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A salutogenic perspective on youth development through sport

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This research is conducted under the auspices of the Wageningen School of Social Sciences (WASS).

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Chapter 1

Introduction: A salutogenic understanding of youth development through sport
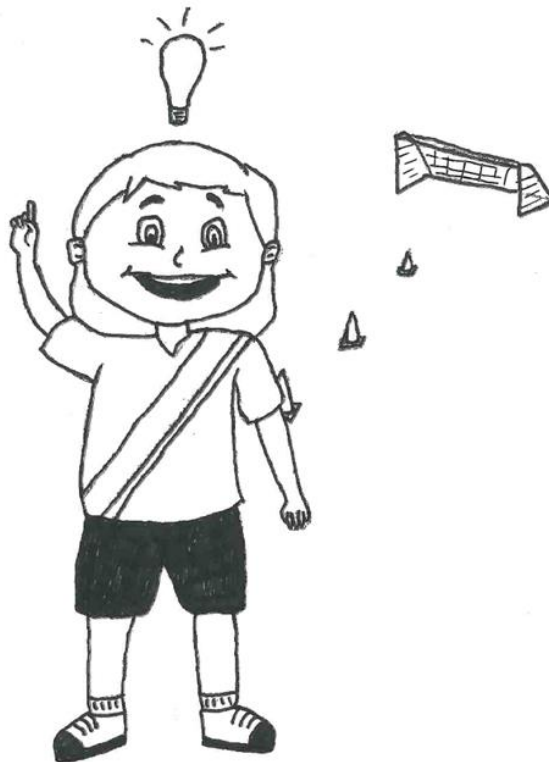
Chapter 1

Introduction

Policymakers and health professionals have attributed many good qualities to the phenomenon of sport, such as its ability to increase social cohesion, to decrease deviant behaviour, and to teach cultural norms and values (Coakley, 2011). Moreover, sport is often advocated as an avenue for positive youth development and widely recognised as having potential for enhancing the personal development of young people (Fraser-Thomas *et al.*, 2005; Gould & Carson, 2008; Weiss & Wiese-Bjornstal, 2009). Underlying these beliefs in sport as a setting for personal development is the assumption that young people develop competencies, skills, and behaviours during their participation in sport that can also benefit their life prospects, for example in getting a diploma or finding a job (Bailey *et al.*, 2013). Previous research has found support for the positive relation between sports participation for young people and various outcomes, for example improved life skills, coping skills, self-esteem, and strengthened social networks (see for a review Bailey *et al.*, 2013). Given these findings, it seems valuable to increase the sports participation of *socially vulnerable youth*, as they encounter various developmental problems while growing up. In addition, they are known to participate less in sport than their non-vulnerable peers (Vandermeerschen *et al.*, 2015). Consequently, policymakers in the Netherlands aim to increase the sports participation rates of vulnerable young people in order to achieve wider social and educational outcomes (VWS, 2011). Yet, very limited research has been conducted on the value of sports participation for this specific group. Therefore, this thesis aims to complement existing research by investigating the value of sports participation for socially vulnerable youth.

In this chapter, four topics are discussed more in-depth to demarcate the topic of this thesis, to provide an overview of current knowledge in the field, and to sketch the Dutch context in which this study was conducted. First, the concept of *socially vulnerable youth* is discussed to show the characteristics of the youths on which this thesis reports. Second, the role of sport in a socially vulnerable youth is discussed. Third, a typology of *sports participation* for socially vulnerable youth is provided, and the role that *sports coaches* play in achieving youth development through sport is identified. And fourth, the notion of *youth development* is explored, and the salutogenic model of health is introduced as a theoretical framework to study and to understand youth development in this thesis. Finally, the aim and the scope of the thesis are stated, and an outline of the thesis is provided.

Socially vulnerable youth

In research, many terms are used interchangeably to describe the group of young people who experience problems in growing up: disadvantaged, at-risk, problematised, disaffected, deprived, and so on. In this thesis, we use the concept of 'socially vulnerable youth'. According to Vettenburg's (1998) definition, socially vulnerable youth are characterised as having an accumulated

number of negative experiences with the societal institutions in their lives (e.g., school, family, or the government), leading to distorted relationships with those institutions and sometimes to social disconnectedness. As a result of these accumulated negative experiences, socially vulnerable youth derive few benefits from their contacts with societal institutions, but are often and recurrently confronted with the negative effects of these contacts (Vettenburg, 1998). Hence, social vulnerability reflects a cumulative process in which negative experiences with one societal institution increase a person's vulnerability with regard to other institutions, leading towards a downward spiral of vulnerability (Hammer & Hyggen, 2010). For example, someone failing at school will become more vulnerable with regard to the labour market (Vettenburg, 1998). As a result of these processes, socially vulnerable youth are often confronted with feelings of low self-esteem, failure, rejection, and isolation (Vettenburg, 1998). The concept of 'social vulnerability' points to the importance of considering the interaction between individuals and their environment in creating vulnerability, as individuals are not vulnerable in themselves but always in relation to someone or something else. Moreover, this concept indicates that vulnerability should not be considered a stable state, but rather that it reflects a process that does not have to be definitive; it is a potential situation of risk that can be halted or even reversed. Hence, policymakers and health professionals are interested in implementing social interventions that aim to understand, engage, and educate children in productive and meaningful activities, to alleviate the spiral of vulnerability (Damon, 2004).

In the Netherlands, where the research for this thesis was conducted, 10% of the Dutch youth population receive care from youth care organisations because they experience problems in growing up (CBS, 2016). These youth care organisations provide a broad range of services including school social work and educational counselling services, as well as more specialised (mental) healthcare, to a large group of socially vulnerable youth. In recent years, Dutch policymakers and youth professionals have been aiming more and more to prevent young people from needing to receive expensive and specialised health care. Instead, they are placing more emphasis on strengthening the capacities and resources that young people already have (VWS, 2013). To reach these goals, young people and their social networks are empowered to build and use resources to lead a healthy and productive life. When youths do need support in growing up, care is preferably organised within their direct environment and in close collaboration with their social network. In that way, the care that they receive is adapted to their specific needs and abilities and to the environment in which they live. It is within this context that the sports setting is also considered for its possible merits in strengthening and building the competencies of young people, as it is one of the pedagogical environments in which these young people can grow up. It has been frequently stated that sport is an interesting setting for positive youth development because it has a strong capacity to engage young people (Haudenhuyse *et al.*, 2013) and it is a setting that can be

intentionally structured to achieve positive youth development (Bean & Forneris, 2016). As pointed out by Coakley (2011), the sports club is one of the pedagogical climates that "*consigns them* [young people] *to adult-controlled environments* (p. 308)*"*, especially when such positive pedagogical climates are not present for socially vulnerable youth in other societal domains. Therefore, in the Netherlands, policymakers and health professionals aim to increase the sports participation of young people, and specifically of socially vulnerable youth, with the aim not only of improving physical health but also of achieving wider social and educational outcomes (VWS, 2011).

Sports participation for socially vulnerable youth
Following Vettenburg's definition of social vulnerability (1998), sport is seen as a tool that can alleviate some of the distorted relationships that young people may have with the societal institutions in their lives. When young people have positive and supporting experiences within the sports setting, this may counterbalance the many negative experiences they have in other societal domains (Haudenhuyse *et al.*, 2014; Vettenburg, 1998), thereby potentially stopping or even reversing the downward spiral of vulnerability. Although the sports setting can be a place that offers positive experiences and support, sports participation can also be source of negative experiences (Fraser-Thomas & Côté, 2009). Negative sports experiences can relate for example to poor coach relationships, negative peer influences, parental pressure, aggression, and competitiveness (Fraser-Thomas & Côté, 2009; Kendellen & Camiré, 2015). A study among youths in a secure unit demonstrated that negative experiences from sports participation may have detrimental outcomes for the participants (Andrews & Andrews, 2003). For example, the competitiveness of some players could reduce the self-esteem of other players who have lower sport-technical abilities. However, as very little sports research has been conducted among socially vulnerable youth, it is still unclear how these youths experience their participation in sport.

In 2015, 70% of all Dutch youths between 12 and 20 years old participated in sport on a weekly basis (Volksgezondheidenzorg.info, 2015). Moreover, in the same age category, 58% of all youths were members of a sports club. Exact numbers on the sports participation rate of socially vulnerable youth in the Netherlands are not available, but a Belgian study showed that socially vulnerable youth are about 44% less likely to be members of a sports club than their non-vulnerable peers (Vandermeerschen *et al.*, 2015). This finding is in line with other studies showing that socio-economic variables such as low household income and lower parental education (i.e., indicators of social vulnerability) are associated with lower sports participation rates for children (Vella *et al.*, 2014). Increasing the sports participation rates of socially vulnerable youth may therefore be a promising strategy for policymakers and health professionals to achieve positive youth development. However, as very little research has been conducted among socially vulnerable youth, the question still remains as to

whether sports participation is positively associated with youth developmental outcomes for this specific group.

The role of the sports coach
Sports participation can take many different forms, and the sports setting can be organised in very different ways. Coalter (2007) makes a distinction between *sport* activities, *sport-plus* activities, and *plus-sport* activities. *Sport* activities include both recreational and competitive sport, where the focus lies on playing a sport in the hope that this will lead to changes in youth developmental outcomes (Coalter, 2007, 2013). *Sport-plus* activities also focus on sport, but within these activities sport is seen as an important setting for positively influencing youth developmental outcomes. Additional non-sport components are added to the activities that aim to facilitate this change process. For example, discussions can be organised at the end of training to reflect on the group process during the exercises. Finally, *plus-sport* activities focus mainly on youth development and use sport as a vehicle to attract young people and to positively influence youth developmental outcomes. Sport in these *plus-sport* activities is often broadly defined (e.g., game playing). For youths who are more 'at risk', it has been suggested that sports activities should shift more towards *plus-sport* activities in order to achieve positive outcomes (Coalter, 2013). Indeed, creating optimal social conditions in the sports setting has frequently been stressed as a necessary condition for youth development (Coalter, 2013; Haudenhuyse *et al.*, 2012; Sandford *et al.*, 2008). These social conditions have been collected in several frameworks for positive youth development (Fraser-Thomas *et al.*, 2005; NRCIM, 2002; Weiss & Wiese-Bjornstal, 2009) such as the recommendations of the National Research Council and Institute of Medicine (2002), which include: physical and psychological safety, appropriate structure, supportive relations between sport coaches and youth, opportunities to belong, positive social norms, support for efficacy and mattering, opportunities for skill building, and integration of family, school, and community efforts.

The sports coach is considered a key player in creating optimal social conditions for youth engagement and development (Cronin & Allen, 2015; Curran *et al.*, 2015; Santos *et al.*, 2016). Several researchers contend that the sports setting needs to be deliberately structured by the sports coach to achieve positive youth developmental outcomes (Bean & Forneris, 2016; Gould & Carson, 2008).Yet, others have found evidence that young people can also develop life skills without sports coaches explicitly teaching these skills (Camiré & Trudel, 2010; Jones & Lavallee, 2009). Nonetheless, it seems vitally important to create a positive, safe, supporting, and motivational sports climate for young people, even if the sports setting is not deliberately structured to teach life skills (Barkoukis *et al.*, 2010; Cronin & Allen, 2015). The sports coach is also considered important in the transfer of the learned life skills from the sports setting to other societal domains. In this respect, Turnnidge *et al.* (2014) distinguish between sports programmes that adopt the implicit and the explicit

approach to transfer. In the implicit approach, sports coaches aim to create a safe and motivational sports climate that is conducive to the development of skills, competencies, and attitudes, without discussing the transferability of these skills with the sports participants. In contrast, in the explicit approach, sports coaches implement activities that are aimed at discussing and practicing the transfer of skills, competencies, and attitudes to other societal domains. Researchers have begun to investigate the transfer process (Bean *et al.*, 2016; Chinkov & Holt, 2015), but there is still uncertainty about how young people benefit from sports participation beyond the sports setting and how sports coaches can create optimal conditions for life skill development and transferability.

The sports sector in the Netherlands is organised around national sports federations, with members going to local sports clubs. These sports clubs are often run by volunteer sports coaches who receive only limited or no formal coaching training. Moreover, for the community sports coaches that do receive formal coaching training, very often such training focuses on the technical aspects of sports coaching (e.g., exercises to develop specific sporting skills) and not on the pedagogical knowledge necessary for life skill development and transferability. As the local sports club is the prime organiser of leisure sports activities for young people in many Western European countries, it would be interesting to investigate whether and how community sports coaches try to create optimal social conditions for life skill development.

A salutogenic perspective on youth development
Current research in the sport-for-development area has often followed the positive youth development approach, which views young people from the potential that they hold in terms of the resources, strengths, and interests that they possess, rather than focusing on their problems and deficits (Damon, 2004). *"Positive youth development occurs when opportunities are made available to youth in meaningful ways and when the people around youth support them to develop their own unique capacities and abilities (Sanders et al.*, 2015: 41)". Hence, activities following the positive youth development approach are directed at strengthening these youths' potential, to increase their chance of leading a healthy and productive life. The positive youth development approach is based on four central tenets: 1) it is an universal approach focusing on all youths, including those who are socially vulnerable; 2) it is a systems-focused approach and considers youth development to be embedded and integrated in many interactive contexts; 3) it is a strengths-based approach, focusing on nurturing and strengthening the resources that youths have available; and 4) it is an asset-based approach, focusing on the promotion of 40 developmental assets as building blocks for a healthy child and adolescent development (Dell *et al.*, 2013). This thesis aims to complement existing research by adopting a salutogenic perspective.

The salutogenic model of health, introduced by Antonovsky (1979), focuses on the question of how people manage everyday-life stressors in such a way that they maintain or improve their health. The salutogenic perspective focuses on the resources that people have available to meet the demands of everyday life and their ability to use these resources for this purpose. Thus, the salutogenic model of health aligns well with the positive youth development perspective, as both appreciate the importance of assets and resources for leading a healthy and productive life. Applying the salutogenic model of health to the topic of sport can help to elucidate how sports participation can strengthen the development of socially vulnerable youth who are recurrently confronted with challenges and stressors in everyday life.

In the salutogenic model of health, health is seen as a continuum running from 'total absence of health' to 'total health' (Antonovsky, 1979). Antonovsky (1979) labelled this the health ease/dis-ease continuum (see Figure 1.1). The movement along this continuum is initiated when people are confronted with stressors, i.e., "*a demand made by the internal or external environment of an organism that upsets its homeostasis* (Antonovsky, 1979: 72)". Stressors in themselves are neither pathogenic nor salutogenic. When people are able to successfully manage the stressors, they maintain their health status or move towards the 'ease' part of the continuum. Conversely, people who are unable to manage the stressor will move towards the 'dis-ease' part of the continuum.
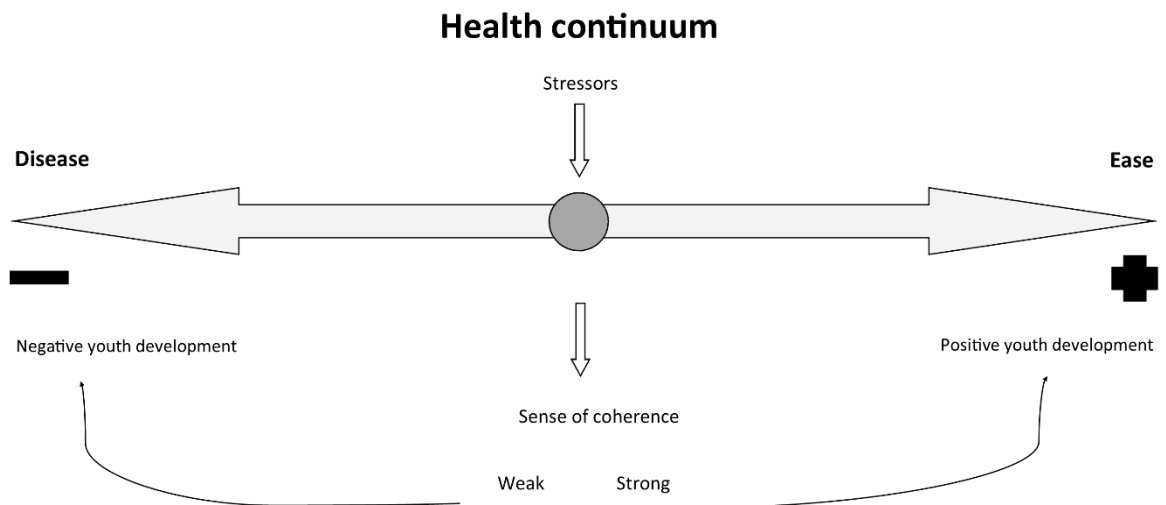
Health continuum

Figure 1.1 The salutogenic health continuum (adapted from: Antonovsky, 1979)

Generalized and specific resistance resources are important factors in determining people's ability to successfully cope with stressors and manage tension. Resources are available within people themselves (e.g., attitude, knowledge, self-efficacy beliefs) and within their environment (e.g., social support, health services). Whereas generalized resistance resources have a wide-ranging utility (e.g., money), specific resistance resources can be used in specific settings and for specific stressors (e.g., access to a school nurse) (Mittelmark *et al.*, 2017). Both generalized and specific resistance resources can facilitate effective tension management and prevent tension from turning into stress by a person 1) avoiding stressors; 2) defining them as non-stressors; and 3) managing the stressors.

Another important concept in the salutogenic model of health is *sense of coherence*, which Antonovsky (1987) defined as "*a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that (1) the stimuli deriving from one's internal and external environments in the course of living are structured, predictable, and explicable; (2) the resources are available to one to meet the demands posed by these stimuli; and (3) these demands are challenges, worthy of investment and engagement".* The three components of sense of coherence (i.e., comprehensibility, manageability, and meaningfulness) play an important role in orienting people towards stressors and the resources that they have available to deal with the stressors. People with a stronger sense of coherence are better able to understand the stressor (i.e., comprehensibility), are better able to select an appropriate strategy to deal with the stressor (i.e., manageability), and have a stronger feeling that engaging with the stressor is a meaningful process (i.e., meaningfulness). A strong sense of coherence has been associated with healthy lifestyle choices (Wainwright *et al.*, 2008), improved physical health (Eriksson & Lindström, 2006), better quality of life (Eriksson & Lindström, 2007), and reduced mortality risk (Super *et al.*, 2014).

The salutogenic model of health offers a comprehensive understanding of how people may learn to cope with everyday-life stressors in a health-promoting way, and it aligns well with the tenets of the positive youth development approach: an important framework for sport-for-development studies and programmes. First, both approaches acknowledge the importance of assets and resources for leading a healthy and productive life. Second, they both consider that changes in an individual's development or health originate from the interaction of the individual with his/her environment. Third, they are both systems focused, meaning that they emphasise that development is embedded in interactive contexts such as school, family, and culture. Fourth, perhaps most distinctively, both approaches focus on people's healthy or salutogenic development, rather than on their unhealthy or pathogenic development.

The salutogenic model of health has been adopted in various health domains such as hospital settings, work settings, and school settings. However, to the best of the author's knowledge, the salutogenic model of health has only

sparsely been adopted in the sports setting. Yet, the salutogenic perspective can offer new insights into the value of sports participation for socially vulnerable youth, as the sports setting engages young people with stressors and challenges during the sports activities. In addition, as socially vulnerable youth are confronted with stressors in everyday life, the salutogenic model of health offers an interesting perspective on how sports participation may support these youths in moving towards the 'ease' part of the continuum or, in other words, towards positive youth development. The salutogenic model of health may offer new insights on how people may strengthen their ability and capacity to select and use resources to move in a health-promoting direction through their participation in sport. These insights not only allow for the further understanding and development of the salutogenic model of health, but can also extend current research in the sport-for-development field. Moreover, as health professionals and policymakers aim to increase the sports participation of socially vulnerable youth, further insights on how sports participation can contribute to achieving wider social and educational outcomes for this specific group can support these efforts.

Conceptual model of the thesis

Figure 1.2 graphically presents how, in this thesis, we theorise about the role of sports participation in the personal development of socially vulnerable youth. In everyday life, socially vulnerable youth are confronted with stressors and negative experiences in several social domains such as the school, the family, and the community. The sports setting offers these youths the opportunity to develop life skills, competencies, and behaviours in a positive and supporting environment. If youths develop the ability to transfer these life skills from the sports setting to other societal domains and to apply them to deal with stressors and challenges in these other domains, positive youth development may result. The sports coach is vital in creating a supportive and motivational sports climate to stimulate positive sports experiences and to decrease the negative sports experiences of socially vulnerable youth. In addition, the sports coach is important in stimulating the transfer process.
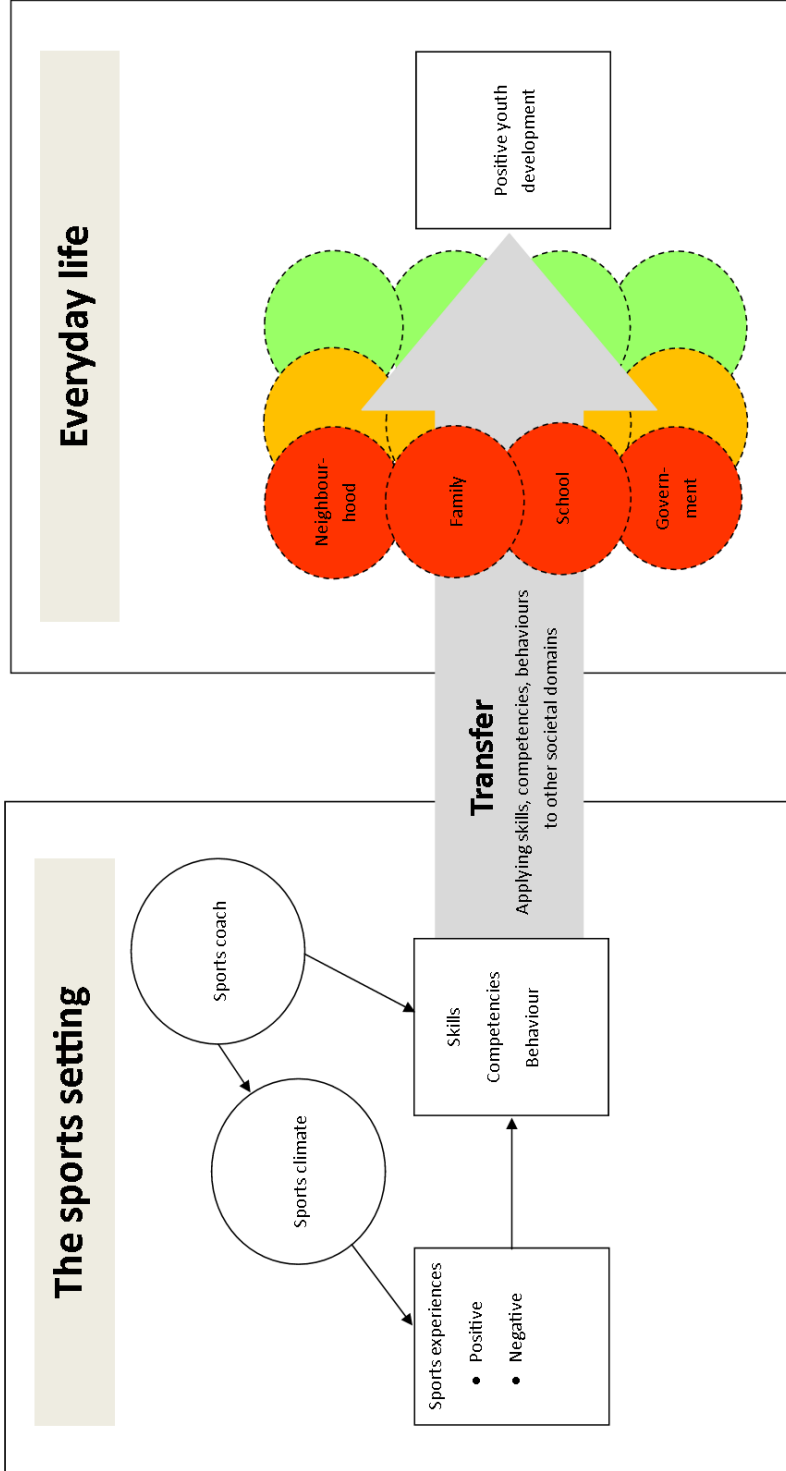
Figure 1.2 Conceptual model of the thesis

Chapter 1

Aim and scope of this thesis
The overall aim of this thesis is to unravel the value of sports participation for socially vulnerable youth. Given the salutogenic focus of this thesis, the first research objective is to provide insights into the mechanisms underlying sense of coherence (SOC) to underpin health promotion activities that aim to strengthen SOC. Secondly, given the limited amount of research conducted on the value of sports participation for socially vulnerable youth, this current study aims to unravel *whether* this youth group may benefit from playing a sport at a local sports club (objective 2). As previous studies have shown that the social conditions in the sports setting are very important for achieving youth developmental outcomes, this study also aims to investigate how community sports coaches can create optimal social conditions for life skill development and transferability (objective 3). And fourth, this study aims to understand how socially vulnerable youth experience their participation in sport and the value they derive from sports participation (objective 4). In summary, this thesis addresses the following research objectives and research questions:

1. To provide insights into the mechanisms underlying sense of coherence (SOC) in order to underpin health promotion activities that aim to strengthen SOC:
   a. What are the mechanisms underlying sense of coherence (SOC) and what are the opportunities for strengthening SOC in health promotion?
2. To provide insights into the relation between sports participation and youth development for socially vulnerable youth:
   a. What is the evidence on life skill development in sports programmes serving socially vulnerable youth from both quantitative and qualitative studies?
   b. What is the relationship between sports participation and youth developmental outcomes for socially vulnerable youth?
3. To examine whether and how community sports coaches can create optimal conditions for the personal development of socially vulnerable youth:
   a. How do community sports coaches create optimal social conditions for life skill development and transferability?
4. To explore how socially vulnerable youth experience their participation in sport and the value they derive from sports participation in a socially vulnerable childhood:
   a. What are the positive and negative sports experiences of socially vulnerable youth?
   b. How do young adults reflect on the role of sports participation in a socially vulnerable childhood?

This study adopts a mixed-methods research design, using both quantitative and qualitative research methods (see Table 1.1). More specifically, this study uses

literature review (objectives 1 and 2), questionnaire research (objective 2), semi-structured interviews (objective 3), and narrative interviews and life-course interviews (objective 4). Research methods were chosen that were most suitable to answer the research question. An important reason for using mixed methods is that it can provide a more complete or holistic picture of the complex phenomenon of sport for socially vulnerable youth (Bazeley & Kemp, 2012). In addition, the use of different methods can assist in building stronger arguments, as the strengths of one approach compensate for the weaknesses of other approaches.

Table 1.1 Overview of research objectives, research questions, and methods

Research objective	Research question	Methods
1a	What are the mechanisms underlying sense of coherence (SOC) and what are the opportunities for strengthening SOC in health promotion?	Literature review
2a	What is the evidence on life skill development in sports programmes serving socially vulnerable youth from both quantitative and qualitative studies?	Literature review
2b	What is the relationship between sports participation and youth developmental outcomes for socially vulnerable youth?	Questionnaires
3a	How do community sports coaches create optimal social conditions for life skill development and transferability from a salutogenic perspective?	Semi-structured interviews Scenarios
4a	What are the positive and negative sports experiences of socially vulnerable youth?	Unstructured interviews
4b	How do young adults reflect on the role of sports participation in a socially vulnerable childhood?	Life-course interviews

Outline of the thesis

Chapter 2 explains in detail the research design of this thesis. It identifies knowledge gaps in the current sport-for-development literature and explicates the research questions that have driven the research project, including methods of data collection and analysis. **Chapter 3** describes the necessary adaptations that were made to the study protocol as a result of the changing research context, the ethical approval, and the progressive insights that the research team gained in the early stage of the research project. The consequences of these adaptations for the research questions, the data collection, and the analyses are elaborated upon. To answer research question 2a, **Chapter 4** presents findings from a systematic literature review focusing on the effects of sports programmes on the life skill development of socially vulnerable youth. In **Chapter 5**, the salutogenic model of health is discussed in detail, and the

mechanisms that underlie sense of coherence are identified, to answer research question 1a. These insights underpinned and supported the data collection and analysis of the empirical studies presented in Chapters 6 to 9. In addition, the insights from the salutogenic model of health may underpin future health promotion efforts aiming to strengthen sense of coherence. To answer research question 2b, **Chapter 6** presents results from questionnaire research among socially vulnerable youth regarding the relationship between sports participation and youth developmental outcomes. In **Chapter 7**, the social conditions for supporting life skill development and transferability are explored. Interviews with community sports coaches who work with socially vulnerable youth were examined using the salutogenic model of health to see how these conditions were created. This chapter presents the results for research question 3a. Taking a salutogenic perspective, **Chapter 8** reports on interviews conducted with socially vulnerable youth regarding their positive and negative sports experiences, to answer research question 4a. Following up on these findings, **Chapter 9** reports on findings from life-course interviews conducted with adults who had been socially vulnerable in their childhood. The findings of this study provide insights into the value of sports participation in a socially vulnerable childhood, answering research question 4b. Finally, **Chapter 10** integrates the findings from the previous chapters to present an answer to the research questions. Recommendations for policymakers and health professionals who aim to use sport as a tool for positive youth development are presented, as well as suggestions for future research.

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Chapter 2

Enhancing life prospects of socially vulnerable youth through sport participation: A mixed methods study

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Chapter 2

Abstract

Sport participation has been associated with improved life prospects such as academic performance and employability prospects. As such, promoting sport participation might be a way to increase life prospects, especially for socially vulnerable youth because they are less physically active than their peers. However, the evidence for the causal effect of sport participation on these outcomes is still limited and little is known about factors that play a role in this possible effect. The aim of this study is four-fold. First, the causal effect of sport participation on life prospects is studied and the underlying mechanisms of this relation are explored. Secondly, the life experiences of the youngsters in the sport context, that may contribute to skill development, are studied. Thirdly, social conditions of a positive effect are explored, as sport is likely to have a positive effect under specific conditions. Fourthly, this study aims to provide insights on the elements of successful partnerships between youth care organisations and local sport clubs. This protocol reports on a mixed method study. An intervention that aims to increase the sport participation of socially vulnerable youth, between 12-23 years old, is implemented in three regions of a Rotterdam youth care organisation. The youngsters in the two control regions receive care-as-usual. The main outcome variables, collected via questionnaires, are the life prospect, sense of coherence and self-regulation skills of the youngsters after 6 and 18 months of follow-up. The Motivational Climate Scale is administered to explore the social conditions for a positive effect and interviews are conducted with sport coaches to explore their role in skill development. Interviews with the youngsters are conducted to gain insight on the life experiences that may lead to skill development. The elements of successful partnerships are collected during interviews with youth care professionals, sport coaches and other stakeholders in the sport context. The results of this study can support efforts of youth care organisations and local sport clubs to improve the life prospects of socially vulnerable youth through sport participation.

Chapter 2

Introduction

Sport participation is associated with many positive outcomes and is advocated by health professionals and policy-makers to combat problems in various societal domains (e.g. health, education and participation) (Armour *et al.*, 2013; Eime *et al.*, 2013). Hence, physical activity and sport participation have been used in what Coalter (2010) calls the evangelic policy rhetoric, as a panacea to social problems (Armour *et al.*, 2013), particularly to improve life prospects of socially vulnerable youth (Schumacher Dimech & Seiler, 2011; Stegeman, 2007). Scientific studies indeed show a positive relationship between sport participation and many beneficial outcomes, such as social inclusion (Feinstein *et al.*, 2006), pro-social behaviour (Armour *et al.*, 2013), academic achievement (Hill *et al.*, 2010; Trudeau & Shephard, 2008), and social and emotional well-being (Eime *et al.*, 2013). However, sport-based activities are often treated as a black box, 'magically' producing positive outcomes (Coalter, 2013; Hansen *et al.*, 2003). There is still uncertainty about the causal relationship between sport participation and the personal development of young people and the processes occurring in the 'black box' that may lead to improved life prospects. This study aims to fill some of these knowledge gaps.

First, this study aims to address the causal effect of sport participation on life prospects. Bailey (2006) distinguishes five domains of beneficial outcomes of sport participation for young children: physical, lifestyle, affective, social and cognitive outcomes. The evidence for the causal effect of sport on these domains varies, for example the effect of sport on physical outcomes is well-established whereas the effect on cognitive outcomes is less researched (Bailey, 2006). In addition, little is known about how sport participation may lead to these positive outcomes and which factors play a role in this positive effect (Armour *et al.*, 2013; Bailey, 2006; Haudenhuyse *et al.*, 2012). One interesting line of research is the idea that sport participation may contribute to skill development and that these skills can be transferred to other societal domains (Buck *et al.*, 2008; Diamond & Lee, 2011). Although several researchers have suggested that skills accumulated in sport can be transferred to other domains, no study actually tested this idea (Jonker, 2011). Taking a longitudinal approach, this study aims to explore the positive effects of sport participation for socially vulnerable youth and the underlying mechanisms.

Second, this study aims to address the processes that take place in the sport context that could enhance the personal development of socially vulnerable youth (Eime *et al.*, 2013). Coalter (2013) argues that a focus on the experiences of sport participation is important for understanding how sport participation may produce positive outcomes. "*It is probably not the mere participation in sport that enhances positive development but the individual's experience in sport that may be the critical factor* (Papacharisis *et al.*, 2005: 247)". This study, therefore, examines the life experiences of youngsters in the sport context to provide a deeper understanding of the critical factors in the sport experiences of socially vulnerable youngsters for their personal development.

