THE EFFECT OF A COMMUNITY SPORT PROGRAM ON HEALTH AND SOCIAL CAPITAL THROUGH SPORT PARTICIPATION

Abstract

Evolutions in the public health, social and sport sector have made collaboration a bare necessity. Policy makers realize that these inter-sect collaborations are mandatory, but find little research to base their decisions on (Klesges, Dzewaltowski, & Glasgow, 2008). This study wants to provide empirical evidence to policy makers and practitioners by investigating the effectiveness of a community sport program in Flanders (i.e., the Dutch-speaking part of Belgium). This project aims at building community capacity to raise social capital and health by increasing sport participation and is directed to people who experience higher thresholds to engage in sports.

Four communities implementing the community sport program were selected through stratified random sampling. Four control communities similar to the sport program communities were chosen to compare the results. Two hundred adults (aged 18-56 years) of each community were randomly selected. Potential respondents were visited at home and asked to respond to a questionnaire constituted of six parts: socio-demographics, physical activity, sport participation, community sport, health and social capital. At least 40 respondents per community needed to fill in the questionnaire.

At the EURAM 2013 we intend to present the effects of this community sport program to sport participation and its effects on health and social capital.

Keywords: sport participation, social capital, health, community capacity

Introduction

Various evolutions in the public health, social and sport sector have brought the policy of these sectors closer together. In public health, 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). Social policy spends resources in sport to include minority groups in the society and to augment social capital in the communities. Also the sport sector's policy focuses more on "sports for all" to engage a larger part of the population in sports activities. To cope with those related needs many researchers advocate a community capacity building approach (Hawe, Noort, King, & Jordens, 1997; Vail, 2007). Empirical evidence, however, from projects that focus on building community capacity by investing in sport participation are scarce. This study focuses therefore on a specific methodology implemented in Flanders (Belgium): 'The community sport program'. This project aims at building community capacity to raise social capital and health by increasing sport participation.

Community capacity building

The concept community capacity building is commonly used in health promotion and its value is widely reckoned (Hawe et al. 1997). Smith et al (2006) state in the World Health Organization (WHO) Health Promotion Glossary that it has its influences on three levels of health promotion. First on the practitioners level by improving their knowledge and skills. Second on organizational level by expanding the support and infrastructure. Third on partnership level by strengthening the cohesiveness. Although most research concerning community capacity building has taken place in a health promotion context, Simmons et al. (2011) state in a review about defining the term community capacity building that the specific setting needs to be taken into account. Earlier research that studied community capacity

building in a sport context found that it has potential to increase sport participation (Vail, 2007). Also Frisby and Millar (2002) conclude that community capacity building shows considerable promise for including those who are least likely to be involved in the planning and participation of local sport and recreation programs (Frisby & Millar, 2002). Despite these promising results few studies further invest in analyzing this relationship. This research tries to extend the current body of knowledge by investigating a community sport program that wants to raise social capital and health by increasing sport participation.

Community sport program

The community sport program in Flanders (Belgium), which is subject of this study, is directed to people who experience higher thresholds to engage in sports. This means that especially female (Trost, Owen, Bauman, Sallis, & Brown, 2002), unemployed (Ali & Lindstrom, 2006), low socio-economic-status, and people from ethnic minority groups (Crespo, Smit, Andersen, Carter-Pokras, & Ainsworth, 2000) are targeted. The program focuses on lowering thresholds concerning mobility, financial effort and commitment demands. These thresholds are perceived as bigger barriers for ethnic minorities and low income-respondents (CDC, 2003; Moore, 1996; Powell, 2004). Mobility thresholds are lowered by locating the activities in the community, financial effort to participate is reduced to a minimum and no weekly commitment is required. Another very important aspect of the program is the collaboration between the sport, health and social sector.

