trust in turn was fostered by a longer period of collaboration-time, better personal contact, clearer coordination and an external focus. Policy support was developed by support of partners and establishing clear metrics of success.

Conclusion: Insight into the key elements of cross-sector partnerships that build capacity is given and several practical recommendations are suggested for practitioners and policy makers.

Keywords: Capacity building, Cross-sector partnerships, Disadvantaged communities, Community sport

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Background

Health and illness follow a social gradient: the lower the socioeconomic position, the less people are healthy (Marmot et al., 2008). Tackling these health inequalities is a major concern to most public health organisations and governments (Costa Font, Hernández-Quevedo, & McGuire, 2011). A key challenge in dealing with these inequalities exists in acting on the social determinants of health. In recent years, focus has shifted from interventions at the individual level to interventions at the community level in order to improve the social determinants of health (Marmot et al., 2010). These interventions need to be strengthened by community insight and the mobilization of resources to solve locally identified health problems (Marmot et al., 2008).

Sport has emerged as a potential strategy to capture or ‘hook’ the interest of a large group of people, even in disadvantaged communities (Dubuy et al., 2014; Lawson, 2005; Skinner & Zakus, 2008). Participation in sport has furthermore been associated with higher levels of physical activity, better mental health (Asztalos et al., 2009), and higher social capital (Perks, 2007). In light of these findings, health, social and other organisations have shown a growing interest in using sport or collaborating with organisations in the sport sector to increase physical activity, enhance mental health or engage civic participation in their communities (Theeboom et al., 2010). Moreover, it is generally acknowledged that partnerships among a wide range of organisations are required to deal with multidimensional problems and challenges, such as sport and physical activity promotion (Sam, 2009) and addressing health inequalities (Storm, Aarts, Harting, & Schuit, 2011).

One approach that makes use of cross-sector partnerships and has demonstrated effectiveness in tackling health inequalities in physical activity and sport participation is capacity building (Brownson et al., 1996; Sanigorski et al., 2008). Capacity building has been defined in the WHO health promotion glossary as “the development of knowledge, skills, commitment, structures, systems and leadership to enable effective health promotion.” (Smith et al., 2006) (p 341) It influences three levels of health promotion. First, it affects the practitioner level by enhancing their individual knowledge and skills. Second, it stimulates the organisational level by expanding support and infrastructure. Third, it impacts the partnership level by building and/or strengthening partnerships and cohesiveness among the health promotion organisations (Smith et al., 2006). On a side note, in the management literature, capacity generally refers to organisational capacity. It is important to stress that capacity in this study, following the definition of the WHO (Smith et al., 2006), refers not only to organisational capacity but also to capacity of practitioners and capacity of the partnership.
Although the importance of partnerships in capacity building programs to promote physical activity and sport have repeatedly been emphasized (Labonte et al., 2002; Roussos & Fawcett, 2000; Smallwood et al., 2015; Vail, 2007), no studies have focused on the specifics of how these partnerships build capacity at the practitioner, organisational and partnership levels. The present study attempts to fill this gap by identifying the key elements of cross-sector partnerships that build capacity at these levels. To reach this aim the present study investigated a community sport program (CSP) that makes use of cross-sector partnerships to build capacity.

A prior study showed that this CSP was related to higher levels of sport participation (Marlier, Cardon, De Bourdeaudhuij, & Willem, 2014). In communities where the CSP was implemented, 61.3% of adults engaged in sport, whereas in similar communities, without the CSP, this was only 42.4%. In the present study, sport participation was defined as ‘physical activities that require a sufficient rate of exertion and that take place in an athletic context during leisure time’ (Scheerder et al., 2005, p. 143). It referred both to organised as well as non-organised and individual as well as team sport activities. In general older adults, women from ethnic minorities and people from lower social classes were found to participate less in sport. However all of these groups reported higher sport participation rates in CSP communities (Marlier et al., 2014). Overall, the large majority indicated to sport on a recreational level (91.4%).

This study will thus focus on which elements were most crucial in cross-sector partnerships to build capacity at the practitioners, organisational and partnership levels in the context of this CSP.

**Methods**

**Description of the Community Sports Program (CSP)**

The focus of the study was a community sport program (CSP) in Antwerp, Belgium (506,225 inhabitants). In the current study community refers to a specific geographical area. This CSP was established through a bottom-up process of trial and error by sports, social, youth and health care practitioners. It developed organically over the last 20 years by responding to local needs. Since 2003 the CSP has been managed and implemented by the Antwerp Sports Administration with the objective to increase sport participation rates for people in disadvantaged communities who experience higher financial, mobility and commitment thresholds to engage in sports. At the moment a total of 33 full-time equivalent (FTE) staff members are employed to deliver the CSP in Antwerp.

The Antwerp Sports Administration has five main tasks in delivering the CSP. These include: (a) receiving and giving information from and to the different sports, social, health, cultural and youth partners in the community; (b) supporting the sport activities of partners; (c) organizing sport
activities complementary to those already offered by the partners; (d) creating new sport infrastructure in the community; (e) searching for new ways to reach their goals by being innovative. Currently, 17 communities (of the existing 62 communities in Antwerp) are implementing the CSP. In all communities the five main tasks are implemented, however, the way the CSP is implemented, differs from community to community, according to the indicated needs and desires of the community members and the specific capacity of the staff members. Three coordinators manage the CSP at the city level. They coach and guide 30 staff members delivering the CSP in the 17 communities and they collaborate with the leaders of partner organisations in the areas of sport, social, health, cultural and youth development.

Research design
The multiple case design used in this study made it possible to compare and unravel the key elements of cross-sector partnerships that build capacity at the practitioner, organisational and partnership levels in the different communities. This approach also provides a stronger case for theory building (Eisenhardt & Graebner, 2007). Furthermore, it enabled us to account for three frequently mentioned limitations that hamper progress in defining the key elements of cross-sector partnerships.

First, the stage of development of the program has generally not been considered in empirical research (Sydow, 2004). This study therefore investigated multiple cases: two Program Communities (PC 1 and PC 2) where the CSP had been implemented since 1998, and two (PC 3 and PC 4) where the program started in 2007.

Second, opinions of multiple stakeholders at different administrative and implementation levels of the program are frequently not taken into account (Provan & Milward, 2001). This limitation was accounted for by collecting qualitative data of community sport, health, social, culture and youth partners both at the community and city levels. Examples of these partners are provided in table 1.

Finally, empirical evidence of the outcomes of partnerships at the population level is often lacking (Baker, Wilkerson, & Brennan, 2012). To account for this critique a component of our broader project included a study that explored the question of whether communities with a CSP had higher levels of sport participation than control communities without a CSP. The results of this study showed that program communities noted an average sport participation rate of 61.3%, which was about 20% higher than the control communities (Marlier et al., 2014). This present study tries to pinpoint the reasons and the underpinning processes of partnerships that build capacity on the three different levels and consequently help in explaining these proximal outcomes of the CSP.
Table 1. Examples of stakeholders in the different sectors at community and at city level.

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Community level</th>
<th>City level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sport</td>
<td>Sport clubs, local sport administrations, sport facility administration (e.g. swimming pools)</td>
<td>Department of sport events, the department of sport club support, department of school sport support</td>
</tr>
<tr>
<td>Health</td>
<td>Local health centres</td>
<td>Organisation in charge of integrating new residents, the organisation in charge of welfare affairs, the umbrella governing body of all community organisations dealing with people in poverty</td>
</tr>
<tr>
<td>Social</td>
<td>Outreach organisations, organisations fighting against drug abuse and homelessness, organisations focussing on building community cohesion and empowering disadvantaged individuals</td>
<td>Organisations in charge of integrating new residents, the organisation in charge of welfare affairs, the umbrella governing body of all community organisations dealing with people in poverty</td>
</tr>
<tr>
<td>Cultural</td>
<td>Organisations focussing on cultural activities (e.g. concerts, art workshops), organisations creating places to meet for community members</td>
<td>Governing body of social and cultural affairs</td>
</tr>
<tr>
<td>Youth</td>
<td>Outreach organisations for youth, organisations focusing on providing leisure opportunities for children, day-care organisations, juvenile delinquency prevention organisations</td>
<td>/</td>
</tr>
</tbody>
</table>

Data collection

Qualitative data were collected through in-depth, semi-structured interviews at the community (geographical area) and city levels. Sampling of participants was done by asking the CSP staff members which organisations and which individuals in these organisations they considered to be their most important partners in the community and in the city. At the community level the representatives of the organisations involved the practitioners who carry out the tasks set by the organisations on the field. Interview questions were built from a literature review (Lucidarme et al., 2013) based on the framework of Parent and Harvey (2009). This framework has proven useful in identifying key elements of physical activity promotion through community partnerships (Lucidarme et al., 2013). It encompasses variables that have proven their relevance in previous research including (Lucidarme et al., 2013): (a) Antecedents (variables concerning the formation of the partnership); (b) Management (variables that relate to the functioning of the partnership); (c) Evaluation (variables that relate to the evaluation of the program and the partnerships). An overview of the posed questions can be found in Lucidarme et al. (2013, p. 5). These questions were adapted to the context of the CSDP. In total 44 interviews were conducted with community sport (CSP), sport (SP), social (SO), culture (CU), health (HE) and youth (YO) partners. At the community level 33 partners were interviewed in four different program communities, at the city level 11 partners were interviewed. Member checking was executed in two ways. First, by restating or summarizing answers...
of interviewees in case the researchers were not clear on interpretation of the response. Second, by communicating the preliminary analysis to all the participants in order to verify and confirm the preliminary findings of the analysis (Creswell, 2012). Interviews lasted on average 40 minutes. Informed consent was obtained for all interviewees. The study was approved by the Ethics Committee of the Ghent University Hospital. Table 1 presents an overview of the different partners for the selected communities and the city. It should be noted that partner organisations varied over the different communities according to the availability of suitable partners.

Table 2. Overview of organisations of study participants (interviewees).

<table>
<thead>
<tr>
<th></th>
<th>PC 1</th>
<th>PC2</th>
<th>PC3</th>
<th>PC4</th>
<th>City</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Members of CSP (CSP)</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Sport Organisation (SP)</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Social Organization (SO)</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>Cultural organisation (CU)</td>
<td>2</td>
<td>/</td>
<td>/</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Health Organisation (HE)</td>
<td>1</td>
<td>1</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>2</td>
</tr>
<tr>
<td>Youth Organisation (YO)</td>
<td>1</td>
<td>3</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>10</td>
<td>8</td>
<td>6</td>
<td>11</td>
<td>44</td>
</tr>
</tbody>
</table>

CSP = Community Sport Program  
PC = Program Community

Analyses

Qualitative data were analysed with Nvivo 10. Four steps were taken to reduce and analyse the 231,470 words of interview transcripts. First, a codebook was developed, based on the variables expressed in the framework of Parent and Harvey (2009). Second, text fragments were coded to the rightful nodes of the codebook. To assure quality of this coding process, another experienced researcher assisted, in case of doubt, in assigning certain text fragments to the proper node (Edwards & Skinner, 2010). When new elements recurred in several interviews new nodes were inductively added. An example of a new node is external focus – namely, reaching own organisational goals by helping in the activities of partners. Combining both a deductive and inductive coding approach enabled the researchers to use the richness of previous literature and theory and extend this theory with new elements derived from the raw data (Fereday & Muir-Cochrane, 2008). Inter-rater reliability measured by kappa-coefficient, was 0.75. This coefficient represents the reliability between coding of the main researcher and the coding of a sample of interviews of a second researcher. Although guidelines are arbitrary, a kappa-coefficient of 0.75 is generally accepted as a good inter-rater reliability score (Gwet, 2014).