Thirdly, the social conditions that can optimise the effect of sport participation on life prospects are explored. Many researchers have warranted that sport does not produce positive outcomes per se (Danish *et al.*, 2005; Haudenhuyse *et al.*, 2012; Sandford *et al.*, 2008). A positive socio-pedagogical climate has been found a very important social condition (Haudenhuyse *et al.*, 2012). However, these social conditions are often studied in qualitative studies and they require more empirical testing, also with specific attention to these social conditions in different groups, settings and practices (Haudenhuyse *et al.*, 2012).

Fourthly, this study investigates the coordinated action of youth care organisations and local sport clubs that is required to include sport-based activities in youth care practices (Morris *et al.*, 2003; Sandford *et al.*, 2008). Partnerships between these organisations are no sinecure, because youth care organisations and local sport clubs differ on several aspects such as organisational missions, working hours, and type of representatives (i.e. professionals versus volunteers). Existing research into coordinated action in the public health sector indicates that factors related to the organisation of a partnership help to deal with such organisational differences (Koelen *et al.*, 2012). Nevertheless, few studies examined the performance of coordinated action (Provan *et al.*, 2007), especially concerning coordinated action between professionals and volunteers of different organisations. This study aims to explore and examine what factors, related to the organisation of partnerships between professional youth care organisations and voluntary sport clubs, improve the performance of coordinated action between these organisations.

In sum, research conducted on the positive outcomes of sport for young people seems to suggest that youngsters can benefit from sport participation and that their life prospects may improve by engaging in sport and physical activity. This seems to hold especially true for socially vulnerable youth because they participate less in sport than their average peers (Breedveld *et al.*, 2010). However, to support the claim that sport participation leads to improved life prospects more research is warranted. Consequently, this study aims:

1. To provide insights into the causal relationship between sport participation and life prospects of socially vulnerable youth and the underlying mechanism by which sport can improve life prospects.
2. To explore the life experiences in the sport context of socially vulnerable youth that can lead to skill development.
3. To examine the social conditions that may strengthen the positive effect of sport on life prospects.
4. To provide insights into the organisational context of successful sport inclusion in youth care practices by exploring elements of successful and enduring partnerships between professional and voluntary organisations

Chapter 2

Theoretical framework
The following paragraphs discuss the theoretical framework of the study, starting with a short description of the positive youth development paradigm as this serves as a theoretical basis for the study. In subsequent paragraphs, theory and research findings related to the four study aims are discussed in more detail.

Positive youth development through sport
The positive youth development paradigm takes as its starting point the potential that children and adolescents hold in terms of the resources, strengths and interests they possess, rather than focusing on their problems and deficits (Damon, 2004). The problem-centred approach has dominated in research on youth development for example by focusing on the prevention of anti-social behaviour, learning problems, drug abuse or psychological problems (Catalano *et al.*, 2004). Many studies on the effects of sport participation on socially vulnerable youth adopt a problem-centred approach. A large body of research has focused on the effect of sport on anti-social behaviour and prevention of crime (Cameron & MacDougall, 2000; Morris *et al.*, 2003). Other studies report on sports-based interventions that aim to overcome specific deficits in children. For example, a study among Swiss school children demonstrated a reduction of social anxiety among children that participated in a team sport (Schumacher Dimech & Seiler, 2011). The positive youth development paradigm acknowledges that there are children in socially vulnerable positions, but rejects the idea that social interventions are mainly an effort to 'overcome deficits and risks' (Damon, 2004). "*The positive youth development perspective emphasises the manifest potentialities rather than the supposed incapacities of young people – including young people from the most disadvantaged backgrounds and those with the most troubled histories* (Damon, 2004: 15)".

Study aim 1: Causal effect of sport participation and underlying mechanisms
Research from a positive youth development perspective focuses on the internal assets (e.g. social skills and positive values) and external assets (e.g. the community, meaningful others, and school) that help young people to be well-prepared for a healthy life and social and emotional well-being during adulthood. Local sport clubs can be considered environments in which internal and external assets are built, and hence are environments for positive youth development (Fraser-Thomas *et al.*, 2005). In this light, it has been hypothesised that sport participation may lead to increased assets that subsequently can be applied in other settings such as school (Buck *et al.*, 2008; Diamond & Lee, 2011; Jonker, 2011). Although several studies suggest that certain skills accumulated in sport can be transferred to other domains, no study actually tested this idea (Jonker, 2011). In this study, we investigate the longitudinal effect of sport participation on self-regulations skills and sense of coherence (SOC), and the transfer of these skills to other societal domains.

Self-regulation skills

Self-regulation refers to "*the processes by which the self alters its own responses, including thoughts, emotions, and behaviours* (Baumeister, 1997: 146)". It is considered to have a great influence on a person's success (Baumeister, 1997), in the broadest sense of the word and in various domains such as in academics (Nota *et al.*, 2004; Ommundsen *et al.*, 2005) and in sport (Jonker, 2011). Toering *et al.* (2012) identified six skills that are essential in self-regulatory processes: planning, monitoring, self-evaluation, effort, reflection and self-efficacy. Self-regulatory learners score high on these dimensions and are, therefore, better able to acquire knowledge and skills in different domains (Toering *et al.*, 2012).

From a positive youth development perspective, self-regulation skills can be considered an internal asset that can help young people to get prepared for a healthy and productive adulthood. According to Posner and Rothbart (2009), self-regulation is shaped in childhood by both genes and the social environment; specific exercises in this period can improve self-regulation. The sport context may be an environment in which these exercises are practiced and as such may offer opportunities for children to acquire various self-regulatory skills, which subsequently can be used in other settings (Danish *et al.*, 2005). A cross-sectional study conducted by Jonker *et al.* (2011) demonstrated that pre-university students that were elite athletes scored higher on planning, reflection and effort than their pre-university non-athletic peers. In this study it is hypothesised that sport participation improves the self-regulatory skills of socially vulnerable youth and that this increase in self-regulatory skills translates to improved life prospects of these youngsters (see hypotheses 1, 2 and 4 in Methods).

Sense of Coherence

SOC reflects an individual's ability to cope with difficult or stressful situations (Antonovsky, 1979). It is a core construct of the salutogenic theory, which focuses on the origins of health and well-being rather than on disease. An individual's SOC consists of three components (Antonovsky, 1987): the idea that the stimuli from one's environment are structured, predictable and explicable (comprehensibility); the feeling that sufficient resources are available to deal with stressors (manageability); and the feeling that the challenges are worthy of investment and engagement (meaningfulness). People with a high SOC are more likely than people with a low SOC to use Generalized Resistance Resources within the individual (e.g., self-efficacy beliefs, attitudes, self-regulation skills) or in their environment (e.g. social support, cultural stability) to combat everyday life stressors (Antonovsky, 1996; Lindström & Eriksson, 2010). In this light, the amount of assets available is not the only important factor in producing positive outcomes; the ability to use the resources for this purpose is just as valuable. Increasing the SOC of socially vulnerable youth may increase

the application of self-regulatory skills, which subsequently may improve their life prospects.

García-Moya et al. (2013) have examined the 'constellations of contextual factors' that lead to specific SOC-levels. They conclude that the quality of parent-child relationship is the main predictor of children's SOC, but that other contexts contribute significantly to SOC as well. In addition, they found that children could have a relatively strong SOC when a high quality parent-child relationship was absent, pointing to the compensatory effects of other contextual domains (García-Moya et al., 2013). The sport context may be such a domain in which the development of SOC can take place. Interestingly, people with a stronger SOC also have been found to engage more often in physical activity (Ahola et al., 2012; Honkinen et al., 2005; Kuuppelomäki & Utriainen, 2003). Yet, there is no evidence on the causal relation; are people with a stronger SOC more physically active or does physical activity enhance one's SOC? In this study, it is hypothesised that sport participation may contribute to the development of SOC and that socially vulnerable youth are better able to use their self-regulatory skills across various life domains when they have a stronger (see hypotheses 1, 3 and 5 in Methods).

Study aim 2: Life experiences in the sport context
As previously argued, sport in itself is not likely to produce positive outcomes (Coalter, 2013; Papacharisis et al., 2005). To understand the effect of sport participation on the life prospects of socially vulnerable youth, an examination of the processes occurring in the sport context is necessary. Researchers have suggested that positive life experiences are important for personal development and that the sport context may provide room for these positive experiences (Bengoechea et al., 2004; Gould et al., 2012; Hansen et al., 2003). However, currently, the experiences of the youngsters are often quantitatively examined, for example using the Youth Experiences Scale (YES) (Gould et al., 2012; Hansen et al., 2003). "W*hile sport might provide the context for the development of positive experiences, the social process of participation is the key to understanding what is happening* (Coalter, 2013: 595)". An examination of the life experiences of the youngsters in the sport context could contribute this understanding of the social processes occurring in the sport context (Coalter, 2013).

Life experiences are also an important concept in the salutogenic model. According to Antonovsky, SOC develops in childhood and early adulthood when people have life experiences that are characterised by an overload-underload balance (i.e. influencing manageability), consistency (i.e. influencing comprehensibility), and socially relevant decision-making (i.e. influencing meaningfulness) (Antonovsky, 1996). Sport participation by socially vulnerable youth may provide room for life experiences that develop SOC when these are comprehensible, manageable and meaningful (Løndal, 2010). This study aims to explore the life experiences of the youngsters in light of the theory of sense of

coherence as this may increase our understanding of the (social) processes taking place in the sport context that could contribute to personal development.

Study aim 3: Social conditions for a positive effect
It has been warranted by many researchers that sport participation does not produce positive outcomes per se (Danish *et al.*, 2005; Haudenhuyse *et al.*, 2012; Sandford *et al.*, 2008). It seems that, for sport to have a positive effect on young people, certain conditions have to be met. A positive socio-pedagogical climate is one conducive factor that has been found important for generating positive social outcomes (Haudenhuyse *et al.*, 2012). Other factors that seem to be important are the social support children receive from their parents, the training skills of the coach, the ability of the coach to maintain a motivational and safe climate and providing ample opportunities to develop skills (Danish *et al.*, 2005; Haudenhuyse *et al.*, 2012). Also the possibility to reflect is considered a prerequisite for the development of both self-regulation skills and sense of coherence (Jonker, 2011). However, these social conditions require more empirical testing, also with specific attention for these factors in different groups, settings and practices (Haudenhuyse *et al.*, 2012).

With respect to a positive socio-pedagogical climate, researchers have distinguished between an ego- and a mastery-motivational (or task-involving) climate (Barkoukis *et al.*, 2010; Ommundsen *et al.*, 2005; Smith *et al.*, 2008). An ego-motivational climate emphasises competition and out-performing others, whereas a mastery-motivational climate stresses cooperative learning and self-referenced improvement (Smith *et al.*, 2008). A mastery-motivational climate is considered to contribute to personal development. For example, a mastery-motivational climate is associated with adaptive learning strategies (Ommundsen *et al.*, 2005), reduced state anxiety (Barkoukis *et al.*, 2010) and increased self-efficacy (Barkoukis *et al.*, 2010). Nonetheless, there is limited empirical evidence for a moderating effect of motivational climate in the relation between sport participation and the development of self-regulation skills and sense of coherence. We will quantitatively assess the moderating effect of a motivational sport climate in the relation between sport participation and life prospects (see hypothesis 6 in Methods).

Study aim 4: Elements of successful partnerships
Coordinated action of youth care organisations and local sport clubs may help to increase sport participation of socially vulnerable youth in a sport environment that enhances their personal development. Youth care organisations and local sport clubs, however, differ on several aspects such as organisational missions, working hours, culture and type of representatives (i.e. professionals versus volunteers) (Harris *et al.*, 2009; Hartog *et al.*, 2013; Thiel & Mayer, 2008). As a result of these differences partnerships between these organisations are no sinecure. To explore the elements that improve the quality and the performance of partnerships between youth care organisations and local sport clubs, we take

the perspective of the whole network. This perspective assumes that the organisations involved in a partnership are jointly working towards a more or less common goal. Consequently, researchers taking the perspective of the whole network study the elements of the partnership that may affect this common outcome. The perspective of the whole network complements the perspective of the individual organisations that starts from the benefits the individual organisations experience from participating in partnerships (Provan *et al.*, 2007).

There are personal and organisational factors that may frustrate or strengthen the quality and the performance of the partnership (Koelen *et al.*, 2012; Williams, 2013). Personal factors of the people involved in the partnership that influence the partnership are, for instance, different attitudes towards the collaboration, different experience with participation in partnerships and different levels of self-efficacy (i.e. the feeling that they are able to influence the coordinated actions and the performance of the partnership). In addition, these people represent organisations with different values, cultures, rituals, targets and funding possibilities (i.e. organisational factors). Nonetheless, research also indicates that there are factors related to the organisation of the partnership that might help to deal with these personal and organisational differences and, thus, may improve the network's performance (Akkerman & Torenvlied, 2013; Koelen *et al.*, 2012; Provan *et al.*, 2007). The occurrence of these elements seems to be especially relevant for partnerships between professional organisations in the public sector and voluntary-based organised sport clubs because these organisations differ on many aspects. A practical example of this is that coordinated action in public health sector is frustrated by the different opening hours of professional health organisations and voluntary sport clubs (Hartog *et al.*, 2013).

The institutional and (inter)personal differences that may be brought into partnerships are described in the Healthy ALLiances (HALL) Framework (Koelen *et al.*, 2012). Moreover, Koelen *et al.* (2012) came up with seven factors related to the organisation of partnerships that help to deal with these institutional and (inter)personal differences, and that may consequently contribute to the partnership's performance. These seven factors relating to the organisation of the partnership are a flexible time frame, clear roles and responsibilities, a clear communication structure, usage of the expertise and capacities of the involved organisations, a shared mission, visibility of (the results of) the partnership, and a neutral and empowering management of the partnership. Concerning the management of the partnership, Williams (2013) argued that so-called boundary spanners might function as a bridge between different organisations in partnerships. These boundary spanners are individuals who work in collaborative environments and who possess communication, co-ordination, mediating and entrepreneurial skill to deal with tensions and differences between organisations in a partnership. Boundary spanners, for example, are initiators of

collaborations, partnership coordinators and frontline workers collaborating with frontline workers of other organisations (Williams, 2013).

A complete overview of the four study aims is presented in the theoretical model (see Figure 2.1).
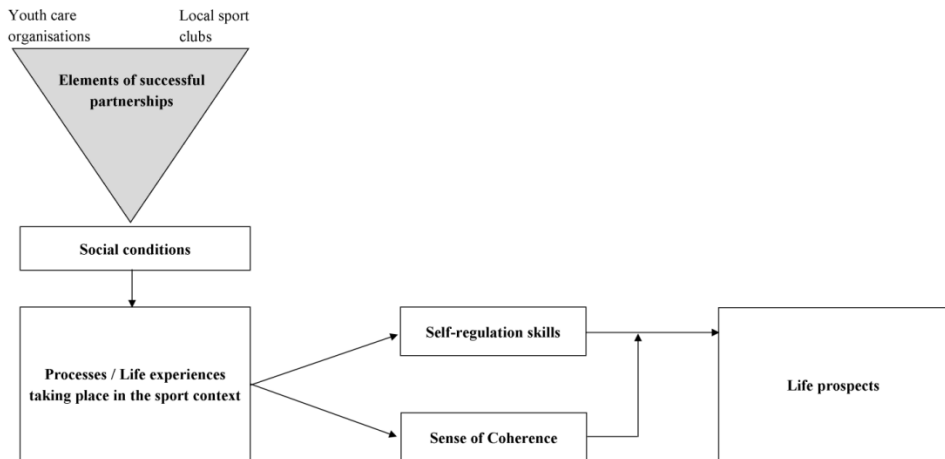
Figure 2.1 Theoretical model of the study.

Methods

Study design
Quantitative and qualitative data for this study will be collected in several phases and for different purposes (see for an overview Figure 2.2). All the data is gathered in Rotterdam where an intervention is implemented in a youth care organisation that aims to increase the sport participation of socially vulnerable youth. The intervention will be implemented in three regions of the Rotterdam youth care organisation, two regions are in the control group where no intervention activities take place. As randomisation of the regions is not possible, the regions for the experimental and control are selected in such a way that the baseline characteristics of the youngsters are as similar as possible (i.e. a non-equivalent control group design). In addition, to avoid contamination, the experimental groups and the control groups are not located in adjacent regions. After describing the intervention into more detail, the data collection methods are discussed per study aim.
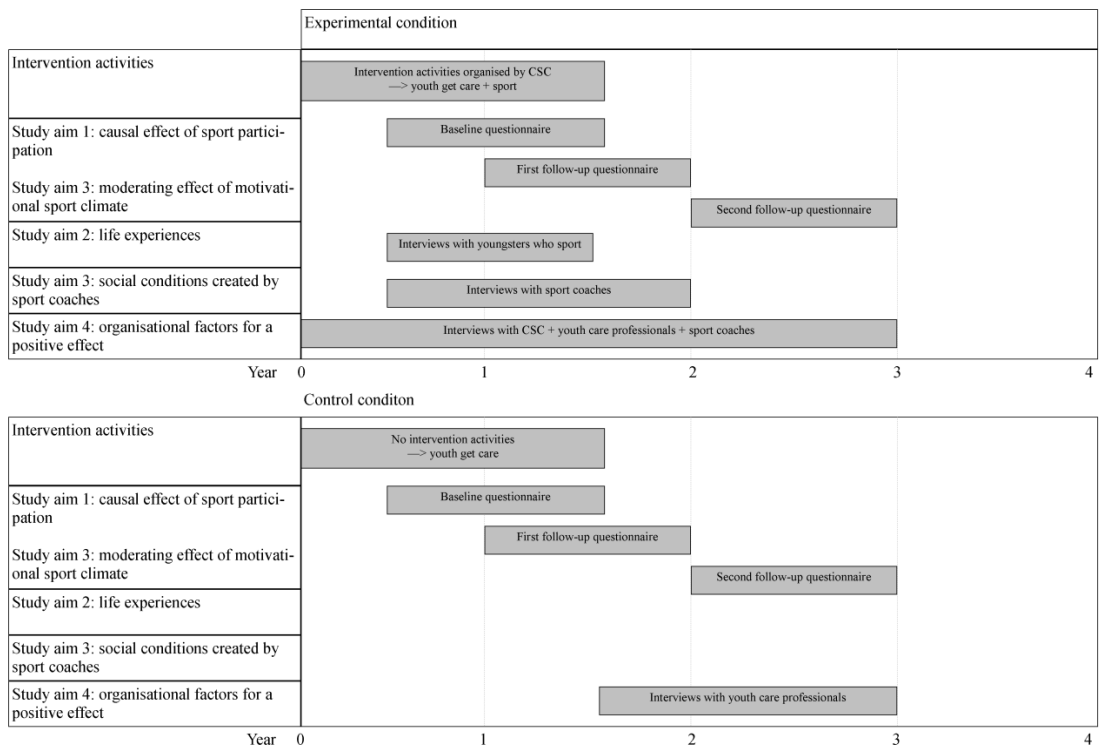
Figure 2.2 Overview data collection methods.

Intervention

At the start of a care program at the Rotterdam youth care organisation every youth care professional sets, together with the youngster, certain goals to be reached during the care program. These goals can relate to the individual, school, work, family and positive leisure time activities. In the experimental region, specific attention is paid to sport participation as a positive leisure time activity. To increase the attention for sport as a positive leisure time activity, a Care Sport Connector (CSC) is appointed to act as a boundary spanner to connect youth care and sport. As a key-player in the network, the CSC is able to spark initiatives of collaboration between youth care professionals and organised sport clubs, and to identify local sport organisations that are capable of building conducive sport environments. The CSC will bring existing collaborations with local sport clubs to the attention of youth care professionals and will facilitate initiatives of the youth care professionals to make use of sport interventions.

It is expected that a training among the youth care professionals and collaboration with a Care Sport Connector (CSC) in the experimental group will translate to more sport participation among the youngsters of these professionals. The CSC will motivate and train the youth care professionals in

the experimental condition to integrate sport activities in the care that they deliver. At the start of every care program, the youth care professional in the experimental regions are expected to inventory, together with the youngsters, the possibilities of sport participation during the intake of the care program. The youth care professionals are also expected to be involved in guiding the youngsters to local sport organisations.

Training of the youth care professionals by the CSC will exist of various activities, such as interactive workshops, individual face-to-face sessions, and provision of written (online) information. Various topics will be discussed during these events that are relevant for the youth care professionals, for example focusing on practical barriers that they may encounter when guiding their youngsters to local sport organisations (such as money constraints, ethical issues and lack of parental support). These topics were selected after conducting several interviews with youth care professionals discussing their view of the inclusion of sport in youth care practices. During the intervention additional events may be organised that match the needs of the youth care professionals and the CSC. As such, the training of the youth care professionals can be seen as coaching-on-the-job and the activities can be adapted to individual needs. All activities that take place will be carefully monitored and recorded, so that in the end a precise description of the actual intervention can be given. The activities of the CSC will continue after the end of this study and will be expanded to other regions of the Rotterdam youth care organisation as well.

Within the experimental regions, specific attention is also paid to the socio-pedagogical climate at the local sport clubs. A pedagogue is employed in the experimental regions to support the local sports clubs in their efforts to create a positive learning environment for all children. Several elements of the socio-pedagogical climate receive specific attention such as the setting and maintenance of basic rules at the sport clubs, improving the pedagogical qualities of the trainers and increasing the involvement of parents at the sport club. Similarly to the activities conducted by the CSC, the activities of the pedagogue are documented during the intervention to be able to provide a clear description at the end of the project.

Study aim 1: Effect of sport participation on life prospects
The first study aim focuses on the causal effect of sport participation on the life prospects of socially vulnerable youth and the underlying mechanisms. More specifically, the following hypotheses were formulated:
1. Sport participation during the care program of socially vulnerable youth leads to improved life prospects as measured in: (a.) school level and performance; (b.) work attendance and performance; (c.) subjective health; (d.) well-being, and; (e.) future outlook.
2. Sport participation leads to enhanced self-regulation skills (i.e. planning, self-monitoring, effort and reflection).
3. Sport participation leads to improved SOC-levels.

4. The positive effect of sport participation on life prospects is mediated by self-regulation skills.
5. The positive effect of sport participation, via self-regulation skills, on life prospects is moderated by SOC.

Study design and procedure

To test these hypotheses, quantitative data will be collected at three time points during the intervention. Data will be collected at baseline (i.e. when the youngsters enter the care program), after six months follow-up (i.e. at the end of the care program and intervention) and after 18 months follow-up (see Figure 2.2). The data of the baseline measurement and of the first follow-up will be collected using paper and digital questionnaires administered by the youth care professional. During the second follow-up, a digital and a paper questionnaire will be send to the youngsters who have left the youth care organisation at that point. If necessary, the researchers will go door-to-door to increase the response rate.

Participants and recruitment

The study population are the youngsters entering the Rotterdam youth care organisation. These youngsters are between 12 and 23 years old and have some behavioural and/or developmental problems. All youngsters in the intervention and control region will be invited to join the study. Youngsters with depressive or suicidal thoughts will be excluded from this study to avoid that the questionnaires included in this study worsen the psychological well-being of the participants.

Informed consent

Due to the vulnerable nature of the study population, special attention will be paid to the obtainment of informed consent. This project is performed in accordance with the code of conduct for minors (NVK, 2002). The information letter and the informed consent form that are given to the youngsters also have to be signed by the parents or guardian. If necessary, the youth care professional will discuss the informed consent with the parents or guardian, especially when language or educational barriers of the parents prevent them from understanding the written text. If, during the intake procedure, the youth care professional is in contact with only one of the parents, for instance in the case of a divorce, standard procedures of youth care practice will be followed. This means that the youth care professional will communicate with the parent who is registered at the youth care organisation, and will ask the parent if there is another parent who also has to give informed consent. This procedure is used by youth care organisations because they do not want to harm the possible vulnerable relationship between parents and as they have to respect the privacy of the parents. In case the second parent responds and disapproves of the child's participation, the child will be excluded from the study. In case the second parent does not respond, the registered parent will be asked if there

might be any reason to expect that the other parent disapproves of the child's participation in the research. If this is the case, the child will be excluded from the study. This procedure has been approved by the Medical Ethical Committee of Wageningen University.

Measures

The following measures are included in the three questionnaires (see for an overview Table 2.1):

Life prospects. The primary outcome is the life prospects of the youngsters which will be assessed using four indicators. Subjective health of the youngsters will be assessed using two questions: "In general, how good is your health?" and "Compared to a half year ago, how would you rate your health now?". The Strengths and Difficulties Questionnaire will be administered to measure behaviour, emotions and relationships (Goodman, 1997). Objective employment status (employed or unemployed) or school status (school level) will be recorded. Finally, the youngsters are asked to report how their teacher or boss would likely evaluate their work, as an indicator of school or work performance.

Self-regulation skills. The self-regulation skills will be assessed using the Self-Regulation of Learning Self-Report Scale (Toering *et al.*, 2012). The original scale consists of six subscales of which four will be used in this study. The selection is based on the relevance of the different sub-scales for the purpose of this study. The following scales will be included: planning, self-monitoring, reflection and effort.

Sense of Coherence. Sense of coherence will be estimated using the Orientation to Life Questionnaire (SOC-13) adapted specifically for youngsters (Jellesma *et al.*, 2006).

Sport participation. Measurements regarding sport participation will be based on the Dutch Guideline for Sport Participation Research (Richtlijn Sportdeelname Onderzoek (RSO)) with recall-periods adapted to fit the time frame of this research (Mulier Institute, 2000). The items included in the questionnaire address the frequency and duration of sport activities, the type of sport activities, the membership of sport/fitness club and the inclusion of sport in the treatment plan.

Table 2.1 Overview over measurements across the three questionnaires.

Concept	Indicator	Questionnaire			Instrument
		T_0	T_1	T_2	
Personal characteristics	Sex, age, ethnic background, education, employment	X			
Life prospects	Subjective health	X	X	X	2 items from SF-36
	Problem behaviour	X	X	X	SDQ
	School or employment status	X	X	X	
	Functioning at school or work	X	X	X	
Self-regulation skills	Planning	X	X	X	planning subscale SRL-SRS
	Self-monitoring	X	X	X	self-monitoring subscale SRL-SRS
	Effort	X	X	X	effort subscale SRL-SRS
	Reflection	X	X	X	reflection subscale SRL-SRS
Sense of coherence	Sense of coherence	X	X	X	Orientation to Life Questionnaire (SOC-13)
Sport participation	Frequency and duration	X	X	X	RSO
	Type of sport	X	X	X	RSO
	Membership sport/fitness club	X	X	X	RSO
	Sport as part of plan	treatment	X		
Sport climate	Motivational sport climate		X	X	MCSYS

Note. SDQ: Strengths and Difficulties Questionnaire; SRL-SRS: Self-Regulation of Learning Self-Report Scale; RSO: Richtlijn Sportdeelname Onderzoek; MCSYS: Motivational Climate Scale for Youth Sports.

Sample size

A power analysis using G-power has been carried out to determine the minimal sample size. The required number of participants (with the number of measurements set at 3) to find small effects (f 0.20) is 244, for a significance level of 5% and a power of 0.80. Allowing for a drop out of 20% at time 2 and 30% at time 3, a total baseline sample of 436 participants is required. The present design is expected to result in a total sample of 600 participants.

Data analysis

Quantitative data will be analysed with the use of SPSS software (PASW statistics). The data will be analysed using multilevel modelling techniques. Single-level multiple regression models ignore the complexity of the hierarchical data within this current study and are likely to produce underestimated variances and standard errors Multilevel modelling is especially suitable for repeated measurements of individuals nested in groups, as it is capable of examining correlated data and unequal variances (Vertonghen *et al.*, 2014). In addition, because we have an unbalanced design, multilevel modelling will produce efficient estimates of the model parameters and covariance components. Within our study, the repeated measures (level 1 unit) of the

individuals (level 2 unit) are nested in a region of the youth care organisation (level 3 unit). Hence, the observations are not independent from one another, because the individuals within one region are likely to be more similar as compared to other regions (i.e. between regions). For ordinal outcomes, generalized linear mixed models will be used to accommodate the different probability distributions of the data, as compared to continuous outcomes.

Study aim 2: Life experiences of socially vulnerable youth in sport context

Study design and participants

Interviews will be conducted with youngsters in the experimental regions during their time at the Rotterdam youth care organisations. The youth care professionals will be asked to identify youngsters for whom sport participation seems to work out well (rich response sampling) (Pidgeon & Henwood, 2009). Data is collected until data saturation is reached. In-depth interviews will be conducted that aim to understand the life experiences of the youngsters in the sport context that may contribute to enhanced life prospects. The interviews will be very open and aim to invoke narratives of the youngsters about their sporting activities. Investigating the experiences of the youngsters may enhance our understanding of how the social interaction (with sport coaches and peers) in the sport context may lead to improved life prospects. Czarniawska (2009) points out that narratives are "*…often substituting chronology for causality* (p. 651)". The data gathered via these in-depth interviews cannot provide evidence on the causal relation between sport and life prospects in a statistical sense. However, the data can provide insights on the meanings that youngsters attach to activities in the sport context and the perceived role these activities play in their personal development. The interviews will be audio-taped and transcribed intelligent verbatim style.

Data analysis

The transcripts of the interviews will be coded and analysed using software for qualitative data analysis (Atlas.ti). The data will be analysed following the hermeneutical approach which will allow us to review the experiences of the participants in their own words (Kinsella, 2006). The hermeneutical approach emphasises interpretation of phenomena as articulated by the interviewees and, more importantly, interpreted by the researcher. Reaching understanding of these phenomena occurs in a cyclical process in which the researcher moves from the whole text to parts of the text, and vice versa. Parts of the text cannot be understood without looking at the whole text, and the whole text only makes sense when looking at specific parts of the text.

The experiences of the youngsters will be explored in the light of positive youth development theory and Antonovsky's sense of coherence. Through reading the transcripts and interpreting the described phenomena, the experiences of the youngsters can be contextualised and understood in light of these theories. The hermeneutical approach consists of a dialogue between the

researcher and the text and, hence, the understanding of phenomena is always biased (Cronin, 2001; Kvåle & Synnes, 2013). The aim of the hermeneutical study is then to provide one unique and partial understanding of how youngsters experience sport activities in relation to their personal development.

Study aim 3: Social conditions
To study the role of social conditions in the effect of sport participation on life prospects, two different research approaches are adopted. The first approach quantitatively assesses the moderating role of a motivational sport climate in the relationship between sport participation and life prospects. The second approach qualitatively examines the role of the sport coaches in creating social conditions that could improve the personal development of socially vulnerable youth.

Quantitative sub-study: the moderating role of motivational sport climate
To study the influence of a motivational sport climate on the relation between sport participation and life prospects, a scale measuring sport climate will be included in the questionnaires administered to assess the causal effect of sport participation (i.e. study aim 1). The Motivational Climate Scale for Youth Sports (MCSY) contains two subscales for a mastery-motivational and an ego-motivational climate and assesses the youth's perceived motivational sport climate (Smith *et al.*, 2008). This scale will be included in the second and third questionnaire administered at, respectively, 6 months and 18 months of follow-up. The following hypothesis (hypothesis 6) was formulated: The positive effect of sport participation on life prospects is moderated by motivational sport climate. The moderating effect of motivational sport climate will be statistically analysed using multivariate regression techniques (multi-level modelling).

Qualitative sub-study: the role of sport coaches in creating positive social conditions

Study design and participants
Interviews will be conducted with sport coaches about their coaching practices to see how they create situations in which positive life experiences can arise for socially vulnerable youth. A list of sport coaches will be created after consultation with the youth care professionals who are asked to keep track of the sport clubs their youngsters are joining. Sport coaches will be selected from this list in such a way that they represent a wide variety of sport types. All the interviews will be conducted within the Rotterdam context with sport coaches that give training to the youngsters of the youth care organisation. The interviews will be semi-structured and conducted with the purpose to reveal how sport coaches engage in interaction with the youngsters of the youth care organisation. The coaches will be invited to share their experiences of training these youngsters. In addition, specific questions are asked that address the three SOC-components. This will allow us to review the role of the sport coach in

creating life experiences that could lead to enhancements in SOC. The interviews will be audio-taped and transcribed intelligent verbatim style.

Data analysis

Transcripts of the interviews will be used for qualitative analysis in Atlas.ti. A thematic analysis will be conducted on the data following the guidelines of Braun and Clarke (2006). They propose six phases for a thematic analysis starting with familiarising yourself with the data and generating initial codes. The codes are then ordered in themes and rearranged to generate a thematic map of the data. In the final phase of the ongoing analysis, the themes are reviewed in relation to the whole text and the literature. The analysis will be deductive in nature, based on the sense of coherence theory. Themes will be established *a priori*, based on the current literature about the SOC theory, and mapped on the data. In addition, codes not fitting with one of the pre-designed themes will be examined to see if they can form a new theme.

Study aim 4: Elements of successful partnerships

Study design and participants

To identify elements of successful partnerships between youth care organisations and local sport clubs, qualitative data will be collected throughout the study by conducting in-depth interviews with youth care professionals, the Care Sport Connector (CSC) and stakeholders in the local sport clubs. At least five interviews with randomly selected youth care professionals and five interviews with randomly selected stakeholder in the organised sport clubs will be conducted in both the intervention and the control area. Three interviews with the CSC will be employed in the intervention area. Additional interviews will be conducted if data saturation is not reached after this number of interviews. The interviews will be audio-taped and transcribed (intelligent verbatim style).

In the interviews with the youth care professionals, the stakeholders in the local sport clubs and the CSC, the HALL-framework will be used as a starting point. Consequently, the participants will be asked about personal and organisational factors that might influence the quality and performance of the partnership, and factors related to the organisation of the partnership that may help to deal with personal and organisational differences. In addition, the researchers ask participants about the goals of the partnership, to what extent they think they have reached these goals and what factors helped to reach these goals. As a result, it is possible to investigate associations between the occurrence of specific factors (personal factors, institutional factors, and factors on the level of the organisation of the partnership) and how the participant involved in the partnership perceive the results of the partnership.