The community sport program has three specific activities. Firstly a partnership activity. This consists of providing and gathering information to and from the sport, health and social organizations. Building partnerships is one the core-elements of the community capacity building theory that determines the success for the program (NSW Health Department, 2001). Secondly a supplying activity. On one hand this involves setting up low

threshold sport activities in the community to reach the target population. On the other hand it implies actively supporting sport activities from partner organizations and creating new sport facilities and resources. This supplying activity adds to the organizational level by expanding support and infrastructure according the community capacity building theory (NSW Health Department, 2001). Lastly a bridging activity to the regular sport clubs. This concerns visiting people from the target group in their homes and asking about their favorite leisure time occupation and if they are interested in sports. The people get accompanied the first time to the sport club and are introduced to the staff, again in an attempt to take away possible thresholds. The skills and knowledge of the practitioners who carry out these activities are augmented by organizing a weekly platform where experienced problems and good practices are discussed. The goal of the community sport program is to raise social capital and health in the community by increasing sport participation. The relation between sport participation, health and social capital has been subject to many research. We will review these relationships to give a better understanding on how these variables are interrelated.

Sport participation and health

The effects of sport participation and physical activity on physical health are well understood. Physical activity is related to a lower risk of obesity, diabetes, coronary heart disease and some cancers (USDHHS, 1996). The need to increase physical activity is, therefore, considered a public health priority (USDHHS, 1996), and guidelines for health related physical activity have been established: adults should do at least 150 minutes a week of moderate intensity, or 75 minutes a week of vigorous-intensity aerobic physical activity, or an equivalent combination of moderate- and vigorous intensity aerobic activity. Aerobic activity should be performed in episodes of at least 10 minutes, and preferably, it should be spread throughout the week (Garber et al., 2011). 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, 2007). This is even more so for people with a low SES and ethnic minorities (USDHHS, 1996). Concerning sport participation Crespo, Keteyian, Heath, and Sempos (1996) found that ethnic minorities engage in less Sport participation than the other population. The reason for racial/ethnic differences in Sport participation remains unclear. Research suggests that the higher prevalence of leisure time inactivity observed among minorities in the Unites States are moderated by differences in social class (Marshall et al., 2007). But social class doesn't fully explain this relation (Crespo, et al., 2000), other aspects such as cultural influences play also part in this relationship (Crespo, Smit, Carter-Pokras, & Andersen, 2001). Since the year 2000, national health objectives have called to reduce the disparity in physical activity between the general population and racial and ethnic minorities, and many actions have been set in place to reach those objectives. The question that remains is what works for whom in which context (Glasgow, Klesges, Dzewaltowski, Bull, & Estabrooks, 2004; Klesges, et al., 2008). Public health workers, educators, and policy makers are waiting for empirical data on sport participation programs that answer this question. This research about the community sport program contributes, among others, to those queries.

Sport and physical activity isn't only beneficial to physical health, it has also proven to have beneficial effects on mental health (Bize, Johnson, & Plotnikoff, 2007; Penedo & Dahn, 2005). The Physical Activity Guidelines for Americans (2008) acknowledges that physical activity protects and reduces depression, protects and reduces anxiety, delays cognitive decline and contribute to overall quality of life, such as self-esteem and feelings of energy or fatigue. Although this association acknowledges the positive effects of physical activity on mental health, it doesn't provide specific guidelines. This results from the complexity of the relation (Asztalos et al. (2009). Where physical activity and physical health are dose-response related. A consistent dose-response relation between physical activity and mental health has

not been found. In a national representative sample of adults Goodwin (2003) found that regular physical activity was associated with a significantly decreased prevalence of current major depression and anxiety disorders. He also identified a dose-response relation between self reported physical activity and current mental disorders. In a study of Abu-Omar (2004) different relations were found across different nations in the European Union between physical activity and mental health. In some nations data suggested that there might exist a dose-response relationship, while in other nations this relationship could not be observed. Researchers are still figuring out which type, duration, level or intensity of exercise might cause a better mental health (Brosse, Sheets, Lett, & Blumenthal, 2002). Also the effects of individual characteristics as gender, SES, ethnicity remain unclear in the relation between physical activity and mental health. Bhui and Fletcher (2000) found that only men who perform physical activity of long duration confer protection against common mood and anxiety states. They didn't find the same protection for women. In contrary Brown et al. (2003) didn't find significant differences between men and women in a study of 175.850 adults concerning the relation of physical activity and health-related quality of life. They did find an overall positive association between physical activity and mental health. Asztalos et al. (2009) discovered that especially unemployed people with higher levels of sport participation showed less stress and less distress. This study about the community sport program wants to add to the body of knowledge by investigating the impact of physical activity on mental health.

Sport participation and social capital

Social capital is a broad concept that exist of different parts . It is necessary to make a distinction between these parts because they have a different relationship with health.