In the third and crucial step of the analysis we looked for patterns in the variables of cross-sector partnerships and how they built capacity on the practitioner, organisational and partnership levels. Thus, more specifically, we looked for patterns in the coded variables and how they enhanced
knowledge and skills among practitioners, how they expanded support and infrastructure to the organisations and how they built and strengthened partnerships and cohesiveness among the different organisations.

Finally, the most recurring and important patterns were used to identify the key elements of cross-sector partnerships to build capacity.

**Results**

In total 13 key elements of cross-sector partnerships were identified that build capacity at the different levels. Table 3 summarizes these different key elements per level. Eight key elements of partnership capacity building were deductively derived based on the work of Parent and Harvey (Parent & Harvey, 2009): process evaluation, trust, coordination, mutuality, partner complementarity and fit, personal contact, period of collaboration time and policy support. Four key elements inductively emerged from the analysis: external focus, metrics for success, support of partners and diversity of activities. The next section describes each key element of the cross-sector partnerships and includes representative quotes to illustrate how capacity was built at the practitioner, organisational and partnership levels.

**Key elements of cross-sector partnerships that build capacity at the practitioner level**

Two key elements of cross-sector partnerships were identified to build capacity at the practitioner level: process evaluation and trust. These elements were found crucial to improve the knowledge and skills of the practitioners engaged in the relationship.

The first, process evaluation, involves the assessment of the mutual activity not only at the end but also during the activity. Findings uncovered that this process evaluation was needed to make the right improvements and changes, especially when the activity did not roll out according to plan. “It can also be, which is currently the case for ‘integration runs’, that it doesn’t go as initially planned, and that a lot of drop out occurs. Then we sit together, to discuss what happened and how we can prevent this drop out from happening in the future.” (PC1, CSP 1)

Trust was the second key element uncovered in the interview data. It refers to the mutual confidence in the abilities and intentions of partners. Findings indicated that higher trust led to more knowledge and skill sharing among the partners. Moreover, the analysis highlighted the influence of four other key elements to foster trust among the partners namely period of collaboration-time, personal contact, coordination and external focus. Period of collaboration-time is the first key element to foster trust, and refers to the period of time that partners have been collaborating to reach a
common target. Many partners indicated that before sharing information a certain level of trust needed to be established. In most cases interviewees expressed that it took time to develop trust. “In the beginning the youth non-profit organisations refused to invite me for their meetings... It was only after a few years, because I got to know and get along with several of the other partners, that this perception changed and that I was invited to their meeting.” (City, CSP1)

Personal contact, the second key element identified as central to fostering trust, relates to the personal relationships between the representatives of the CSP and representatives of the other organisations. Interviews uncovered that having a good personal ‘connection’ is needed to foster trust and to engage in mutual projects and share expertise. One organisation stated: “... you need to have an informal connection to make the formal work... More often I have the impression that the match between people is more important than the content of the project they work on.” (City, CSP 2).

Personal attributes that were often mentioned as being highly valuable to make the partnership work were having an open attitude and being engaged in the relationship itself.

Coordination emerged as a third important element to foster trust among the practitioners. It refers to the clarity of the role, task and expected input in the relationship. Partners declared that they knew what was expected from them, and what benefit they received, which differed from other partnerships in which they were involved. “One of the reasons why the collaboration is an added value is because it is concrete and clear, always tangible. Partnerships with other organisations often are somewhat cloudy and it is often difficult to see the organisation’s true intentions.” (PC 2, SO2).

External focus was the fourth key element to foster trust. It covers the engagement of individuals in activities with partners to reach the goals of their own organisation. Our analysis revealed that people who were able to take a step back from their daily tasks and consider how they could represent added value for their partners multiplied trust and willingness to share knowledge, skills and information with that partner. “The thing that really allowed people to know and trust person X was because person X frequented the places where our target group gathered. He further helped with the food distribution for the poor and he came to all our different meetings. When he told us that the best way for our target group to work with sport is to play netball, we followed his advice and we still play it today.” (PC 1, SO 2).
Table 3. Key elements of cross-sector partnerships that build capacity at the practitioner, organisational, and partnership levels.

<table>
<thead>
<tr>
<th>Capacity Building Level</th>
<th>Key elements of cross-sector partnerships</th>
<th>Explanation of how capacity is build by the key element at the given level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Practitioner</strong></td>
<td>Process evaluation</td>
<td>Assessment of activities during and at the end of the project to see where improvements can be made.</td>
</tr>
<tr>
<td></td>
<td>Trust</td>
<td>Confidence in abilities and intentions of partners. Higher trust leads to more knowledge and skill sharing.</td>
</tr>
<tr>
<td></td>
<td>Period of collaboration-time</td>
<td>Duration of partnerships. Trust needs time to be developed. In a good partnership more skills and knowledge will be shared as time goes by and trust increases.</td>
</tr>
<tr>
<td></td>
<td>Personal contact</td>
<td>Personal relationship between people of different organisations. Open attitude and commitment to the partnership improve the personal contact, trust and knowledge sharing.</td>
</tr>
<tr>
<td></td>
<td>Coordination</td>
<td>Clarity of role, task, and expected input from partners increases accountability, trust and knowledge sharing among partners</td>
</tr>
<tr>
<td></td>
<td>External focus</td>
<td>Reaching own organisations goals by engaging in activities of other partners multiplies trust and knowledge sharing</td>
</tr>
<tr>
<td><strong>Organisational</strong></td>
<td>Mutuality</td>
<td>Interdependence between the partners. Greater needs to collaborate leads to greater willingness to share resources.</td>
</tr>
<tr>
<td></td>
<td>Policy support</td>
<td>Extent to which policy supports the organisation and allocates financial resources.</td>
</tr>
<tr>
<td></td>
<td>Support of partners</td>
<td>Partners who indicate added value of the partnership create legitimacy and positively influence policy makers.</td>
</tr>
<tr>
<td></td>
<td>Metrics for success</td>
<td>Objective results of relationships create legitimacy and positively influence the policy makers.</td>
</tr>
<tr>
<td><strong>Partnership</strong></td>
<td>Partner complementarity and fit</td>
<td>Composition of network partners with different expertise, so complementary skills and knowledge can be shared.</td>
</tr>
<tr>
<td></td>
<td>Diversity of activities</td>
<td>Multiple activities create added value for a wide variety of partners and extends the network</td>
</tr>
<tr>
<td></td>
<td>Period of collaboration-time</td>
<td>Duration of partnership gives time to obtain results and convince potential partners of the added value of a relationship.</td>
</tr>
</tbody>
</table>
Key elements of cross-sector partnerships that build capacity at the organisational level

Two items were deduced from the analysis to build capacity at the organisational level: mutuality and policy support. These elements were found key to increase support and infrastructure.

The first, mutuality, describes the interdependence of the network partners. The analysis highlighted that the larger the interdependence and the perceived need to collaborate between the partners, the larger the willingness to share human, financial and infrastructural resources. “Over the years we have put more emphasis on [civic, cultural, sports] participation. As a result, we received more [sport] questions from our clients, which put a heavy strain on our organisation. To cope with this problem we asked the CSP if one of their staff members could be incorporated in our organisation.” (City, SO 2)

The second element, policy support, refers to the amount of resources that were allocated to the CSP by the policy makers. Interviews pointed out that support of the policy was in turn influenced by the support of partners and by metrics of success that could be presented to the policy makers. Policy directs a substantial part of the funding of public organisations and consequently the sustainability and legitimacy of the partnerships and the CSP. As a result of a new policy agreement, the CSP was able to expand their work span from three to ten communities. “I think the most important leap that we took was in 2007 with the new policy agreement... If the politicians chose not to invest in the CSP, then I don’t think that we would have had the basis to carry out such a wide program.” (City, CSP 3).

Linked with the policy support is the support that partners give to the CSP: “...but we have also grown because partners indicated that the CSP is a useful program which needs to be continued and financed. Policy and partners are very important to legitimize your existence.” (City, CSP 3). A second item important to influence policy support were the objective results that could be presented to the policy makers. “The city government did not cut the budgets of the CSP. This is in large part due to the fact they are able to present clear, objective results.” (City, SO 2)

Key elements of cross-sector partnerships that build capacity at the partnership level

Three elements found to build capacity at the partnership level were diversity of activities, partner complementarity and fit, and period of collaboration time. These elements were found important to increase the density and sustainability of the network.

A first key element uncovered in the interview data was the diversity of activities. It entailed the different activities that the CSP had to offer, which created added value for different partners in the different sectors. This ultimately led to attracting higher number of partners to the network. A ‘bike school’ (a course for adults to learn how to ride a bike), for instance, was particularly interesting for social centres who focused on empowering socially deprived groups, because it improved mobility of
these people – an important element in employment. The sporting activities that the CSP organised together with youth organisations serving disadvantaged children, offered these children a structured leisure activity to which they were welcomed and that kept them off the streets. A ‘personal guidance activity’ benefited multiple health and social organisations by consulting, supporting and connecting their target group to the sport offered in their community, where they could participate and create social ties. Moreover, this activity aided sport organisations by helping them recruit new club members and developing the skill to deal with them appropriately.

A second key element identified by the analysis was the complementarity and fit between partners. This related to the composition of network partners and the harmonization between them. Findings suggest that the non-profit sport organisations on the one hand and the public youth, culture, health, social organisations on the other hand have many complementary skills to share. However interviewees indicated that before the CSP was implemented in the community these two types of organisations did not fit, mostly because the sports organisations did not have affinity with the disadvantaged target group. The CSP bridged this gap by sharing information from the youth, social, health partners to the sport organisations on how to deal with the disadvantaged target group, i.e., information on which thresholds they experience, which sporting needs they encounter, or how best to reach them. “The added value [of the collaboration with the CSP] is the feedback the CSP gives. They have experience in dealing with projects with disadvantaged children and they give advice on problems we encounter” (PC 4, SP1). Otherwise the CSP shared knowledge and skills from the sport organisations to the public organisations on bringing a customized sport program and information adjusted to the needs of their target group with respect for their thresholds to engage in sport participation. “They know a wide variety of sports that we can’t offer with our background. The way they guide the activities always happens very professionally and is popular in the community.” (PC 1, CU1)

The third element, period of collaboration-time, has earlier been described in building capacity at the practitioner level. However findings revealed that period of collaboration-time was also an important element to build capacity on the partnership level. Most partners expressed a growing interest and belief in the CSP as the relationship matured. This enhanced the legitimacy of the CSP and in turn attracted other organisations to work together with the CSP. ‘What helped is that people started to realise that the methods of the CSP deliver success. It takes time, because it is a totally different way of approaching people. For example if we organise sports camps you can’t participate if you haven’t paid. Contrarily the CSP will advance the payment, and sets up a payment plan for the ones that cannot pay.’ (City, Sp 2)
Discussion

The main aim of this study was to explain how capacity was built through cross-sector partnerships. So far several studies have pointed out the effectiveness of capacity building in tackling health inequalities and sport promotion using cross-sector partnerships. However, the specifics on how these partnerships build capacity is lacking. Therefore, the present study researched the key elements of cross-sector partnerships that build capacity at the practitioner, organizational, and partnership levels in a successful community sport program (CSP) that makes use of these partnerships.