Data analysis

The data analysis will take place in three stages (Creswell & Clark, 2011). At first, the researchers will read all the data and will develop a codebook in which

the HALL-framework functions as a starting point. Hence, a deductive coding approach is used in which the codes in the codebook refer to the three different factors of the HALL framework: the personal factors, the institutional factors and the factors related to the organisation of the partnership. A fourth element of the codebook will be the perceived performance of the partnership. Reading all the data before coding makes it possible to create codes for specific results of the partnership, as well as to expand the codebook with personal factors, institutional factors and factors relating to the organisation of the partnership that are not yet part of the HALL-framework.

In the second stage, the data will be analysed and presented in tables and summaries. These tables and summaries will represent the frequency participants mention specific factors in the partnership between the youth care organisation and the local sports clubs, and what the participants perceive as the performance of the partnership. To investigate which personal factors, institutional factors and factors relating the organisation of the partnership determine the performance of the partnership, associations between the occurrence of the different factors and the performance of the partnership will be explored in Atlas.ti. The presented findings will serve as a starting point for the third phase: validation of the data. Validating the data will occur by four of the nine validity procedures presented by Creswell and Clark (2011). First of all, to avoid researcher bias, two researchers will be involved in the process of data coding and data analysis. Secondly, after analysing and representing the findings, all the data will be read to search information that disconfirms the evidence. Thirdly, the researchers will confront the participants with their interpretations via e-mail or via a focus group meeting. Through this so-called member checking, participants can confirm if the researchers accurately represented their reality. Fourthly, all research activities and decisions made throughout the research process will be documented. A researcher who is not closely involved in the research project will be asked to monitor and review this documentation.

Discussion

This study will provide a deeper understanding of sport as a tool for the personal development of socially vulnerable youth. This study has four research aims: (1) to provide insights on the causal relationship between sport participation and life prospects of socially vulnerable youth, and the underlying mechanism by which sport can improve life prospects; (2) to explore the life experiences in the sport context of socially vulnerable youth that can lead to skill development; (3) to examine the social conditions that may strengthen the positive effect of sport on life prospects, and; (4) to provide insights into the organisational context of successful sport inclusion in youth care practices by exploring elements of successful and enduring partnerships between professional and voluntary organisations

Sport participation is linked to many positive outcomes and is often applied as a tool for positive youth development. Coakley (2011) argues that these claims of positive youth development through sport participation are voiced by 'sport evangelist' and are based on wishful thinking and personal testimonials. As a consequence, Coakley (2011) claims that more critical research and theory is needed that could support policy-makers and program officials in making decisions about sport for positive youth development. In a similar way, Coalter (2010) states: *"What is required is a developmental approach based on the de-reification of 'sport', and a concentration on understanding the social processes and mechanisms that might lead to desired outcomes for some participants or some organisations in certain circumstances* (p. 311)"*. The current study adopts such a critical approach to sport for positive youth development by reviewing the phenomenon from different theoretical perspectives, with different methodological approaches and by examining different elements of the 'black box'.

Strengths and limitations
There has been a large amount of research investigating the positive outcomes of sport participation. These studies often draw conclusions on the association between sport and the studied outcome based on cross-sectional data. This current study aims to contribute to these findings by investigating the outcomes over a longer period of time (1.5 year) and to report on the causal effects of sport participation by comparing the outcomes of the experimental and the control group. We will explore the life experiences of socially vulnerable youth in the sport context which will allow us to draw a more comprehensive and rich picture of sport-based activities for socially vulnerable youth. In addition, the social conditions and elements of successful partnerships are studied to guide future initiatives of youth care organisations and local sport clubs to use sport as a tool for personal development. The mixed methods design of this study provides insights on the processes occurring in the black box of sport participation that may contribute to the personal development of socially vulnerable youth.

Most studies investigating the factors that influence the performance of the partnership operationalise this performance as the perceived performance by the participants. To explore this relationship for partnerships between youth care organisations and local sport clubs (research aim 4), we use a similar approach. As this part of our study takes place in the same context as the study activities to address research question 1-3, we will also be able to add objective measurements of the partnership's performance such as the number of youngsters guided to local sport clubs and the presence of beneficial social conditions at local sport clubs.

This study has several limitations. First of all, the quantitative part of this study has a non-equivalent control group design. The training and support given by the Care Sport Connector (CSC) is organised on a regional level, making

randomisation at the individual level of the youngsters impossible. This means that the study may be subject to selection-bias if the youngsters differ on baseline characteristics between the control and the experimental groups. Secondly, due to the voluntary nature of sport participation as part of the treatment plan it is likely that the youngsters who join a sport club differ significantly on certain characteristics from the youngsters that choose not to join. This may distort the effect measurement of sport participation on life prospects, self-regulatory skills and SOC. A third limitation concerns the fact that the intervention is executed on the level of the CSC. The effect of the intervention needs to percolate to the level of the health care professionals and the youngsters, which may reduce the effect of the intervention on the outcome measures. A large sample size is needed to measure changes in life prospects of the youngsters. Fourthly, increasing the sport participation of the youngsters in the experimental groups of the Rotterdam youth care organisation is a big challenge. These youngsters are having difficulties in one or more life domains (e.g. family, school or work) and as such are not necessarily focused on engaging in sports in their leisure time. In order to be able to find significant effects of a small size, we need a large sample. Especially the administration of the third questionnaire, when the youngsters have often left the youth care organisation, will be time-consuming for the researchers. Incentives for completion of all three questionnaires are introduced to increase response rates.

Implications for practice
The results from this study will be used to support stakeholders in the youth care and sport context in their effort to improve the personal development of socially vulnerable youth through sport participation. An intervention protocol will be developed for relevant stakeholders that seek to integrate sport activities in youth care practices. There is increasing attention in both politics and practice for the use of sport as an intervention for social problems. Findings from this study can support initiatives by providing insights on the social conditions and organisational factors of successful sport inclusion.

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Chapter 2

Chapter 3

Intermezzo: From study protocol to research practice

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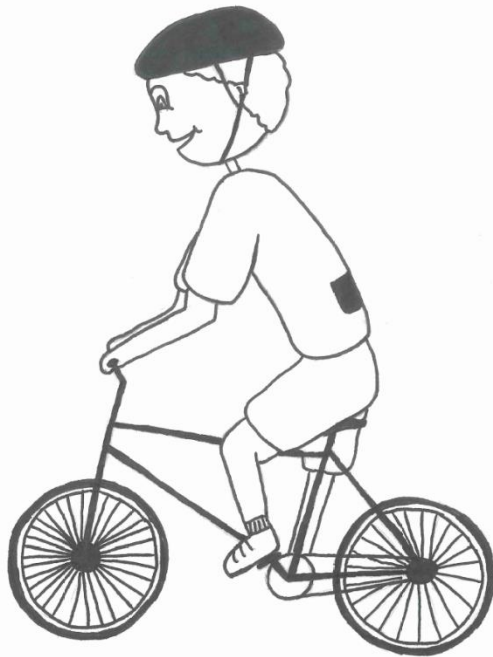
Chapter 3

Introduction

The previous two chapters described the theoretical framework, research objectives, and research methods for the overall objective of unravelling the value of sports participation for socially vulnerable youth[1]. By conducting research in this group of vulnerable young people, we aimed to give voice to a group of people who are underrepresented in scientific research. Policy recommendations are generally formulated on the basis of research that has often been conducted in Western, Caucasian, and middle-class research populations (Ten Broeke, 2015). However, Henrich *et al.* (2010) argue that the results from studies among these WEIRD populations – White, Educated, Industrialised, Rich, and Democratic – are the least representative to generalise to other populations. Besides this pragmatic question of generalisability, from an ethical point of view, marginalised and vulnerable groups need to be recruited in research to achieve social inclusion and equity (Smith, 2008). Hence, the inclusion of vulnerable groups in research not only serves a clear scientific purpose, but is also fed by normative beliefs about the importance of giving a voice to those who are often underrepresented. Yet, researchers that aim to conduct research in vulnerable groups often face several dilemmas – for example in ethical matters, in research design, and in methodological strategies (Aldridge, 2014) – that require them to be flexible in the chosen research approach and methodologies.

Doing research is a process that is susceptible to change and adaptations. A researcher has to be sensitive to the changing context in which the research is conducted in an attempt to include and represent vulnerable groups in the best possible way. In this chapter, we describe the necessary adaptations to our research design and data collection as a result of the changing research setting. In addition, the study protocol was approved by the medical ethical committee, but the procedure for sampling and data collection were hampering the inclusion of socially vulnerable people in the study. The consequences of this medical ethical procedure are discussed. And thirdly, new insights from studies conducted in the early phase of the research project led to changes in the design of later studies to better elucidate the value of sports participation for socially vulnerable youth. These insights and the subsequent adaptations to the studies are discussed. This chapter ends with an overview of the consequences of the changing research setting, the medical ethical procedure, and the progressive insights for the research design.

Changes in the research setting

For the studies that are presented in this thesis, we collaborated with project partners to collect data amongst socially vulnerable youth. These project

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[1] Research objective 4 (i.e., to provide insights into the organisational context of successful sport inclusion in youth care practices by exploring elements of successful and enduring partnerships between professional and voluntary organisations), as listed in the study protocol, is addressed in a different PhD thesis.

partners had several roles in the research project and the data collection. First of all, a collaborating youth care organisation employed a care sport connector (CSC) who implemented an intervention in the experimental regions, directed at increasing the sports participation rates of socially vulnerable youth. At the same time, the control regions did not have this CSC and no extra attention was paid to sport in these regions. The youth care organisation avoided contamination of the control regions as much as possible, for example by organising sport-related activities in the experimental regions without this being known in the control regions. Secondly, the youth care professionals employed at the youth care organisation were involved in administering the questionnaires and in recruiting youths for the interviews. The research team and the management of the youth care organisation met regularly to set up and implement the intervention and the research activities. In addition, the research team instructed the youth care professionals, for example about ethical procedures in the questionnaire research, in meetings that were organised by the management of the youth care organisation.

In 2015, several changes in the political organisation of the Dutch youth care system had indirect effects in the setting in which our research was conducted. These changes are referred to as the transition of Dutch youth care. Prior to the transition, the youth care system was organised around youth care organisations that provided services to their clients. The services provided by these organisations include school social work and educational counselling services, as well as more specialised (mental) healthcare. Responsibility for the organisation and financing of this youth care system resided at the national level. After the transition, local governments became responsible for organising and financing youth care. Moreover, the youth care system was re-organised around neighbourhood teams that operated on a community level to provide all services to the community members. These neighbourhood teams were composed of health professionals with various backgrounds, including, but not limited to, youth care professionals. These changes in the organisation of the Dutch youth care system had a number of implications for the research process, which are further elaborated upon below.

The youth care professionals involved in the research project became members of the neighbourhood team together with youth care professionals from other youth care organisations and health professionals with other backgrounds (e.g., elderly care). As a consequence of the transition, there was a great turnover in youth care professionals, many of whom were now formally employed by the government, and some youth care professionals moved from the experimental to the control regions, or vice versa. Hence, contamination of the control condition was unavoidable. Moreover, the transition of the Dutch youth care system also included a new vision on how to organise youth care. This vision emphasised the need for youth care professionals to organise care in close collaboration with the community in which the youths lived (VWS, 2013). Naturally, local sports clubs are one of the pedagogical settings in which these

young people grow up and, thus, national attention on the sports club as a setting for positive youth development increased, including in the control regions. This increased attention on sports clubs as settings for positive youth development also contaminated the control regions.

The transition also meant that the local government decided on the content of the youth care professionals' work, and the local government department that was in charge of youth care after the transition was not collaborating in the research project and the research activities. Therefore, the research team had to seek new collaboration with the local government in order to continue the research activities, such as the administration of the questionnaires. This extension of the collaboration delayed the research activities. In addition, the transition involved (work-related) stress for many youth care professionals that diverted their attention from the research project and related activities. This further delayed the research project because more effort was required to sample research participants.

In order to continue the research project, the research team sought collaboration with new partners. New partnerships were established with social work organisations (i.e., offering community social work to youth), sports clubs, and schools for special education. The social work organisations and the sports clubs were involved in the qualitative studies among sports coaches, socially vulnerable youth, and young adults. The research team chose to contact schools for the questionnaire research, because it turned out that, after the transition, it was easiest to organise and structure the data collection in schools, also because it was easy to inform parents about the research. An overview of the consequences of the changing research setting for the research design is presented at the end of this chapter.

Medical ethical approval
Conducting research in vulnerable groups can pose various challenges relating to ethical matters (Aldridge, 2014), for example regarding the informed consent procedure and difficulties in building trust (Whitley *et al.*, 2014). Research ethics committees are installed to assess the compliance of research proposals with ethical guidelines that have been drafted to protect research participants from harm. The four principles of these ethical guidelines are directed at protecting individuals from harm (non-maleficence), helping others (beneficence), respecting people's right to make choices (autonomy), and equitably dividing benefits from research (justice). However, stringent ethical requirements and formal ethical regulations can exclude vulnerable groups from participating in research (Hammersley, 2009). For example, ethical procedures for getting informed consent may be required by the research ethics committee but may be difficult to apply. "*This is likely to make research on both powerful and marginalized groups more difficult, if not impossible, to carry out* (Hammersley, 2009: 219)". Moreover, less conventional and flexible research methods are often favoured for conducting research in vulnerable groups, but this is often at

odds with the pre-set and top-down study protocols required by research ethics committees (Aldridge, 2014; Whitley *et al.*, 2014). The ethical guidelines that research ethics committees follow to judge research protocols are installed to guide clinical trials and medical research (Smith, 2008), but they are often less applicable to other research designs and methodological approaches (Aldridge, 2014).

The research conducted for this thesis was evaluated by a research ethics committee. The vulnerable nature of the minor research population was a reason for the research ethics committee to require a medical ethical approval and not to consider the research project as social science requiring social ethical approval. Following this decision, the research team had to draft a study protocol that followed the medical ethical guidelines designed for clinical trials. One of the requirements for informed consent was that both parents needed to give active consent for their child's participation in the questionnaire research. Given that many socially vulnerable youths live in broken families or in other situations where one or both parents are absent, this consent procedure was impossible to follow in practice. After discussion of this issue with the medical ethical research committee, it was decided that a more flexible approach to informed consent both protected the vulnerable participants and allowed the inclusion of more participants. This procedure is outlined in detail in Chapter 2. In practice, however, this less stringent informed consent procedure still proved difficult to apply and resulted in a smaller sample size than was initially targeted.

Progressive insights
Conducting research is a process that leads to new insights and thoughts as studies are set up, executed, and evaluated. These new insights may change the researchers' ideas about questions that need to be asked, theories that can be used, and methods that may best fit the research question. In this current thesis, early interviews with socially vulnerable youth led to two specific insights about the value of sports participation in their lives (objective 2 in Chapter 2), requiring adaptations in the research question and research methodology. The first insight related to the ability of the interviewees to reflect on the value of sports in their everyday lives. These interviews were initially set up to examine the role of the youths' life experiences in the sport context that could lead to personal development. However, soon after conducting the first few interviews, the researchers realised that the youths lacked the capacity to reflect on the role of sport in their lives. Indeed, as pointed out by other researchers, children and adolescents may lack the self-awareness and cognitive capacity to reflect on the life skills they develop during sport (Chinkov & Holt, 2015; Danish *et al.*, 1993). As a result, the research team adapted this research aim – thereafter focusing on understanding how socially vulnerable youths experienced their participation in sport, setting aside the question of how this played a role in their personal development.

Secondly, the interviews with socially vulnerable youth fed the idea that the degree to which these youths experienced being socially vulnerable might be very relevant for understanding the role of sports participation in their lives. However, because of the ethical guidelines, it was not possible to discuss the nature of the youths' social vulnerability during the interviews. Consequently, a follow-up study was set up that aimed to elucidate how young adults experienced being socially vulnerable and to explore the role that sports participation played in their socially vulnerable childhood. Young adults who had been socially vulnerable in their childhood were selected as research participants, as they were deemed better able to reflect on their childhood and were considered to be able to make informed decisions about sharing childhood histories, including those that were perhaps uncomfortable or distressing.

Implications for research design, data collection, and analysis

The changes in research setting, the ethical approval, and the progressive insights over the course of the research led to a number of adaptations in the research design, data collection, and analysis. With regard to the *questionnaire research,* the transition and the necessary extension of the research collaboration led to the following adaptations:

1. *The quasi-experimental design with an experimental and a control group was no longer possible*. Objective 1 of the study protocol (i.e., to provide insights into the causal relationship between sports participation and life prospects) was reformulated to examine the associations between sports participation and youth development.

2. *The scale for motivational sports climate was removed from the questionnaire.* Objective 3 of the study protocol was aimed at examining the social conditions that could strengthen the positive effect of sport on life prospects. Two different research approaches were adopted to examine the role of social conditions. In addition to the qualitative interviews with sports coaches, a scale that measured motivational climate was included in the questionnaires to statistically assess the moderating role of the sports climate in the relation between sports participation and youth development. However, the youth care professionals indicated that there were too many questions in the questionnaire and that administering the questionnaires posed a heavy burden on the time that they had available to deliver care to the youths. In addition, the youth care professionals indicated that the high number of questions was burdensome for the youths themselves. Consequently, the scale for motivational climate was removed, and the quantitative assessment of the moderating role of the sports climate was dropped.

3. *The third measurement at 18 months follow-up was dropped.* In the study protocol, the number of measurements was set at three, with a baseline measurement and two follow-up measurements after 6 and 18

months (see Chapter 2). However, the ethical approval procedure delayed the start of the questionnaire research, and the transition of the Dutch youth care system temporarily halted the data collection. Therefore, it was no longer possible to conduct a third measurement within the time period of the project. This meant that the number of measurements was limited to two.

The progressive insights into the concept of socially vulnerability and the experience of conducting interviews with socially vulnerable youth also led to a number of adaptations in the research design regarding objective three of the study protocol:

1. The original research objective to 'explore the life experiences in the sport context that can lead to skill development' was reformulated to 'understand the positive and negative sports experiences of socially vulnerable youth'. This adaptation was deemed necessary as the youths were unable to reflect on the role that sports played in their personal development.

2. On the basis of the insight that the experiences of social vulnerability are important for understanding the value of sport in a socially vulnerable childhood, an additional study was set up to investigate this further. In this study, young adults reflected on the value of sports participation in a socially vulnerable childhood.

Some minor differences can be observed between the theoretical model presented in the introduction (Chapter 1) and the theoretical model presented in the study protocol (Chapter 2). As the research aim regarding the elements of successful partnerships is not part of this thesis (objective 4 in Chapter 2), the theoretical model in the introduction does not include this component. In addition, the theoretical model presented in the introduction (Chapter 1) builds on the theoretical model presented in the study protocol (Chapter 2) but is more explicit on the transfer process and the role of the sports coach in creating positive sports experiences and strengthening life skill development.

In conclusion

Several adaptations were necessary to continue the research project within a changing research setting, following ethical guidelines from the research ethics committee, and after progressive insights from the research activities. These adaptations in some respects may be considered a weakness, for example the extension of the research collaboration with other youth organisations made the research population more heterogeneous, thereby complicating the comparison between research participants. The adaptations to the data collection may also beg the question of whether valid answers could be given to the research questions. Indeed, we were unable to answer some of the original research questions, but in return we have provided valuable insights into the value of sports participation for a group that is often underrepresented in research.

Moreover, as we remained flexible in adapting the research design to the reality of this specific group, the findings offer an honest and valid perspective of current knowledge in the field. Adding to this point, the diversification of research participants in the various sub-studies can also be considered a strength as it provides a more holistic picture of a very diverse group of socially vulnerable youth.

Chapter 3

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Chapter 4

A systematic review of life skill development through sports programmes serving socially vulnerable youth

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Chapter 4

Abstract

Despite the strong belief in sports programs as a setting in which socially vulnerable youth can develop life skills, no overview exists of life skill development in sports programs serving this youth group. Therefore, the present systematic review provides an overview of the evidence on life skill development in sports programs serving socially vulnerable youth, and, insofar as this was investigated in the included studies, of the conditions conducive to life skill development in these sports programs. Potentially relevant studies published between 1990 and 2014 were identified by a search in seven electronic databases. The search combined terms relating to (a) sport, (b) youth AND socially vulnerable, and (c) life skills. Eighteen of the 2,076 unique studies met the inclusion criteria. Each included study reported that at least one life skill improved in youth that participated in the studied sports program. Improvements in cognitive and social life skills were more frequently reported than improvements in emotional life skills. Only a few of the included studies investigated the conditions in the studied sports programs that made these programs conducive to life skill development. Sports programs have the potential to make a difference in the life skill development of socially vulnerable youth. This conclusion needs to be treated with some caution, because the studies experienced many challenges in reducing the risk of bias. Several alternative research strategies are suggested for future studies in this field.

Chapter 4

Introduction

This systematic review provides an overview of the evidence on life skill development in sports programs serving socially vulnerable youth. Socially vulnerable youth represent a broad group, ranging from youth living in areas of low socio-economic status (SES) to youth receiving residential care or non-residential counselling. A common denominator is that they face stressors in their everyday life, such as income poverty, poor family management, low housing quality, and peers involved in problem behavior (Feinberg *et al.*, 2010; Hawkins *et al.*, 2002). These stressors may lead to feelings of incompetence, social disconnectedness, negative experiences with societal institutions (e.g., family, school, and health care), a lack of ambition (Haudenhuyse *et al.*, 2014; Vettenburg, 1998), and a reduced chance of participating in meaningful activities, such as sports (Turnbull & Spence, 2011; Vandermeerschen *et al.*, 2013). Programs aiming to support youth in dealing with stressors of everyday life are often grounded in the Positive Youth Development (PYD) perspective, which emphasizes that youths, including those who are socially vulnerable, have the potential to develop the life skills that they need to deal with the stressors they face (Damon, 2004; Lerner *et al.*, 2005). Moreover, life skills are important predictors of youths' future well-being, academic performance, and job satisfaction (Converse *et al.*, 2014; Ridder *et al.*, 2012; Zins *et al.*, 2004).

Life skills, defined as "*those skills that enable individuals to succeed in the different environments in which they live, such as school, home and in their neighborhoods*" (Danish *et al.*, 2004:40), can be divided into emotional, cognitive, and social skills (Lerner *et al.*, 2005; Turnnidge *et al.*, 2014). Emotional life skills pertain to one's internal sense of well-being and self-worth (Lerner *et al.*, 2005). The development of emotional skills is particularly important for socially vulnerable youth because they face mental health problems more often than non-vulnerable youths do (Reiss, 2013; Wille *et al.*, 2008). Cognitive life skills pertain to abilities such as self-regulation, decision making, and impulse control (Lerner *et al.*, 2005). Such cognitive skills are shown to be protective factors for the stressors that socially vulnerable youth face in their everyday life (Lösel & Farrington, 2012). Social skills pertain to skills that can be used in interpersonal relationships, such as communication skills, conflict resolution, and prosocial behavior (Lerner *et al.*, 2005). The development of social skills is important for socially vulnerable youth because those skills may help them to decrease social disconnectedness, which is one of the major indicators for social vulnerability (Haudenhuyse *et al.*, 2014).

Sports programs (i.e., formally structured activities that take place for a specific time-period and in the presence, or under the instruction, of adults (Bean *et al.*, 2014; Fuller *et al.*, 2013; Ullrich-French *et al.*, 2012)), are believed to provide youths with settings for life skill development (Fraser-Thomas *et al.*, 2005). It is argued that positive experiences in sports programs lead to improved emotional life skills, such as increased self-worth or reduced depressive symptoms (Eime *et al.*, 2013). A suggested mechanism for the

development of cognitive life skills is the goal-setting behaviour required in the sports setting, giving young people the opportunity to hone their cognitive skills (Jonker *et al.*, 2011). Moreover, the sports setting is an environment rich in feedback, which is considered to be a prerequisite for the development of cognitive life skills such as self-regulation skills (Jonker *et al.*, 2011). Besides these social and psychological mechanisms, physiological mechanisms are suggested for the relationship between sports participation and emotional and cognitive outcomes. For instance, it has been shown that physical activity leads to changes in neurotransmitters associated with improved well-being (Lubans *et al.*, 2012), self-esteem (Cerin, 2010), and executive functioning (Diamonds & Lee, 2011). Finally, Bailey, Hillman, Arent, and Petitpas (2013) suggest that, as many sports programs take place in a social setting, such programs provide youths with opportunities to develop social skills such as communication skills, conflict resolution, and empathy.

In order to develop and run sports programs serving socially vulnerable youth, policymakers and social professionals will benefit from an overview of what is known about life skill development in such programs. In a systematic review of the psychological and social benefits of participation in sport for children and adolescents, Eime *et al.* (2013) found that improved self-esteem, social interaction, and fewer depressive symptoms were the most commonly reported psychological and social benefits of sports participation. However, the possibility of generalizing their findings to socially vulnerable youth is limited, because their overview did not distinguish between socially vulnerable and non-vulnerable youth. Such a distinction is needed, because the mechanisms underlying life skill development through sports may differ for these two youth groups (Haudenhuyse *et al.*, 2014). Also, Eime *et al.* (2013) did not distinguish between studies on sports programs and so-called sports-for-development programs or sport plus programs. Sports-for-development programs are sports programs intentionally structured to serve socially vulnerable youths' sports participation and/or life skill development (Coalter, 2015). Only Lubans *et al.* (2012) systematically reviewed studies on the benefits of sports programs serving socially vulnerable youth. The authors provide an overview of quantitative studies published between 1990 and 2011 on the impact of outdoor activity programs, sport and skill-based programs, and physical fitness programs (e.g., aerobics and circuit training) on the social and emotional well-being of socially vulnerable children and youths aged 4 to 18. On the basis of six studies that examined the benefits of sports programs, Lubans *et al.* (2012) concluded that sports programs potentially have beneficial outcomes for socially vulnerable youth, but that their findings should be treated with caution because of the low number of included studies.

It is useful to expand Lubans *et al.* (2012) work with more recent studies for several reasons. First, to our knowledge, additional quantitative studies that examined life skill developments in sports programs serving socially vulnerable youth have been published since Lubans et al.'s review (e.g., D'Andrea *et al.*,

2013 and Terry *et al.*, 2014). Second, it is useful to expand Lubans *et al.*'s (2012) work with qualitative studies that have described sports coaches', parents', and youths' perceptions of life skill development in these programs, such as the studies by Beaulac *et al.*, (2011) and Riley & Anderson-Butcher (2012). A final reason for conducting the present review is that previous reviews in this field ignored the conditions conducive to life skill development that were investigated in the included studies. This is unfortunate, because it has been shown that sports programs need to meet certain conditions in order to provide a setting that supports life skill development (Coalter, 2015; Fraser-Thomas *et al.*, 2005), such as positive peer relationships and sports coaches creating a task oriented sports climate (Haudenhuyse et al., 2014; Newton, et al., 2007; Smith, Smoll & Cumming, 2007). Conducive conditions seem to be particularly important in sports programs serving socially vulnerable youth. For instance, because the emotional baggage of these youths may lead to negative sport experiences and mechanisms of exclusion in sports settings that emphasize competition and masculinity (Bean *et al.*, 2014; Haudenhuyse *et al.*, 2014). Such exclusion in sports and negative sports experiences have been found to increase feelings of rejection and social isolation that can further push these youths down the spiral of vulnerability (Super, Wentink, Verkooijen & Koelen, 2017)

Study aim
To summarize, despite the increased attention on sports programs as a setting for life skill development in socially vulnerable youth, no recent overview exists of quantitative and qualitative studies investigating the life skill development in sports programs serving this group. Therefore, the main aim of the present review is to describe the evidence on life skill development in sports programs serving socially vulnerable youth from quantitative and qualitative studies. As previous systematic reviews did not address conditions conducive to life skill development that were investigated in studies on life skill development in sports programs, an additional aim of this review is to describe what is known about conducive conditions from studies on life skill development in sports programs serving socially vulnerable youth. Accordingly, the following two research questions were formulated: (1) What is the evidence on life skill development in sports programs serving socially vulnerable youth from both quantitative and qualitative studies? and (2) What is known about conducive conditions for life skill development from these studied sports programs? By addressing these two research questions, this review supports the knowledge base that will help policymakers and practitioners to select and develop sports programs serving socially vulnerable youth, and that will support researchers to develop new studies in this field.

Methods

To identify relevant studies, the first author developed a search in continuous deliberation with the other authors. The search combined terms relating to (a) sport, (b) youth AND socially vulnerable, and (c) life skills. In line with Turnnidge *et al.* (2014), the major outcome variables were terms related to emotional, cognitive, and social life skills. The full search is available in Appendix A. We did not add search terms for research question 2, because we aimed to explore what is known about conducive conditions for life skill development in studies included to answer research question 1. The search was carried out in seven electronic databases (Scopus, SportDiscus, PsycINFO, SOCindex, Psychology and Behavioral Sciences Collection, Pubmed, and Web of Science), resulting in a set of 2,674 records. After removing 598 duplications, the titles and abstracts of 2,076 unique studies published between 1990 and 31 December 2014 were screened by the first and second author (see Figure 4.1).
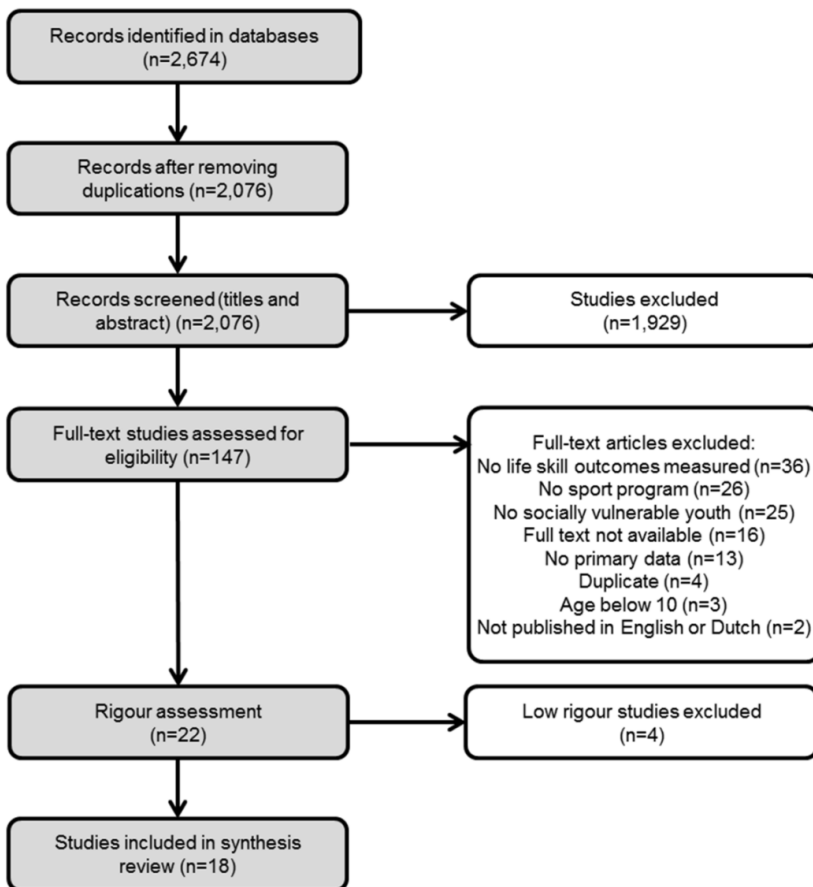

Figure 4.1 Flowchart of the search

To be included, studies had to meet three initial criteria. The study population had to be *socially vulnerable youth* aged 10–23, the setting had to be a *sports program* serving this youth group, and *life skill development* had to be reported. Studies were excluded if they did not present primary data, were not published in English or Dutch, and/or if they were published before 1990. Both authors started to screen titles and abstracts independently. After one day of screening, when each author had screened the titles and abstracts of 67 studies, they compared their decisions. The inter-rater reliability of the decisions between the two authors was strong: 0.96 (McHugh, 2012). Having discussed the three studies on which they decided differently, the authors agreed to exclude studies at this screening stage only if it was very obvious that the study did not meet the inclusion criteria. The remaining articles were divided between the two authors to screen titles and abstracts, and 147 studies remained for full text assessment after this screening process.

The first and second author read the full texts of all 147 studies and independently considered the inclusion of the studies. At this stage, two exclusion criteria were added. We excluded studies if the sports activity was not the core element of the program but merely one of the program elements among several other non-sports elements. We also excluded studies if they only reported on outcomes directly related to the sports context, such as physical activity efficacy or teamwork in the sports setting. If the authors disagreed, the third author read the study and discussed with the first and second author whether it should be included or excluded. After the full text assessment, 22 studies remained.

The last inclusion criterion was that the study had to be of medium or high rigor. In order to exclude studies of low rigor, we assessed the rigor of the 22 studies using 10 criteria derived from the TAPUPAS framework (Pawson, Boaz, Grayson, Long, & Barnes, 2003). The TAPUPAS framework was chosen to develop the rigor assessment criteria, because it contains general quality criteria that can be applied to both quantitative and qualitative studies. The 10 criteria were: Clear description of study aim; Appropriate size of sample; Sound selection/sampling of sample; Appropriate description of the context of the study and of the study participants; Conclusions supported by the data; Sound description of limitations; Sound data; Appropriate analysis to answer the research question; Logical, traceable, and clear documentation of the research process; Sound extrapolation of conclusions to theoretical population. To assess the rigor of the studies, the first two authors independently scored the studies on each of the 10 criteria: 1 point if a study satisfied a criterion, 0 points if a study did not. Hence, in total, studies could be assigned 10 points: one for each criterion. When the first and second author disagreed about the rigor assessment of a study, this was discussed with the third author, who also read all 22 studies. Studies that received fewer than five points were assigned low rigor, studies that received five to seven points were assigned medium rigor,

and studies that received eight or more points were assigned high rigor (van Dillen *et al.*, 2013). At the end of this stage, we excluded four studies because they were of low rigor, leaving 18 studies in the synthesis.