Firstly a distinction is made between cognitive social capital and structural social capital (REF making democracy work civic traditions in modern Italy, Putnam 1993). This distinction is important because of its different association towards mental health (Harpham, 2008). High levels of cognitive social capital are related to good mental health, whereas the relationship between structural social capital and mental health is ambiguous (De Silva, 2006). Two key concepts of cognitive social capital are trust and reciprocity. Trust is defined by Rahn and Transue (1998) as "*a standing decision to give most people -even those whom one does not know from direct experience - the benefit of the doubt"* (p.545). Reciprocity refers to "*the provision of resources by an individual or group to another individual or group, and the repayment of resources of equivalent value by these recipients to the original provider* (Baum & Ziersch, 2003), p 321. A key concept of structural social capital is the social networks. Social networks refer to the ties between individuals or groups (Baum & Ziersch, 2003). This concept can be split into formal and informal networks. Where the informal networks represent the ties between friends, neighbors, and family, and formal networks the ties in formal organizations such as sport, or work. It may seem odd that structural capital's relationship with mental health is ambiguous. One might think that the more connected you are the more benefit you experience for your mental health. Ziersch and Baum (2004), however, found that having a lot structural social capital is related to poor mental health. They conclude that high structural 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. A second 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 the society (Narayan, 1999). They may also have adverse consequences for others for instance 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), for instance ties in sports, politics, religion. Figure 1 illustrates the different aspects of social capital.

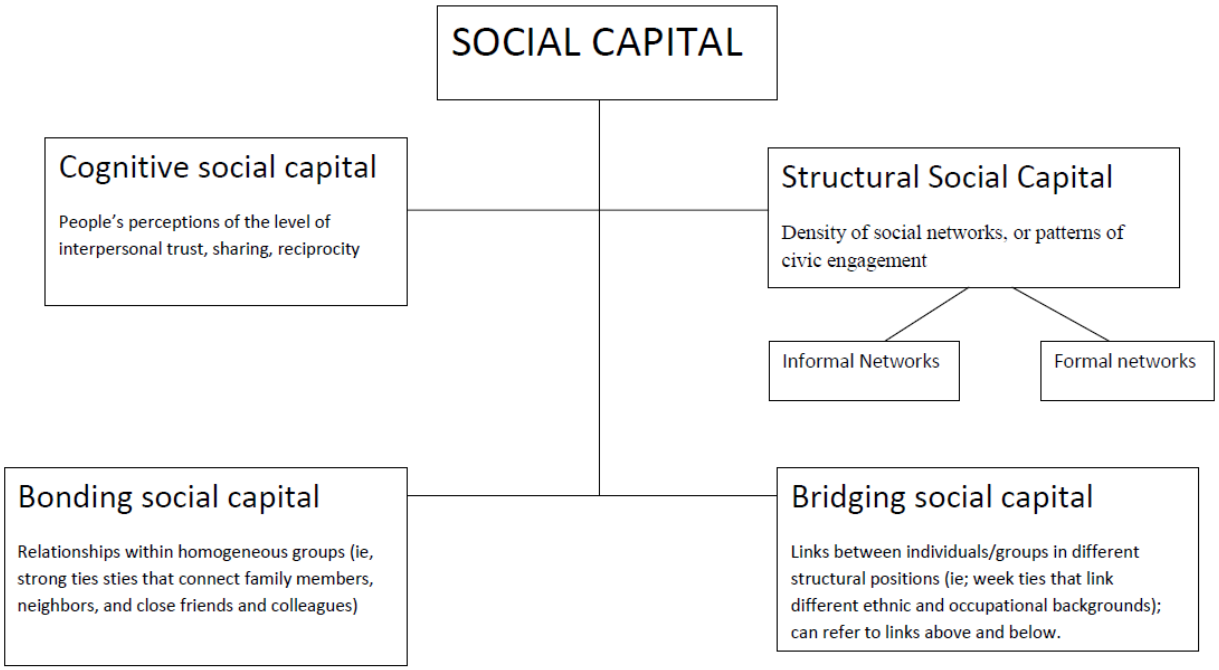

Figure 1: overview of social capital, adapted from Islam et al.(Islam, Merlo, Kawachi, Lindstrom, & Gerdtham, 2006)

A crucial element of social capital is participation in civil society according to most theorists (Baum & Ziersch, 2003). Since the WHO Health for All Strategy participation has been central to health and its importance to health promotion strategies was reinforced in the WHO Ottawa Charter for Health Promotion. Participation in social and civil activities can be stimulated by means of sport. In many western countries, voluntary sport organizations make up the largest part of the voluntary sector (Seippel, 2006). But little research has been done so far on the contribution of sport to a lifestyle of community participation (Perks, 2007). This study concerning a specific community sport program wants to contribute to fill this gap.