At the practitioner level, cross-sector partnerships have the potential to build capacity by sharing skills, knowledge, and expertise among the partners in the different sectors (Smith et al., 2006). Our findings indicated that to build capacity at the practitioner level, process evaluation and trust are needed. We found process evaluation positively influencing skills and knowledge sharing among practitioners. Likewise, previous studies showed the importance of process evaluation to enhance organizational learning and capacity building (Preskill & Boyle, 2008). Trust between partners was found to be an essential prerequisite to share knowledge and expertise. Throughout the literature, different types of trust are described. The trust referred to in this study is relational trust. Bryk and Schneider (2003) explain that engaging in relationships is engaging in dependencies and creating vulnerability for the individuals in the organization. Every deliberate action that reduces this sense of vulnerability fosters trust by making the individual safe and secure in their interactions (Bryk & Schneider, 2003). Developing trust has been described as absolutely imperative to capacity building and one of the main principles of effective capacity building practice (NSW Health Department, 2001). Additionally, we found that trust was developed by a longer period of collaboration-time, a clear coordination, good personal contact, and an external focus.

Period of collaboration time is in the framework of Parent and Harvey (2009) a subcategory of type of partnership. Many typologies exist in the partnership literature, among them the lifecycle of the partnership is central in understanding collaborative interactions (Mandell & Keast, 2008b). Several studies indicate that in order to produce tangible results partnerships need time (Sydow, 2004). This study accentuated the importance of period of collaboration time in order to foster trust. In other studies, period of time of collaboration is linked with sustainability of the collaboration, which is frequently used as a proxy for network effectiveness and a means for sustained health promotion effects (Babiak, 2009; Casey et al., 2009; Hawe et al., 1997; Seifer, 2006). Our results confirm the importance of period of collaboration time for capacity building. However, our results suggest that it
should not be seen as an end, but as a potential catalyst to boost trust among practitioners and as a prerequisite to create legitimacy at the partnership level. Coordination has been related to the set of tasks each party expects the other to perform (Mohr & Spekman, 1994). Consistent with previous literature, we found that a clear role and task delineation resulted in higher trust to reach the mutual objectives of the partnership (Mohr & Spekman, 1994). The interviews revealed personal contact as a third key element to foster trust.

Personal contact is an aspect of ‘staffing’ (Parent & Harvey, 2009). Parent and Harvey (2009) specify that excellent staff support in the management of a partnership is critical to its success. Our analysis demonstrated that having a good personal ‘connection’ is needed to foster trust and to engage in mutual projects and share expertise. In particular, the match between individuals was found to be important. Foster-Fishman et al. (2001) earlier concluded that members with an open attitude and who were more committed to the partnership shared more information and skills. In our study these personality traits were found to enhance the match between the partners.

External focus has to our knowledge not been recognised as an important element of cross-sector partnerships to build capacity at the practitioner level. It goes beyond the initial contract of two partners working together to reach their own objectives through a partnership. Interviews revealed that an externally focused person is constantly looking for opportunities in his/her environment to create added value for his/her partners, but still initiating from his/her own expertise. S/He is flexible and an innovative champion with a shared problem orientation (Mandell & Steelman, 2003), taking collaborations to the next level. In other studies the importance of these community champions or change agents has also emerged (Schulenkorf, 2010; Vail, 2007). The value of neutral, credible, and legitimate intermediary leaders and intermediary organisations can create a collective impact and build capacity that multiplies health gains many times over (Hawe et al., 1997; Kania & Kramer, 2011).

At the organisational level, mutuality and support of policy were found to be key elements of cross-sector partnerships to expand support and infrastructure. Interviews uncovered that social, health and other public organisations depended on the CSP to share resources concerning sport and vice versa. Babiak (2007) earlier concluded that a higher interdependence between organisations results in more sharing of resources.

Support of politicians and policy is also recognized by other research as an important element to build capacity (Eglene, Dawes, & Schneider, 2007). As suggested by Parent and Harvey (2009), policy support is part of the ‘environment’ of a partnership. Environment is interpreted by these researcher as the political, demographic, economic, socio-cultural, legal, ecological and technological settings in which the collaboration operates. Our findings suggest that in particular, the political dimension had
an influence on the amount of resources which were dispersed to the community sport program. Not in the least because policy makers fund these organisations (Eglene et al., 2007). According to our results support of politicians is closely linked to legitimacy of the partnership which is stimulated by the support of partners and metrics of success. These factors have proven their relevance for building capacity in other studies (Babiak, 2009; Foster-Fishman et al., 2001).

At the partnership level, the main capacity builders of cross-sector collaborations were partner complementarity and fit, diversity of activities, and period of collaboration-time. These elements were found to build and strengthen partnerships and cohesiveness among the different organisations (Smith et al., 2006). Previous research showed that the challenge of community-based organisations resides in the fact that they need to fit the complementary skills and knowledge of different types of organisations in order to collaborate (Sutcliffe & Huber, 1998). This is even more true in sport promotion, as additional cultural differences between public and non-profit sport organisations make it hard for them to fit and to interact (Gazley & Brudney, 2007). The CSP however managed to bridge this cultural gap and was a conduit of information and knowledge sharing between sport and public partners, which made it possible for these organisations to collaborate.

According to Provan and Kenis (2008) and McNamara (2012) forming partnerships begins with creating organisational benefits for partners. Our findings suggest that the CSP created organisational benefits for a diversity of partners because they engaged in a wide variety of activities, each creating different value for the partners collaborating in the CSP. This is congruent with the idea of ‘enlightened self interest’, wherein the best way to promote one’s own interest is by advancing the interests of others, and vice versa (Frimer, Walker, Dunlop, Lee, & Riches, 2011). In the case of the CSP more organisations became interested in joining or enforcing the partnership when self-interest and own organisational benefits could be attained.

As mentioned earlier, period of collaboration-time of the partnership was found to boost legitimacy. In turn, legitimacy is one of the important motives for entering into a sports-based partnership. With reference to the CSP, the program needed time to be able to show results and create legitimacy. Once results were shown, more partners were willing to collaborate with the CSP, and with more critical mass, even more positive results could be acquired. This notion is closely linked to the phenomenon of the ‘Matthew effect’, which indicates that advantage breeds more advantage (Merton, 1988). Parent and Harvey (2009) earlier emphasized that formation, management and evaluation of partnerships are to be seen in a constant feedback loop. Labonte and Laverack (2001) affirm that in order for community capacity building initiatives to be successfully implemented and sustained, communities must possess or develop the capacity for collective action, the internal
resources to support the process, and the necessary skills and knowledge to successfully identify local problems and their solutions. The idea that ‘it takes capacity to develop capacity’ is generally accepted in capacity building theory (Edwards, 2015; Hatch, 2009).

The main limitation of this study is the issue of external validity and transferability of the findings. This study looked at a CSP in the specific context of disadvantaged communities. Other studies of other programs tackling health inequalities in other settings are needed to confirm or contradict the robustness of our findings. Another restraint is the limited focus on the competences of the people interacting in the partnership. The outcome of partnerships ultimately rests on the shoulders of those doing the program implementation (Waddock, 1988). Competences (e.g. motivation, skills, expertise, ...) of the representatives of each organisation are known to influence the overall partnership effectiveness (Robins et al., 2011). Although we did differentiate which key elements of partnerships build skills and knowledge at the practitioner level, a more in depth understanding would probably be gained by researching how the competences of the people in the partnership influence the built capacity. Future studies are encouraged to elaborate on how and which competences are key for to build capacity at the different levels.

Conclusions

Our study contributes to theory by giving insights into how capacity can be built on different levels through cross-sector partnerships in sport promotion. To the best of our knowledge, this distinction of how capacity can be built through cross-sector partnerships at the practitioner, organisational and partnership level has not been studied in previous research. This study further differentiates from other work done in this area by including perspectives from multiple partners and different stages of development in a sports promotion context.

Our findings contribute to practice by suggesting several actions which might be taken by organisations that aim to build capacity at different levels. First, at the practitioner level more knowledge is gained between organisations who evaluate their mutual activities during the process, and that foster mutual trust by having an open attitude towards the partners. Additionally, capacity is fostered when organisations have clarity about their role in the partnership, look for opportunities in the environment and understand that trusting relationship takes time to be built. Second, at the organisational level, partners need to create interdependence between each other and build support from policy by getting support from other partners and having objective metrics that prove their value. Third, at the partnership level, organisations need to fit their complementary skills, diversify
their activities and create credibility by delivering added value which takes time to be created. Specific for the context of sport promotion it is crucial to have an organisation that acts as a conduit of knowledge to bridge cultural differences between sports organisations on the one hand and health, social, culture and youth organisations on the other.

**Abbreviations:**
CSP: Community Sport Program; SP: Sport organisation; SO: Social organisation; CU: Cultural organisation; HE: Health organisation; YO: Youth Organisation; PC: Program Community

**Competing interests**
The authors declare they have no competing interests.

**Authors’ contributions**
MM contributed to the design of the study (in consultation with staff of the Community sport program), collected, coded and analysed the data, drafted and revised the paper. SL helped to code and analyse the data, and gave feedback on the manuscript. GC, IDB, KB participated in the design of the study and helped to draft the manuscript. GC, KB also assisted with the revision of the paper. AW participated in the design of the study, the analysis of the data, helped drafting the paper and contributed to the revision of the paper.

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Chapter 3:
General Discussion
The main objective of the present dissertation was to provide insights in the value of intersectoral partnerships to promote sport participation, physical activity, social capital and mental health in the community. The subjects of this research were community sport development programs (CSDPs) that collaborate closely with both sport organisations as social, health, youth and cultural organisations.

In the next section, a summary will be given of the main research findings, followed by an overall discussion of these findings. Next, limitations and strengths of this study will be addressed. Subsequently, the implications of the results of the different studies for practice and policy will be discussed. Finally, recommendations for future research will be formulated.

1. Summary of the main research findings

The studies of this dissertation were subdivided in three main parts, with three different aims. The first part researched the interrelation of sport participation, social capital, physical activity and mental health. The aim was to detect to what extent the outcomes of the sport, social and health sectors are associated and strengthen each other.

The second part studied CSDPs. The aim of this study was to discover if and how such capacity building sport programs are able to promote sport participation, physical activity, social capital and mental health in disadvantaged communities.