To synthesize the data, the first author extracted data from the included studies regarding the type of sports program, the participants, the study design and methods, and the study results. Thereafter, the first author wrote summaries of the extracted data and had ongoing discussions on the synthesis of the data with the second author. The four authors discussed the summaries and synthesis several times in the review process.

Results

This section starts with an overview of the studied sports programs and a brief summary of their designs and methods. Thereafter, the findings of the studies are presented along the three major outcomes: emotional life skills, cognitive life skills, and social life skills. Finally, we give an overview of what the studied sports programs tell us about conditions conducive for life skill development.

Sports programs

Table 4.1 gives an overview of the 18 sports programs studied. The programs were conducted in urban areas in six countries, but mostly in the USA (n=10) or Canada (n=3). The settings in which they were conducted were schools in low SES areas (n=9), summer camps serving socially vulnerable youth (n=4), community centers or community sports clubs in deprived areas (n=3), and residential care (n=2). In most of the programs, youths participated voluntarily. In some of the programs in the school setting, youths were selected for participation by a school staff member. Twelve of the 18 programs included PYD principles (see Table 4.1). In line with PYD theory (Damon, 2004), these programs aimed to foster positive development. Some of these programs included PYD principles by building upon the Teaching Personal and Social Responsibility (TPSR) Model, which is based on the idea that youths can develop effort and teamwork skills, self-direction and goal setting, leadership and helping skills, and respect for others if they play an active role in coaching the sports activities (Hellison, 2003). Other PYD principles included in the sports programs were a mastery sports climate (e.g., Beaulac *et al.,* 2011), a positive peer and coach–youth relationship (e.g., Bean E. et al., 2014; Ullrich-French, *et al.,* 2012), and facilitating positive sports experiences (e.g., Holt *et al*., 2012; Terry *et al*., 2014). In addition to the sports programs based on PYD principles, four programs included principles that should empower youths to engage in program development and in decision-making processes in the sports activities. For instance, the program studied by Bruening *et al.* (2009) was based on theories of engagement and free-choice learning, and the program studied by Bonhauser *et al.* (2005) involved youths in deciding which sports were offered in the sports program. Finally, one program was based on therapeutic procedures (D'Andrea

et al., 2013) and one study did not mention the program's theory base (Hasanpour, *et al.,* 2014). The six programs that were not based on PYD principles aimed to increase physical activity and physical fitness, rather than foster positive developments (see Table 4.1).

Table 4.1 Aim, target group, setting, and content of the sports programmes

Study	Setting	Theory base	Aim sport programme	Participant sport programme	Selection and background participants	Programme content
Anderson-Butcher *et al.* (2014)	Summer camp	Positive youth development principles and the TPSR Model	Foster social competence	Boys and girls aged 9–16	Voluntary participation of youth from deprived area	Summer camp of 19 successive workdays. Each day included one hour of play-based social skills instruction and three hours of sports instruction.
Armour & Duncombe (2013)	School	Positive Youth Development, Elite role models	Support teachers to work with young people who experience difficulties in school life	Boys and girls aged 10–19	Teachers selected pupils based on their professional judgements about who could benefit from the programme	Weekly sports activities for 8 to 12 weeks. The type of sports (e.g., football, skate boarding, rugby, judo) varied among schools. In half of the schools, elite sports people (i.e., role models) visited three of the sessions.
Armour & Sandford (2013)	School	Positive Youth Development	Contribute to local community, aid the personal, social, and educational development of participants, and re-engage pupils in education	Boys and girls aged 13–14	Teachers selected youth based on their professional judgement about which youth were disengaged	One full week of outdoor sport activities and one additional weekend for pupils most in need.
Bean *et al.* (2014)	Community sports club	Positive Youth Development, emphasizing positive coach–youth relationship	Develop life skills and character	Boys and girls aged 10–18	Voluntary participation of youth from deprived area	Organized practices and scheduled competition. Sports coaches received training on how to build relationships with the participants and how to act as a mentor.
Beaulac *et al.* (2011)	Community recreation centre	Positive Youth Development	Respond to an identified need for pro-social, structured, and accessible physical activity programmes	Boys and girls aged 11–16	Voluntary participation of youth from a deprived area	Weekly free dance classes, for 13 successive weeks.

Table 4.1 – Continued

Study	Setting	Theory base	Aim sport programme	Participant sport programme	Selection and background participants	Programme content
Bonhauser et al. (2005)	School	Adult learning approach	Improve physical fitness	Boys and girls around age 15	Compulsory physical activity classes for all ninth graders at two schools in a deprived area	Weekly sports sessions of 1.5 hours for a full school year. Each session comprised stretching, arm, leg, and trunk movement, fast walking, running and jumping, and sports practice.
Bonnette et al. (2001)	Summer camp	Indirect teaching methods for critical thinking	Not reported	Boys aged 10–13	Voluntary participation of youth from financially challenged families could participate	Sports-based summer camp of three weeks. Each day included 40 min of sports skills instruction. The teachers of half of the groups were encouraged to promote critical thinking in the youth.
Bruening et al. (2009)	Community centre	Theories of engagement and free-choice learning	Promote healthy life choices in preadolescent girls of colour	Girls aged 9–13	Voluntary participation of girls who experienced problems in several areas (e.g., family, school)	Two 2-hr sessions a week. Each session included sports instruction, life skills instruction, and a dinner including a nutrition lesson.
D'Andrea et al. (2013)	Residential treatment setting	Therapeutic procedures of the Attachment, Regulation and Competency framework	Not reported	Girls aged 12–21	Voluntary participation of traumatized girls in residential treatment with histories of severe emotional and behavioural problems	For a period of five months, one basketball game each week against a team of girls from another residential treatment setting. Also, a basketball skills clinic every sixth week.

Table 4.1 - Continued

Study	Setting	Theory base	Aim sport programme	Participant sport programme	Selection and background participants	Programme content
Fuller (2013)	School	Positive Youth Development	Provide experiences that increase opportunities for positive youth development	Boys aged 10–13	Selection by the school family resource counsellors at schools where 95% of the pupils are eligible for free/reduced-price meals	Twenty-four weeks of daily 2-hr sessions, including sports (basketball, football, floor hockey, and soccer) and other physical activities, life skills programming, and pertinent nutrition lesson.
Hasanpour et al. (2014)	Pseudo-family centre	Not reported	Not reported	Girls aged 13–19	Random selection of orphan girls in pseudo family centres	Twenty-four aerobic sessions (10 min warming-up, 40 min exercise, 10 min cooling-down) in two months.
Hellison & Wright (2003)	School	Positive youth development principles and personal–social responsibility model	Use basketball to teach youth to take responsibility for coaching, helping, and leading the sports activities	Boys and girls aged 10–14	Voluntary participation of pupils that were selected by teachers because they showed discipline problems at school	Once a week basketball activity.
Holt et al. (2012)	School	Positive Youth Development	Contribute to positive development of youth	Boys and girls aged around 12	Voluntary participation of students at a school in a deprived inner-city area	Three times a week lunchtime sport activities for a full school year.

Table 4.1 – Continued

Study	Setting	Theory base	Aim sport programme	Participant sport programme	Selection and background participants	Programme content
Laberge et al. (2012)	School	Social marketing principles	Stimulate lunchtime physical activity at impoverished middle and secondary schools	Boys and girls aged 13–14	Voluntary participation of students	Diverse lunchtime physical activity activities of at least 45 min, for 16 successive weeks on three to five days a week.
Riley & Anderson-Butcher (2012)	Summer camp	Positive youth development principles and the TPSR Model	Increase social competence, self-control, effort, teamwork, and social responsibility	Boys and girls aged 9–16	Voluntary participation of youth from a deprived area	Nineteen successive workdays, four hours each day including one hour of play-based social skills instruction and three hours of sports instruction.
Terry et al. (2014)	School	Focus on physical fitness, enjoyment, and safety (PYD principles)	Increase participation in sports clubs and build fitness, technical skills, and positive social attitudes	Boys and girls aged 11–12	Voluntary participation	Nineteen 50-min boxing sessions (warm-up, physical and technical part, warm-down) spread over eight weeks.
Ulrich-French et al. (2012)	Summer camp	Positive Youth Development	Address personal and social assets and environmental barriers to healthy living	Boys and girls aged 9–16	Voluntary participation of low-income youth	Four weeks of daily (Monday–Friday) physical activity activities.
Walsh et al. (2010)	School	Positive youth development principles and the TPSR model	Improve responsibility skills	Boys and girls aged 9–11	Voluntary participation of youngsters from a school in a low-income and minority neighbourhood	One hour of basketball practice every week for a period of two school years. The first eight sessions were used to establish norms, from the ninth session focus on self-direction, goal setting, leadership, and helping. Games led by the participants themselves.

Designs and methods

The study designs and methods varied greatly between studies, ranging from experimental quantitative studies to qualitative interview studies (see Table 4.2). Most of the quantitative studies applied validated instruments to assess youths' life skills, but different instruments were used to assess the same life skill across studies. For instance, to assess self-esteem, Bonhauser *et al.* (2005) used the Tennessee Self-Concept Scale, Laberge *et al.* (2012) the Rosenberg global self-esteem scale, and Hasanpour *et al.* (2014) the Coppersmith self-esteem inventory. In addition to youths, the participants in the qualitative studies involved parents and program staff members.

Overview of the study results

Emotional life skills

Six of the included studies reported on emotional life skills, of which four reported improvements (see Table 4.3). Overall, the findings presented below give some indications that sports programs serving socially vulnerable youth are settings where internalizing symptoms decrease. However, the findings regarding the development of other emotional life skills (e.g., global self-worth, mood, and hope) were mixed. An interesting observation is that improvements in emotional life skills were more frequently reported in quantitative studies than in qualitative studies.

Decreases in internalizing symptoms were reported in two quantitative studies (Bonhauser *et al.*, 2005; D'Andrea *et al.*, 2013), which were conducted in two very different settings. D'Andrea *et al.* (2013) assessed whether participation in basketball activities in addition to treatment as usual affected internalizing symptoms (i.e., depression, anxiety, withdrawal, and somatic complaints) in traumatized girls in a residential treatment center. The authors found that internalizing symptoms in the girls that participated in the basketball activities decreased, as compared to a comparison group of girls who received treatment as usual (D'Andrea *et al.,* 2013). Bonhauser *et al.* (2005) reported that anxiety symptoms, but not depressive symptoms, reduced for youths who participated in weekly sports sessions at secondary schools in a deprived area.

Table 4.2 Description of the included studies and study results

Study	Design	Method	Instrument	Sample size	Emotional life skills	Cognitive life skills	Social life skills
Anderson-Butcher et al. (2014)	Pre-post test	Quantitative	Survey including a scale for social responsibility	287 youth			Increase in *social responsibility*, i.e., helping others; stronger increase for youth with low scores at t0 and for youth with strong sense of belonging to sport programme
Armour & Duncombe (2013)	Quasi-experimental	Quantitative	Pupil profiles written by teachers (quantified for the analysis)	5,253 pupils: 2,701 in sports programme including elite sports role models, 2,552 in sports programme without		Perceived improvements in *self-esteem*	Perceived improvements in *social skills*
Armour & Sandford (2013)	Quasi-experimental	Mixed	Pupil profiles written by teachers (quantified for the analysis), interviews, and focus groups	Profiles of 560 pupils: 440 experimental group and 120 comparison group; Interviews: 19 mentors, 9 school staff, 5 programme staff; Focus groups: 20 pupils, 8 mentors		Perceived improvements in *self-confidence*, i.e., willingness to try new things	Perceived improvements in *communication skills*, *teamwork skills*, and *empathy*
Bean et al. (2014)	Post-test	Qualitative	Semi-structured interviews	23 youth who participated in the programme for at least three years		Perceived improvements in *self-motivation* and *future focus*	Perceived improvements in *social interaction* and *conflict resolution skills*
Beaulac et al. (2011)	Post-test	Qualitative	In-depth interviews and focus groups	14 youth, two focus groups with parents, and one focus group with programme staff	Perceived improvement in *mood*	Perceived improvements in *self-confidence* (trying new activities)	Perceived improvements in *respect for diversity*

Table 4.2 – Continued

Study	Design	Method	Instrument	Sample size	Emotional life skills	Cognitive life skills	Social life skills
Bonhauser *et al.* (2005)	Quasi-experimental	Quantitative	Survey including the Hospital Anxiety and Depression Scale, and the Tennessee Self-Concept Scale	198 youth: 98 from two experimental schools and 100 from two comparison schools	Decrease in *anxiety symptoms*. No change in *depressive symptoms*	Increase in *self-esteem*	
Bonnette *et al.* (2001)	Quasi-experimental	Quantitative	Survey including the New Jersey Test of Reasoning Skills and the Self-perception Profile for Children	80 youth: 36 in a Sport Skills Instruction+ group and 44 in a Sport Skills Instruction group	No change in *global self-worth*	Increase in *critical thinking*; stronger increase in Sport Plus group than in Sport group	
Breuning *et al.* (2009)	Case studies	Qualitative	Open interviews	5 cases, for each case two interviews with the youth and two with a parent			Perceived increase in *prosocial involvement*; Few examples of improvement in *behavioural competences.*
D' Andrea *et al.* (2013)	Quasi-experimental	Quantitative	Survey, including Achenbach's Child Behavior Checklist	88 girls: 62 in intervention group receiving sport activities in addition to treatment as usual and 26 in comparison group receiving treatment as usual	Decrease in *internalizing symptoms*, i.e., anxiety, depression, withdrawal, and somatic complaints		

Table 4.2 – Continued

Study	Design	Method	Instrument	Sample size	Emotional life skills	Cognitive life skills	Social life skills
Fuller (2013)	Case studies	Qualitative	Open interviews	8 cases, for each case one interview with the youth and one with a parent		Perceived improvement in *self-efficacy, resistance skills, and self-concept*	Perceived improvement in *ability to communicate and ability to resolve conflict*
Hasanpour *et al.* (2014)	RCT	Quantitative	Survey, including the Coppersmith self-esteem inventory	66 *girls*		Increase in *self-esteem*	
Hellison & Wright (2003)	Post-test	Quantitative	Retention data from attendance records and self-report data from evaluation surveys with open-ended questions	43 (out of 78) youth			43 youth perceived improvement in *social responsibility in the sports programme*, of whom five perceived improvement in *responsibility skills in other settings*
Holt *et al.* (2012)	Post-test	Qualitative	Open interviews	59 youth and 8 school staff members			Perceived improvement in *empathy*, i.e., understanding and caring
Laberge *et al.* (2012)	Quasi-experimental	Quantitative	Survey, including the Conners-Wells Adolescent Self-Report Scale, the Rosenberg global self-esteem scale, and a self-developed scale for interethnic relationships	222 youth: intervention group of 131 grade 8 students and comparison group of 91 grade 7 students from the same school		Increase in *concentration/attention*; No change in *self-esteem* and *self-control*	No change in *social competence and interethnic relationships*

Table 4.2 - Continued

Study	Design	Method	Instrument	Sample size	Emotional life skills	Cognitive life skills	Social life skills
Riley & Anderson-Butcher (2012)	Post-test	Qualitative	Semi-structured interviews	10 parents		Perceived improvements in *confidence, self-esteem, discipline, initiative,* and taking responsibility for own actions	Perceived improvements in the *ability to deal with conflicts, ability to adapt to different people,* and *communication skills*
Terry *et al.* (2014)	Quasi-experimental	Quantitative	Survey, including the Brunel Mood Scale and the Strengths and Difficulties Questionnaire	51 youth: 26 in intervention group and 25 in comparison group receiving a well-established non-physical social development programme	No change in *mood*		Short-term (but not sustainable) decrease in *total difficulties score*
Ulrich-French *et al.* (2012)	Pre-post-test	Quantitative	Survey, including the Self-Perception Profile for Children, and the Children's Hope Scale	197 youth	Increase in *global self-worth* (only for youth that participated more than one summer); No change in *hope*		Increase in *social competence* (only for girls)
Walsh *et al.* (2010)	Post-test	Qualitative	Semi-structured interviews and field notes	13 youth and 3 staff members		Perceived improvements in *effort, self-direction,* and *goal-setting*	Perceived improvements in *respecting others, teamwork, leadership,* and *helping others*

The studies that reported on other emotional life skills provide a mixed picture. First, whereas Beaulac *et al.* (2011) reported an improved mood in youths participating in weekly dance classes in a community recreation center, Terry *et al.* (2014) reported no change in mood in youths participating in 19 boxing sessions at schools. A possible explanation for this difference in findings is the difference in sports settings. Another possible explanation is the difference in research methods: Beaulac *et al.* (2011) interviewed youths and their parents, whereas Terry *et al.* (2014) conducted a quantitative quasi-experimental study. Second, Ullrich-French *et al.* (2012) reported an improvement in global self-worth in youth participating in a sports-based summer camp, but Bonnette *et al.* (2001) did not. An explanation for these mixed results may be that the sports coaches in the summer camp studied by Ullrich-French *et al.* (2012) received training on how to provide a supportive atmosphere and positive coach–youth connection, whereas the sports coaches in the program studied by Bonnette *et al.* (2001) did not seem to pay specific attention to positive youth–coach relationships. Ullrich-French *et al.* (2012) also assessed developments in hope, defined as belief in the ability to find routes to goals, but they found that it did not improve.

Cognitive life skills

Eleven studies reported on development of cognitive life skills, which can be divided into two categories: self-regulation skills and self-esteem/self-confidence (see Table 4.3). Overall, each study that reported on such skills found that at least one cognitive life skill improved. Qualitative and quantitative studies were equally represented in the 11 studies.

The self-regulation skills that were reported as improving were very diverse (i.e., self-motivation, effort, future focus, goal-setting, self-direction, critical thinking, self-concept, self-efficacy, resistance skills, concentration/attention, self-control, taking responsibility for one's own actions, and discipline). The settings of the sports programs in which youths were reported as developing self-regulation were diverse as well. For instance, one program comprised competitive sports activities at a community sports club (Bean *et al.,* 2014), whereas another program was a sports-based summer camp in which program staff tried to create a mastery-oriented environment (Ullrich-French *et al.*, 2012). Four of the programs in which participants were reported as developing self-regulation skills were based on PYD principles (Bean *et al.*, 2014; Fuller *et al.*, 2013; Riley & Anderson-Butcher, 2012; Walsh *et al.*, 2010). One example of a PYD-based sports program that strengthened the development of self-regulation (i.e., self-efficacy, self-concept, and resistance skills) was a program that tried to create a supportive and empowering environment (Fuller *et al.*, 2013). Other examples were a program in which sports coaches encouraged and supported youths to coach the sports activities (Walsh *et al.*, 2010), a program in which coaches conducted a mastery-oriented coaching style (Bean *et al.*, 2014), and a program that focused on respect, effort, self-direction, and caring

in the sports program context (Riley & Anderson-Butcher, 2012). From interviews with youths, their parents, and program staff, Bean *et al.* (2014), Riley & Anderson-Butcher (2012), and Walsh *et al.* (2010) reported that these were settings where youth developed self-regulation skills like discipline, initiative taking, effort, self-direction, goal-setting, self-motivation, and future focus. An interesting observation is that most studies that reported improvements in self-regulation were qualitative studies. The two studies that quantitatively assessed self-regulation skills reported improvements in attention/concentration (Laberge *et al.*, 2012) and critical thinking (Bonnette *et al.*, 2001). In contrast to these positive results, self-control was not found to increase in the study by Laberge *et al.* (2012).

Improvements in self-esteem and self-confidence were reported in multiple studies. These studies were again very diverse in terms of the setting of the sports programs and the research methods. For instance, improvements in self-esteem were reported in a randomized control trial on the impact of aerobic sessions on orphan girls' self-esteem (Hasanpour *et al.*, 2014), in a quasi-experimental study on the impact of weekly sports sessions at schools in deprived areas (Bonhauser *et al.*, 2005), in interviews with parents of youths who participated in a sports-based summer camp (Riley & Anderson-Butcher, 2012), and in pupil profiles written by teachers (Armour & Duncombe, 2012). Self-confidence, defined as willingness to try new things, was reported as improving in disengaged youths selected by school teachers to participate in a one-week outdoor sports activities program (Armour & Sandford, 2013) and in youth that participated in weekly dancing classes in a community recreation center (Beaulac *et al.*, 2011). On the basis of interviews with parents and program staff, Beaulac *et al.* (2011) offered a possible explanation for growth in self-confidence, which was that the dancing classes were a setting in which youths could experience feelings of success, which in turn may have increased their confidence in trying new activities in non-sports settings. In contrast to these positive findings on self-esteem and self-confidence, Laberge *et al.* (2012) did not find that self-esteem improved in a quasi-experimental quantitative study on 16 weeks of lunchtime sports sessions at schools in deprived areas. The authors suggest that self-selection bias (i.e., youths high in self-esteem were more likely to participate than youths low in self-esteem) may be a reason why they did not find an increase in self-esteem (Laberge *et al.*, 2012).

Social life skills

Fourteen studies reported on developments in social life skills, of which twelve reported improvements. Most of these reported social life skills can be divided into two broad categories (i.e., social responsibility skills and social interaction skills). Besides these two broad categories, several other social skills were examined in the studied sports programs. An interesting observation was that all seven qualitative studies reported improvements in social life skills, whereas only 5 out of 11 quantitative studies did.

    Improvements in social responsibility skills were reported in seven studies. Five of these programs were based on the previously mentioned TPSR model, which aims to develop personal and social responsibility. The authors suggested several possible explanations for why participation in the sports program could have led to improvements in social responsibility, many of which refer to elements of the TPSR model. One example of such an explanation was that the sports coaches continuously discussed the transference of self-direction and goal setting from the sports setting to other settings (Anderson-Butcher *et al*., 2010). Other authors suggested that improvements in social responsibility may be explained by the involvement of caring sports coaches (Hellison & Wright, 2003), the inclusion of a life skill education part (Riley & Anderson-Butcher, 2012), and the presence of negative events, like injuries, that provide opportunities to develop empathy (Holt *et al.*, 2012). Besides studies on sports programs based on the TPSR model, two other studies reported improvements in social responsibility skills. A possible mechanism suggested for the improvement experienced in these sports programs was that the sports program may be a setting where youths notice that different people have different competences, and this in turn may increase respect for diversity (Beaulac *et al.*, 2011). Armour and Sandford (2013) did not provide an explanation for the improvement in empathy.

    Two social interaction skills (i.e., communications skills (Armour & Sandford, 2013; Fuller *et al.*, 2013; Riley & Anderson-Butcher, 2012) and conflict resolution skills (Bean *et al.*, 2014; Fuller *et al.*, 2013; Riley & Anderson-Butcher, 2012) were reported as improving. An interesting observation is that the four studies that reported improvements in social interaction skills were qualitative studies.

    In addition to the studies on social responsibility and social interaction, five studies reported on developments in other social life skills, with mixed results (see Table 4.3). A positive finding was that social skills improved in youths who participated in weekly sports activities at schools in a deprived area (Armour & Duncombe, 2012). Laberge *et al.* (2012) and Ullrich-French *et al.* (2012), however, provided a mixed picture regarding developments in social competence. A possible explanation for this mixed picture is that social competence was operationalized differently in these two quantitative studies. Ullrich-French *et al.* (2012), who reported a growth, operationalized social competence in a way that overlaps with social interaction skills, whereas Laberge *et al.* (2012), who did not report a growth, operationalized social competence in a way that overlaps with social responsibility skills (i.e., respecting others and being polite). The findings from the work by Bruening (2012), who conducted a qualitative case-study, were less positive. Although the researchers reported a growth in prosocial involvement in African American and Latina girls who participated in weekly sports sessions and life skills sessions, they only provided a few examples of improvements in behavioral competences (Bruening, 2012). Terry *et al.* (2014) reported no positive findings on social

skills either, as they found that behavioral problems in youths who participated in school-based boxing sessions did not decrease. A final observation was that the studies on the sports programs based on PYD principles reported improvements in social life skills, whereas none of the studies on non-PYD-based sports programs reported or assessed improvements in social life skills.

Table 4.3 Summary of the study results

Study	Life skill	Finding
Emotional life skills		
D'Andrea *et al.* (2012)	Internalizing symptoms, including anxiety and depression	-
Bonhauser *et al.* (2005)	Anxiety	-
Bonhauser *et al.* (2005)	Depressive symptoms	0
Ullrich-French *et al.* (2012)	Global self-worth	+
Bonnette *et al.* (2001)	Global self-worth	0
Beaulac *et al.* (2011)	Mood	+
Terry *et al.* (2014)	Mood	0
Ullrich-French *et al.* (2012)	Hope	0
Cognitive life skills		
Bean *et al.* (2014)	Self-motivation	+
Walsh *et al.* (2010)	Effort	+
Bean *et al.* (2014)	Future focus	+
Walsh *et al.* (2010)	Goal-setting	+
Walsh *et al.* (2010)	Self-direction	+
Bonnette *et al.* (2001)	Critical thinking	+
Fuller *et al.* (2013)	Self-concept, i.e., ability to realize strengths and weaknesses	+
Fuller *et al.* (2013)	Self-efficacy	+
Fuller *et al.* (2013)	Resistance skills	+
Laberge *et al.* (2012)	Concentration/attention	+
Laberge *et al.* (2012)	Self-control	0
Riley & Anderson-Butcher (2012)	Taking responsibility for one's own actions	+
Riley & Anderson-Butcher (2012)	Discipline	+
Riley & Anderson-Butcher (2012)	Initiative	+
Armour & Duncombe (2012)	Self-esteem	+
Bonhauser *et al.* (2005)	Self-esteem	+
Hasanpour *et al.* (2014)	Self-esteem	+
Laberge *et al.* (2012)	Self-esteem	0
Riley & Anderson-Butcher (2012)	Self-esteem	+
Armoud & Sandford (2013)	Self-confidence, i.e., willingness to try new things	+
Beaulac *et al.* (2011)	Self-confidence, i.e., trying new activities	+
Social life skills		
Armour & Duncombe (2012)	Social skills	+
Laberge *et al.* (2012)	Social competence	0
Ullrich-French *et al.* (2012)	Social competence	+
Bruening *et al.* (2009)	Prosocial involvement	+
Terry *et al.* (2014)	Total social difficulties	0
Anderson-Butcher *et al.* (2014)	Social responsibility, i.e., thoughts about helping others	+
Walsh *et al.* (2010)	Helping others	+
Armour & Sandford (2013)	Empathy	+
Holt *et al.* (2012)	Empathy	+
Beaulac *et al.* (2011)	Respect for diversity	+
Walsh *et al.* (2010)	Respecting others	+
Riley & Anderson-Butcher (2012)	Ability to adapt to different people	+
Armour & Sandford (2013)	Teamwork	+
Walsh *et al.* (2010)	Teamwork	+
Walsh *et al.* (2010)	Leadership	+
Hellison & Wright (2003)	Social responsibility	+/-
Bean *et al.* (2014)	Social interaction	+
Armour & Sandford (2013)	Communication skills	+
Fuller *et al.* (2013)	Communication skills	+
Riley & Anderson-Butcher (2012)	Communication skills	+
Bean *et al.* (2014)	Conflict resolution skills	+
Fuller *et al.* (2013)	Conflict resolution skills	+
Riley & Anderson-Butcher (2012)	Conflict resolution skills	+

Conducive conditions

Although many of the included studies referred to program elements as possible explanations for improvements in life skills, only 5 of the 18 studies incorporated research strategies to investigate whether certain program elements were conducive to life skill development. First, on the basis of a quasi-experimental quantitative study, Bonnette *et al.* (2001) reported that critical thinking skills increased more for youths participating in a sports program in which the youths themselves had to find solutions for challenges in the sports activities than for youths participating in a sports program where the coaches prompted these solutions. Second, Anderson-Butcher *et al.* (2014) found that increased sense of belonging (i.e., feeling comfortable and feeling part of the program) increased the chance of youths developing positive attitudes towards helping other people. Third, according to the parents interviewed by Riley and Anderson-Butcher (2012), the inclusion of a life skill education element, the opportunities for peer interactions, the active and diverse nature of the program, and sports instructors who were caring, personable, and outgoing had caused or strengthened life skill development. Positive peer and youth–adult/coach relationships during the sports activities were also reported to be conducive to life skill development by the teachers and sports coaches interviewed by Armour and Sandford (2013). Another conducive condition that was investigated, but that did not make a difference for the development of life skills, were visits of elite sports role models to the sports program's activities (Armour & Duncombe, 2012).

Discussion

The main aim of this systematic review was to describe the evidence from qualitative and quantitative studies on life skill development in sports programs serving socially vulnerable youth. This review showed that remarkably few studies have been published in this field and that many of the included studies experienced a high risk of bias. Therefore, the results of this review need to be treated with some caution. However, overall, the findings show that sports programs serving socially vulnerable youth are settings where socially vulnerable youth can develop life skills, thereby confirming the findings of Lubans *et al.*'s (2013) review. Each of the 18 included studies reported that at least one life skill improved in the youths who participated in the studied sports program. In contrast to these positive findings, 5 out of 11 quantitative studies reported on life skills that did not improve, and some of the qualitative studies cast doubt on the transfer of improved skills to other settings. This current review expanded on Lubans *et al.*'s work by including qualitative studies and more recent quantitative studies. As a result, we found that improvements in cognitive and social life skills were more frequently reported than improvements in emotional life skills. Finally, this review shows that the studies on life skill development in sports programs serving socially vulnerable youth are very

diverse in terms of setting, study design, research method, and reported life skills. However, it seems that the setting in which a sports program is conducted (i.e., school, summer camp, community, and residential care) does not make a difference for whether and which life skills are reported as improving.

The finding that improvements in emotional life skills were reported in fewer studies than improvements in social and cognitive life skills is contrary to the findings from Eime *et al.* (2013) review. Their review, in which no distinction was made between socially vulnerable and non-vulnerable youth, included many studies that found a positive relationship between sports participation and emotional life skills. Examples of emotional outcomes that were found to be associated with sports participation, but that were not assessed in the studies in this current review, are reduced suicidality, reduced mental illness, and increased life satisfaction (Eime *et al.,* 2013). There may be several possible explanations for the low number of studies in this current review that assessed or reported improvements in emotional life skills. First, most of the studied sports programs were based on PYD principles, one of which is to foster cognitive and social competences (Lerner *et al.*, 2005). Therefore, quantitative research on PYD-based sports programs may more frequently assess cognitive and social skills than emotional skills, and qualitative research may be focused on the program aims when interview data are being coded. For instance, the qualitative studies into sports programs based on the TPSR model (Bean *et al.*, 2014; Riley & Anderson-Butcher, 2012; Walsh *et al.*, 2010) reported improvements in self-regulation and social responsibility, which are aims of the TPSR model, whereas none of these studies reported improvements in emotional life skills.

An interesting observation was that different life skills were reported as improving in studies using different research methods. Developments in emotional life skills were more frequently reported in quantitative than in qualitative studies, developments in cognitive life skills were equally reported in quantitative and qualitative studies, and developments in social life skills were more frequently reported in qualitative studies. This difference in findings may be caused by the different approaches and research methods, which might steer the researchers' focus towards specific domains of outcomes. Quantitative studies tend to measure the life skills that researchers, policymakers, and/or program staff expect to improve through the sports program. This can lead to a bias whereby specific domains of life skills are omitted. In contrast, in qualitative studies, researchers tend to start with an open mind and attempt not to prompt for specific life skill developments in respondents. However, this may lead to bias as well, because youths and their parents participating in qualitative studies may more easily notice and explain developments in social and cognitive skills (e.g., social interaction and self-regulation) than developments in emotional skills (e.g., global self-worth and anxiety).

The second aim of this review was to investigate what is known about conditions conducive for life skill development as identified from the sports

programs studied. The conditions that were found to be conducive in the included studies are a positive youth–coach relationship, sports coaches that encourage youths to deal with challenges that arise in the sports activity, a sense of belonging to the sports program, and the inclusion of a life skills education element. However, as only five of the included studies investigated conditions that may be conducive to life skill development in the sports program, it is not possible to draw firm conclusions regarding the second research aim.

A final major point from this review is that, although more and more research is being done in the sport-for-development field (Schulenkorf, Sherry & Rowe, 2015), relatively few studies have been published that investigate life skill development in sports programs serving socially vulnerable youth. One possible explanation is simply that not much research has been done in this field. Another possible explanation may be the many challenges that researchers in this field have to face, such as high attrition rates, youth workers having priorities other than research, and obtaining parental consent (Whitley *et al.*, 2014). Such challenges resulted in increased risk of bias in many of the studies included in this current review. For instance, most quantitative studies lacked a sound comparison group. The comparison group in almost all the quasi-experimental studies comprised youths who themselves decided not to participate in the sports program. Such a selection bias makes it difficult to compare developments between groups (e.g., Laberge *et al.* 2012). In addition, when youths themselves decide whether or not to participate in the sports program, this may result in different group sizes. D'Andrea *et al.* (2013), for instance, compared life skill developments in an experimental group of 62 girls who voluntarily enrolled in the program with life skill developments in a comparison group of 26 girls who decided not to enroll in the program. The qualitative studies included might experience selection bias as well, because youths with negative experiences in the sports program may have dropped out. Consequently, as most interview studies were conducted at the end of a sports program, most of the youths interviewed may have had positive experiences in the sports program.