Research questions and hypotheses

A review of the literature indicated the potential effects of a community capacity building approach to sport participation, especially for the ones who experience higher thresholds to engage in sport. Despite this high potential, few researchers have investigated sport programs which aim at increasing sport participation through a community capacity building approach. This is remarkable since the need to increase physical activity and reduce disparity in physical activity is considered a public health priority. Also social policy acknowledges the value of sport participation for social capital of the community, but have little empirical data on how this sport participation improves social capital. To fill these gaps this study investigates the effects of a community sport program using a community capacity building approach. It looks also on the effects of the sport participation on health and social capital in the community. In conclusion this study raises two principal questions:

a) Does the community capacity approach raise sport participation in the community?
b) What are the effects of community sport on health and social capital in the community

From the literature review we distillate several hypotheses. Figure 2 illustrate these hypotheses in a theoretical framework:

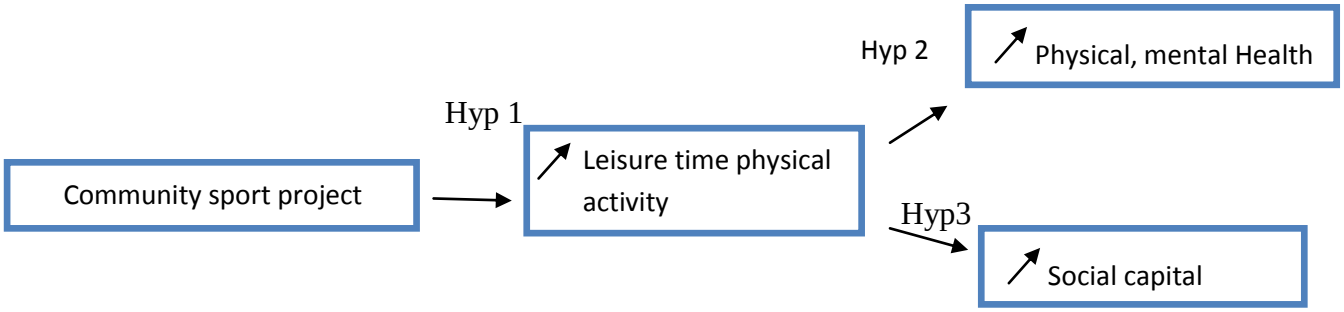

Fig 2: Framework of the theoretical effects of the community sport project on physical and mental health and social capital by increasing sport participation

a) HYP 1: The community sport program improves sport participation
b) HYP 2: The community sport program improves physical and mental health indirectly through the benefits of sport participation
c) HYP 3: The community sport program improves social capital indirectly through the benefits of sport participation

Methods

Sampling

The study was conducted in Antwerp (506,225 inhabitants, 204.26 sq km, 2478 inhabitants /km²). Data were collected between January 2013 and March 2013. The study was approved by the Ethics Committee of the Ghent University Hospital (UZ Ghent) and participants gave written informed consent.

In total 17 communities of the existing 62 communities located in Antwerp implemented the community sport program. The program targeted mainly communities with inhabitants that perceive higher thresholds to engage in sports. The 17 communities therefore have a lower average income, a higher percentage of immigrants and a higher unemployment rate than most of the other communities. Four communities out of those seventeen were selected for evaluation through a stratified random sampling. Four control communities similar to the sport program communities were chosen to compare the results. Table 1 expresses the profile of the program and control communities.