The third and last part examined which key elements of intersectoral partnerships could build capacity at the practitioner, organisational and partnership level. The aim of this study was to give a better insight into which elements are most important when collaborating with different sectors in the context of sport and more specifically in the context of CSDPs.

1.1. Part 1: Interrelatedness of sport, social and health outcomes

Study 1: Interrelation of sport participation, physical activity, social capital and mental health in disadvantaged communities: A SEM-Analysis

Study 1 was the first study, to the best of our knowledge, to empirically examine the interrelatedness of sport participation, total physical activity, social capital and mental health in one model. This enabled the comparison of strength of the different relations and the measurement of indirect effects. In total, SEM-analysis confirmed six of the ten hypothesized relations (depicted in Fig. 10).

Regarding the socio-demographic variables and the outcome variables, results showed that in general, younger adults participated more in sport, ethnic women participated less in sport; people with lower education had higher levels of physical activity; owners of a house, with higher education
and who were married demonstrated higher levels of community social capital; native individuals with higher education had higher levels of individual social capital; and married people and adults owning a house indicated having better mental health.

One of the main findings was that sport participation ($\beta = .095$) and not total physical activity ($\beta = .027$) was associated with better mental health. Surprisingly, no association was found between sport participation and community social capital ($\beta = .009$) or individual social capital ($\beta = .045$). Post-analysis did discover that higher levels of social capital were found when people performed sport together with friends and colleagues. An interesting difference was found between younger (18–37 years old) and older residents (38–56 years old): for older residents higher levels of sport participation led to better individual social capital, whereas for younger residents this was not the case.

With regard to the relation between social capital and physical activity, only community social capital was linked with physical activity ($\beta = .114$), individual social capital was not ($\beta = -.013$). In the relation between social capital and mental health, only individual social capital was directly associated with mental health ($\beta = .152$), community social capital was not ($\beta = .070$). However, an indirect significant relation was found for community social capital to mental health ($\beta = .105$). Individual social capital predicted mental health better than all other variables in the model. This implied that more substantial than being married ($\beta = .130$) or owning a house ($\beta = .130$), the trust and reciprocity one has of people in general was most essential for better mental health. Another interesting result was that higher levels of community social capital led to better mental health for native residents, whereas for ethnic residents this was not the case.
1.2. Part 2: Value of intersectoral partnerships in a sport context

Study 2.1: A capacity building approach to increase sport participation in disadvantaged urban communities: A multilevel analysis

Study 2.1 investigated differences in sport participation between individuals living in communities implementing a CSDP and individuals living in communities with similar socio-economical characteristics without such program. The main aim of the CSDP is to increase sport participation in the community, especially for individuals at higher risk of sport deprivation. Secondary goals of the program are to increase social inclusion and health by means of sport.

Multilevel analyses indicated higher levels of sport participation in CSDP-communities compared to control communities. Adults from program communities reported on average 96 min/week more participation in sport than their counterparts living in control communities. In CSDP-communities time engaged in sport participation was 156 minutes/week, control communities reported 60 minutes/week. Furthermore, 61.3 % of the individuals of program communities indicated to engage in weekly sport participation, whereas in control communities, this was only 42.4 %. The group indicating the lowest sport participation rate was the group of low educated women from ethnic origin. However, this group significantly participated more in sport in CSDP-communities than in control communities. In program communities results indicated that 46.2% of low educated women from ethnic origin engaged in sport and in general participated 120 minutes/week in sport. In control-communities only 10% of this group engaged in sport, and engaged 10 minutes/week in sport. The same conclusions could be drawn when looking at participation in sport clubs. Residents in
CSDP-communities (15.7%) participated more than double the amount of time in sport clubs than their counterparts in control communities (6.5%)\(^3\). Furthermore, multilevel-analysis showed higher total physical activity levels in CSDP-communities. Physical activity levels in CSDP-communities were about 50% higher than in control communities. Regarding social capital and mental health, no significant differences were found between the different communities. Figure 11 depicts the identified associations between the CSDP and the outcome variables.

![Diagram](image-url)  
**Fig. 11.** Significant relationships between the community sport development program and sport participation, physical activity, community social capital, general social capital and mental health.

\(\text{Sign. Direct relations study 2.2} \quad \text{Sign. Direct relations study 1} \quad \text{Sign. Indirect relations study 1}\)

**Study 2.2: Community sport development programs as a vehicle for sport, social and health outcomes**

Analysis of interviews of study 2.2 uncovered that the biggest difference between CSDP- and control communities consisted of how well sport organisations were connected with health, social, youth and cultural organisations. The CSDP was able to connect information, skills and resources between the sport sector on the one hand and the youth, health, social and cultural sectors on the other hand. These connections enabled to provide a better sport offer tailored to the needs of the residents in the disadvantaged communities. Figure 12 illustrates the differences between control and CSDP-communities. In CSDP-communities, sport organisations were better connected to health, social, youth and cultural organisations than in control communities.

\(^3\) Results reported here and of those in study 2.2 are different because in study 2.2 results considered those of a subsample of six communities. Results of these analysis were executed on the full sample.
Fig. 12. Graphical representation of the connections between sport, health, social, cultural and youth organisations in control and CSDP-communities.

These intersectoral connections created value for different stakeholders in multiple ways. Interviews with sport clubs revealed that by partnering with the CSDP, these clubs were able to attract more club members and they also learned how to deal with these disadvantaged target groups. One key mechanism was the identification of hard to reach, disadvantaged target groups, through the network of schools or health, social and other organisations that engaged on a daily basis with these groups. Whenever a sporting need was detected, these organisations would contact a staff member of the CSDP, who in turn would visit these individuals with the aim of finding a match between the interests of the persons and the available sport offerings (e.g. sport clubs) in the community. In order for sport clubs to remain sustainable, they needed to be supported by additional financial, cultural and organisational capacity.

No social capital or mental health differences were noted between CSDP and control communities. Despite this finding, social and health organisations indicated that they perceived the CSDP as very important for the community. The CSDP used an integrated strategy at both the city and community level to create an added value for a multitude of partners. At the community level staff members of the CSDPs leveraged pre-existing capacities by reinforcing local organisations already using sport to reach their goals (e.g. guiding activity to sport clubs, consultation service in different organisations to inform target group of local sport opportunities). However, when no other organisation in the community could fulfil several sporting needs, the CSDP focused on delivering a complementary offer (e.g. dance class for women only, bike school), or a mutual sport offer (e.g. sport and culture, youth activities).
sport camps). At the city level, a better integration with the different sport units facilitated the links in all activities of these units regarding sport event, sport clubs and school sport.

The duration of implementation of the CSDP was another crucial aspect. Over the years, several evolutions permitted a better attainment of the goals of the CSDP. For example, one evolution was a mixed staff of social workers, physical educators and staff members that were recruited from the disadvantaged target groups and were trained to gain the necessary skills. This created more affinity with the disadvantaged target group and consequently created higher involvement of these groups in the different sport activities of the community. The impact of the duration of the implementation was reflected in all of the results at network (i.e. amount of partners) and organisational level (i.e. reach of the program, participation in CSDP-activities). However, this was not the case at the community level (i.e. sport participation, physical activity, social capital and mental health).

1.3. Part 3: Key elements of intersectoral partnerships that build capacity

1.3.1. Capacity building through cross-sector partnerships: Results from a community sport program in disadvantaged communities in Belgium

The third study aimed to explain how cross-sector partnerships build capacity at the practitioner, organisational and partnership levels. Although many studies indicated the importance of partnerships to build capacity, no studies had investigated the key elements of partnerships that build capacity at the different levels.

Thirteen elements of intersectoral partnerships were identified that build capacity at these different levels. First, at the practitioner level more knowledge was gained among representatives of organisations who evaluated their mutual activities during the process, and who fostered mutual trust. Trust in turn could be fostered by having an open attitude towards the partners, having clarity about the role of each partner in the partnership, looking for opportunities in the environment and understanding that trusting relationships take time to be built. Second, at the organisational level, more resources were shared between partners that created interdependence between each other and built support from policy by getting support from other partners and having objective metrics that proved their value. Third, at the partnership level, stronger and broader partnerships were built by organisations that could fit their complementary skills, diversified their activities and created credibility by developing added value for their partners over time.
2. Overall discussion

This dissertation started with framing some critical evolutions of the 20th and 21st century. Some of these evolutions, such as increased social polarization, individualization and social diversity, present the sport, the social and the health sector with some mutual wicked, multidimensional challenges. There is widespread consensus that these challenges cannot be resolved by one single organisation. On the contrary, these problems are in need of a multifaceted, intersectoral approach. Specific for the sport sector, the sport-for-all policy is considered to be a wicked problem (Sam, 2009). Sport participation studies clearly indicate that ethnic minorities and people of lower social class engage in less sport than native people from higher social classes (Crespo et al., 2000; Van Tuyckom & Scheerder, 2010a). Furthermore, the majority of existing sport promotion activities managed by local governments and sport administrations, such as sport events and sport camps, largely fail in their mission to engage new participants in sport (Bowles et al., 2006; Chin & Phillips, 2004). In sport clubs, disadvantaged target groups are also more likely to be excluded (Vandermeerschen et al., 2013). While the sport organisations and more broadly the entire sport sector struggle to reach these non-participants, health, social and other organisations have started to use sport as a vehicle to capture the attention of these disadvantaged target groups and to reach physical, social and mental health gains (Schulenkorf, 2015). This paradox has been described throughout this thesis as the sport delivery paradox.

The aim of this dissertation was to explore if and how intersectoral partnerships could contribute in resolving the sport delivery paradox. An existing CSDP, using a capacity building approach in different disadvantaged communities in Antwerp, was chosen as a case study to research the value of these intersectoral partnerships. One of the defining characteristics of the CSDP was the collaboration with both the sport organisations and a multitude of other organisations. It provided a rich case to study the main research aim of this dissertation.

2.1. Can intersectoral partnerships solve the sport delivery paradox?

Findings from study 2.1 showed promising results for an intersectoral approach to promote sport participation. Sport participation rate of adults in CSDP-communities was almost 20 percent higher and over 90 minutes longer than those in control communities. The sport participation rates in CSDP-communities was even almost 6 percent higher than the average of adults in Flanders which was 56 percent (Lievens & Waeghe, 2011). One study in England also noted similar promising results. In a longitudinal study, a significant increase in participation was found in some communities, both for
the general population as for the disadvantaged groups (Sport England, 2006). The program aimed at helping local communities to help themselves by getting local people to play a role in identifying the sporting needs in the communities (Sport England, 2006).

Analysis of data and interviews of study 2.2 and study 3 revealed that the CSDP provided a solution to two of the biggest shortcomings of the sport delivery system that are to a large extent responsible for failing to reach disadvantaged target and the sport delivery paradox. The firstShortcoming is the emphasis on top down sport promotion initiatives and the second is the isolated approach of sport promotion in the municipalities and communities, the latter is in big part a consequence of the former.