Given the results of this review, a number of suggestions for further research are offered. First, researchers might consider alternative research approaches to investigate the outcomes of sports programs serving socially vulnerable youth. One alternative might be to adopt a life course perspective to assess the role of a sports program in youths' lives. This perspective focuses on how the life history of groups or individuals in society may explain differences in well-being. In-depth interviews based on the life course perspective may encourage adults to explain how they dealt with the challenges they faced in childhood or adolescence, and whether and how sports programs or sports participation helped them to deal with these challenges (Haudenhuyse *et al.*, 2013; Wethington, 2005). Second, researchers might gather longitudinal data from parents, teachers, or program staff members in order to reduce attrition rates and difficulties around parental consent. An example of such a study was

that by Armour and Sandford (2013), who asked teachers to write pupil profiles at several points between the start of a sports program and more than a year after its completion. Third, in order to increase the comparability of future quantitative studies in this field, researchers may benefit from using general youth development surveys, such as the survey and measurement frameworks developed by Lopez *et al.* (2014) and Vierimaa *et al.* (2012). These instruments provide a more holistic picture of youths' development than questionnaires designed to study one individual outcome. This may also reduce the risk of bias that may result from research tending to measure only the life skills that are expected to improve in youths in a particular sports program.

To study the conditions conducive to life skill development in sports programs, we would recommend that researchers encompass these conducive conditions in their research questions and study designs. In qualitative research, for instance, this could be achieved by asking the interviewees about the elements of the program that they think have led to the life skill development (e.g., Riley & Anderson-Butcher, 2012). In quantitative research, for instance, this could be achieved by comparing the life skill development of youths in a sports program that pays attention to a specific conducive condition with the life skill development in two comparison groups: one group in the same sports program where attention is not paid to this condition, and one group not participating in a sports program (e.g., Bonnette *et al.,* 2001). Such quantitative studies provide the opportunity to assess which elements of existing frameworks are conducive to life skill development in sports programs. Examples of elements that might be studied are the implicit versus the explicit approach to the transfer of life skills to other settings (Turnnidge *et al.,* 2014), informal versus organized sports activities (Eime *et al.,* 2013), and collaborative efforts of policymakers, sports organizations, coaches, and parents versus sports programs run by a single organization (Fraser-Thomas *et al.,* 2005).

Limitations

This review is not without limitations. First, although a wide variety of terms related to sports programs, life skills, and socially vulnerable youth were included in the search, the inclusion of additional search terms might possibly have identified more studies. Second, the search terms for life skill development were based on three major life skills (i.e., emotional, cognitive, and social skills) which we chose on the basis of the life skill developments that Turnnidge *et al.* (2014) linked to sports participation. Other scholars, however, may have categorized life skills in different major categories. Also, whereas we consider responsibility skills to be social skills because they pertain to relationships with other people, others might consider them cognitive skills because they overlap slightly with self-control. Third, the search did not include terms pertaining to conditions conducive to life skill development, whereas we looked, as a secondary aim, for conducive conditions within the studies that examined life

skill development. Consequently, we may have missed studies that investigated solely conducive conditions for positive sports experiences.

What does this article add?
This review of both quantitative and qualitative studies showed that sports programs are settings where socially vulnerable youth can develop diverse life skills. Improvements in cognitive and social life skills were more frequently reported than improvements in emotional life skills. This review also showed that only a few of the included studies investigated the conditions of the studied sports programs that were conducive to life skill development. Finally, we found that still not much research has been published that investigates life skill development in sports programs serving socially vulnerable youth, and that the research that has been published is diverse in terms of setting, research methods, and reported life skills. In order to provide a better picture of life skill development in sports programs serving socially vulnerable youth, we recommend that researchers in this field consider alternative research approaches, such as adopting a life course perspective in qualitative studies and using general youth development surveys in quantitative studies.

Chapter 4

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Chapter 4

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Appendix A. Search term

(sport OR physical act* OR exercise*) AND ((youth OR adolesc* OR young
people OR young person* OR young adult* OR teens OR teenager* OR boy* OR
girl*) AND (vulnerab* OR at risk* OR disaffect* OR youth work* OR youth
care* OR social work* OR social care* OR underserv* OR deprived ORminorit*
OR low SES)) AND (prosocial OR pro social OR antisocial OR anti social OR
wellbeing OR well being OR social behavio* OR social skill* OR Sense of
Coherence OR emotional stab* OR mental health OR self esteem OR selfesteem
OR anxiety OR emotional problem* OR depress* OR mood* OR self regula* OR
selfcontrol OR self-control OR life skill* OR reflection OR planning OR
monitoring OR self effic* OR effort OR self evaluat* OR locus of control OR
assets OR emotional outcome* OR social outcome* OR pedagogical outcome*
OR emotional development OR social development OR pedagogical development
OR empower*)

Chapter 5

Strengthening sense of coherence – Opportunities for theory-building in health promotion

Sabina Super, Annemarie Wagemakers, Susan Picavet, Kirsten Verkooijen, Maria Koelen
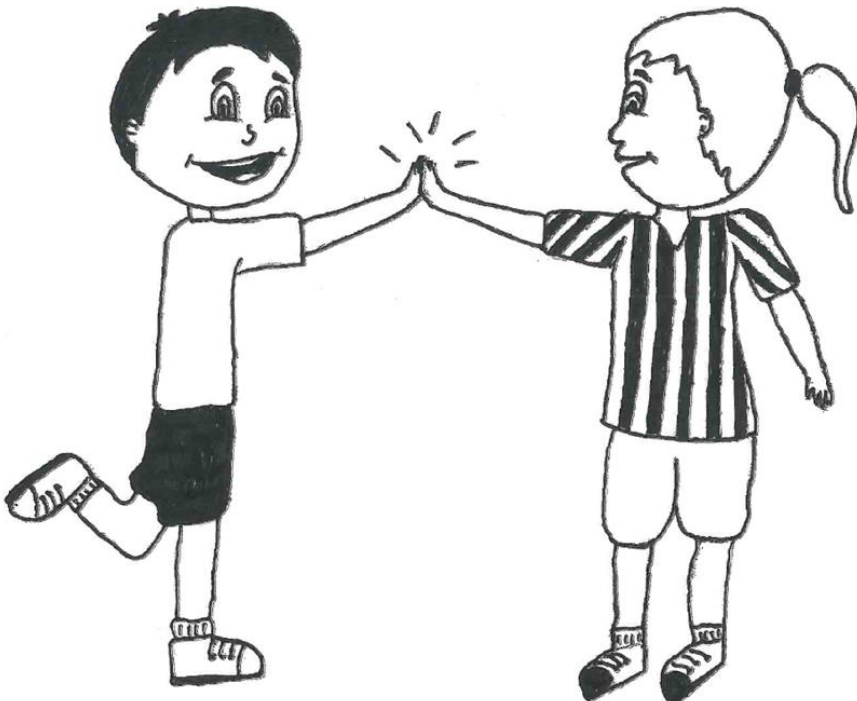
Chapter 5

Abstract

Sense of Coherence (SOC) reflects a coping capacity of people to deal with everyday life stressors and consists of three elements: comprehensibility, manageability and meaningfulness. SOC is often considered to be a stable entity that is developed in young adulthood and matures around the age of thirty. Recent studies have questioned this stability of SOC and some studies report on interventions that have been successful in strengthening SOC in adult populations. Currently, however, there is no clear understanding of the mechanisms underlying SOC. As a consequence, it is a challenge to determine what is needed in health promotion activities to strengthen SOC. This article aims to explore the mechanisms underlying SOC as these insights may underpin future health promotion efforts. An exploration of the salutogenic model suggests two important mechanisms: the behavioural and the perceptual mechanism. The behavioural mechanism highlights the possibility to empower people to use their resources in stressful situations. The perceptual mechanism suggests that, in order for people to deal with life stressors, it is essential that they are able to reflect on their understanding of the stressful situation and the resources that are available. Based on these mechanisms, we suggest that both empowerment and reflection processes, which are interdependent, may be relevant for health promotion activities that aim to strengthen SOC. The successful application of resources to deal with stressors is not only likely to have a positive influence on health, but also creates consistent and meaningful life experiences that can positively reinforce SOC levels.

Chapter 5

Introduction

Sense of Coherence (SOC) is a core construct of the salutogenic model that focuses on the origins of health and well-being rather than disease. Antonovsky (1987) defined SOC as *"a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that (1) the stimuli, deriving from one's internal and external environments in the course of living are structured, predictable and explicable; (2) the resources are available to one to meet the demands posed by these stimuli; and (3) these demands are challenges, worthy of investment and engagement (*p. 19)". These three elements reflect the comprehensibility, manageability and meaningfulness component of SOC.

People with a strong SOC seem to be better able to deal with the stressors of everyday life and to use the resources at their disposal to counter these stressors (Lindmark *et al.*, 2011; Surtees *et al.*, 2006). This coping capacity may bring about a better health status for individuals with a higher SOC. Although the evidence for the effect of SOC on health is yet incomplete, it seems that groups low in SOC are especially vulnerable to the hardships in life (Surtees *et al.*, 2007), leading to poorer lifestyle choices (Wainwright *et al.*, 2008), reduced mental health and quality of life (Eriksson & Lindström, 2007; Flensborg-Madsen *et al.*, 2005), increased disease incidence (Kouvonen *et al.*, 2008; Poppius *et al.*, 2006), and even increased mortality risk (Super *et al.*, 2014; Surtees *et al.*, 2003). These initial results suggest that health promotion efforts may benefit from strengthening SOC.

Antonovsky (1979) considered SOC to be a stable entity that is formed in young adulthood and that stabilises around the age of thirty, forming a personality disposition that influences the way in which people see the world. According to salutogenic theory, SOC develops in childhood and early adulthood when children or adolescents have life experiences that are characterised by an underload-overload balance, consistency, and socially-valued decision-making. Later, Antonovsky (1987) adjusted his theory and stated that SOC was more stable in adulthood among those with a high SOC than among those with a low SOC. Several studies have confirmed the idea that SOC is a stable entity (Feldt *et al.*, 2000; Schnyder *et al.*, 2000) and that a high SOC determines the stable development of SOC (Feldt *et al.*, 2011; Hakanen *et al.*, 2007). Nonetheless, some studies suggest that the age-divide proposed by Antonovsky needs to be revised (Feldt *et al.*, 2003; Feldt *et al.*, 2011) and that, under certain conditions, SOC can be subject to change in adulthood (Schnyder *et al.*, 2000), also amongst those with a high SOC (Feldt *et al.*, 2011).

In addition, several studies have shown that interventions can influence SOC levels (Forsberg *et al.*, 2010; Kähönen *et al.*, 2012; Sarid *et al.*, 2010; Skodova & Lajciakova, 2013; Vastamäki *et al.*, 2009; Weissbecker *et al.*, 2002). For example, Kähönen *et al.* (2012) conducted a study among Finnish employees aged 31-51 years with burnout-symptoms and compared two different interventions which were similar in their aim to reflect on the participant's

personal values, goals, beliefs and patterns of behaviour. After a period of nine months, both intervention groups showed a significant increase in SOC, as compared to the control group. Forsberg *et al.* (2010) implemented a 12-month lifestyle intervention program among persons with psychiatric disabilities aged 22-71 years and demonstrated that structured activities with sufficient level of challenge contributed to a significant increase in SOC, in comparison to the control group. Even though the number of studies that explicitly aimed to increase SOC is limited, the results suggest that changes are possible, even in adulthood.

Considering these results, it may be interesting to explore the idea to strengthen SOC in health promotion activities. However, the abovementioned interventions that aimed to strengthen SOC provide a limited theoretical framework for their intervention activities both in general as well as in light of the salutogenic theory, and the authors do not reflect on the mechanisms underlying the changes in SOC levels. As there is currently no clear understanding of the mechanisms underlying SOC, it is a challenge to determine what is needed in health promotion activities to strengthen SOC. The overall aim of this article is to contribute to a better understanding of the mechanisms underlying SOC as this may help to underpin these efforts. To identify opportunities for strengthening SOC, we start this article by taking a closer look at the salutogenic model.

The salutogenic model

The salutogenic model (see Figure 5.1) illustrates the interplay between SOC, life experiences, Generalized Resistance Resources (GRRs) and the health ease/dis-ease continuum (Antonovsky, 1987, 1996).

Antonovsky (1987) viewed health as a continuum, which he labelled the health ease/dis-ease continuum. People can move along this continuum between the two extremes of 'total absence of health' and 'total health'(Antonovsky, 1987). This movement along the health ease/dis-ease continuum is initiated by the stressors that people encounter in everyday life. If people deal successfully with the stressors they can maintain their health status or move towards 'health-ease', whereas unsuccessful coping with the stressors can lead to breakdown and a movement towards 'dis-ease' (Antonovsky, 1987).

Generalized Resistance Resources are resources within an individual (e.g. attitudes, self-efficacy beliefs, knowledge) or in their environment (e.g. social support, cultural stability) that can be used to counter the stressors of everyday life (Lindström & Eriksson, 2010). If the GRRs are applied successfully, this can prevent that the tension from the stressors develops into stress and, as a consequence, can lead to the maintenance of or movement towards 'health-ease' (Antonovsky, 1987). When the GRRs are not applied (successfully), the state of tension may increase leading to breakdown and a movement towards 'dis-ease'. Mobilised GRRs help individuals to deal with stressors by 1) avoiding

stressors; 2) defining them as non-stressors; and, 3) managing the stressors. A good health status may facilitate the acquisition of other GRRs as well (Antonovsky, 1979).

SOC has a vital role in orienting a person regarding a specific stressor and the GRRs that might be available to deal with everyday life stressors. People with a higher SOC see the world as more comprehensible, manageable and meaningful and are, therefore, better able to understand the stressor, to identify GRRs to deal with the stressor and to accept the challenge to deal with the stressor (Wainwright *et al.*, 2007). Antonovsky (1987) hypothesised that SOC may develop in childhood and young adulthood under certain conditions (i.e. consistency, underload-overload balance and socially valued decision-making). These conditions arise when sufficient GRRs are present, as they provide an individual with sets of meaningful and coherent life experiences (Eriksson, 2007; Lindström & Eriksson, 2010). The GRRs are, therefore, essential for the development of SOC.

In sum, SOC has a central position in the salutogenic model and strengthening people's SOC would increase people's ability to impose structure on stressful situations and to search for resources that could help them to overcome these stressors. SOC may be developed when people experience meaningful and coherent life experiences which can be created when GRRs are applied to deal with everyday life stressors. Yet, to select and apply the GRRs to produce these life experiences requires a strong SOC. So, the development of SOC is a complex, interactive and interdependent process and hence the question arises what the focus could be of health promotion efforts aiming to strengthen SOC.
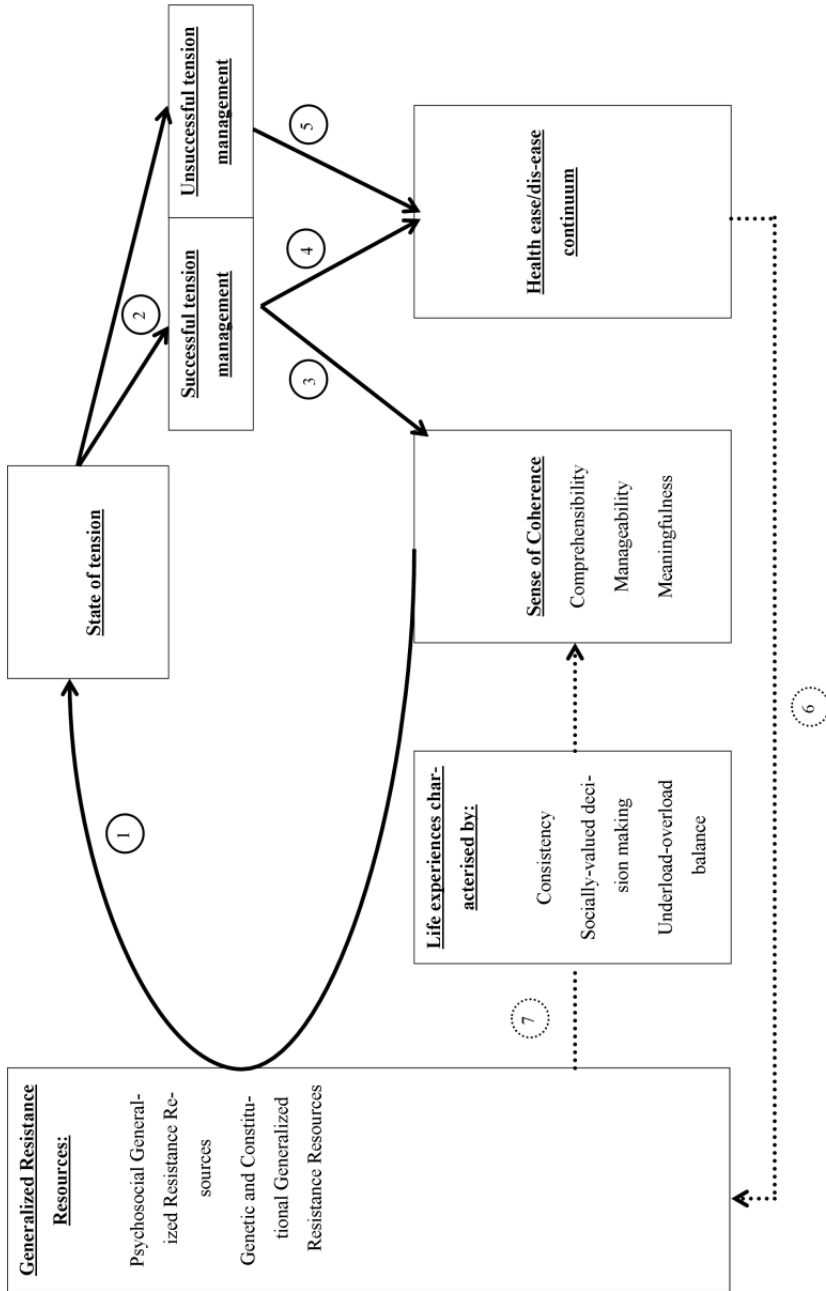
Figure 5.1 A simplified reproduction of the salutogenic model (adapted from: Antonovsky, 1979: 184-185).

Chapter 5

Strengthening SOC in health promotion – theoretical directions

Two mechanisms for strengthening SOC
If we take a closer look at the salutogenic model, we can identify two opportunities for strengthening SOC. The first opportunity can be found in the 'circle' including successful tension management (see Figure 5.1, arrows 1-3). That is, if people can be assisted in their search for appropriate GRRs that can be applied to deal with the stressor (arrow 1 and 2), this can positively influence their SOC (arrow 3). This is the direct effect of successful tension management on SOC. A second opportunity can be found in the 'circle' including the life experiences that positively influence SOC (see Figure 5.1, arrows 6 and 7). This means that SOC can be strengthened if people can learn to see (everyday life) stressful situations as consistent, with a load-balance and as socially valuable (arrow 7). As noted previously, GRRs play a vital role in creating these life experiences and a good health status facilitates the acquisition of other GRRs (arrow 6). This second circle can, therefore, be labelled an indirect effect of successful tension management on SOC. Important to note is that, following the salutogenic framework, these circles are closely interdependent and interactive. Hence, they cannot be considered separately. A sufficient level of comprehensibility, manageability and meaningfulness is required to orient a person towards a specific stressor and to feel self-efficacious to deal with these stressors (see Figure 5.1, arrow 1). Simultaneously successful tension management directly or indirectly influences the level of comprehensibility, manageability and meaningfulness.

Support for these two opportunities for improving SOC can also be found in a study conducted by Amirkhan and Greaves (2003). The authors studied three possible mechanisms underlying the relation between SOC and health. The first mechanism addresses the perceptual process underlying SOC. *"SOC tints perception in such a way that those with strong dispositions simply see stressors as more benign, and hence are less stressed by them (Amirkhan & Greaves, 2003: 33)"*. The second mechanism refers to the cognitive process underlying SOC such as expectancy and judgment. According to Amirkhan and Greaves (2003) these second-order cognitions include evaluations of causes and effect, and different courses of actions that can be taken. These judgments influence *"the emotional and pathogenic impact"* of stressful or difficult situations (Amirkhan & Greaves, 2003: 34). The third possible mechanism underlying SOC, according to the authors, exerts its influence through behavioural patterns. People's actions may be influenced by their level of SOC as people can choose different coping strategies.

The study conducted by Amirkhan and Greaves (2003) found support for the behavioural and perceptual mechanism underlying SOC. Based on these findings, Kähönen *et al.* (2012) suggested that these mechanisms also offer starting points for health promotion activities that aim to strengthening SOC. The first mechanism, the behavioural one, brings up the possibility to intervene

in behavioural responses to stressful situations towards a more efficacious coping style. The second mechanism, the perceptual one, refers to the view people hold of stressful situations and suggests that people may be 'trained' to see the world as more comprehensible, manageable and meaningful. Although these mechanisms may hold relevant for health promotion practices, no suggestions are offered on how these opportunities for strengthening SOC can be addressed in health promotion activities.

Empowerment and reflection
In light of the above, we have identified two processes that may be relevant for health promotion activities that aim to strengthen SOC, as they address the behavioural and the perceptual mechanism: empowerment and reflection. The first process, empowerment, is specifically focused on the behavioural mechanism as identified by Amirkhan and Greaves (2003) and the first circle of the salutogenic model (see Figure 5.1, arrows 1-3). In order to strengthen SOC, health promotion activities could focus on enabling people to identify appropriate GRRs that can be used to combat or avoid the stressors. As previously stated, enabling people to use their GRRs to deal with stressors may lead to increased levels of SOC. In addition, health can be positively affected when people behave more adaptive in stressful situations, for example by seeking help from the social environment to overcome certain problems (Commers *et al.*, 2007). As Antonovsky (1979) puts forward, having plenty of GRR's available does not necessarily produce health, people actively have to use the GRRs to deal with the stressors. The concept of empowerment is important in relation to this process of enabling people to utilise their GRRs. *"Empowerment, in its essence, refers to reacting to environmental stimuli in a way that is functional with respect to the desired outcomes of those whose health or quality of life is in question* (Commers *et al.*, 2007: 84)*".*

    The second process that we have identified, addresses more specifically the perceptual mechanism and the second circle of the salutogenic model (see Figure 5.1, arrows 6 and 7). In order to be able to select appropriate GRRs to deal with stressors, people need to sufficiently understand the situation at hand and be able to identify the resources that can be used to deal with specific stressors. This is also captured in the definition of SOC (i.e. comprehensibility, manageability and meaningfulness). What is essential in the definition is that it concerns *perceived* meaningfulness, manageability and comprehensibility. According to Antonovsky (1987), it is not merely the actual stimuli, the actual resources and the actual challenges that are of importance. Also relevant are the ideas an individual has about these stimuli, resources and challenges. In this light, SOC can be considered to reflect a pair of glasses or a frame through which we see the world around us. Influenced by the perceptions we have of the environment and ourselves we think, choose, and act. Hence, the interaction of the individual with the environment is very important for behaviour (Eriksson & Lindström, 2008; Gana, 2001; Lezwijn *et al.*, 2011). Health promotion activities

aiming to strengthen SOC need to pay attention to this frame through which people perceive the world because this frame may be either supportive of or impede the health promotion efforts to empower people deal with stressors. Addressing this perceptual mechanism (i.e. the feeling of comprehensibility, manageability and meaningfulness) requires a process of reflective learning in which people are becoming aware of their beliefs and assumptions. Reflective learning has been defined as *"An active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and further conclusions to which it tends* (Dewey, 1933 in: Henderson *et al.*, 2004: 357-358)*"*. The reflection on assumptions, values and goals is also referred to as second-order learning (van Mierlo *et al.*, 2010), experiential learning (Kolb, 1984) or transformative learning (Mezirow, 1996). If people can review certain situations in a different light and learn to define the situations differently, this may help them to identify the appropriate GRRs to deal with the stressors in everyday life. This, in turn, can create life experiences that can contribute to strengthening SOC.

All in all, it can be argued that health professionals should aim to increase the ability of people to identify appropriate GRRs to solve stressful situations. People should be *empowered* to use the GRRs and as such create consistent and meaningful life experiences, which subsequently can develop their SOC further. However, this process may fail when insufficient attention is paid to the ability of people to understand the stressful situation, to identify GRRs in their environment or themselves, and the ability to feel that dealing with stressors is a meaningful process. Health professionals should, therefore, facilitate *reflection* as to pay attention to people's understanding of (everyday life) stressful situations with a specific focus on consistency, load-balance and socially valuable decision-making. Both processes (i.e. empowerment and reflection) are important for the development of SOC, are closely interdependent and can be considered reinforcing or interactive processes.

Empowerment and reflection in health promotion
Currently, health promotion activities are often based on behaviour (change) models such as the Theory of Planned Behaviour (Ajzen, 1985) or the Health Belief Model (Janz & Becker, 1984). Efforts to change behaviour are directed at the beliefs that people hold about the consequences of the behaviour, the perceived social norm, self-efficacy to perform the behaviour, the perceived susceptibility, the severity of the threat etc. These targets are, according to the salutogenic model, the resources that exist within the individual (e.g. self-efficacy beliefs or attitudes). However, as noted previously, having sufficient resources at one's disposal does not guarantee that these are used to move to a more healthy state. Hence, regardless of the good attitudes, beliefs or intentions, people may not perform the required behaviours to move to a more healthy state (van Woerkum & Bouwman, 2015). In salutogenic terms, people may perceive the situations as incomprehensible, unmanageable or not

meaningful and as such are unable to identify and use the resources to move to a more healthy state, even though they may possess sufficient resources to do so. Addressing these issues in health promotion requires that health professionals engage in a different health promotion approach that is not focused on changing beliefs, knowledge or intentions, but rather focus on empowering people to mobilise and reflect on the resources they already have available. This critical reflection in stressful situations should also focus on the environment in which people live, because the interaction of the individual with the environment is important for their health and quality of life. People's perception of the stressor, of the available GRRs and of the meaningfulness of the challenge is dependent on the environment in which they live and the opportunities and barriers that arise from this environment to lead a healthy life. In turn, when people manage to deal with the stressor successfully, this may lead to improved levels of SOC through positive life experiences, increasing their comprehensibility, manageability and meaningfulness. This makes the interplay between GRRs, SOC, life experiences, reflection, empowerment and health a complex and interdependent process.

Several studies, which report on interventions that have been successful in increasing SOC, seem to include some activities that target the process of empowerment and reflection. For example, it can be argued that the study conducted by Kähönen *et al.* (2012) - focusing on the participant's personal values, goals beliefs and patterns of behaviour - included activities that facilitated the reflection of participants on their SOC. The authors state: *"A common issue in both group methods was to investigate the balance between work, social life and personal hobbies. In terms of general resistance resources, these three dimension support each other, meaning that if someone faces serious conflicts in his occupational domain, a functional social life and important personal hobbies may be enough to prevent burnout* (Kähönen et al., 2012: 525)*".* The researchers seem to have tried to facilitate the reflection of the participants on their resources as to enable them to use them as GRRs in case they encounter severe stressors that may lead to a burnout.

One promising method that has shown to be successful in engaging people in a reflection on their perceptions of how they see and experience the world, is the Mindfulness Based Stress Reduction (MBSR) program. Mindfulness has been defined as *"the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmental to the unfolding of experience moment by moment* (Kabat-Zinn, 2003: 145)*".* Interventions based on mindfulness may help people to deal with difficult situations by focusing on the present in a non-judgmental way, rather than being carried away by emotions and worrying about possible problems of the future. This openness towards the present may enhance the understanding of the situation (i.e. comprehensibility), may create awareness of possible resources (i.e. manageability) and increase the feeling that the situation is worthy of investment and engagement (i.e. meaningfulness). In a study among women with fibromyalgia, patients that

followed an eight-week MBSR-program had a significantly higher SOC after the intervention than the control group (Weissbecker *et al.*, 2002).

Recently, Ley and Rato Barrio (2013) developed and evaluated a psychosocial health programme amongst women suffering from violence in a rural area of Guatemala. Through movement, games and sport they aimed to strengthen SOC by promoting resources and facilitating positive and significant experiences (Ley & Rato Barrio, 2013). In their intervention objectives they explicitly state that they aimed to facilitate the *"re-evaluation of experiences"* and the *"analysis of different points of view and alternatives […]* (p. 1374)*"*. These objectives seem to address both processes of *reflection* and of *empowerment*. The SOC of the women was significantly higher at the end of the program which included different activities such as role-play, games, storytelling and dramatization. This suggests that a focus on reflection and on empowerment may be effective in strengthening SOC. However, none of the abovementioned studies have investigated the mechanisms underlying the changes in SOC, nor did they discuss how the intervention activities may have contributed to increased levels of SOC.

Discussion and conclusion

Based on our exploration of the salutogenic model we suggest that two processes may need to be included in health promotion activities in order to strengthen SOC. The first process is focused on empowering people to identify appropriate GRRs to deal with everyday life stressors. The second process is focused on encouraging people to reflect on the stressful situations to make them able to understand the stressor they are facing, to identify the GRRs that can be used to deal with the stressor and to feel that dealing with the stressor can be meaningful. These two processes are closely interlinked and cannot be considered separately. Health professionals who use behaviour (change) models to design health promotion activities may not induce these important processes when they focus too much on changing the cognitions (i.e. knowledge, self-efficacy beliefs, attitudes etc.) of the target population.

This article is a first attempt to identify processes in health promotion activities that may strengthen SOC. Future research may instigate researchers to identify additional strategies that can be employed to strengthen SOC that have not been previously identified. Furthermore, there is still uncertainty with regard to the underlying mechanisms in the relation between SOC and health. Studies investigating these mechanisms can also instigate new thoughts on possibilities of strengthening SOC in health promotion activities, similar to the study by Amirkhan and Greaves (2003). Finally, interventions based on empowerment and reflection processes can fuel further development of the salutogenic model and the strategies to strengthen SOC. Combining this knowledge in a complete theoretical framework can underpin health promotion activities.

In this article we have discussed the complexity of the salutogenic model with its interplay between the ease/dis-ease continuum, GRRs, SOC and life experiences, and its relevance for health promotion activities. In this account of the salutogenic model we did not highlight so-called specific resistance resources (SRRs) which reflect newly engaged resources that can be activated to deal with a specific stressor (Mittelmark, 2013). Antonovsky (1979) in his work mainly focused on the role of GRRs, but he stated *"This is not to deny the importance of specific resistance resources. They are many and are often useful in particular situations of tension* (p. 99)*"*. Health promotion activities can aim to make these SRRs available to people and communities, to help people to deal with specific stressors in specific situations. However, there is very limited research on the role of SRRs and GRRs in dealing with everyday life stressors and how available GRRs and SRRs interact to form a plethora of resources that people can activate to deal with a stressor.

The two processes identified in this article to strengthen SOC also relate to the coping mechanisms discussed by Folkman (2013). In her chapter on the interrelation between stress, coping and hope she discusses the three kinds of coping within stress and coping theory: problem-focused coping, emotion-focused coping and meaning-focused coping. Problem-focused coping (i.e. managing the problem or cause of distress) seems to relate strongly to the empowerment processes articulated in this article, as both address the process of identifying the cause of the distress and managing it. In addition, meaning-focused coping (i.e. adapting deeply held values and beliefs) seems to relate strongly to the reflection processes for strengthening SOC. Meaning-focused coping is elementary to dealing with stressors in very stressful situations, especially when a person's life goals are no longer tenable. Identifying meaningful and realistic goals is important to regain a sense of control and purpose, to restore hope and to allow people to identify their GRRs to reach those 'new' goals (Folkman, 2013). Reflection seems to be integral to meaning-focused coping, to adopt these more realistic goals and priorities and to regain a sense of meaningfulness or hope. Nonetheless, there is currently very little research on the role of reflection or meaning-focused coping to overcome distress and to increase well-being (Lee *et al.*, 2006). Finally, emotion-focused coping (i.e. regulating negative emotions) is implicitly addressed in both processes of empowerment and reflection. That is, by focusing on empowerment and reflection processes in health promotion activities the comprehensibility, manageability and meaningfulness of situations is increased which is likely to offer opportunities for coping with emotions. What is interesting to note from Folkman's (Folkman, 1997, 2013) observations is that the three types of coping *"work in tandem* (p. 120)*"* and are very interactive. This is in line with our argument that the processes of empowerment and reflection are interdependent. The question where to start when aiming to strengthen SOC in health promotion activities remains a difficult one, due to this interdependence.

Some reservations should be considered when health professionals attempt to spark a reflection process in a target group. The reflection-process is one that may be difficult to steer. This means that, although the professional may be able to induce the reflection process, it is not guaranteed that the process leads to the desired goal. In addition, specific skills are needed to enable such a reflection-process and it may be difficult to start such a process simultaneously in a large population. As Koelen and Lindström (2005) state: *"[…] professionals themselves need to be empowered* (p. S14)*"*.

In addition, it can be argued that for a person to reflect on his or her assumptions, beliefs, values etc. a minimum level of individual cognitive skills is required. Similarly, it can be argued that people may lack enough motivation to engage in reflection. This argument holds true for interventions explicitly aiming to change people's frame. The MBSR-program is an example of such an intervention. The MBSR-program includes weekly mindfulness sessions of two to three hours, which explicitly requires people to be motivated to finish the program. In addition, the content of the program requires people to possess a minimum level of reflection skills. However, less effortful and more implicit strategies may induce the same reflection process. One interesting line of research is the idea that sport (or other activities) may, under specific conditions, produce life experiences that induce implicit reflection and that, eventually, may enhance people's SOC (Ley & Rato Barrio, 2013; Løndal, 2010). More research is needed with a specific focus on how SOC can be developed and the implicit or explicit reflective processes that may contribute to this development.