Table 1: Comparison of the program communities (PC) on the left (PC1, PC2, PC3, PC4) and control communities (CC) on the right (CC1, CC2, CC3, CC4)

Program Community	inhabitants/km²	Immigrants rate	unemploymente nt rate	Average income
PC1	14 272	53.2	15.6	15 270
PC2	3.827	50	16.8	16 364
PC3	15.487	53.1	13.6	18 754
PC 4	4.263	42	12.7	17 395
Profile PC	9.462	50	15	16 946

Control Community	inhabitants/km²	Immigrants rate	unemploymente nt rate	Average income
CC 1	10 492	58.7	10.5	14 741
CC 2	9 322	37.2	9.9	16 872
CC 3	14 325	35.5	11.5	15 902
CC 4	10 440	34.7	11.4	20.430
Profile CC	11 145	42	11	16 986

After community selection, the Public Service of Antwerp selected a random sample in each community of 200 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 day to find someone at home. Before participating respondents needed to complete a written informed consent. The researchers conducting the visits were able to speak English and French to assist if participants showed difficulties responding in Dutch. Because of the high percentage of North-African immigrants one researcher had an Arabic mother tongue and visited those where language remained a barrier. Respondents were asked to respond to a questionnaire constituted of six parts: socio-demographics, physical activity, community sport program, sport participation, health and social capital. Each part will be further explained in the next section.

Measures

Socio-demographics

Participants were asked to give information about gender, age, marital status, education, home ownership, nationality, country of birth, country of birth of parents, employment and income.

Physical Activity

Self-reported 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-administration version (Rzewnicki, Vanden Auweele, & De Bourdeaudhuij, 2003). The IPAQ has good reliability (intra-class range from 0.46 to 0.96). Criterion validity, assessed against the CSA accelerometer is fair-to-moderate with a median rho = 0.30((Craig et al., 2003).

Community sport program

Respondents were asked several questions concerning the program: "Do you know the community sport program; how important do you consider the community sport program, has someone of the community sport program informed you of the sport offer in the community; have you already participated in one of the activities of the community sport program; will you keep on participating in the activities." These questions provide us information about the visible aspects of the community sport project. They do not capture the invisible features as the network activity and the creation of new infrastructure and resources. The effect of these invisible activities should become clear through the assessment of sport participation of the community.

Sport Participation

Sport participation was assessed by asking respondents to select their three most important sports both organized and non-organized. For each of these sports 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) were inquired. Fluctuation of sport participation during different periods of the years was taken into account by questioning the number of months one practiced the sport throughout the year. A sports participation index was computed by summing hours per week spent in total for the different sports.

Health

Perceived health and mental wellbeing were measured using the General Health Questionnaire (GHQ-12) of D. Goldberg and Williams (1988). The scale is worldwide accepted as a valid, self-report instrument to assess a person's wellbeing in the community and non-psychiatric clinical settings. Cronbach's a coefficients, range from 0.78 to 0.97 (D. P. Goldberg et al., 1997), (Koeter & J, 1992) (Schmitz, Kruse, & Tress, 1999); It consists of 12 items with 4-point answer categories: 'not at all', 'same as usual', 'rather more than usual', or 'much more than usual'. In this study, the bimodal GHQ-scoring method (0-0-1-1) was applied, as recommended by D. Goldberg and Williams (1988). The resulting total scores range from 0 to 12, with lower scores indicating higher perceived health and mental wellbeing.

Social Capital

To capture the multidimensionality of social capital information of structural (formal and informal-, cognitive social capital as individual and community social capital were considered. Individual cognitive social capital was obtained with three items that asses generalized trust: "Generally speaking, would you say that most people can be trusted, or that

you can't be too careful in dealing with people; do you think that most people would try to take advantage of you if they got the chance, or would they try to be fair; would you say that most of the time people try to be helpful or that they are mostly looking out for themselves." The questions have a 10-point answer-categories and are based on the 'social capital community Benchmark Survey' (Putnam, 1993) and are core questions in the European Social Survey (Survey, 2010).

Formal individual structural social capital was measured by the participation in clubs: "Are you involved in any of these kinds of clubs or organizations?" Response categories: sports club, voluntary service, political organization, cultural organization, cultural association, church or religious group, youth club, other club (0 = no, 1 = yes). Informal individual structural social capital was collected using the question: "With how many people of your friends, family can you discuss important, personal matters?

Community social capital is evaluated using a 5-item scale based on the theoretical work of Bourdieu (1986) and further developed by Carpiano (2007): "People in this neighborhood are willing to help their neighbors; this is a close-knit neighborhood; people in this neighborhood generally do not get along with one another; contacts in this neighborhood are generally good" (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree).

Data-analysis, Results, Discussion, Conclusion

After completion of data-collection (March 2013)

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