Vail (2007) and Lawson (2005) have argued that the focus on top-down sport initiatives fails to take the need of the community members into account. Many sport organisations are unaware of the barriers that prevent non-participants to engage in the sport offerings in the community (Frisby & Millar, 2002). They are less confronted with these groups and consequently they do not feel the need to change (Theeboom et al., 2010). All needed capacities and expertise are available in the sport sector and there is little need to collaborate (Barnes et al., 2007). This is in line with findings of the control communities, which uncovered that the sport organisations were very much independent and had little to no contact with other organisations.

The capacity building method of the CSDP approached sport promotion in a very different way. Rather than presuming that all needed expertise and experience are gathered at the managerial levels, the community capacity building approach suggests that decisions about sport promotion are best made with direct input and involvement from citizens (Edwards, 2015). Instead of making decisions ‘for them’, managers focus on taking decisions ‘with’ them (Huxham & Vangen, 2001). Instead of letting the people come to the sport organisations, the sport organisations come to the people. Legitimisation of this approach can be found in the European Sport Charter stating that ‘measures shall be taken to ensure that all citizens have opportunities to take part in sport and where necessary, additional measures shall be taken aimed at enabling . . . disadvantaged or disabled individuals or groups to be able to exercise such opportunities effectively’ (p. 3). Doing this, the CSDP was able to fill a gap in the sport delivery system. The CSDP was the bridge between the sport and the health, social, cultural and youth partners in the community. Instead of a sport delivery paradox the CSDP created a sport delivery alignment. On the one hand the sport sector used the expertise of other organisations to know the sporting needs and desires in the community, on the other hand other community organisations used the expertise of the sport organisations to reach their goals.
2.2. Do intersectoral partnerships in sport relate to physical, social and mental health?

Results from study 2.2 showed that adults of CSDP-communities noted higher levels of physical activity compared to their counterparts in communities without CSDP. Findings of study 1 indicated that sport participation was directly and strongly related to physical activity, which gives a good explanation for the higher levels of physical activity in the CSDP-communities. Other programs implementing a capacity building strategy in disadvantaged communities also noted positive results. One study, developing walking clubs and aerobic exercise classes, detected a significant decrease in physical inactivity in disadvantaged communities (Brownson et al., 2007). Another study, which focused on training coaches of sport clubs and investing in sport club equipment, showed a significant lower increase in BMI of children living in the program communities in comparison to children of control communities (Sanigorski et al., 2008).

No differences were found for mental health between residents of CSDP and residents of control communities in study 2.1. Findings of study 1 indicated, however, that sport participation was directly related with mental health. Nonetheless, the effect size from sport to mental health was only small. Furthermore, explained variance of all variables included in the study for mental health was limited to 8.8%. This means that 91.2% of this variance can be explained by other genetic, physical, social and environmental factors (Dahlgren & Whitehead, 1991). It was not possible to examine the indirect effect of the CSDP on mental health, due to a limited number of communities that were included in the study. To enable the measurement of cross-level indirect effects, a bigger sample at the community level is needed.

Finally, no differences were found for social capital between residents of CSDP and residents of control communities in study 2.1. This was partially expected as findings of the study 1 indicated that sport participation was not related with social capital. However, when the relation between sport participation and social capital was more thoroughly researched, higher levels of social capital were found for people participating in sport in the companionship of neighbors, friends or family. This offered evidence for the claims of different authors that not sport participation, but the context wherein the participation of sport takes place is crucial for the social capital development (Coakley, 2015; Okayasu et al., 2010). The reason why social capital is so important is emphasized in study 1. Individual social capital predicted mental health better than all other variables in the model. Furthermore, community social capital was directly related to higher levels of physical activity and individual social capital, it was indirectly related to higher levels of mental health.
These pathways stress the value of the CSDP in multiple ways. First, more adults engage in sport participation and in physical activity in program communities. People engaging in more sport participation were found to be in better mental health. Second, most of the activities organised by the CSDP focus on bringing people of the community together. This has the possibility to build more trust and reciprocity in the community, which generates more healthy norms and the perception of safety, which in turn might increase physical activity. Furthermore, these activities have the capacity to induce higher level of trust in people in general, which in turn is important for the mental health of people. These results encourage a better interaction among sport, social and health sectors to combine their forces and to reach better outcomes in the multidimensional and interrelated concepts of sport participation, physical activity, social capital and mental health.

2.3. How do intersectoral partnerships in a sport context create better outcomes?

Study 1, 2.1, 2.2 and 3 stressed the importance of intersectoral partnerships. However, partnerships are no magic black boxes. No illusions should be held. If not managed properly, partnerships have a big probability of resulting into nothing but a waste of time (Huxham & Macdonald, 1992). Nonetheless, when the conditions are right and the management makes the right decisions with the right people, working in partnerships can result in better outcomes than could ever be achieved by a single organisation (Zakocs & Edwards, 2006). Especially study 2.2 and study 3 provided insights into important elements for these partnerships to be able to create added value.

One of the important findings of study 3 was the importance of trust among the different organisations that engaged into the partnership. Just as this trust is central in everyday interactions with people, and to social capital of individuals and the community (cfr. Study 1), it is important amidst organisations. Trust was found an essential prerequisite to share knowledge and expertise. The reason why trust is so important is because engaging in partnerships is also engaging in dependencies that create some kind of vulnerability for the individuals in the organisations. (Bryk & Schneider, 2003; Willem & Lucidarme, 2014). Every deliberate action that reduces this sense of vulnerability fosters trust by making the individual safe and secure in their interactions (Bryk & Schneider, 2003). One example of this vulnerability was perceived in the case of the sport clubs. On the one hand, health, social, and other partners were somewhat doubtful if disadvantaged target groups would be properly welcomed in the formal setting of the sport clubs, with implicit codes of conduct that are very different than those normally explored by this target group. The sport clubs on the other hand were doubtful about the financial and cultural impact these individuals could have on their club. Crucial for this arrangement to work was the CSDP. Since both health, social and sport
partners had established trust in the CSDP and their staff members, through previous mutual activities, the CSDP was able to communicate and bridge these mutual doubts and provide the needed capacity to deal with the difficulties. Study 2.2 provided data to show the results of this cooperation. Organised participation in sport clubs differed by almost 10% in program communities (15.7%) compared to control communities (6.5%). It was even higher than overall participation (10.9%) in sport clubs for adults in Flanders (BLOSO, 2012).

Personal contact was identified as one of the key elements that fostered trust. In some communities, the CSDP worked better than in others. Organisations that collaborate, do this through the representatives of the organisation (Waddock, 1988). The ability for the staff members to connect with the partners was crucial for the success of the partnership. In some communities, several of the staff members were not able to facilitate these connections, due to a lack of affinity with disadvantaged target groups or due to a lack of capacity to collaborate. Selection of the representatives of each organisation is therefore crucial. Not surprisingly, competences (e.g. motivation, skills, expertise, ...) of the representatives of each organisation will influence the overall partnership effectiveness (Robins et al., 2011). Results of this and other studies showed that staff members who had an external focus and who were able to empower, involve and mobilize both the partners as well as their target groups, were most likely to reach good results (Schulenkorf, 2010; Vangen & Huxham, 2003).

As a general reflection, studies 2.2 and 3 showed that the CSDP was crucial to connect sport organisations on the one hand and health, social, youth, cultural and other organisations on the other hand. Although complementarity of these organisations was available in both control and CSDP-communities, the fit between these organisations was only made in the CSDP-communities. The importance of an intermediary organisation as the CSDP and community champions has been stressed in many studies (Peterson, Rogers, Cunningham-Sabo, & Davis, 2007; Sport England, 2006; Vail, 2007).

2.4. Future challenges and possible improvement for the CSDP

The CSDP has presented itself as a very rich case to study intersectoral partnerships in a sport context and is in many ways an example of how the sport delivery system could be improved to truly reach Sport for All policy goals. However, analysis uncovered some issues that could be improved or could present problems in the future.
2.4.1. The social gradient
A first issue is that, although sport participation of both the general population and disadvantaged groups was significantly higher in CSDP-communities, the social gradient remained. This means that in CSDP-communities low SES and ethnic groups still engaged in less sport than high SES and native groups. Being that their main purpose is to reach disadvantaged target groups, our initial hypothesis was that this social gradient would have diminished. Two distinct conclusions can be drawn from these findings. First, CSDP have an impact on the entire community and not only the people of disadvantaged groups. Second, the CSDP does not succeed in lowering the social gradient between low and high SES and should thus emphasize even more on disadvantaged target groups. Results of the CSDP, however, show that low SES, ethnic minorities and female groups have more awareness of the CSDP and have participated more to the complementary offer of the program. This indicates that the CSDP does reach the groups that are known to engage in less sport participation.

Table 1. Awareness of and participation to the CSDP for different groups of ethnicity, SES and gender.

<table>
<thead>
<tr>
<th>How many of the people...</th>
<th>Ethnicity</th>
<th>SES</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>... know the CSDP</td>
<td>Native</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>49.4%</td>
<td>59.3%</td>
<td>40.7%</td>
</tr>
<tr>
<td>... participated at an</td>
<td>Ethnic</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>activity of the CSDP</td>
<td>50.6%</td>
<td>63.0%</td>
<td>37.0%</td>
</tr>
</tbody>
</table>

2.4.2. Problems of changing staff and visibility
Another problem deals with the turnover rate of many of the staff of the CSDP. As discussed, trust in the partners is a crucial aspect of partnership effectiveness. With every new member, trust needs to be re-established. Not only with the other organisations, but also with the disadvantaged target groups. Recently, the administration of the CSDP has partly been integrated at the city level. This has made the engaging and disengaging of staff members more difficult. Furthermore, the CSDP is now obliged to attract human resources out of the selection system of the city. This limits the flexibility of the CSDP in the recruitment of new staff members. This change in decision making structure will probably affect the CSDP in other ways as well (Kenis & Provan, 2009).

Linked with this issue is the problem of visibility of the CSDP. Some of the activities of the CSDP happen behind the curtains by helping the activities of other organisations. On the one hand, these activities result in support of partners, that appeared to be an important element to gain policy support in study 3. On the other hand, these activities do not result in greater visibility of the CSDP for the residents and the target group. Visibility in the community is still an issue where the CSDP can make many improvements. A proper branding of the CSDP would make the CSDP less dependent on
the turnover rate of the staff members. Literature describes that if disadvantaged target groups can identify with the organisation, transition between CSDP staff members would have less of an impact on the relational trust (Stead, Gordon, Angus, & McDermott, 2007).