Following the previous observation that engaging in reflection requires a minimum level of individual cognitive skills and motivation, health promotion activities that aim to increase reflection run the risk of blaming-the-victim. Individuals who are unable or unwilling to engage in reflection mighty be held responsible for moving towards dis-ease. However, individuals are part of a social, ecological and political environment that interact in a series of complex processes (Antonovsky, 1987; Naaldenberg *et al.*, 2009). That means that people's choices, thoughts and actions arise from their interaction with other people and the environment. Hence, if people are unable to 'manage their health', this arises from this complex interaction and cannot be ascribed solely to individual inability or lack of motivation to live healthy. A shift is therefore needed in health promotion, away from a biomedical focus on behaviour, towards a focus on the underlying determinants in the social, ecological and political environment (Watt, 2007). Critical consciousness of people and communities is essential in addressing these social determinants. Critical consciousness has been defined as *"The ability of individuals to take perspective on their immediate cultural, social, and political environment, to engage in critical dialogue with it, bringing to bear fundamental moral commitments including concerns for justice and equity, and to define their own place with respect to surrounding reality* (Mustakova-Possardt, 1998: 13)*"*. An example of

an intervention which focused on increasing critical consciousness and social mobilisation of local communities, is a HIV/AIDS community-based program in South Africa studied by Hatcher *et al. (2011)*. The authors argue that the program contributed to a process which was analytical, constructive and mobilising, meaning that the program encouraged participants to reflect on their current situation, to develop strategies for improving the situation, and to mobilise collective change. For example, the participants were encouraged to critically analyse cultural and gender norms around HIV as to help them view problems as rooted in the structures surrounding them, and not as personal failures. This analytical, constructive and mobilising process shows similarities with the three elements of SOC, yet, through this intervention, the focus was not solely on individual (behaviour) change but it also addressed the environment in which people lived by stimulating collective action. Other interventions mentioned throughout this manuscript that aimed to increase SOC all contained intervention activities that were directed at the individual, without directly addressing the environment in which people lived and the social determinants there within (Forsberg *et al.*, 2010; Kähönen *et al.*, 2012; Sarid *et al.*, 2010; Skodova & Lajciakova, 2013; Vastamäki *et al.*, 2009; Weissbecker *et al.*, 2002). The question remains to what extent the increased levels of SOC through these individually-oriented interventions lead to improvements in health and quality of life. Further research is needed that evaluates the role of empowerment and reflection process in community-based health promotion efforts in which the social, ecological and political environment are subject of critical dialogue as well.

In relation to the environment in which people live it is also important to consider the availability of the resources therein. In order to strengthen SOC, health promotion efforts do not only need to consider the reflection and empowerment processes that seem important in supporting people to deal with everyday life challenges. An important task of health promotion is also to create healthy and supportive settings in which there are plenty of resources available to deal with the stressors (Dooris, 2006; Kickbusch, 2003). In salutogenic terms, the presence of GRRs is vital both in creating life experiences that strengthen Sense of Coherence, as well as in engaging with these GRRs to move towards health (Antonovsky, 1987). Creating supportive or salutogenic environments fits well with the idea of empowerment, as one of the processes that seems important in strengthening Sense of Coherence. In addition, in line with the previous paragraph, overlooking the importance of creating healthy settings might lead to stigmatisation and victim-blaming, as individuals might be held responsible if they are unable to manage their health, even though the resources to do so are lacking.

It is true that there is increased attention for empowerment processes in health promotion. For example, Koelen and Lindström (2005) discuss individual empowerment from a salutogenic perspective. They state that *"The role of the professional is to support and provide options that enable people to make sound*

choices, to point to the key determinants of health, to make people aware of them and enable people to use them (Koelen & Lindström, 2005: S13)*"*. Based on the salutogenic model, it can be argued that this empowerment process cannot succeed without a focus on reflective learning. In order to prevent that tension develops into stress, requires people to have a, at least a minimum, feeling of comprehensibility, manageability and meaningfulness. Reflection, aimed at enhancing these three SOC-components, then becomes a necessary condition for empowering people to deal with the stressor. Although reflection may be a difficult process to ignite through health promotion activities, efforts to induce reflexive learning may become self-reinforcing. That is, health promotion activities that succeed in empowering people to deal with everyday life stressors can strengthen SOC which subsequently may be utilised again in new situations to combat new stressors.

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Chapter 6

Examining the relation between sports participation and youth developmental outcomes for socially vulnerable youth

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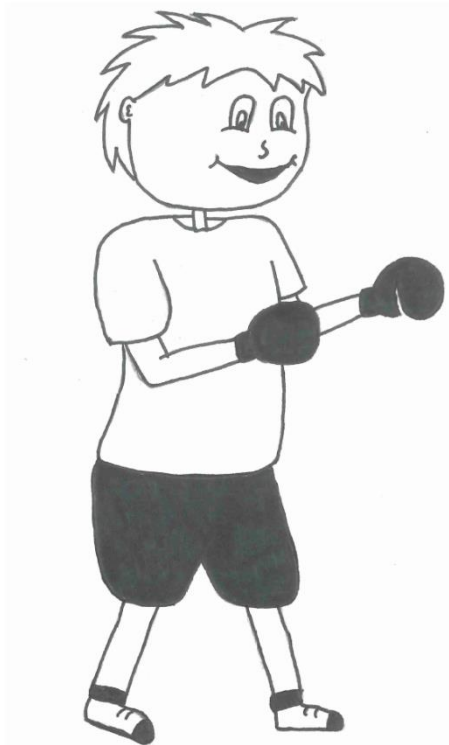
Chapter 6

Abstract

Research has shown that sports participation is positively related to youth developmental outcomes, but it is still unknown if sports participation relates to these outcomes among socially vulnerable youth. Hence, this research aimed to examine the relation between sports participation and youth developmental outcomes (i.e., problem behaviour, pro-social behaviour, school performance, subjective health, well-being, self-regulation skills, and sense of coherence) for socially vulnerable youth. In addition, the stability of the relations between sports participation and the youth developmental outcomes were investigated with a six-month interval. Two identical questionnaires were administered with a six-month interval by youth professionals from four youth organisations, measuring the youth developmental outcomes and sports participation rates of socially vulnerable youth. In total, 283 socially vulnerable youths (average 14.68 years old) participated at baseline and 187 youths after six months. The results showed that sports participation was positively related to pro-social behaviour, subjective health, well-being, and sense of coherence at both measurements. We found no evidence for the relation between sports participation and problem behaviour and the self-regulatory skills. In addition, sports participation was only positively related to school performance at the first, but not at the second, measurement. Based on the current data no conclusions can be drawn about the causal relationship between sports participation and youth developmental outcomes. Given the focus of policymakers and health professionals on sport as a means to achieve wider social and educational outcomes for young people, including in the Netherlands, further research is needed to shed light on the relation between sports participation and youth developmental outcomes for socially vulnerable youth, with a special focus on this group's heterogeneity.

Chapter 6

Introduction
Researchers and policymakers have often advocated that sports participation can be beneficial for the personal development of young people (Fraser-Thomas *et al.*, 2005; Turnnidge *et al.*, 2014) as studies have found evidence that sports participation can benefit not only physical health, but also mental, cognitive and social health (see for reviews Bailey *et al.*, 2013; Eime *et al.*, 2013). It is theorised that through their participation in sport, young people may develop life skills, competencies and healthy behaviours, resulting in youth development in terms of academic achievement, quality of life, and improved life prospects (Bailey *et al.*, 2013). This may be especially relevant for *socially vulnerable youth* who are characterised by an accumulation of negative experiences with the institutions in their lives (e.g., the school or the family), leading to distorted and disconnected relationships with those institutions (Vettenburg, 1998). Socially vulnerable youth participate less often in sport than their non-vulnerable peers (Vandermeerschen *et al.*, 2015) and can benefit from sports participation if this strengthens their competencies, skills, and behaviours to lead a healthy and productive life (Damon, 2004). However, a recent review of studies that examined the effects of sports programs on the personal development of socially vulnerable youth concluded that it is not yet possible to draw conclusions on the benefits of sport for this youth group (Hermens *et al.*, subm.). The outcomes reported in the included studies were diverse and the effects of sports participation on these outcomes were inconsistent. Positive outcomes of sports participation have been found for global self-worth (Ullrich-French *et al.*, 2012), concentration/attention skills (Laberge *et al.*, 2012), internalising and externalising symptoms (D'Andrea *et al.*, 2013), and self-esteem/self-confidence (Beaulac *et al.*, 2011; Bonhauser *et al.*, 2005; Hasanpour *et al.*, 2014). At the same time, studies reported either negative effects or no effects on the following outcomes: depressive symptoms (Bonhauser *et al.*, 2005), global self-worth (Bonnette *et al.*, 2001), self-esteem (Laberge *et al.*, 2012), and self-control (Laberge *et al.*, 2012). As there is still limited and inconsistent evidence regarding the benefits of sports participation for socially vulnerable youth, there is a need for further research.

The present study
Research focusing on the benefits of sports participation for young people has predominantly followed the positive youth development approach. This approach does not consider youths from the problems they are facing, but rather focuses on the strengths of youths and the communities in which they live (Dell *et al.*, 2013). Activities, such as sports activities, that follow the positive youth development approach aim to increase and sustain the positive and healthy development of young people. Important indicators of this healthy development are behaviour, school performance, subjective health, and well-being. Indeed, a large body of evidence is available that suggests that sports participation is positively associated with more healthy behaviours (D'Andrea *et al.*, 2013; Vella

et al., 2015), improved school performance (Bradley *et al.*, 2013; Ruiz-Ariza *et al.*, 2017), improved subjective health (Bailey *et al.*, 2013; Dyremyhr *et al.*, 2014), and increased well-being (Donaldson & Ronan, 2006; Ruseski *et al.*, 2014) in young people. Nonetheless, very limited research has been conducted regarding these associations among vulnerable youth groups. Hence, this current study aims to investigate the relation between sports participation and youth developmental outcomes in terms of behaviour, school-performance, subjective health, and well-being among socially vulnerable youth.

In addition to these distal outcomes, this current study focuses on two more proximal youth developmental outcomes. The first proximal youth developmental outcome is a specific set of assets that may be relevant for the longer-term developments in behaviour, school-performance, subjective health, and well-being. These assets are the self-regulation skills: planning, self-evaluation, monitoring, effort, reflection, and self-efficacy (Toering *et al.*, 2012). Self-regulation is considered to have an influence on a person's success (Baumeister, 1997) in the broadest sense of the word and in various societal domains (Jonker, 2011; Nota *et al.*, 2004; Ommundsen *et al.*, 2005). Self-regulatory skills have previously been found to correlate positively with young people's sports participation (Jonker, 2011; Jonker *et al.*, 2011; Lakes & Hoyt, 2004; Piché *et al.*, 2015). A study by Jonker *et al.* (2011) demonstrated that pre-university students (12–16 years) participating in sport scored higher on planning, reflection, and effort than their pre-university peers that did not participate in sport. Posner and Rothbart (2009) state that the development of self-regulation in children is influenced by both genes and the environment in which children live. Specific exercises during childhood, especially attention training, can improve self-regulation skills. In this respect, it has been claimed that youths that participate in sport have increased opportunities to train and develop self-regulation skills (Lakes & Hoyt, 2004). In addition, it has been pointed out that people develop self-regulatory skills best in inspiring environments that are rich in feedback and that require goal-setting (Jonker, 2011), characteristics that are frequently present in the sports setting. According to Piché *et al.* (2015), there exists a mutual relation between sports participation and self-regulation. The authors found that kindergarten childhood participation in physical activity predicted self-regulation skills in the fourth grade. Moreover, they found that kindergarten childhood self-regulation skills predicted participation in physical activity in the fourth grade. As current studies on the relation between sports participation and self-regulation have only limitedly focused on vulnerable youth groups, this current study aims to investigate whether sports participation is related to self-regulation skills among socially vulnerable youth.

Besides self-regulation skills, this current study focuses on sense of coherence as a second proximal youth developmental outcome. Sense of coherence explains people's capacity to cope with stressful life challenges in a health-promoting way (Antonovsky, 1979, 1987). Sense of coherence has a vital

role in orienting a person towards understanding a specific stressor (i.e., comprehensibility), in evaluating the resources that might be available to deal with everyday life stressors (i.e., manageability), and in engaging with challenges as a meaningful process (i.e., meaningfulness). Individuals with a relatively strong sense of coherence are better able to comprehend the stressors that they encounter in everyday life and have a general confidence that resources are available to meet the demands posed by stressful situations (Antonovsky, 1979). Furthermore, they consider stressors more as a meaningful challenge than as a threat and, hence, they are better able to select good and effective coping mechanisms, resolving tension in a health-promoting manner. Previous studies have found a positive relation between sports participation and sense of coherence (Ahola *et al.*, 2012; Honkinen *et al.*, 2005; Mutikainen *et al.*, 2015). Yet, to the best of the authors' knowledge, this relation has not been studied in vulnerable youth groups and, hence, this study aims to investigate this relation in this specific group.

This study aims to complement existing research by investigating the relation between sports participation and youth developmental outcomes amongst a Dutch socially vulnerable youth group However, socially vulnerable youth face a turbulent life characterised by challenges and stressors on a daily basis (Vettenburg, 1998) which can influence their ability to participate in sport at a given moment (Vandermeerschen *et al.*, 2015). In addition, how they report on developmental outcomes (e.g., subjective health or well-being) may fluctuate depending on the amount of stressors they are experiencing at a specific moment. Hence, it would be relevant to investigate the stability of the relation between sports participation and youth developmental outcomes by collecting data with two identical questionnaires administered with a six-month interval. In sum, the following research aims have been formulated:

1. To investigate, among socially vulnerable youth, the relation between sports participation and four distal indicators of youth development (i.e., behaviour, school performance, subjective health, and well-being) and two proximal indicators of youth development (i.e., self-regulation skills and sense of coherence).
2. To investigate the stability of the relation between sports participation and youth developmental outcomes with a six-month interval.

Methods

This study is part of the research project Youth, Care and Sport, set up to study the value of sport for socially vulnerable youth (see for a detailed description Super *et al.*, 2014). Cross-sectional data was collected with two identical questionnaires administered with a six-month interval among socially vulnerable youth.

Study population

Data was collected via four youth organisations that work with socially vulnerable youth (between 12 and 23 years old). The participating youth organisations provide services to youths who are (temporarily) experiencing problems in their personal development, for example because they have learning or behavioural problems or because they live in settings that hinder this development (e.g., parents incapable of providing proper care). The services provided by these organisations include school social work and educational counselling services as well as more specialised (mental) healthcare. The participating youth organisations were a youth care organisation in a large Dutch city and three schools for special education of which two were located in a large Dutch city and one in a rural area.

The youth professionals employed at the participating organisations asked the youths to participate in the study. This procedure resulted in a non-randomised, purposive sample of participants. At Time 1 (T_1), 283 youths participated in the data collection. Nine youths completed less than half of the baseline questionnaire and were removed from the sample, leading to a sample size of 274 participants (209 boys and 65 girls). The average age of the youths was 14.68 ($SD = 1.69$). At the six-month follow-up (T_2), 194 participants filled in the questionnaire. After removing seven youths from the sample because they completed less than half of the questionnaire, this led to a final sample size of 187 participants (follow-up rate: 68.2%). The main reason for dropout was that the youths had left the youth organisation, for example because their treatment plan was finalised or because they dropped-out of school. The youths that dropped out at T_2 were significantly older at T_1 ($M = 15.29$, $SD = 1.97$) than the youths that completed the questionnaire at T_2 ($M = 14.41$, $SD = 1.47$), $t(267) = 4.062$, $p < .001$. No other significant differences were found between the youths that did or did not complete the second questionnaire.

Data collection

Data were collected via paper questionnaires that contained questions adapted to the language and cognitive skills of the study population. A pilot test was conducted within one unit of a youth organisation to see whether the questionnaire was understandable for the youths. The five participating youths indicated that the included questions were clear and comprehensible. However, to reduce the burden for the participants, the Motivational Climate Scale for Youth Sports (Smith *et al.*, 2008) was removed from the questionnaire. On average, the youths needed between 15 and 20 minutes to fill in the questionnaire.

Due to the vulnerable nature of the study population, special attention was paid to obtaining informed consent. An information letter that contained detailed information about the aim and the set-up of the study was sent to the parents. The letter included information about the confidential use of the data for this research and guaranteed parents that the data would not be distributed to third

parties, would not be discussed with the youth professionals, and would be solely used for the research project Youth, Care and Sport. Parents were asked to contact the youth professional if they objected to their child's participation in the study. The youth professionals involved in the data collection were instructed by the researchers about the data collection procedure. These instructions also included the ethical aspects of administering the questionnaires and the rights of the youths that participated in the study. Consequently, the youth professionals that administered the questionnaires made sure that the youths knew that participation was on a voluntary basis and that they had the right to stop participating at any time without any repercussions. Youths that agreed to take part in the research project received a questionnaire from the youth professional. During the data collection, a youth professional was present to answer any of the youths' questions regarding the items in the questionnaire. The questionnaires were administered in various settings, but mostly in a classroom setting or at the youth's home. After completion of the second questionnaire (T_2), the youths received a gift voucher for their participation. This project was performed in accordance with the code of conduct for minors (NVK, 2002) and with general ethical guidelines for behavioural and social research in the Netherlands, peer-reviewed, and approved by the review board of the Wageningen School of Social Sciences.

Measures
Demographic data were gathered regarding the participant's age, sex, educational level, and the youth organisation responsible for collecting the data (T_1). The following measures were included in the two questionnaires:

Distal youth developmental outcomes
Four distal youth developmental outcomes were included in the questionnaire: (a) behaviour, (b) school performance, (c) subjective health, and (d) well-being. In order to assess *behaviour*, the Strengths and Difficulties Questionnaire (SDQ) was administered (Goodman, 1997). This instrument has often been used as a screening tool for behavioural disorders (Obel *et al.*, 2004; Woerner *et al.*, 2004), and the psychometric properties have previously been found satisfactory in a Dutch sample of non-vulnerable children and adolescents (Muris *et al.*, 2003). The SDQ contains five sub-scales of five items each: hyperactivity (example item: "I am restless, I cannot stay still for long"), emotional symptoms (example item: "I worry a lot"), conduct problems (example item: "I fight a lot. I can make other people do what I want"), peer problems (example item: "I have one good friend or more"), and pro-social behaviour (example item: "I am helpful if someone is hurt, upset, or feeling ill"). The items could be scored on a three-point scale: 'not true', 'somewhat true', and 'certainly true'. Following Goodman's (1997) procedures, a total SDQ score was calculated by using the subscales hyperactivity, emotional symptoms, conduct problems, and peer problems (T_1 α = .73; T_2 α = .72). Higher total SDQ scores reflect a higher rate

of behavioural disorder. The fifth subscale, pro-social behaviour, was computed by taking the average of the five pro-social items, and higher scores reflect more pro-social behaviour. The internal consistency of the pro-social behaviour scale was adequate (T_1 α = .61; T_2 α =.67). As a self-developed indicator of *school performance*, youths were asked to report how their teacher was likely to evaluate their work. The five-point scale ranged from 'bad' to 'excellent'. The youths' *subjective health* was assessed using a question from the Short Form Health Survey (SF-36) (Ware & Sherbourne, 1992). Both at T_1 and T_2, youths answered the following question "In general, how good is your health?" on a five-point scale ranging from 'bad' to 'excellent'. Finally, the youths were asked to answer the following question "How are you currently feeling?" on a five-point scale ranging from 'bad' to 'excellent', as an indicator of *well-being*.

Proximal youth developmental outcomes

Two proximal youth developmental outcomes were included in the questionnaire: (a) self-regulation skills, and (b) sense of coherence. The *self-regulation skills* were assessed using the Self-Regulation of Learning Self-Report Scale (Toering *et al.*, 2012). The original scale consisted of six subscales, but, to reduce the burden for the participants, four subscales were selected for this study. The selection was based on previous research that indicated that participation in sport was most strongly related to these four scales (Jonker, 2011) and on the relevance of these scales for the purpose of this study. All the items could be scored on a four-point scale ranging from 'almost never' to 'almost always'. Example items were: "I determine how to solve a problem before I begin" (planning), "I check how well I am doing when I solve a task" (monitoring), "I concentrate fully when I do a task" (effort), and "I try to think about my strengths and weaknesses" (reflection). Scores on the subscale items were averaged, with higher values representing stronger self-regulatory skills. The internal consistency of the scales was satisfactory: planning (eight items, T_1 α = .85; T_2 α = 87), monitoring (six items, T_1 α = .78; T_2 α = .82), effort (nine items, T_1 α = .83: T_1 α =.83), and reflection (five items, T_1 α = .80; T_2 α = .88). *Sense of coherence* was measured using the Dutch translation of the Orientation to Life Questionnaire (SOC-13) adapted to young people (Jellesma *et al.*, 2006). The 13 items of this scale could be scored on a five-point scale from 'almost never' to 'almost always', with the exception of two items that were positively formulated and could be scored from 'very bad' to 'very good' (T_1 α = .83; T_2 α = .84). Example items are: "How often has it happened that people who you counted on disappointed you?" and "How often do you have feelings that you're not sure you can keep under control?" A sum score was calculated for the 13 items, with higher scores reflecting a stronger sense of coherence.

Sports participation

Measurements regarding the youths' sports participation were based on the Dutch Guideline for Sport Participation Research (Richtlijn Sportdeelname

Onderzoek (RSO)), with recall periods adapted to fit the timeframe of this research (Mulier Institute, 2000). The questions were preceded by a short explanation of the definition of sports participation, to make sure that all participants understood what sports participation entailed: "Examples of sport are football, badminton, fitness, and bike tours, but not doing puzzles, walking a dog, or cycling to school. Physical activity during school times (physical education or playing outside) is not included". The items included in the questionnaire addressed the (a) frequency of sports participation in the previous month, (b) frequency of sports participation on average per week (c) average duration of sports activity, (d) the type of sports played, and (e) membership of a sports or fitness club. The variable *frequency of sports participation in the previous month* was an open-ended question. Strong doubts were raised by the youth professionals about the reliability of the variable *frequency of sports participation in the previous month* as the youths were often unable to correctly answer this question. This observation led to the decision to drop this variable from the analysis. The variable *frequency of sports participation on average per week* had five answer categories: 'once a week', '2 times a week', '3 times a week', '4 times a week', and '5 or more times a week'. The variable *average duration of sports activity* had five answer categories: 'less than half an hour', 'between an half and 1 hour', 'between 1 and 2 hours', 'between 2 and 3 hours', and 'longer than 3 hours'.

Data analysis
All statistical analyses were carried out using IBM SPSS version 23. The internal consistency of the variables was obtained using Cronbach's alpha. Mean and standard deviations were inspected, as well as the distribution properties of the variables. The following continues variables were not approximately normally distributed: total SDQ score, pro-social behaviour, effort, and reflection. The data for total SDQ score, pro-social behaviour, and effort were transformed using the square root function, after which the variables were approximately normally distributed. The reflection scale remained not normally distributed and was dropped from the analysis since no reliable outcomes would be obtained from a statistical test. To see whether there were differences between the youths across the four youth organisations, the T_1 variables were compared across the participating youth organisations using ANOVA for the normally distributed variables and using Kruskal-Wallis for the ordinal variables school performance, subjective health and well-being. A paired-samples t-test was conducted to see if the average scores differed between T_1 and T_2 for the continues variables and the Wilcoxon signed-rank test for the ordinal variables.

To examine the relations between sports participation and the *total SDQ* score and *pro-social behaviour,* the *self-regulation skills*, planning, monitoring and effort, and *sense of coherence*, we used a repeated measures analysis of variance, where the participants' age and sex were included as covariates (ANCOVA). The between-subjects factor (i.e., Group factor) in the analysis was

based on the variable *frequency of sports participation on average per week* at T_2. In order to have relatively equal group sizes, participants were divided in three groups of sports participation: no-sport group, moderate-sport group (1 or 2 times a week), high-sport group (3 or more times a week). For all variables, all assumptions for conducting repeated measures ANCOVA were met: no outliers were detected, there was homogeneity of variance (as assessed by Levene's test), and homogeneity of covariances (as assessed by Box's test).

For the ordinal variables, *school performance*, *subjective health*, and *well-being*, we tested whether there was a main group difference for these at T_1 and T_2 across the three groups of sports participation using the Kruskal-Wallis test. The three groups of sports participation at T_1 served as the between-subjects factor in the analysis for the T_1 variables and the three groups of sports participation at T_2 served as the between-subjects factor for the T_2 variables. Pairwise comparisons were performed using Dunn's (1964) procedure with a Bonferroni correction for multiple comparisons; adjusted critical p-values are presented in the results section. Following the analysis of main group differences, for the ordinal variables *school performance*, *subjective health*, and *well-being,* we calculated a change score indicating a negative development (-1), no change (0), or a positive development (1). We used the Kruskal-Wallis test comparing the change scores to see whether the change scores differed across the three groups of sports participation at T_2.

Results

Table 6.1 shows the participants' characteristics at T_1 and T_2. Seventy percent of the youths participated in a sport in the previous month at T_1 and at T_2. At T_1, the most popular sports were soccer, fitness, swimming, and boxing. Of the 187 youths that completed both questionnaires, 37 youths did not participate in a sport (19.9%), 15 youths started to participate in a sport (8.1%), 20 youths stopped to participate in a sport (10.8%) and 114 youths kept on participating in a sport (61.3%). Sixty-seven percent of the youths remained in the same sports-group (i.e., no-sport, moderate-sport, and high-sport) between T_1 and T_2. Of the youths that participated in a sport at T_2, 42.7% played a sport under supervision of a sports coach or a sports leader. No significant differences were found for the T_1 variables between the four youth organisations. In addition, the paired-samples t-test showed that the average scores on the outcome variables did not differ between T_1 and T_2 ($p > .313$).

Table 6.1 Characteristics of participants at Time 1 and Time 2 (*N* = 187)

Variable	Time 1 (T₁)				Time 2 (T₂)			
	N	*%*	*M*	*SD*	*N*	*%*	*M*	*SD*
Personal characteristics								
Sex	187							
Boys	149	79.7						
Girls	38	20.3						
Age	186		14.41	1.47				
Education	187							
Primary education	2	1.1						
Secondary education	181	96.8						
College/university	4	2.1						
Youth development								
SDQ (total)	170		10.89	5.00	171		11.18	4.88
Pro-social behaviour	185		7.42	1.90	184		7.36	1.89
School performance	187		3.30	0.82	187		3.29	0.83
Subjective health	187		3.44	1.05	187		3.43	0.92
Well-being	187		3.40	1.00	187		3.35	0.86
Assets								
Self-regulation skills								
Planning	147		2.42	0.58	141		2.46	0.62
Monitoring	149		2.54	0.57	139		2.50	0.64
Effort	149		2.69	0.51	137		2.67	0.51
Sense of coherence								
Sense of coherence	178		34.09	7.82	180		33.52	7.77

Table 6.1 - Continued

Variable	Time 1 (T$_1$)				Time 2 (T$_2$)			
	N	**%**	**M**	**SD**	**N**	**%**	**M**	**SD**
Sports participation								
Frequency of sport (average week)	186				186			
Did not sport	50	26.9			54	29.0		
1 or 2 times a week	70	37.6			63	33.8		
3 or more times a week	66	35.5			69	37.1		
Duration of sport (average per activity)	185				185			
Did not sport	50	27.0			55	29.7		
< ½ an hour	7	3.8			9	4.9		
Between ½ - 1 hour	17	9.2			13	7.0		
Between 1 - 2 hours	93	50.3			95	51.4		
Between 2 - 3 hours	10	5.4			9	4.9		
Longer than 3 hours	8	4.3			4	2.2		
Membership of sports/fitness club	186				185			
No	84	45.2			97	52.4		
Yes	102	54.8			88	47.6		

Note. SDQ total = Strengths and Difficulties. Scale range: SDQ total (0–40); pro-social behaviour (0–10); school performance, subjective health, and well-being (1–5); planning, monitoring, and effort (1–4); reflection (1–5); sense of coherence (0–52)

The repeated measures ANCOVAs yielded a significant main group effect for pro-social behaviour and sense of coherence (see Table 6.2). A similar trend was observed for the total SDQ score. Post-hoc analysis with Bonferroni correction revealed that, for pro-social behaviour (see Figure 6.1), the high-sport group scored significantly higher than the no-sport group (p = .004). For sense of coherence (see Figure 6.2), the moderate-sport group scored significantly higher than the no-sport group (p = .001). No significant difference was found for sense of coherence with the high-sport group (p = .139). The repeated measures ANCOVA yielded non-significant main effects for Time (p > .170) and a non-significant Group x Time interaction effect (p > .198) for all the variables. There was a main effect of sex for pro-social behaviour, $F(1, 175)$ = 4.713, p = .031, η^2 = .026, and effort, F = (1, 129) = 4.490, p = .036, η^2 = .034, where girls scored higher than boys on both pro-social behaviour and effort. In addition, there was a main effect of age for planning, $F (1, 128)$ = 6.036, p = .015, η^2 = .045, and monitoring $F (1, 127)$ = 7.522, p = .007, η^2 = .056, where older youths scored higher on both self-regulatory skills.

For the ordinal variables, school performance, subjective health, and well-being, distribution of the scores were not similar for all the groups for each variable, as assessed by a visual inspection of the boxplot. At T_1, significant group differences were found in the distribution of the school performance scores, the subjective health scores, and the well-being scores (see Table 6.3). The post-hoc analysis revealed that for school performance, the high-sport group and the moderate-sport group scored significantly higher than the no sport group (respectively, p = .004 and p = .002). Post-hoc analysis of subjective health scores revealed that the high-sport group scored significantly higher than the no-sport group (p = .001) and higher than the moderate-sport group (p = .004). For the well-being scores, the high-sport group scored significantly higher than the no-sport group (p < .001). At T_2, significant group differences were found in the distribution of the subjective health scores and the well-being scores, but not the school performance scores. Post-hoc analysis of subjective health scores revealed that the high-sport group scored significantly higher than the no-sport group (p < .001) and higher than the moderate-sport group (p = .003). For the well-being scores, the high-sport group scored significantly higher than the no-sport group (p = .001).

Table 6.2 Means, standard deviations, and main effects for group on the outcome measures (N = 180)

| Group | Time 1 | | | | | | Time 2 | | | | | | | | |
| | no sport | | moderate | | high | | no sport | | moderate | | high | | | | |
Variable	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	F	p	η^2
Problem behaviour	12.31	5.25	10.18	4.63	10.47	5.02	12.20	4.90	10.68	4.70	10.95	4.91	2,842	.061	.036
Pro-social behaviour	6.92	1.99	7.51	1.79	7.68	1.88	6.87	1.65	7.25	1.87	7.82	1.99	4,307	.015	.047
Planning	2.50	0.59	2.31	0.50	2.49	0.64	2.41	0.61	2.32	0.63	2.57	0.61	1,374	.257	.021
Monitoring	2.54	0.52	2.44	0.51	2.59	0.65	2.40	0.60	2.47	0.61	2.56	0.66	0.450	.638	.007
Effort	2.59	0.50	2.67	0.45	2.78	0.56	2.58	0.53	2.66	0.51	2.75	0.49	1,909	.152	.029
Sense of coherence	31.11	8.02	36.30	7.27	34.53	7.71	31.24	8.06	35.81	7.24	33.33	7.72	6,374	.002	.072

Note. M = mean; SD = standard deviation; F statistics obtained from the between-subjects effects; the grouping variable is "average frequency of sports participation per week" at T_2: no-sport group (0), moderate-sport group (once or twice a week), high-sport group (three or more times a week)

Figure 6.2 Main group effects for sense of coherence

Figure 6.1 Main group effects for pro-social behaviour

For the ordinal variables, school performance, subjective health, and well-being, distribution of the *change scores* were not similar for all the groups for each of the variables, as assessed by a visual inspection of the boxplot. The distributions of change in school performance (p = .065), subjective health (p = .894), and well-being (p = .406) were not significantly different across the three groups of sports participation.

Table 6.3 Mean rank scores and group differences on the outcome measures (N = 187)

Variable	Group no sport mean rank	moderate mean rank	high mean rank	χ^2	p
Time 1					
School performance	71.42	100.84	102.45	13.838	0.001
Subjective health	79.15	84.93	113.46	15.644	<.001
Well-being	75.03	84.93	109.42	12.984	0.002
Time 2					
School performance	88.32	94.13	96.98	.937	.626
Subjective health	79.20	83.30	113.09	16,636	<.001
Well-being	84.32	86.63	106.96	8,124	.017

Note. χ^2 statistics obtained from the Kruskal-Wallis test; the grouping variable is "average frequency of sports participation per week": no-sport group (0), moderate-sport group (once or 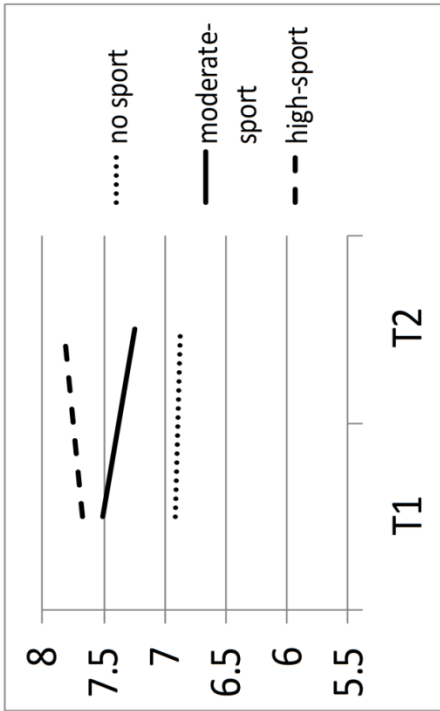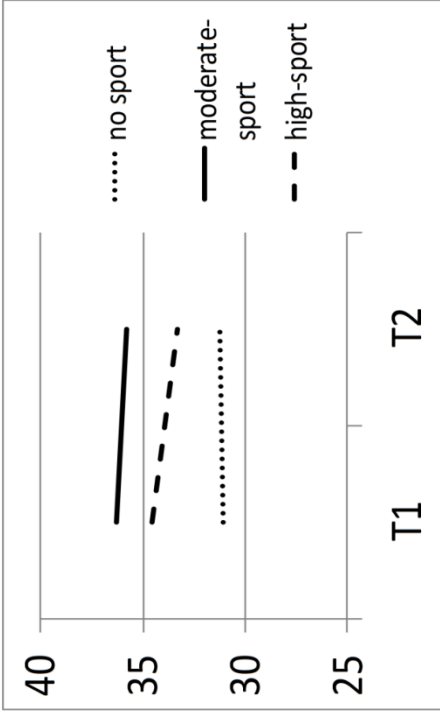twice a week), high-sport group (three or more times a week). The three groups of sports participation at T_1 served as the between-subjects factor in the analysis for the T_1 variables and the three groups of sports participation at T_2 served as the between-subjects factor for the T_2 variables

Discussion

The aim of this article was to examine the relation between sports participation and youth development outcomes in a Dutch socially vulnerable youth group and to examine the stability of these relations with a 6-month interval. We found that 70% of the socially vulnerable youth participated in sport at least once a week in the month prior to the questionnaire, at both measurements. In addition, almost two thirds of the youths kept on playing a sport in the six months between the two questionnaires. We found a positive relation between sports participation and pro-social behaviour, subjective health, well-being, and sense of coherence. These findings proved to be stable across the two measurements. We found no evidence for the relation between sports participation and total SDQ score (i.e., problem behaviour) and the self-regulatory skills. In addition, sports participation was only positively related to school performance at the first, but not at the second, measurement.