2.4.3. Balancing interdependence and autonomy
In many important decisions a constant balance needs to be found between more interdependence or staying more autonomous. One example is the ‘leisure debate’. Current evolutions gave way to intersectoral projects. At the city level, several representatives of cultural, social, youth and sport organisations are newly arranged in structural reunions to discuss measures to enable a better provision of the leisure offer. One new experiment includes expanding the ‘trajectory guidance’ of the CSDP, for youth and cultural organisations. Instead of only guiding disadvantaged target groups to the sport offering, they would also guide people to the youth and cultural offer, dependent on the need of the individual. The CSDP would take the lead in this project and contribute most of the resources and expertise to this project. However, at a strategic level of the CSDP, the debate is still ongoing whether to engage in these activities and be more interdependent or to stay more autonomous. Autonomous voices fear that this new activity will lead to less guidance of people to sport activities. Additionally, they claim that it is not possible for staff-members to know both the activities of sport, youth and cultural organisations. Interdependent voices state that the main purpose is to provide a better leisure offer in the community. They claim that this will eventually result in a more sustainable leisure choice of the disadvantaged target group as the offer can be better matched with their needs and desires. In other studies, programs that embraced a range of sporting and non-sporting activities in their work, displayed better results in leveraging social development through their activities (Crabbe & O’Connor, 2006). According to the results of study 3, more mutuality and interdependence result in more support of the partners, which increases resources on the long run, and would thus be a good choice. More interdependence of CSDP with social and health organisations would open new opportunities to share skills, expertise and resources and evolve to more integrated services (Babiak, 2009; Keast et al., 2007).

2.4.4. Partnerships with the private sector
Next, partnerships with the private sector are still too little explored. To gain more monetary flexibility and independence, these contacts could provide an alternative resource of funding (Skinner & Zakus, 2008; Theeboom et al., 2010). This would make the CSDP less dependent on the influence of policy makers. This might not be an issue at this moment. However, in the future, with other policy makers, this could present itself as a problem.

The CSDP could be part of the cause related marketing strategy of several private organisations in the community. Private organisations that are involved in their community and support their community
have been known to create more value (Porter & Kramer, 2011). For example bike stores could supply bikes for the bike school of the CSDP, in return this bike store could advertise how they try to make their community a better and more mobile place. Furthermore the CSDP could partner with private organisations to improve health of the companies employers. Numerous studies have pointed out that staff members who practice sports, take less sick leave and shorter periods of sick leave than their colleagues who are not practicing sport (Van Amelsvoort, Spigt, Swaen, & Kant, 2006; Van den Heuvel et al., 2005). Private organisations could pay staff members of the CSDP to give sport classes in the facilities of the company. This would especially align with the values of the CSDP if this private organisation would recruit workers from the community wherein it is located. A further integration would be to promote volunteering for several workers at the CSDP. The private company could think of ways together with the CSDP to stimulate the workers to engage in such volunteering activities. This could also give a sense of pride for the staff members of the private organisation, as they are contributing more to their community (Sagawa & Segal, 2000).

2.4.5. Exit strategy
The ultimate purpose of the CSDP and of other capacity building programs in general is that their existence is no longer needed in the community (Hawe et al., 1997). By building the capacities of the community members and other organisations they could dissolve and focus on other communities. In the case of the CSDP for instance, sport organisations would have enough capacity to share resources and knowledge with organisations of other sectors and consequently would no longer need the bridging function of the CSDP. This would make it possible to gradually focus on other communities or new social innovations without needing more resources. However, even in the communities with a tenancy of fifteen years, the need of the CSDP did not diminish. On the contrary, it increased over time. However, some activities that were initiated by the CSDP are now structurally anchored in the activities of other organisations. A gradual exit strategy would maybe be an option to see which activities would be sustainable without the presence of the CSDP in the community (Davies, 2007). Important for exit-strategies to succeed, is that they should be considered from the outset and be considered as a success (WWF-UK, 2014). The questions that the coordinators of the CSDP would need to ask before thinking of an exit strategy is, when can the CSDP leave; when has the CSDP developed enough capacities together with their partners and with the residents to consider their implementation successful and sustainable? Based on several reports from practice, three core items are listed that would be crucial for the CSDP to prepare their exit (Röngren, 2011; WWF-UK, 2014). A first core item is to have a specific time frame. For instance in community ‘X’ the CSDP will stop within three years. A second item is to communicate this exit to the partners and to build a strategy of sustainability together with the partners and the community residents. Are there some activities
that can be continued without the help of the CSDP? Have community members the capacity to make their own community a better place? Can several sport clubs with the aid of other organisations take over some of the activities of the CSDP? These issues should be talked through with community representatives and stakeholders of sport, health, social, youth and cultural organisations. A last core item is that the CSDP should try to stick to this time frame and try to transfer as much knowledge and competences as possible (WWF-UK, 2014). Along with this exit strategy a new ‘entering strategy’ in a new community could be developed.
3. Limitations and strengths

The value of most academic research resides in the acknowledgement of its shortcomings. The present research does far from escape from certain limitations. In the next sections most pertinent limitations and strengths will be described.

3.1. Limitations

A first limitation was the cross-sectional design of the studies, meaning that data has been gathered at one specific point in time. This precludes any conclusions about causality. For study 1 this implies that the described relations could also be inverse or reciprocal. For example, literature studying the relation between community social capital and physical activity, generally claims that higher levels of community social capital result in more physical activity because of better safety perception in the community, better health norms in the community and better collective efficacy in the community (Ueshima et al., 2010). This study adopted this view and therefore hypothesized that higher community social capital would lead to higher levels of physical activity. However, several arguments can be found for the inverse relationship (i.e., that total physical activity fosters community social capital). For instance, people walking their dog, jogging in streets, running errands by bike or on foot are more likely to make contact with neighbours, which results in more connections and consequently foster higher social capital in their neighbourhood. Studies incorporating a longitudinal design are needed to clarify the relationship between physical activity and social capital.

For studies 2.1 and 2.2 this cross-sectional design implied that it could be that residents with higher levels of sport participation and physical activity chose to live in a community where the CSDP was implemented. To correctly attribute the effect of sport participation and physical activity to the CSDP, a baseline study, assessing the situation before ‘intervention’ of the CSDP could resolve this issue. In this study a pre-post design was not feasible nor desirable for several reasons. First, prior to implementing a randomized control design in a real life situation a sound methodology needs to be developed and tested (Maes, De Bourdeaudhuij, & De Pauw, 2011). The knowledge base on CSDP to promote sport participation, social capital, physical activity, and mental health, was largely lacking. Therefore, the researcher chose to study a CSDP that developed organically over the last 20 years by responding to local need and that was incepted through a bottom-up process of trial and error by sport, social, and health care practitioners. Developing a randomized control design without the valuable lessons that this case-study provided, would be a missed opportunity. Furthermore, in order to map the value of the CSDP, communities without CSDP but with similar socio-economic profile
were added to the design. This allowed to attribute the differences between these communities with higher certainty to the implementation of the CSDP.

A second limitation was related to several of the measures for studies 1, 2.1 and 2.2. Although physical activity was assessed with the IPAQ which has proven to be a valid and reliable questionnaire for measuring physical activity (Craig et al., 2003), some measurement error may have arisen due to over-reporting of physical activity levels of the respondents. More objective measures of citizens’ physical activity levels could include the use of pedometers and accelerometers (Tudor-Locke, Williams, Reis, & Pluto, 2002). Nonetheless, efforts were made to limit potential over-reporting of physical activity levels by using the interview version of the IPAQ. This method of data collection allowed to overcome language and cultural barriers, to decrease response bias, and to increase generalisability of findings.

Regarding social capital, not all dimensions of this multidimensional concept were questioned. Only cognitive social capital was captured and no other common aspects as structural, bonding and bridging social capital were taken into account. This reduced full comprehensibility of how social capital interacted with sport participation, physical activity and mental health in study 1, and how social capital was related with the CSDP in study 2.2. The reason for only incorporating cognitive social capital was to reduce complexity of the model in study 1 and because this type of social capital has proven to relate most consistently to positive mental health.

Other concepts that were not integrated in the questionnaires of this dissertation were social support, social norms, self-efficacy, influence of perception of several aspects of the physical environment. These also constitute important aspects known to influence sport participation, physical activity, social capital and mental health. These variables, however, did not make the cut, as the length of our used questionnaire was already extensive and they were not deemed essential to answer the main aim of this dissertation, being to provide insights into if and how intersectoral partnerships can create value to promote sport participation, physical activity, social capital and mental health in the community.

A third limitation regards the possible confounding bias of residential self-selection. Residential self-selection implies that individuals are likely to select their neighbourhood according to their lifestyle and personal preferences (Ewing & Cervero, 2010). Previous research indicated that next to house price and the desire to live in a quiet neighbourhood, walkability characteristics (e.g. closeness to work/school, traffic safety, amount and quality of sidewalks) were perceived equally important for neighbourhood selection (Van Dyck, Cardon, Deforche, Owen, & De Bourdeaudhuij, 2011). We did not question the residents to what extent the presence of the CSDP was important in their decision
to move to the neighbourhood. It could thus be that those already participating in sport or who want to participate more in sport may choose to live in a community with the CSDP.

One study, however, that studied moving behaviour of people with high and low physical activity levels, indicated that the level of physical activity before moving has no strong associations with the neighbourhood selection (James et al., 2015). Furthermore, to counter possible influence of residential self-selection we have controlled for environmental variables known to correlate with physical activity and sport participation: walkability, recreational facilities, accessibility to sports infrastructure, accessibility to fitness centres, and number of sports clubs. Fisher’s exact test showed no significant differences between program and control communities for the different variables, indicating similarity between the type of community for those variables (Bower, 2003). For these reasons, we assume that, if residential self-selection would have a role in explaining the difference in sport participation and physical activity between CSDP- and control communities, the importance would only be minimal.

A fourth limitation was linked with the evaluation of program tenure of the program. In study 2.2. the outcomes of program tenure were studied at the community, organisational and partnership level. However only three conditions were investigated: communities with a program tenure of fifteen years, six years or without program. No other variance of program tenure was possible in Antwerp. In 1997 the first communities started with the CSDP, due to success, policy makers chose to invest in the CSDP and enabled the expansion to ten communities. After 2007, no further expansion of new communities with CSDP were made. It would have been very interesting to see the outcomes of communities with a program tenure of for instance two years and to question what they considered as key success factors and pitfalls in this early stage. The lack of availability of these communities limits thus our understanding of the effects of program tenure of the program. In the future studies section we elaborate on how program tenure could be better assessed with focus on realist evaluation from the onset of the CSDP.

A fifth limitation concerned the relatively small number of communities (n=9) that were considered in the study design of study 2.1 and study 2.2. This reduced the number of variables that could be added at the second level and limited complex cross-level interactions (Hox, 2002). Adding more communities was not possible because there was only a limited amount of communities implementing the CSDP in Antwerp. For clarity purposes, communities in the context of this study comprised two to four adjacent statistical sectors, which are the smallest units for which information on income, ethnicity rate, and other socio-economic factors was available. In total seventeen communities implemented the CSDP. However as we did not want to measure multiple communities
with the same method of implementation, the total was diminished to ten potential program communities. From these ten communities, only five adhered to the selection criteria (i.e. having sport offerings for both children and adults and collaborating with a minimum set of organisations).

A sixth limitation involved the generalisability of the findings. The question to what extent the results of the selected CSDP in Antwerp in study 2.1. could be repeated in other cities remains to be seen. The CSDP in Antwerp was chosen because it was considered to be the best case of CSDP in Flanders. It is likely that other CSDP in Flanders, that do not dispose of the same financial resources, would not have the same impact on the sport participation levels in their community. Moreover, influence of context is known to play a crucial role in outcomes of programs (NSW Health Departement, 2001; Pawson, Greenhalgh, Harvey, & Walshe, 2005). Dependent on the socio-economic characteristics of the people living in the community, the sport and recreational infrastructure and the experience of the key stakeholders with community development and partnerships, other activities would be needed and different outcomes of the CSDP could be expected (Trickett et al., 2011). However, study 2.2 and study 3 provided insights in the mechanisms of how the results of study 2.1. were attained. Several of these mechanisms discovered by the qualitative analysis of study 3 and the mixed method design of study 2.2 were congruent with results of other studies and consequently have a larger external validity (Mandell & Keast, 2008b). Furthermore, the use of multiple cases enabled comparisons between these cases and provided a stronger base for theory building (Eisenhardt & Graebner, 2007; Yin, 2013). Nevertheless, studies in other cities are needed to confirm or contradict the robustness of our findings.

3.2. Strengths
Undoubtedly, the disadvantaged context in which the studies took place are is one major strength of this dissertation. Many researchers advocate studies in disadvantaged communities because in most cases this is where most health improvements can be made (Marmot et al., 2008; Saxena, Sharan, Garrido, & Saraceno, 2006). The question as to how disadvantaged communities and its inhabitants can be reached remains largely unanswered. One merit of study 2.1 and study 2.2 is that they answer the request of researchers to study capacity building programs in these disadvantaged communities. Current limitations that hamper progress in this area of research are low response rates and consequentially biased samples in the disadvantaged communities, the lack of control communities to compare results with (Cleland, Tully, Kee, & Cupples, 2012), and the absence of a multilevel design to capture community effects (Hox, 2002). The major strengths of study 2.1 and study 2.2 lay in overcoming these limitations. The first strength is related to the methodology of data collection; all respondents were visited at home to overcome
language and cultural barriers, to decrease response bias, and to increase generalisability of findings. Although this method was very time consuming, it eventually resulted in a higher response rate, more accurate answers and a higher external validity. The second strength was the selection of control communities based on their similarity of CSDP-communities for several socio-demographic and socio-economical characteristics linked with physical activity and sport participation. Moreover, data of environmental variables were collected to control for possible mediating or moderating variables of sport participation. Since communities were situated in the same city and had similar environmental, socio-demographic, and socio-economical characteristics, comparability between program and control communities was maximized. This makes it more likely that results can be allocated to the CSDP and not to other contextual variables. Finally, the present study made use of multilevel techniques that are advocated to capture community effects of population health (Hox, 2002).

Strengths of study 2.2 and study 3 were related to the accountability of several of the methodological restraints that have hindered progress in research of partnership studies. Firstly, the stage of development of the partnerships is generally not considered in empirical research (Sydow, 2004). The studies therefore investigated multiple cases including experienced communities, where the CSDP was implemented since 1998, semi-experienced communities, where the CSDP was implemented since 2007 and control communities, without CSDP. Secondly, opinions of multiple stakeholders at different administrative and implementation levels of the program are often not taken into account (Provan & Milward, 2001). This limitation was accounted for by collecting qualitative data of community sport, health, social, culture and youth partners both at the community and city levels. Finally, empirical evidence of the outcomes of partnerships at the population level is often lacking (Baker et al., 2012). To account for this critique, study 2.1 explored the question of whether communities with a CSDP had higher levels of sport participation than control communities without a CSDP. This design authorized to rightfully identify the key elements of cross sector partnerships that build capacity in study 3 and helped finding the mechanisms that could explain the results of study 2.1.

Finally, one of the biggest overall strengths was the links and the insights that could be derived out of the broad scope of topics that were discussed throughout this thesis (i.e. sport participation, social capital, physical activity, mental health, capacity building, intersectoral partnerships, community sport development programs). This inclusion allowed to gain more information into how these topics are connected and can strengthen each other. Furthermore, different types of analysis were executed (i.e. the use of SEM, multilevel analysis and qualitative data analysis), which allowed to give
a more accurate answer to the different research questions in this thesis. However, one of the biggest general limitations comes forth out of this strength. The examined topics cross the boundaries of fields of social, health, and management science. A multidisciplinary team of researchers grounded and educated in these fields would be able to provide a more in depth understanding of certain of the study results. Although the researcher has a background in management, sport and health sciences with an interest in the social sciences, profound knowledge and affinity in all these fields is hard to acquire for one researcher. This limitation was nonetheless compensated by the experience of the supervisory board and the consultation of practitioners from the different sectors.
4. Implications

Multidimensional, wicked challenges as Sport for All cannot be managed by one single organisation. It requires a collaborative, intersectoral approach that fosters an integrated and holistic response. Although intersectoral partnerships are widely recommended, putting them in practice seems difficult. To support the implementation of intersectoral partnerships in practice, the present thesis proposes a five-step model for organisations that want to start to engage in such partnerships. Next, implications for policy are outlined and recommendations are given to make intersectoral collaborations in sport the obvious choice.

4.1. Practical implications for intersectoral partnerships in sport: the five step model

Literature concerning partnerships is numerous. Several good manuals exist that help to understand the ins and outs of partnerships, of particular interest is the book of Kaats and Opheij (2012). The purpose of this section is not to provide an additional manual, it rather aims to provide a guideline for organisations that want to engage in intersectoral partnerships in the setting of promoting sport or its associated benefits. Results of the present doctoral thesis and international literature give way to a five step model of intersectoral partnerships. These steps can be a useful guideline in maximizing the output of intersectoral collaboration in a sport setting in order to reach own organisational goals and to reach goals at the community level by increasing sport participation, physical activity, social capital and mental health. Of course, depending on the situation, these steps can take other routes and can be less clear than here presented. In order to make these steps more tangible, the model is presented from a practitioners point of view who wants to engage in intersectoral collaborations, these steps are depicted in figure 13.
A **first step** is defining the organisational goals that you want to reach with the intersectoral partnerships. Results of collaborations in the CSDP showed that sport organisations and clubs were interested in increasing the number of people participating in sport, increasing the number of club members and volunteers and taking up their social role in the community. Social organisations engaged in these partnerships because it was a vehicle to empower their target group by means of sport and it created places where they could meet, interact and focus on something else than their problems. The motive for health organisations to start such partnerships, were the increased opportunities for their target group to be more physically active. Cultural and youth organisations were interested in reaching more participants to their activities and create a more efficient and effective leisure offer.

A **second step** consists of identifying the partners in the community that have the capacity to help to accomplish the organisational benefits you want to achieve from the partnership. Starting and leveraging available capacities in the community is one of the core principles of capacity building (NSW Health Departement, 2001). In our study of the CSDP, this aspect was determined as was one of the main reasons of success of the CSDP. Ideally, capacities of all organisations in the field are known and rational decisions can be made to which organisations would be best suited. However, in most cases this knowledge is absent, and this second step in the model presents itself as probably one of the hardest ones to take. This is especially true for the sport sector, as in many cases these sport organisations work in silos and consequently are not aware of the capacities of other
organisations that could help the sport organisations in attaining their goals (Barnes et al., 2007). In the case study of the CSDP, this knowledge gap was filled by the CSDP. They connected information, skills, resources between the sport organisations on the one hand and the youth, health, social and cultural organisations on the other hand. These links enabled the provision of a better sport offer tailored to the needs of the residents in the disadvantaged communities. Staff members of the CSDP invested time in going to different reunions on sport, youth, health and social topics in their community and introduced themselves, the activities and the aims of the CSDP to the different partners in their community.

Of course other possibilities can help to overcome this step. A broad personal network of the organisation’s leader is generally important in identifying the right partners (Cross, Borgatti, & Parker, 2002). Social network analysis has been found useful to determine formal and informal information and resource flows between different sectors (Cross et al., 2002). Also, a good website at the municipality and community level that maps the organisation, its tasks and contact information can contribute to this step.

A **third step** in maximizing the output of intersectoral partnerships is focusing on fostering mutual trust. Findings of the study on how intersectoral partnerships built capacity described how personal contact and external focus were crucial aspects to foster trust in the case of the CSDP.

Personal contact refers to the match between the individuals that will collaborate. Selecting the most qualified member in your team to cross bridges is thus very important to increase trust. Several aspects are important to take into account. For instance, people who are open and extravert are in most cases best suited to foster trust among different organisations (Foster-Fishman et al., 2001). Although these characteristics can be detected intuitively, tools exist to assess who would be the best man/women for this assignment. The cognitive style indicator for example indicates whether you are more a knowing, planning, creating or collaborating type of person (Cools & Van den Broeck, 2007). Another important matter is the ability to relate to the culture of the other partners (Stegeman, Kuipers, & Costongs, 2012). In the study of the CSDP, a difference was noted between members of the partnership. Sport organisations were more action-oriented, whereas social organisations invested more time in creating a shared vision before taking action. Health organisations tended to rely more on evidenced based programs as a basis for their actions. These differences in culture have also been acknowledged in other studies (Casey et al., 2009; Vail, 2007).

External focus is another crucial aspect to build trust. External focus relates to the extent a person looks to reach own organisational benefits by creating organisational benefits for other organisations. If a person tries to reach own organisational goals by engaging in activities of other partners, it is considered a person with external focus. Staff members of the CSDP with an external
focus were much faster in creating mutual trust than internal oriented persons. One study concerning crossing bridges in Europe found that the fastest way to reach own organisational goals is through the perspective of ‘what is in it for them’ (Stegeman et al., 2012). It is therefore crucial to understand the language, culture and priorities of other sectors’ organisations (Stegeman et al., 2012). Results from the study of the relation between the CSDP and sport, social and health outcomes suggested that a mix of staff of sport and social practitioners in the CSDP resulted in the best outcomes. One item that might facilitate this external focus, is having one practitioner that is mutually paid by sport, social, health, youth and cultural organisations (Van Lindert et al., 2014).

A fourth step concerns making the partnership concrete and involves making collaborative strategic choices. This implies that the organisations in the partnerships must decide on the purpose of the partnerships, divide the tasks, delineate roles, make the desired objectives SMART (specific, measurable, achievable, relevant, time-bound), address how they will be in contact with each other and how they will evaluate both process and outcome (Provan, Veazie, Staten, & Teufel-Shone, 2005). This step is, however, not so straightforward as it assumes to be. Translating mutual goals in actions is often a difficult process (Kaats & Opheij, 2012). Huxham and Vangen (2004) indicate that often the only practical way forward is to get started on some action without fully agreeing to the aims. Results of the CSDP-study indicated that a clear role and task delineation resulted in higher trust to reach the mutual objectives of the partnership. Process evaluation enabled to share more skills and knowledge for the different partners in the CSDP. Of course, much is relying on what you want to achieve. This can range from promoting the partners’ activities in your facilities, organizing a mutual activity involving sport or physical activity, building mutual infrastructure and sharing staff members. Deciding on the best type of governance will largely be influenced by the type of partnership you engage in. For example, a partnership concerning building a new type of sport infrastructure will need to be more formalized than partnership concerning a mutual sport camp.