This study showed that 70% of the socially vulnerable youth participated in sport at least once a week in the month prior to the questionnaire, at both measurements. In addition, about half of these youths were a member of a

sports or fitness club. Comparing these rates with the average sports participation rates of all Dutch young people shows that, in 2015, 70% of all Dutch youths between 12 and 20 years old participated in sport on a weekly basis (Volksgezondheidenzorg.info, 2015). Moreover, in the same age category, 58% of all youths were a member of a sports club. It is not possible to compare the sports participation rates of vulnerable and non-vulnerable youth because, in this current study, participants were categorised as 'participating in sport' when they indicated to have been physically active in the month prior to the questionnaire at least once, whereas the sports participation rate of all Dutch young people include those youths that have participated in sport at least once a weak over a longer period of time. Nonetheless, the percentage of socially vulnerable youth that were a member of a sports or fitness clubs is rather high, given the fact that previous studies have shown that sports participation and club membership are lower for vulnerable groups (Vandermeerschen *et al.*, 2015; Vella *et al.*, 2014). In this respect is important to note that the participating youth organisations in this study supported initiatives to increase the sports participation of the youths with whom they worked, for example by organising sports activities to get youths acquainted with local sports clubs. The sports participation rates of the youths in this study may be higher as a result of these activities, and therefore, the sports participation rates are not likely to be representative of the average sports participation rates of socially vulnerable youth in the Netherlands.

A large body of literature is available discussing the positive relation between sports participation for young people and various indicators of a healthy development (see for an overview for example: Bailey, 2006; Bailey *et al.*, 2013; Eime *et al.*, 2013). In this current study, we have asked whether the positive relation between sports participation and several distal indicators of a healthy development could also be observed in a *socially vulnerable youth* group. We found that sports participation was positively related to pro-social behaviour, subjective health, and well-being, but not with the total SDQ score (i.e., problem behaviour). In addition, sports participation was only positively related to school performance at the first, but not the second, questionnaire. A review of the positive outcomes of sports participation for young people has shown that the scientific evidence is mostly supporting physical health improvements and increases in social behaviour, networks and close relationships (Bailey *et al.*, 2013), but less evidence is available for the improvement in intellectual capital (i.e., improvements in school performance) and in behaviours related to self-control, impulse management and ADHD management (i.e., elements of problem behaviour). Although most of the current findings are in line with previous studies among non-vulnerable youths, we have to consider that the effect sizes in this study were low.

In this current study, we found no evidence for the positive relation between sports participation and the self-regulatory skills planning, monitoring and effort. These findings are not in line with previous research that has supported the

claim that a reciprocal relations exists between sports participation and self-regulatory skills (Piché *et al.*, 2015). An explanation for the absence of a positive relation between sports participation and the self-regulatory skills can be grounded in the discussion whether self-regulatory skills are domain-general skills or domain-specific skills. Several authors have suggested that self-regulatory skills are domain-general skills that are relevant for several performance domains (Jonker, 2011). In other words, self-regulatory skills such as planning and effort can be used in various life domains interchangeably, such as in the sports setting or in the school setting. However, other researchers have found contradicting results suggesting that metacognitive skills, such as the self-regulatory skills, are domain-specific (van der Stel & Veenman, 2008). This means that young people may report high scores on the self-regulatory skills planning and effort within the sports setting, but at the same time report low scores on these skills in other life domains. The Self-Regulation of Learning Self-Report Scale, included in this study, measured domain-general skills. As the questionnaires were mostly administered in classroom settings, it is possible that youths reflected on their skills in relation to their school performance. This may explain why no relations were found with sports participation. More research is needed to understand the relation between sports participation and self-regulatory skills among socially vulnerable youth.

In this current study we found that sports participation was positively related to sense of coherence. Sense of coherence reflects a person's ability to cope with stressful events in a health-promoting way (Antonovsky, 1979, 1987). As socially vulnerable youth are confronted with stressors on a daily basis, a stronger sense of coherence may be an important factor in determining the youths ability to deal with these stressors and, subsequently, increasing the change that they are able to participate in sport. The other way around, the sports setting may be a setting in which socially vulnerable youth have life experiences that are known to be conducive to the strengthening of sense of coherence: consistency, load-balance, and socially-valued decision making. García-Moya *et al.* (2013) examined the contextual factors contributing to the development of sense of coherence in children aged 13 to 18 years. The most important predictor of sense of coherence was the quality of parent–child relationships, but other contexts (i.e., the school, the neighbourhood, and peer relations) also remained important in predicting sense of coherence. Consequently, the authors concluded that "*contextual factors seemed to predominantly act in an additive fashion* (García-Moya *et al.*, 2013: 919)*",* suggesting that the sports setting could aid in strengthening the sense of coherence next to other important life domains. Further research on the development of sense of coherence, specifically within the sports setting, may be especially interesting because sense of coherence reflects a life orientation that can be used throughout the life-course, in different settings and situations (Antonovsky, 1987; Super *et al.*, 2016). People with a strong sense of coherence are better able to use the resources they have available to deal with

everyday life challenges. Therefore, the influence of the availability of assets (e.g., self-regulation skills) on individuals' healthy development may depend on the level of sense of coherence. It would, therefore, be interesting to investigate whether young people with a relatively strong sense of coherence are better able than young people with a relatively weak sense of coherence to transfer life skills from the sports setting to other life domains.

The administration of two questionnaires with a six-month interval allowed us to examine the stability of the relationship between sports participation and youth developmental outcomes. The positive relation between sports participation and pro-social behaviour, subjective health, well-being, and sense of coherence proved to be stable across the two measurements. Only school performance related positively to sports participation at the first measurement, but not at the second. Although these findings seem to suggest that the investigated relations are rather stable, twenty percent of the participating youths started or stopped participating in sport between the two questionnaires. The sample size of this study did not allow us to investigate whether youths that started or stopped participating in sport differed on developmental outcomes from youths that kept on participating or did not participate in sport between the two questionnaires. Future research could investigate how youth developmental outcomes may differ across sports participation patterns, using longitudinal designs.

Strengths and limitations
This study is, to the best of the authors' knowledge, unique in investigating the association between sports participation and youth developmental outcomes for socially vulnerable youth. First of all, 283 young people participated in the first round of the questionnaire thanks to a strong network of youth organisations involved in the project Youth, Care and Sport. This made it possible to assess the association between sports participation and various indicators of youth development for a large group of vulnerable young people. Secondly, this is the first study to assess the outcomes at two time points, allowing us to examine the stability of the association between sports participation and youth developmental outcomes. And finally, whereas previous studies have often focused on specific sports-based interventions or programs, this study has focused on the traditional sports sector that is dominant in many Western European countries. In this respect, this study has contributed to a number of insights into this rapidly developing area of research.

A recent review of the social and emotional well-being of at-risk youth participating in physical activity programs showed that the risk of bias was high in all the included studies, for example because very few studies included a control group or effect sizes (Lubans *et al.*, 2012). This current study was unable to overcome some of these biases. The original study, as described in the study protocol (Super *et al.*, 2014), had a non-equivalent control group design with an intervention implemented in the experimental condition that aimed to increase

the sports participation of socially vulnerable youth. However, due to the changing context in which our research project was conducted, it was no longer possible to implement the intervention. The researchers also encountered several challenges such as building trust with the youth professionals, obtaining parental consent, and attrition rates. The challenges that researchers experience when conducting research in vulnerable groups often disrupt research or prevent it from being conducted (Whitley *et al.*, 2014). We have tried to deal with these challenges throughout the project in the best possible way in an attempt to gain valuable data of an under-researched population. Nonetheless, a number of limitations have to be borne in mind concerning the results presented in this paper.

First of all, due to changes in the original study design, this current study did not have an intervention group and a control group. The absence of a (quasi-)experimental design prevents us from drawing conclusions about causal relationships. For all the distal and proximal youth developmental outcomes reported in this current study, evidence exists of a reciprocal relation with sports participation. For the distal youth developmental outcomes, several studies have demonstrated that participation in sports can improve developmental outcomes among young people. Others have shown that the developmental status of young people is also predictive of sports participation. For example, it has been demonstrated that behavioural problems can be a barrier to sports participation (Manz *et al.*, 2016; Ortlieb *et al.*, 2013). In a large German cohort study, Manz *et al.* (2016) found that having psychopathological problems (measured with the Strengths and Difficulties Questionnaire) was a predictor of abstaining from organised sports participation. It was also found that having emotional symptoms correlated with lower levels of physical activity in a cohort study with 10-year-old children (Ortlieb *et al.*, 2013). These findings support the idea that youths' developmental status may also determine the chance that they participate in sport. For the proximal youth developmental outcomes, self-regulatory skills and sense of coherence, similar reciprocal relations have been identified. Following Webb's (2016) recommendations for further research in the positive youth development area, longitudinal and prospective designs are needed to assess developmental changes through sports participation and "*to analytically separate them from the influences of other social and structural factors on youth development* (p. 178)".

Secondly, we divided participants into three groups based on the average number of times per week they participated in sport. Future research may benefit from a more accurate and precise measurement of sports participation, by also including the intensity of the sports activity. In addition, research suggests that the motivational climate in which young people participate in sport is an important predictor of the reported youth developmental outcomes (Curran *et al.*, 2015; Gould *et al.*, 2012). Although the Motivational Climate Scale for Youth Sports (Smith *et al.*, 2008) was initially included in the questionnaire, after pre-testing this measure was dropped to reduce the burden for the socially

vulnerable participants. Including a measure for motivational climate could assist in more thoroughly analysing whether sports participation is related to youth developmental outcomes for socially vulnerable youths and under which conditions.

A third limitation that needs to be considered is the heterogeneity of the sample. All the participants faced, temporarily or over a longer period of time, problems in growing up. However, the degree to which the participants were socially vulnerable might have differed to a large extent. The youth organisations involved in this study offer services to youths with a wide range of problems such as being bullied in school, having autism or ADHD, having parents with drug or alcohol problems, and so forth. For ethical reasons, we were unable to collect any information about the problems that the youths were facing. Yet, the extent to which people experience being socially vulnerable is very relevant for how they experience their participation in sport (Haudenhuyse *et al.*, 2014). More detailed information about the youths' problems would have allowed us to investigate whether sports participation could have different outcomes for different groups of vulnerable youths. The lack of these insights makes it unrealistic to make generalisations about the positive associations between sports participation and the youth developmental outcomes for socially vulnerable youth. Moreover, a large proportion of this study's participants were boys. Although boys are over-represented in the Dutch youth care system (Statistics Netherlands, 2016) – in 2015, 58.5% of all youths receiving youth care were boys – this does limit our ability to generalise the findings of the current study to all socially vulnerable youth and to socially vulnerable girls specifically.

This study did not take into account other extracurricular activities in which the youths may have been involved in addition or alternatively to their participation in sport. A study by Larson *et al.* (2006) demonstrated that different organised activities have a very distinct profile of developmental experiences. Community-oriented activities, for example, scored high on developmental experiences related to adult networks and social capital. Similarly, performance and fine arts activities scored high on developmental experiences related to initiative. Future research could include a broad set of extracurricular activities to see how sports participation and other extracurricular activities relate to a healthy development among socially vulnerable youth.

Conclusion

This study investigated the relation between sports participation and youth developmental outcomes in a Dutch socially vulnerable youth population and to examine the stability of these relations with a 6-month interval. We found a positive relation between sports participation and pro-social behaviour, subjective health, well-being, and sense of coherence. These findings showed to be stable across the two measurements. We found no evidence for the relation

between sports participation and total SDQ score (i.e., problem behaviour) and self-regulatory skills. In addition, sports participation was only positively related to school performance at the first, but not at the second, measurement. Based on the current data no conclusions can be drawn about the causal relationship between sports participation and youth developmental outcomes. Given the focus of policymakers and health professionals on sport as a means to achieve wider social and educational outcomes for young people, including in the Netherlands, further research is needed to shed light on the relation between sports participation and youth developmental outcomes for socially vulnerable youth. Future research needs to focus specifically on the heterogeneity of the socially vulnerable youth group and the role of a motivational sport climate in achieving positive outcomes.

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Chapter 7

The role of community sports coaches in creating optimal social conditions for life skill development and transferability – A salutogenic perspective

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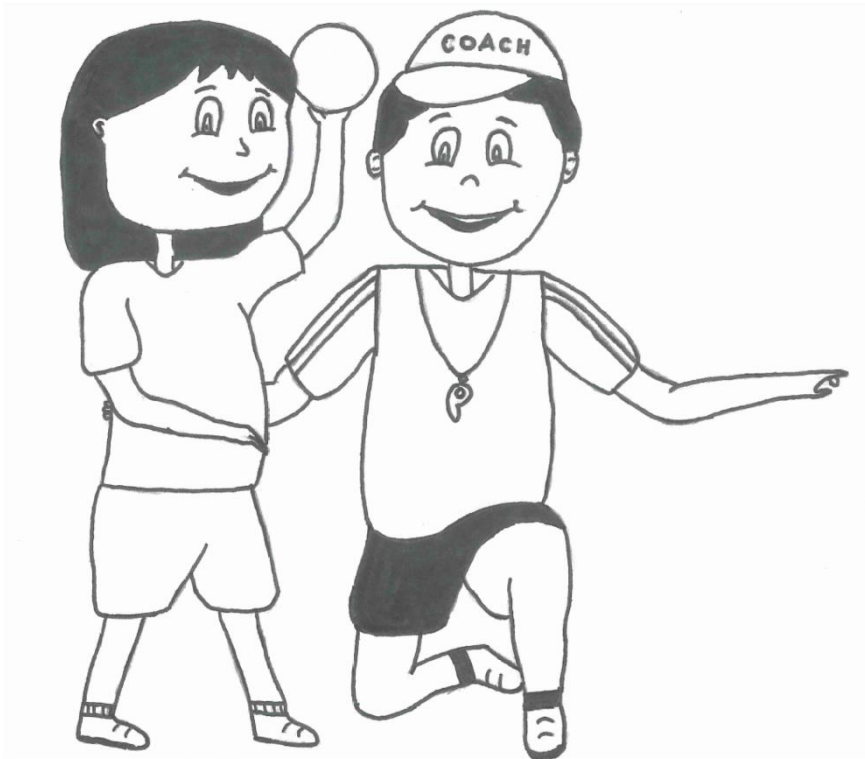
Chapter 7

Abstract

Sport is widely recognised as having the potential to enhance the personal development of socially vulnerable youth, yet there is very limited knowledge on how community sports coaches can create optimal social conditions for life skill development and transferability. We adopt a salutogenic approach in order to study whether and how community sports coaches create these optimal social conditions. Based on the salutogenic framework, a thematic analysis was conducted of 15 in-depth interviews with community sports coaches providing sports lessons to socially vulnerable youth. As part of the interviews, the sports coaches were presented with several training scenarios and asked how they would respond in specific training situations. The results showed that the sports coaches aimed to create meaningful sporting experiences for youths. These meaningful sporting experiences were considered a precondition for keeping youths engaged in the sporting activities, as well as a precondition for life skill development. The sports coaches specifically focused on creating little moments of success and on making sure that the youths felt they belonged to a group. In order to ensure that the youths could experience moments of success, specific coaching strategies were implemented to increase the youths' comprehensibility and manageability in specific sport situations. According to the sports coaches, experiencing little moments of success could contribute to an increase in socially vulnerable youths' understanding of the everyday challenges that they face, as well as contribute to their ability to deal with these challenges. Creating meaningful sporting experiences may help youths 'to learn to cope' – a skill that could be beneficial over their lifespan and in different societal domains.

Chapter 7

Introduction

Socially vulnerable youth are characterised by an accumulation of negative experiences with the institutions of society (e.g. family or school) that lead to distorted relationships with those institutions and to social disconnectedness (Haudenhuyse *et al.*, 2012; Vettenburg, 1998). Sport is widely recognised as having the potential to enhance the personal development of socially vulnerable youth, using its capacity to repair some of these distorted relationships, albeit with the warning that sport in itself does not produce positive outcomes (Fraser-Thomas *et al.*, 2005; Gould & Carson, 2008). A large body of research emphasises the importance of the social conditions within the sports setting for positive youth development (Haudenhuyse *et al.*, 2012; Sandford *et al.*, 2008).

The sports coach is a key player in creating social conditions for positive youth development (Camiré *et al.*, 2011; Trottier & Robitaille, 2014), especially in relation to creating a safe and motivational sports climate in which there are opportunities for life skill development. To a great extent, the coach's characteristics and direct and indirect teaching strategies influence whether learning processes occur in the sports setting and whether these lead to the transferability of life skills to other societal domains (Gould & Carson, 2008). However, little is known about how sports coaches can approach life skill development for socially vulnerable youth, especially in the context of transferability (Camiré, 2014; Gould & Carson, 2008; Turnnidge *et al.*, 2014). This study aims to investigate whether and how community sports coaches create optimal social conditions for life skill development and transferability.

Turnnidge *et al.* (2014) distinguish two approaches to transferability: the explicit and the implicit approach. The explicit approach includes the deliberate teaching of life skill transferability during the sports programme, for example by discussing the applicability of life skills in other social domains. Based strongly on positive youth development principles, several sports programmes build on explicit strategies to promote the transferability of life skills (Papacharisis *et al.*, 2005; Walsh *et al.*, 2010). Research into the effectiveness of sports programmes adopting the explicit approach shows promising results, but at the same time questions are raised about the sustainability of these programmes (i.e. they rely on funding and other resources) and the primarily adult-driven learning process (Turnnidge *et al.*, 2014). In addition, although community sports coaches sometimes do receive formal coaching training, very often such training focuses on the technical aspects of sports coaching (e.g. exercises to develop specific sporting skills) and not on the pedagogical knowledge necessary for life skill development and transferability. Furthermore, very often sports lessons are provided by volunteer sports coaches who have had no formal training of any kind (Camiré *et al.*, 2012). Within community-based sports programmes, the sports coaches are often focused on developing skills without paying specific attention to the transferability of these skills to other societal domains. This implicit approach does not mean that no deliberate strategies are implemented to teach life skills, but the sports coaches rather focus on creating optimal

environments in which youths can learn these skills without specifically discussing transferability. The implicit approach relies on youth-driven or experiential learning and is based on the idea that youth can be active agents in their own development (Holt *et al.*, 2008; Larson *et al.*, 2005).

It is important to examine how sports coaches approach the issue of transfer. Recent studies investigated how excellent sports coaches taught life skills to their athletes and how they addressed transferability (Camiré *et al.*, 2011; Camiré *et al.*, 2012; Gould *et al.*, 2007). However, these studies only included excellent sports coaches who had received both formal and informal training. Trottier and Robitaille (2014) conducted interviews with high school sports coaches and community sports coaches, and they found evidence that the sports coaches adopted two different explicit transfer strategies: having specific discussions to demonstrate the usefulness of the learned life skills in non-sports settings and asking athletes to put the learned life skills into practice in another societal domain. Several sports coaches also stated that they promoted life skills transfer without applying specific strategies (i.e. implicit approach). However, this study included only high school basketball coaches and community swimming coaches, reducing the generalisability of the findings to other sports settings. In addition, the question remains as to how community sports coaches can enhance the personal development of socially vulnerable youth in comparison to the athlete groups currently studied.

Research on the influence of sports participation on the personal development of socially vulnerable youth has been strongly based on the positive youth development paradigm (Damon, 2004). The present study aims to complement this body of knowledge by adopting a salutogenic perspective. The salutogenic model was introduced by Antonovsky (1979, 1987) and focuses on how people manage everyday-life challenges by adopting strategies to deal with the stressors they are facing. Socially vulnerable youth face these stressors on a daily basis, and being able to deal with them effectively is crucial for their personal development, as it may help them to lead a healthy and productive life. At the same time, youth who experience more stress in various life domains often have a reduced coping ability compared to 'normal' youth (Moksnes *et al.*, 2011). The sports setting might be a setting in which socially vulnerable youth can learn to develop the strategies and to identify the resources that can help them to deal with the challenges of everyday life. Taking a salutogenic perspective, we aim to understand how community sports coaches create optimal social conditions for life skill development and transferability.

Theoretical framework

Antonovsky's (1979) salutogenic model focuses on the question of what keeps or makes people healthy. The salutogenic approach is complementary to the pathogenic approach, which focuses on the causes and risk factors for disease. According to Antonovsky, people are confronted with stressors throughout their

lives, and being able to deal with them allows individuals to move forward, to develop, and to lead a healthy and productive life. Stressors in themselves are not negative; on the contrary, they can be salutary if people are able to deal with them effectively. In order to deal with the stressors of everyday life, people need to develop strategies, for example by avoiding stressors, by defining them as non-stressors or by managing them (Antonovsky, 1987). For this latter strategy, it is important that people are able to understand the challenge they are facing, identify resources to deal with the challenge and feel that dealing with the challenge is meaningful. This ability to deal with everyday-life challenges is reflected in the salutogenic concept of sense of coherence. Sense of coherence (SOC) consists of three components: comprehensibility, manageability and meaningfulness, and is defined as 'a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that (1) the stimuli deriving from one's internal and external environments in the course of living are structured, predictable and explicable; (2) the resources are available to one to meet the demands posed by these stimuli; and (3) these demands are challenges, worthy of investment and engagement' (Antonovsky, 1987: 19). The resources that can be used to deal with stressors are called General Resistance Resources (GRRs), which can be found within the individual (e.g. attitudes or knowledge) or within the environment (e.g. social support or money).

The salutogenic model aligns well with the positive youth development paradigm, as both appreciate the assets and resources that youths have available to meet the demands of everyday life, rather than focusing on the risks or stressors in young people's lives. At the same time, the salutogenic model adds to the positive youth development approach because it aids in understanding how youths can effectively deal with the stressors of everyday life and how this ability to cope develops in youths' lives. Nonetheless, current salutogenic research in young populations is limited. Several studies have focused on quantitatively assessing the correlations between SOC and various health behaviours (Humphrey & McDowell, 2013) and health outcomes such as emotional health (Moksnes *et al.*, 2012) and mental health (Lekkou *et al.*, 2007). In addition, researchers have begun to study how SOC develops in childhood and early adulthood (García-Moya *et al.*, 2013; Marsh *et al.*, 2007). However, further research is necessary to examine the factors that contribute to the development of SOC, the role of various developmental contexts in building up SOC (García-Moya *et al.*, 2013) and the possibilities for strengthening SOC explicitly, for example in sport-for-development settings (Super *et al.*, 2016). As sport is often seen as a promising setting for positive youth development, taking a salutogenic approach we aim to complement the current literature in the field by investigating how community sports coaches create optimal social conditions for life skill development and transferability.

Methods

Study design and participants
This study is part of the research project Youth, Care and Sport that aims to unravel the value of sport for socially vulnerable youth (Super *et al.*, 2014). Interviews were conducted with 15 sports coaches (nine male, six female) working with socially vulnerable youth in local sports clubs. All these sports coaches provided training at community sports clubs, sometimes located in local schools. The sports coaches offered different types of sports (see Table 7.1). The length of their experience in training socially vulnerable groups differed, as well as the extent to which they received formal coaching training. Several sports coaches trained 'normal' groups in which one or more vulnerable youths participated, four sports coaches additionally gave training to 'specialised' groups with only youth from youth care organisations. Youth care organisations in the Netherlands provide services to youths who are (temporarily) experiencing problems in their personal development, for example because they have learning or behavioural problems or because they live in settings that hinder this development (e.g. parents incapable of providing proper care). The Dutch youth system contains three layers of care, of which the primary layer (i.e. for detecting problems and intervening at an early stage) and the secondary layer (i.e. for specialised care) are referred to as 'youth care'. This includes school social work, educational counselling services as well as more specialised (mental) healthcare.

Table 7.1 Detailed information about the sports coaches

Sports coach	Gender	Type of sport	Trainer experience	Pedagogical background	Setting of sports activities
John	Male	Soccer	>10 years	Limited, mainly by experience and technical training courses	Community sports club
Peter	Male	Kickboxing	5-10 years	Followed several courses on pedagogy	Sports lessons in schools
Brian	Male	Various sports, mainly soccer	>10 years	Extensive pedagogical knowledge	Community sports club + specialised groups at community sports club
Maria	Female	Basketball	< 2 years	No pedagogical background	Sports lessons in schools
Christy	Female	Basketball	< 2 years	Extensive pedagogical knowledge	Sports lessons in schools
Michael	Male	Judo	>10 years	Limited, mainly by experience	Community sports club
Lisa	Female	Budo sport	>10 years	Extensive pedagogical knowledge	Community sports club + specialised groups at community sports club
Emma	Female	Gymnastics	>10 years	Limited, mainly by experience and technical training courses	Community sports club
Evelyne	Female	Hockey	5-10 years	Limited, mainly by experience and technical training courses	Sports lessons in schools
Charlie	Male	Basketball	5-10 years	No pedagogical background	Sports lessons in schools
Marc	Male	Hockey	< 2 years	No pedagogical background	Community sports club
Claire	Female	Hockey	2-5 years	Extensive pedagogical knowledge	Community sports club
Tom	Male	Hockey	2-5 years	No pedagogical background	Community sports club
Jack	Male	Tennis	2-5 years	Limited, mainly by experience	Community sports club + specialised groups at community sports club
Richard	Male	Soccer	2-5 years	Limited, mainly by experience	Community sports club + specialised groups at community sports club

Procedure
The sports coaches were selected after consultation with the youth care organisations about the local sports clubs with which they often collaborated. The coaches were chosen in such a way that there was a large variation in type of sports, age and sex of the sports coach, as well as experience in training socially vulnerable youth. The selected sports coaches were contacted and asked whether they were willing to participate in the interview; they all agreed. They were asked to give informed consent on the understanding that they had the right to leave the study at any point in time without giving a reason, that the interviews would be tape-recorded and that their anonymity would be guaranteed. The interviews were conducted by two researchers (SS and KV) and lasted between 20 and 62 minutes (on average 43 minutes). The interviews took place at the interviewee's preferred location.

Interview guide
Semi-structured interviews were conducted with the sports coaches. The interviews started with background questions addressing the training experience of the sports coaches, the composition of the teams they trained, and their pedagogical background. These background questions were followed by three blocks of questions based on the coaching literature (Camiré *et al.*, 2012; Gould *et al.*, 2007). These three blocks aimed to 1) explore the philosophy of the sports coaches when they provided training; 2) question more practically how the sports coaches provided training, and; 3) examine the sports coaches' understanding of 'socially vulnerable youth', as well as explore how they adapted their training (if at all) to socially vulnerable youth.

Several training scenarios were described to the sports coaches, and they were asked to imagine how they would respond in each of these scenarios. The scenarios described different types of youths and addressed various types of problem behaviour that are often prevalent in youth care settings. The scenarios were based on interviews conducted with youth care professionals, where they described the issues and behaviour of socially vulnerable youth (Hermens *et al.*, 2015). In preparation for the interviews, the main investigator (SS) conducted two pilot interviews to ensure that the interview questions were comprehensible and that the scenarios were understandable for the interviewees.

Data analysis
The interview recordings were transcribed verbatim style and then coded and analysed using software for qualitative data analysis (Atlas.ti). In order to ensure anonymity, all the participants were assigned pseudonyms. A thematic analysis was conducted following the guidelines by Braun and Clarke (2006), which distinguished six phases in thematic analysis starting with familiarising oneself with the data and generating initial codes. The initial coding was conducted by the first author (SS). A deductive approach guided by the salutogenic model was used for the analysis. Codes relating to the salutogenic

model were mapped onto the data set. These codes were based on the salutogenic literature (Antonovsky, 1979, 1987) and included the three SOC components (i.e. comprehensibility, manageability and meaningfulness) and the three characteristics of life experiences that may strengthen SOC (i.e. consistency, load balance and socially valued decision-making). In addition, data segments that indicated a coaching action or philosophy were coded (Trottier & Robitaille, 2014), as also data segments that indicated either an implicit or an explicit transfer strategy (Turnnidge *et al.*, 2014). After the initial coding, the codes were ordered in themes, and a thematic map of the data was produced. Codes that did not fit the themes were reviewed to see whether they formed a new theme. On the basis of these codes, the second author (KV) coded half of the interviews. The coding was compared to ensure that the data segments were categorised correctly. The two researchers' categorisation was almost identical; any discrepancies in categorisation were discussed with the third author (MK) until agreement was reached. A first version of the results section was drafted by the first author (SS) using quotations from the transcripts. The results section was then reviewed by the two other researchers (KV and MK) to ensure that the text rendered an accurate description of the data.

Results
The results section is divided into two segments. The first section deals with the coaching actions to create optimal conditions for life skill development and transferability. The second section deals with the question of how sports coaches approach the transfer of life skills in community sports settings.

1. Creating optimal conditions for life skill development
The sports coaches had specific ideas on how to create a sports environment in which socially vulnerable youth could develop and learn life skills. In the following paragraphs, several aspects of the sport coaches' efforts to improve life skill development are addressed. The results are structured on the basis of the three SOC elements.