A fifth and final step consists of the evaluation of step 1: did the partnership add value to obtain one of the organisational benefits that you wanted to accomplish through this partnership? If not, you can choose to stop the partnership, if it did, you can continue and even expand your partnership. One crucial aspect to take into account in this phase, however, is time. Results in the CSDP-study indicated that it took time for the CSDP to show results and create legitimacy. However, once results were shown, more partners were willing to collaborate with the CSDP, and with more critical mass, even more positive results could be acquired. This notion is closely linked to the phenomenon of the ‘Matthew effect’, which indicates that advantage breeds more advantage (Merton, 1988). This has much to do with step 3, where trust needs to be created. It takes time for each partner to
understand the language and culture of the partners of the other sectors (Edwards, 2015). Therefore, it is advised for organisations new to collaborating, to start with smaller projects, to gradually build the needed capacity to collaborate. Of course, if you notice that the potential is missing in the specific partnership, it is better to focus time and energy on other partners.

If you did find the partnership valuable to reach your own organisational benefits, you want to make them sustainable and maybe engage in other and more partnerships to reach different organisational goals. To increase sustainability, you need to make sure the needed resources are available (Babiak & Thibault, 2009). One key element that helped in acquiring resources in the CSDP-study was policy support. Findings indicated that having partners that express the value of your organisation was an important element to convince policy makers to invest in the partnership. Another important factor to convince policy makers were metrics of results. The CSDP can present numbers and figures for each of their activities. For example, the CSDP could show that in one year 613 people learned how to ride a bike due to the activities of their bike school. This was one of the arguments that helped the CSDP in sustaining (and increasing) its funding.

If you want to engage in more partnerships, results of the CSDP showed that diversifying in the activities permitted to expand the amount of partners because the CSDP could deliver an added value for more partners. Another possibility would be to shift from a more cooperative to a collaborative partnership (McNamara, 2012). In the latter tie strength and integration of the different organisations in the partnership is greater. In general, partnerships that are more integrated and have a bitter mutuality, can deliver better results, but also accompany greater risk (Keast et al., 2004).

4.2. Policy implications: making intersectoral collaborations the easy choice
Several barriers that hinder organisations to engage in intersectoral partnerships are the fear to lose autonomy, distrust in partners, considering partnerships too complicated and time consuming (Williams, 2005). Policy cannot impose intersectoral partnerships to the different actors, however, policy can lead by example, stimulate intersectoral projects, diffuse knowledge, provide tools that can help to make intersectoral partnerships the easy choice.

A first recommendation is stimulating intersectoral projects. Results of the studies in this dissertation showed that sport participation, social capital, physical activity and mental health are interrelated and can strengthen each other, especially when the participation of sport takes place in a social context. Another main result of this doctoral study was that residents of communities with CSDP demonstrated higher levels of sport participation, sport club participation and physical activity compared to communities without CSDP. This relationship was found both for disadvantaged groups
as the general population in the communities. The main policy implication following out of this dissertation is that policy makers should enable more resources in the municipalities to develop CSDPs. Results indicated that a form of organisation or person is needed to bridge the gap between sport, social, health, cultural and youth organisations and facilitate sharing of their capacity.

Another option for policy makers could be to allocate resources to a mutual staff member that would be partly institutionalised in sport and partly in social and health organisations to facilitate the connections between these different organisations.

Furthermore in a CSDP in England, good results were found when small grants were allocated to local organisations to engage in intersectoral partnerships with sport. This helped to build a climate of trust (Sport England, 2006).

Moreover, results from this study showed that when cultural, financial and organisational support was given to sport clubs, these clubs were able to successfully attract and engage disadvantaged target groups. Policy makers at municipality and state level could implement guidelines and subsidies that would facilitate this kind of support for these open sport clubs.

Second, policy makers at city and state level should lead by example and need to collaborate as well. Stimulating partnerships at the local level, but not engaging in these partnerships at city and state level, would give the wrong image. Change management is known to start at the top (Jones et al., 2004). One good example of intersectoral collaboration at the state level is found in the Netherlands. The Dutch government invested 261 million euro in intersectoral projects of ‘sport and moving in the community’ (Van Lindert et al., 2014). This is a program with similar goals as the CSDP of the present dissertation. This budget was provided by the ministries of Public Health, Well-being and Sport on the one hand, and by the ministries of Education, Culture and Science on the other hand.

Third, diffusion of knowledge is crucial in intersectoral collaboration and capacity building (Hawe et al., 1997). Several initiatives could be supported by policy makers to assist this diffusion of knowledge. Workshops on success factors and pitfalls of intersectoral collaborations could be one example. Ideally, these workshops would be held at the local, municipality and state level for representatives of health, social, sport, culture and youth organisations. These workshops would need to have an experienced-oriented component to make intersectoral collaborations more tangible (Chambers, 2002). After this component, participants of the workshop could think about how intersectoral collaboration could provide an added value in their communities, municipalities and state. The five-step model to maximize output of intersectoral partnerships (fig. 13) could be used to guide this process.
Next, a learning platform concerning intersectoral collaborations could be installed both online as in vivo. This platform could give practical examples on how added value can be attained by intersectoral partnerships. Next to good practices from the CSDP, they could also be enriched with other intersectoral programs in sport as extracurricular school-based sport (De Meester et al., 2014), whole community physical activity projects as ‘10 000 steps’ (Lucidarme et al., 2013), programs that use professional sport athletes to diffuse healthy norms as for example ‘Health scores’ (Dubuy et al., 2014) and programs in joint collaboration with the private sector as for example ‘bike to work’ (Dubuy et al., 2013).

Finally, policy makers need to know that intersectoral partnerships take time to achieve results and build capacity (Labonte et al., 2002). Once capacities for collective action are available they have the ability to multiply health results (Edwards, 2015; Hawe et al., 1997).
5. Future research

The present thesis tried to contribute to the knowledge base on if and how intersectoral partnerships create value to promote sport participation, physical activity, social capital and mental health. To gain more understanding of how intersectoral partnerships can be formed, managed and sustained, future research and fieldwork is necessary. Some steps and direction for future research and fieldwork are outlined which will be crucial to add to this highly valuable field of research.

First, intersectoral partnerships in other community sport development programs in different cities need to be explored to have a better idea on how context influences management decisions and outcomes of intersectoral partnerships. This research should ideally be executed by a multidisciplinary team of researchers, practitioners and policy makers (Molleman & Fransen, 2012). These researchers would best be grounded and educated in the fields of social, health, and management science, practitioners would come from sport, health, social, youth and culture service organisations and policy makers would have a mandate in health, social, sport, youth and culture policies (Flay, 1986). The research of CSDP in other cities could lead to a better understanding of what works for whom in which circumstances. These studies could focus specifically on how the CSDP could leverage social capital and mental health with the help of social and health services. In study 2.2, of this dissertation these associations were only indirectly noted.

Second, using the additional information gained by these studies in other cities and information of this present dissertation, sufficient information would be available to test the effectiveness of these programs through a randomized controlled trial design (RCT). A well conducted RCT remains the best study design for determining a causal relation between an intervention and its outcomes (Rychetnik et al., 2012). However, mostly RCT is associated with standardization and a ‘one size fits all’-design (Rychetnik et al., 2012). This would not be the case of RCT of the CSDP. The CSDP would need to be responsive to context. Instead of defining the intervention components as standard, the key function of these components would be standardized allowing the form of the intervention to be tailored to local conditions (Hawe, Shiell, & Riley, 2004). For example, several of key functions derived from this doctoral study are setting up an intersectoral task force at the community and city level, identifying change agents in the community, applying different workshops on how to build a learning network with different actors and how to support sport clubs dealing with disadvantaged target groups. A central principle of this CSDP would be departing from the available capacities in the community. A
RCT in this case would thus relate to a baseline measurement and follow up studies in both of sport participation, physical activity, social capital and mental health in CSDP and control communities. A follow up study would ideally take place after three to five years as several studies have indicated that this is the time frame needed for collaborations to produce tangible outcomes (Kenis & Provan, 2009; Raab & Kenis, 2009). The RCT would provide in empirical evidence of partnership outcomes.

Third, another important element of evaluation would be the use of community based participatory research (CBPR) embedded in a realist evaluation. The basic principle of CBPR is that community members and organisational representatives become part of the research team and researchers become engaged in the activities of the community (Israel, Schulz, Parker, & Becker, 1998). Realist evaluation aims to discern what works for whom, in what circumstances, in what respects and how (Pawson et al., 2005). This would allow for richer information about overcoming several factors hindering change or good implementation of the program both for practice and for research. As mentioned in previous chapters, one limitation of study 2.2 and 3 was that they were conducted at one moment in time, missing out on the processes of several crucial decisions that needed to be taken. A realist evaluation would be able to provide information on stage of development, on new emerging opportunities and pressures to the CSDP as the integration of the administration of the CSDP at the city level, and the departure of one of the central staff members of the CSDP. This knowledge could then in turn be used to inform CSDPs in other cities and communities.

Fourth, focusing on intersectoral partnerships in other community projects involving sport and physical activity would also expand our knowledge concerning the mechanisms of these partnerships. One study that already explored partnerships in physical activity promotion is the study of Lucidarme et al. (2013). Other projects that would be interesting to look at with a partnership lens would be extracurricular school-based sport (De Meester et al., 2014), ‘Health scores’ (Dubuy et al., 2014), ‘bike to work’ (Dubuy et al., 2013). These projects would add other interesting information on the mechanisms of intersectoral collaborations between sport, social, health, youth, culture and private organisations. The design of these studies should integrate opinions of multiple stakeholders at different administrative and implementation levels and empirical evidence of the outcomes at community, organisational and network level and should take stage of development of the partnerships into account.

Finally, the use of social network analysis would be another interesting aspect to study the complex network structures in the promotion of sport participation, physical activity, social capital and mental
health. Social network analysis enables the mapping of the network and thus also to identify areas where the network could be further developed (Buchthal, Taniguchi, Iskandar, & Maddock, 2013; Scott, 2012). It further provides knowledge regarding in- and outflow of information and resources (Cross et al., 2002). Regarding the topic of CSDPs, social network analysis would be especially interesting to study to what extent sport organisations use other community organisations to promote sport participation of disadvantaged groups. In study 2.2. for instance, analysis of our interviews in control communities detected a gap between sport organisations on the one hand and health, social and cultural organisations on the other hand to promote sport participation in general and for disadvantaged groups in specific. Social network analysis could research this finding in other communities and cities, to more objectively assess the gap of sport promotion of disadvantaged groups.

Finally, an ambitious research project in Flanders, that holds several links to the subject of this dissertation, has recently been approved and funded by Flanders Innovation and Technology. This project is called CATCH, an acronym that stands for ‘Community sports for AT-risk youth: innovative strategies for improving personal development, social cohesion and Health’. The purpose of this project is to investigate to what extent several CSDPs in Flanders can improve health, social cohesion and personal development. This research project will be organised by the Ghent University, the Free University of Brussels and several organisations active with CSDPs on the field. It will be interesting to follow the results of the CATCH project and to see in what respect it can add further insights to the findings of this dissertation.
6. References


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