1.1 Meaningfulness: a precondition for engagement and learning
When asked about the overall philosophy of offering sports to socially vulnerable youth, all the sports coaches replied that offering fun activities for youths was most important. Sport was considered an outlet for youths because of the opportunities it creates to forget about the issues they had to deal with in everyday life. Offering fun activities was essential in keeping youths engaged in the sports lessons as it ensured that they would return every week:

> *When they are having fun, they will come. When they are not having fun, they will stop coming. Or they have to come because of their parents. And when they are not having fun, they will become annoying. (Brian)*

Besides enjoyment being considered a precondition for youth engagement, it was also considered a prerequisite for life skill development and transferability. Five sports coaches, for example, mentioned how enjoyment opened the door to personal development and improved performance:

> *The first thing you say is the word fun and that is why I say that first… because the second thing [personal development] only comes second in this target group. Because if there is no fun to be had, then they will leave… they will drop out. And you will never get to the second point [personal development]. So, first of all, you will just have to make sure they are having fun and then you can start changing the second. (Jack)*

In addition to creating a fun sports environment, eight sports coaches emphasised that creating a safe and motivational climate was important as well; for example:

> *At the sports club I always say very clearly to the parents… of course we are a judo centre, a multi-action club, we are a club. But at the club our striving is very important… the child must feel socially and emotionally comfortable and then the rest will also work out fine. (Lisa)*

The sports coaches also emphasised that, as part of a safe and motivational climate, it was important to make sure that youths felt appreciated in their team, that they felt they were part of a group and, most importantly, that they felt they were a 'normal' part of society. There was a strong focus on 'forgetting all the problems' and ensuring that the youths would not be labelled 'problematic'. Nine sports coaches described how important it was for the youths to be part of a 'normal' group:

> *It is just… I can imagine that these people feel alone as well sometimes. Because I notice… I think… you do notice that you are different. And then it seems good to me to have something where you can have something in common with other people. And then it is nice if you at least can be part of a team where you can actually feel a team spirit. (Marc)*

The idea that sport was a meaningful activity for socially vulnerable youth permeated all the interviews. Making sure that the youths experienced sport as a meaningful activity could help in reaching behavioural goals, in making sure that they persisted when things got tough, in motivating them to try something new, in strengthening their personal development and, finally, in improving their competitive performance. During the training sessions, the sports coaches tried to create little moments of success, complimenting every accomplishment and being positive about the youths' attempts to take on a new challenge:

> *Compliments if he does… no, not only if he does something well. Just always give them compliments. I know that helps for sure. Because it is just… it is just good to hear that you are good at something. That must be nice even for someone who is insecure. (Marc)*

1.2 Comprehensibility: make it insightful

In discussing the various training scenarios, the sports coaches clearly demonstrated *how* they tried to create little moments of success (i.e. meaningfulness). They did so, first of all, by making sure that the youths understood how they could achieve success (i.e. comprehensibility). And secondly, they made sure that the youths could identify the skills they could use to be successful (i.e. manageability). Regarding the first aspect, several coaching actions were taken to increase the youths' comprehensibility. One important strategy used by the sports coaches was to structure the training sessions, as indicated by John:

> *Well, what is most important… is that you eh… offer structure… that is really important in any case. And structure means… well, being on time… uh… where do we meet … dressing room… always the same dressing room, for example. Always train on the same field. They need that too, that is a resource. (John)*

Twelve sports coaches mentioned that they stimulated youths to reflect on specific situations to increase their understanding of the situation and to help them to identify strategies that they could use to deal with sport-specific situations. Because the sports coaches asked questions, instead of giving instructions and feedback, the youths had to take an active role in their personal development. John explained how novice coaches often make the mistake of instructing youths, instead of asking questions:

> *I think that many novice coaches think that you have to prompt them and do everything yourself. And that is especially difficult with youths who are in youth care, because they already have to do so many things… they have to do this and that… they have been through this and that… and I think you have to choose a different attitude by making them self-conscious and by making them responsible. (John)*

These coaching strategies, such as having a clear structure during training and asking youths questions in order to encourage them reflect on situations and actions, may help them to understand 'how things work' in the sports environment. In addition, this comprehensibility might transfer to other societal domains, as pointed out by Brian:

> *But I do think that you will learn things here [sports club]… that you learn to understand why things are the way they are. That is what you learn there too and eventually you are going to use that to survive in society. (Brian)*

The sports coaches also indicated that they held to the same rules, values and norms as those applicable in the community or at school. For the 'specialised' groups, the sports coaches adopted the same structure and rules as in the 'normal' training groups at the local sports club. These commonalities between groups and societal domains, according to the sports coaches, helped youths to understand what was 'normal' and what was expected from them in society. Brian stated:

If you learn… well… also at a company it works the same… or at school too… that is also offering structure… then you must be on time… but also at a club… you must be on time. And then you have your classmates or team sports for example, you have to deal with one another. If you are too late for the team, then your trainer will be fed up, and those children will be distracted. If you arrive too late at school … then the teacher is explaining something and has to start over again. So those are many of the same things that you can come across and I think you learn the same thing everywhere. At the sports club you have the same learning elements as in school or at work. (Brian)

1.3 Manageability: balance between stressors and resources

The sports coaches also aimed to increase the youths' ability to identify skills that they could use to be successful. It is very important to note that success was not necessarily defined in terms of 'victory', but also very often in terms of 'mastery'. A central component of the training sessions was the balance between challenges and resources, so as to increase the youths' sense of manageability. Nine sports coaches were wary of implementing easy and repetitive exercises, as this would not stimulate youths to take a next step. Several sports coaches indicated that, in order to attain personal development, the youths would need to face challenges of a very diverse nature in order to move forward. This is exactly where learning and personal development takes place, as indicated by Charlie:

Lots of variation, yes. So that the children do not say… oh what a difficult exercise. No, then they know to play tag with the ball, if they stop they are out. Those kinds of things. Lots of variation and try to do something different every week. Those children really like that. And at a certain point they will learn by themselves. (Charlie)

Other sports coaches warned against experiences of failure, and they emphasised the importance of easy exercises, so that the youths could succeed. Brian explained how he balanced the difficulty of the exercises in order to challenge the youths to improve as well as to ensure that they could succeed:

You have to shape the exercise in such a way that you are sure that he can succeed the first time. For example… a nice example… is with hockey. Last week the children were allowed to choose either the large or the small ball. He took the larger ball, but instantly had some good shots. He scored ten times and then I took the smaller ball. While he could do it easily, but he just needs some confidence… the larger ball is important. You must constantly make sure that he experiences moments of success. And at the point that he is starting to experience many moments of success during the easy exercises, he is going to take the next step. No sooner than that. (Brian)

To keep the balance, sports coaches needed to offer resources to tackle the challenges. They used several strategies to do this. One of these involved letting the youths come up with the resources themselves, by asking them what they would need to complete the exercises. Other strategies included providing clear rules during the lessons, encouraging team work, providing structure in the exercises, and giving them various options from which to choose during an

exercise. Maria gave an example of how asking questions could help youths to tackle an exercise and create a moment of success:

> *And usually we ask, what do you need to be able to complete the exercise? And in general there is always some incentive that makes the youths do the exercise. For example by playing against me or the other sports coach, so he knows, well,… then I cannot get hit unexpectedly or… I want to be on this or that side. And then we adjust the exercise in such a way that the youth can still participate and experience that moment of success. (Maria)*

For many youths, competition is a challenge that they actually like. Competition plays an important role in sports in general, and some sports coaches indicated that competitive elements could offer youths extra motivation to perform. For example, Claire explained how she used competitive elements to increase the focus of the youths during exercises:

> *What I can do as well is to work with points. We are going to shoot at goal. Scoring on the left or right hand side earns 2 points, through the middle is 1 point. Then we are going to see who scores the most points… and very often you see that by including a competitive element in the exercise… then they are already… oeh I want to win, so I will concentrate more. (Claire)*

Other sports coaches were more reluctant to include competitive elements in their training, as this could negatively influence the youths' self-confidence, if they failed in the exercises or would lost a competition game. This could then disturb their feeling of manageability. Jack explained why he did not include competitive elements in his training:

> *Because at the outset, in the first place, you want youths to start liking sport. It is already very difficult to get them involved in sport. And well… failing, having fear, losing… that is quite a big issue with these youths, with this group of youths. Yes, then it is… especially if we compete against each other… I am afraid to come to the sports field and I lose to you. (Jack)*

2. Community sport coaches' transfer strategies
As shown in the previous section, all the sports coaches had very clear ideas about their coaching philosophy and their coaching actions. However, most of the sports coaches indicated that they did not intentionally use strategies to stimulate life skill transferability, and hence they fitted in the implicit approach. Three sports coaches made reference to explicit strategies, but this was limited to mentioning to the youths that the skills they demonstrated during the training sessions were also applicable in other societal domains. Peter explained, for example, how he emphasised to the youths the importance of displaying perseverance both during the sports lessons and in everyday life:

> *It helps you a lot with school, with work. I always say, the same perseverance and discipline that you need during your exam period… is what you need during the [sports] lesson. And that what I now have to squeeze out of you, you can later do on*

your own. It is the same perseverance, self-confidence and discipline you need when you have been rejected for the twentieth time for an internship or a job. (Peter)

One of the reasons for not paying explicit attention to transfer was that, according to the sports coaches, the youths should not experience the sports setting as an educational or a therapeutic setting. The main objective of the sports coaches was to provide a fun activity for them and to divert their attention away from everyday hassles and problems. Sports participation was seen by the sports coaches as an outlet for youths. Richard explained why he tried to refrain from creating a therapeutic atmosphere during sports lessons:

You should just look at it like this: they are just youths or children with emotional baggage. But in principle, you do not want to know everything about that. Because that is not what you are for. That is why they have guidance [from youth care professionals]. You are there just for fun. And that is also the way they have to think about you. (Richard)

A second reason for not paying explicit attention to the transfer of life skills was a lack of time, as John explained:

Ehm… well I think for sure you will take that [life skill transfer] with you, but trying to pay explicit attention to it? I think that… but I think that it is very difficult as a trainer to do that as well. In all honesty, I think that there is just not enough time. (John)

Although, in general, the sports coaches paid limited attention to explicit strategies for life skill transferability, they firmly believed that youths transferred life skills, such as perseverance, team work, and respect, from the sport setting to other societal domains. Thirteen sports coaches indicated that life skill transferability was an automatic or unconscious process:

Yes, I absolutely believe in it [transfer of life skills]. Absolutely! Yes, they pick things up by themselves… or by themselves… they pick it up from the training sessions and the matches and the circumstances surrounding the sporting experiences… what you should do… or should not do… what you can do differently… so what normal guys do… they pick that up absolutely. (John)

Discussion

The purpose of the current study was to investigate whether and how community sports coaches create optimal social conditions for life skill development and transferability. The community sports coaches interviewed in this study gave sports lessons to socially vulnerable youth, and they believed strongly in the transferability of life skills to other societal domains. In general, the sports coaches adopted an implicit transfer strategy, focusing strongly on creating a safe, fun and motivational climate for youths. Even though most of the sports coaches did not employ explicit strategies to increase life skill transferability, they held clear ideas about how to create optimal social conditions for personal development. Their coaching philosophies included

enjoyment as the main objective of sports lessons. In addition, the sports coaches emphasised the importance of providing meaningful experiences by creating a sports environment in which the youths would feel appreciated and 'normal', allowing them to forget the hassles and problems of everyday life. Little moments of success were created by making sure that the youths understood how they could achieve success and what skills they could use to be successful in the sports setting. By increasing the youths' comprehensibility and manageability in sport-specific situations, the sports coaches tried to create meaningful sporting experiences that could contribute to the youths' understanding of the challenges of everyday life, as well as to their ability to deal with these challenges.

In line with other studies that emphasised the importance of enjoyment for personal development (Adachi & Willoughby, 2014; Light & Harvey, 2015), fun and enjoyment were the primary elements of the coaching philosophies in this current study. In addition, the sports coaches focused on creating sports environments where youths would feel safe and 'normal'. In this study, we have labelled these actions as creating meaningfulness. According to Antonovsky (1979), meaningfulness is the feeling that 'the demands are challenges, worthy of investment and engagement (p. 19)'. In order to keep youths engaged in the activities, as well as to attain personal development, this meaningfulness was considered a precondition by the sports coaches. This corresponds with the idea of Antonovsky (1987) that the motivational component of meaningfulness is most important for salutary movements:

> *The direction of movement will be determined by the sense of meaningfulness. If one strongly cares and believes that one understands the problems confronting one, there will be a powerful motivation to seek out resources, being loath to give up the search until they are found. Without any such motivation, however, one ceases to respond to stimuli, and the world soon becomes incomprehensible; nor is one impelled to search for resources (p. 21).*

The sports coaches strongly emphasised the need to build a safe and caring climate in order to create these meaningful experiences. Indeed, the importance of a safe and caring sports climate for youth development has been stressed by many researchers (Camiré, 2014; Cronin & Allen, 2015; Haudenhuyse *et al.*, 2012).

The sports coaches mentioned a plethora of coaching actions that they used to create little moments of success (i.e. meaningfulness). The actions were mainly directed at making sure that the youths understood 'how things work' (i.e. comprehensibility) and giving them the opportunity to experience mastery (i.e. manageability). The sports coaches placed great emphasis on enhancing the youths' sense of comprehensibility and manageability by balancing the difficulty of the exercises and the skills the youths possessed to be successful. This balance meant that the challenges during the sports lessons should not be

too difficult, but on the other hand they should not be too easy either, because then the youths would not learn anything. From a salutogenic perspective, it can be argued that stressors can be salutary and even necessary in order to move forward (Antonovsky, 1979). At the same time, stressors can be harmful if there is no adequate response available and hence can lead to breakdown. Consequently, it is important that the youths have adequate response options to deal with the stressors in the sports setting. The experience of not having enough resources (e.g. skills) to deal with a challenge can hinder personal development; this results in Generalized Resistance Resources-Resistance Deficits (GRR-RDs) in Antonovsky's (1987) terminology. In this respect, some sports coaches warned against the use of competitive elements in the sports setting, because the youths might experience feelings of failure if they lost a match for example. Bean *et al.* (2014) conducted a systematic literature review of the negative physical and psychological effects of organised sports on youth and developed a model to explain the circumstances in which positive versus negative experiences may arise. Three factors were considered important in making this distinction: the level of practice volume, the motivational climate created by sports coaches and the intentional teaching of life skills. Negative experiences in sports are more likely to occur if young athletes engage in a high volume of training, if little attention is paid to the motivational climate and if there is no intentional teaching of life skills. Hence, the sports coach plays an important role in ensuring that youths have positive sporting experiences in order to reach positive youth development.

According to salutogenic theory, SOC develops in childhood and early adulthood when people have life experiences characterised by consistency, overload-underload balance and socially valued decision making (Antonovsky, 1987). These three characteristics of life experiences seemed to be present in the coaching actions examined in this study. In relation to consistency, the sports coaches focused on creating a clear structure in the training sessions. In relation to an overload-underload balance, the sports coaches implemented exercises that were both challenging and manageable. The last characteristic, socially valued decision making, is more difficult to relate to the coaching actions, because the sports coaches at first sight did not seem to include youths in decision making during the sports lessons. However, as Jakobsson (2012) found in her qualitative study among Swedish teenagers that the meaningfulness of sport for youths lies in 'sharing sporting activities [with peers] with a common goal' (p. 12). This element is reflected in the coaching actions, as the sports coaches placed a strong emphasis on team work and being part of a group. Cronin and Allen (2015) examined the relationship between the coaching climate, youth developmental experiences and psychological well-being and found that the effect of the coaching climate on psychological well-being was mediated via the development of personal and social skills (e.g. controlling one's emotions or relationship development). They did not find evidence for the mediating effect of the other developmental experiences (i.e. cognitive skills,

goal setting and initiative); this suggests that sports coaches should encourage youth to develop their personal and social skills in order to facilitate positive youth development.

We adopted a salutogenic approach because this aligns with the idea of sports as a tool for personal development. Its use in this study has improved our understanding of how sports coaches create optimal conditions in the sport setting for the personal development of socially vulnerable youth. The central concept of the salutogenic model, SOC, reflects the ability of people to orient themselves towards given stressors, to select a strategy in order to deal with these stressor and to feel that dealing with stressors is a meaningful activity (Antonovsky, 1979). This ability to deal with everyday-life stressors, could help socially vulnerable youth to recognise challenges in the course of their lifespan. In this respect, it is important to note that SOC is a global orientation that can be applied to any given situation, as it addresses people's ability to deal with stressful situations even though they have not encountered the specific situation before. In line with this idea, it can be argued that young people with a stronger SOC are more likely to be able to use their life skills (i.e. their GRRs) to combat everyday-life stressors throughout their lives and in various situations. If sports participation leads to increased levels of SOC, this may explain why youth can transfer their life skills to other societal domains. This is not necessarily an explicit process intentionally steered by the sports coaches. As suggested by Turnnidge *et al.* (2014), sports can be beneficial for youth development without explicit attention being paid to life skill transfer when the activities are structured properly and when they stimulate youths to become active agents of their own development (Holt *et al.*, 2008; Larson *et al.*, 2005). The sports coach, however, plays an essential role in the implicit approach in the context of creating an environment that is conducive to youth's life skill development and transfer. For example, it is essential that the sports coaches ensure that the sporting experiences of youth induce implicit reflection in order to strengthen SOC (Super *et al.*, 2016). As pointed out by several researchers, awareness of and reflection on the acquired life skills are essential to life skill transfer (Connaughton *et al.*, 2010; Tamminen & Holt, 2012). However, longitudinal research is needed to confirm the idea that youths can develop and transfer life skills within the implicit approach.

Previous studies have examined the role of the sports coach in life skill teaching, and some studies have also addressed coaching strategies for life skill transfer (Camiré *et al.*, 2011; Gould *et al.*, 2007; Trottier & Robitaille, 2014). The results of our study align with the aforementioned studies regarding the strategies the sports coaches employ for positive youth development. The salutogenic focus of this study, however, has also drawn our attention to other aspects of the coaching strategies for personal development. As the salutogenic approach offers insights on what contributes to the personal development of youths and their ability to cope, this approach allowed us to examine some of the dilemmas community sports coaches experience in providing sports to

socially vulnerable youth. These dilemmas became visible in the coaching scenarios where the sports coaches often seemed to struggle to find a balance between comprehensibility, manageability and meaningfulness. As discussed in the results section, creating meaningful sporting experiences was considered most important for sports participation as well as life skill development. Through these meaningful experiences, youths could acquire feelings of comprehensibility and manageability. At the same time, as competition was seen as something that was very meaningful to youths, a minimum amount of comprehensibility and manageability was also seen as a requirement for creating moments of success during competition. It is therefore important to note that the three SOC elements are closely interlinked and cannot be considered separately (Super *et al.*, 2016). Strengthening SOC is therefore a complex procedure that should include both actions that empower youths to use their available resources to meet the challenges they are facing and actions that stimulate them to reflect on their understanding of the challenge and the resources that they have to deal with them.

Chapter 7

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Chapter 8

Exploring the sports experiences of socially vulnerable youth

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Chapter 8

Abstract

Sports participation is considered beneficial for the development of socially vulnerable youth, not only in terms of physical health but also in terms of cognitive, social and emotional health. Despite the strong belief that sports clubs offer a setting for positive youth development, there is limited knowledge about how socially vulnerable youths experience their participation in these clubs. Interviews were conducted with 22 socially vulnerable youths that play a sport at a local sports club. An inductive content analysis was conducted and three themes were discovered that are included in the positive and negative sports experiences: the extent to which the youths experienced visibility of their skills, the extent to which the youths felt confident while playing their sport, and the extent to which the youths felt that sport was a challenge they liked to take on. More importantly, there was a fragile balance within each of the themes and the sports coaches played an important role in installing and maintaining a supportive environment in which the youths could have meaningful, consistent and balanced sports experiences. It is not self-evident that for socially vulnerable youth sports experiences are positive and supporting.

Introduction

The attention that policymakers give to sport as a tool for the personal development of socially vulnerable youth is growing, as researchers argue that the sports setting holds potential for enhancing physical, emotional, social, and cognitive development (Fraser-Thomas, Côté, & Deakin, 2005). Policymakers and health professionals more and more aim to increase the sports participation rates of young people because they consider that the sports setting is a place where young people can be engaged in meaningful activities and where they can have positive experiences of support and appreciation (Haudenhuyse, Theeboom, Nols, & Coussée, 2014). In addition, sports participation has often been linked to the development of life skills that can be used in different societal domains (Gould & Carson, 2008; Hayden *et al.*, 2015). Finally, research has suggested that young people can develop coping abilities through their participation in sport (Tamminen & Holt, 2012), which they can use in dealing with everyday life challenges. With these ideas in mind, increasing the sports participation of socially vulnerable youth may be a promising way to strengthen their personal development, also because the sports participation rates of socially vulnerable youth are lower than for their average peers (Vandermeerschen, Vos, & Scheerder, 2015).

In order to understand how socially vulnerable youth may benefit from their participation in sport it is important to investigate how they experience playing a sport (Haudenhuyse *et al.*, 2014). Research into sports experiences has often been conducted in athlete samples (Bruner, Hall, & Côté, 2011; Fraser-Thomas & Côté, 2009; Kendellen & Camiré, 2015a). These studies demonstrate that young athletes experience a diversity of developmental experiences as well as negative experiences related to various stressors in the sports setting. Although studies in this area have offered valuable insights, they do not necessarily inform us on how *socially vulnerable youth* experience sport participation. In fact, very little research has been conducted regarding the sports experiences of socially vulnerable youth. Socially vulnerable youth are characterised as having an accumulated amount of negative experiences with the societal institutions in their lives, which often leads to distorted relationships with those institutions and social disconnectedness (Vettenburg, 1998). These negative experiences with institutions can relate to the family domain (e.g., the parents have financial problems or youths experience domestic violence), to the school domain (e.g., youths are bullied at school), to the judicial system (e.g., after drug use or after a crime) or to the community (e.g., living in a bad neighbourhood with high crime rates). As a result of these negative experiences, socially vulnerable youth are often confronted with feelings of incompetence and rejection. For these youths, sports participation is seen as a tool that can alleviate some of the distorted relationships, when they have positive and supporting experiences within the sports domain, in contrast to the negative experiences they have in other societal domains (Haudenhuyse *et al.*, 2014). Yet, the negative experiences of socially vulnerable youth with the societal institutions in their life

may also translate to the sports setting and may influence how they experience their participation in sport. Previous research has shown that the social conditions, such as the sports climate, in the sports setting are important for creating positive experiences and reaching positive outcomes, and that the sports coach is a key-player in creating these social conditions (Cronin & Allen, 2015; Haudenhuyse, Theeboom, & Coalter, 2012). However, in the traditional club-based sports setting of many Western countries, many young people sport at local sports clubs that are run by volunteer sports coaches with limited or no formal coaching training. As such, these sports coaches may not always be able to create optimal social conditions. Consequently, given the vulnerable nature of socially vulnerable youth going to local sport clubs, there is reason to believe that these youths' sports experiences may not always be positive.

In recent years, researchers have begun to recognise that research into sports experiences of young people have paid little attention to understanding how they themselves experience their sports participation (Harrist & Witt, 2015; Holt, Tamminen, Tink, & Black, 2009). Recognising that including the views of these young people in research is essential (Strachan & Davies, 2014), several researchers have begun to explore the sports experiences of vulnerable young people. A study amongst young people with Attention Deficit Hyperactivity Disorder (ADHD) showed that the symptoms of ADHD hampered the sports experiences of the participants, for example because they faced difficult interpersonal relationships with sports coaches or peers (Lee, Dunn, & Holt, 2014). The authors conclude that the sports experiences are complex as the participants also reported benefits from their sports participation. Draper and Coalter (2016) studied the experiences of young males from a deprived South-African community participating in a soccer and life-skills program. They found that the sense of family, safety and belonging were mentioned as the aspects of the program that supported positive development of its participants. The importance of relationships in creating positive experiences has also been emphasised in a study including socially vulnerable youth going to Belgium sports clubs (Haudenhuyse *et al.*, 2014). Given the small number of studies on this topic, this paper aims to contribute to existing research by investigating the positive and negative sports experiences of socially vulnerable youth participating in local sports clubs.

The current study
In the Netherlands, where the research for this study has been conducted, 10 percent of the youth population received care from youth care organisations because they experience problems in growing up (CBS, 2016). Youth care organisations are increasingly organising care within the youths' close environment and in collaboration with the youths' social network, to prevent that youths receive more expensive and specialised health care. The care that youths receive is specifically adapted to their needs, their abilities, and the environment in which they live in. As the local sports club is one of the pedagogical settings

that potentially can support youths in their personal development, the Dutch Ministry of Health, Well-being and Sport (2011) aims to increase sports participation rates of young people, not only to improve their health, but also to reach wider social and educational outcomes. To enable all youths to join a local sports club, The Youth Sports Fund has been created to offer financial support for membership fees and the purchase of sports cloths and materials (Jansma & Maks, 2014). As more and more socially vulnerable youth join local sports clubs (Jansma & Maks, 2014), it is relevant to study how these youths experience their participation in sport.

This study is part of the research project Youth, Care and Sport that has been set up to study the role of sport in improving the life prospects of socially vulnerable youth (Super, Hermens, Verkooijen, & Koelen, 2014). The research project aims to 1) understand the relationship between sports participation and youth developmental outcomes; 2) explore how socially vulnerable youth experience their participation in sport and the value they derive from sports participation in a socially vulnerable childhood; 3) examine how community sports coaches can create optimal social conditions for the personal development of socially vulnerable youth, and; 4) examine the elements of successful and enduring partnerships between youth care organisations and sports organisations. The research project takes a salutogenic approach, that focuses on the main questions 'What creates health?' (Antonovsky, 1979). According to Antonovsky (1979), people are confronted with stressors in their daily lives defined as *"a demand made by the internal or external environment of an organism that upsets its homeostasis* (p. 72)". In the salutogenic model of health, stressors can be pathogenic (i.e., negative) but they can also be salutogenic (i.e., positive). Whether stressors become either pathogenic or salutogenic depends on the resources people have available to meet the demands of everyday life and people's ability to deal with stressors, referred to as sense of coherence. Sense of coherence consists of three components (Antonovsky, 1979): the extent to which people experience the world as consistent and structured (comprehensibility); the extent to which people feel that there are resources available to meet the demands of everyday life (manageability); and the extent to which people feel that dealing with the stressors of everyday life is worthy of investment and engagement (meaningfulness). People with a stronger sense of coherence consider stressors more as a meaningful challenge rather than as a threat and, hence, they are better able to select effective coping strategies, resolving tension in a health promoting manner. Previous studies have found a positive association between sports participation and sense of coherence (Ahola *et al.*, 2012; Honkinen, Suominen, Välimaa, Helenius, & Rautava, 2005), suggesting that the sports setting may provide opportunities for strengthening the sense of coherence as young people are engaged with various stressors and challenges in a meaningful activity. Taking a salutogenic perspective, we aim to better understand the

positive and negative sports experiences of socially vulnerable youths participating in local sports clubs.

Methods

Participants and procedure

Open interviews were conducted with socially vulnerable youth to educe narratives about the youths' sports experiences (Haden & Hoffman, 2013). The interviews were conducted with 22 socially vulnerable youths (13 male, 9 female) that participated in local sports clubs. The youths differed in the extent to which they could be labelled as socially vulnerable, ranging from youths living in deprived communities to youths with severe learning or behavioural problems. The youths were contacted via four organisations that work with socially vulnerable youth: two secondary special education schools for young people with severe behavioural or learning problems, one youth care organisation, and one sports club in a socially deprived community. Youth professionals were asked to invite youths to participate in the study based on three inclusion criteria:

1. The youths are between 10 and 18 years old;
2. The youths are socially vulnerable according to Vettenburg's (1998) definition;
3. The youths are member of a sports club or a fitness club.

The youth professionals were informed about the definition of social vulnerability. As the youth professionals had a thorough understanding of the youths' problems, and thus the nature of their vulnerability, they were considered well able to categorise youths accordingly. The researchers were not informed about the exact nature of the youths' problems for ethical reasons. First of all, medical information falls under the client confidentially agreement between medical staff and clients and, therefore, the researchers could not be informed about the youths' medical background by the youth professionals. In addition, to assure that the youths would feel safe during the interviews, no questions were asked about the youths' vulnerable nature. Information about the participating youths can be found in Table 8.1.

Table 8.1 Detailed information about the youths

Pseudonym	Age	Sex	Current sport
Celia	12	female	hockey
Dacey	14	female	gymnastics, horse riding
Tamara	16	female	dancing
Ian	11	male	hockey
Leon	15	male	mountain biking
Carl	16	male	fitness
Becky	13	female	hockey
Harris	15	male	soccer
Matt	16	male	taekwondo
Paul	15	male	American football, fitness
Nathan	13	male	hockey
Ferdi	16	male	fitness
Carin	16	female	fitness
Kaspar	15	male	basketball
Rachel	15	female	dancing
Gabriel	16	male	cycling, badminton
Joyce	16	female	walking
Jack	16	male	soccer
Sanaa	13	female	soccer, hockey
Vernon	16	male	hockey
Daphne	16	female	fitness
Joey	17	male	Thai boxing

During the interviews, the researchers took into account several ethical considerations in accordance with general ethical guidelines for behavioural and social research as approved by the review board of the Wageningen School of Social Sciences. Via the contact organisation, the researchers informed the youths and their parents about the purpose and set-up of the interview. The parents were asked to inform the contact organisation if they did not want their child to participate in the study. None of the parents disagreed to their child's participation. In addition, the interviewers ascertained that the youths understood that they had the right to leave the study at any point in time without giving a reason, that the interviews would be tape-recorded, and that confidentiality was guaranteed. The interviews were conducted at the participants' chosen location, preferably in the sports environment or another safe environment for the youths. Two researchers (SS and CW) each conducted half of the interviews. All youths received a gift voucher after the interview of 10 euros for an online warehouse.

Interview guide
The interview guide was based on previous studies in the area of young people's sports experiences regarding the topics that are important in the sports setting (for example: Jakobsson, 2012; Tjomsland *et al.*, 2015). The interviews started with background questions about the youths' sports participation in the past and present, and their motivation for starting to engage in sport (e.g., Why did you chose to play this sport?). These questions were followed by open questions covering several topics such as their experience with their coaches (e.g., Can you tell me about your coach or trainer?), their peers (e.g., What are the people in your team like?), the exercises (e.g., Can you tell me what a regular training

looks like?), and (when relevant) competitions (e.g., Can you tell me about the first match you ever played?). The open questions ensured that the youths could share their experiences as they were relevant for them. The interviewer tried to probe for a deeper understanding of the experiences by asking more detailed questions about the experiences.

The interviewers conducted three pilot interviews with youths to evaluate the interview guide. The pilot interviews gave rise to several questions about the suitability of the guide for interviewing socially vulnerable youth. The second step then was to contact a youth professional to discuss the interview guide and strategies to interview socially vulnerable youth. The opportunities to create a safe interviewing climate were also discussed with this youth professional. Consequent to this meeting, the interviewers chose not to use a sheet of paper with interview questions and called the interviews a 'short chat.' It was felt that the use of the term 'interview' and the sheet of interview questions might resemble the characteristics of a therapeutic session and that this could diminish the youths' sense of safety. As a result of the open approach, the interviews varied in terms of duration, depth, and content. The interviews lasted between 10 and 26 minutes. Since the experiences of the youths were very diverse, also in the relatively shorter interviews, all the interviews were considered informative and were taken into account when analysing the data and writing up the results. Some children were better able to express themselves than others, and therefore some interviews were more informative than others.

Data Analysis
The interview recordings were transcribed verbatim and, thereafter, analysed using software for qualitative data analysis (Atlas.ti). Each participant was assigned a pseudonym to guarantee anonymity. An inductive content analysis was conducted to explore the sports experiences of socially vulnerable youth following the guidelines by Elo and Kyngäs (2008). The transcripts were read back and forth by two researchers (SS and CW) to create an initial understanding of the way the youths talked about sports. In the second step, the first author (SS) created initial data-driven codes guided by the main question: Which topics are present in the positive and negative sports experiences? The first author (SS) created a codebook based on the first round of coding, after which the second author (CW) coded all the interviews. The coding was compared between the two authors and was almost identical. Any discrepancies in coding were discussed until agreement was reached. In the third phase, categories were formed by grouping the topics that were present in the positive and negative sports experiences. Although the analysis was inductive in nature, it is important to mention that this study is part of a research project that is inspired by the salutogenic model of health and the work of Antonovsky (1979). The salutogenic model of health was not used to form initial codes, but it did steer the researchers towards considering that stressors can be both pathogenic (negative) and salutogenic (positive) also depending on

the youths' resources and their ability to use these resources to deal with the stressors. As such, themes were formed that covered a specific topic in the sports experiences that was mentioned in positive and negative accounts. In the final step, the first author (SS) created a draft report of the interview results that was critically reviewed and compared with the original data by the remaining authors.

Results

The youths in the interviews described a large diversity in motivation for their sports participation. Having fun was one of the most cited reasons to join a sports club, as well as having fun in getting better in your sports discipline. Yet, also negative accounts were present in the youths' stories. In this section we describe the diversity of the youths' sports experiences. Within each theme we first describe the positive experiences relating to the topic and then the negative experiences.

Theme 1: Seeing your own skills

One source of positive experiences that was frequently mentioned related to the youths' increased understanding of the game and the strategies to improve performance. This was not necessarily related to competition and winning, but also to mastery and improved (sports) skills. Sanaa described how she enjoyed that her new hockey team improved after learning to work together:

> *Sanaa: It [losing a match] came because we didn't know each other that well. And we didn't know what we were good at. And how you can pass the ball to each other. So we had to learn a lot. And that's when we started working together more and it is going much better now.*

In this respect, it is interesting to mention that the youths were very well able to describe the skills they possessed in the sports setting. These were not only sport-technical skills such as ball-handling or shooting techniques, but also broader life skills such as keeping focus, keeping an overview in games, communication skills, and team-work skills. Nathan appreciated playing in competition against various teams, as this helped him to recognise his competencies, stating: '*Yes, then you know what your qualities are*'. Most youths were also very well able to describe what they could do to improve the skills that they did not sufficiently possess. The strategies they described were manifold, such as persevering with exercises, asking the sports coach questions, sparring with people who were better than themselves, and asking friends for help. Dacey described her various strategies to learn new gymnastic elements:

> *Dacey: I just practice on a trampoline and then I will just practice what I have to do. Or I can ask my friends if they can help me, or I will do it in a swimming pool.*

In the youths' stories, the sports coaches often played an important role in establishing the visibility of skills. Harris discussed his position on the soccer field and how he, with the help of his sports coach, was able to identify his competencies and weaknesses as a number 10 player:

> *Harris: In the number 10 position, you need to be able to keep a good overview because you have to look over the field… to whom you should pass the ball. Because you don't want to pass the ball to someone that is offside.*
>
> *Interviewer: Is that something that you are good at, keeping an overview?*
>
> *Harris: Yes, I'm good at keeping an overview… but I talk too little. I usually keep my mouth shut and then the sports coach says… you should talk more.*

On the other hand, for some youths, the visibility of skills in the sports setting and the ways to develop them were not so clear. Some youths expressed that they did not know how to develop certain skills, stating that it was something that *"goes automatically"*. In some instances, the lack of knowing how to develop certain skills could lead to negative experiences. Celia got angry during a hockey training because she tried and failed a number of times in trying to hit a backhand. Asking her what made her so angry, she replied: "*That I can't do it. Even though you keep on trying, I just won't get it".* To Celia, the strategy of 'persevering with exercises' did not help her in learning a new skill.

Theme 2: Being confident in one's sport
The stories shared by the youths often incorporated references to (a lack of) confidence, for example in being able to improve their performance or to learn to master new things. The confidence in being able to improve is closely related to the previous theme of being able to see your strengths and weaknesses. However, this theme addresses a broader notion of having confidence beyond mere 'understanding of skills and strategies'. The confidence that the youths expressed in their sport could relate to the individual player (i.e., confidence in having the ability to improve and learn new things), to the sports coach (i.e., the confidence that the sports coach will help to overcome barriers by giving advice and support), and to the team (i.e., the confidence that the team will support the individual to take on new challenges). This confidence was important for the youths to be committed to the sport, the exercises, and competition. Some youths felt confident about being able to learn new things or to take a next step in their level of sport. Tamara, for example, described how she always trusted her talent even though things were sometimes difficult:

> *Tamara: Well I'm not a quick learner, I'm not fast in picking things up. But if it actually concerns something that I really enjoy doing, then all of a sudden I can do it. For example, if we learn a new [dance] routine… last week… we practised the routine once and I immediately knew the new routine off the top of my head. I guess that you would need some sort of talent to do that.*

Other positive accounts related to the confidence and support youths received from their peers. Some youths indicated that the team atmosphere was supportive and positive, which helped them in taking new steps or in persevering when things got tough. Jack, for example, described a situation during a match in which he lost the ball and where his peers coached him in a supportive way. This also increased his confidence that next time he would do it better:

Jack: Yes, they [other team players] will coach me in a positive way. Because when they will coach me in a negative way, this will also negatively affect the match.

Interviewer: And what does that mean, coaching you in a positive way? What do they say or do?

Jack: Then they will say… that next time it will be better if I do it this way or that way. That it doesn't matter, because next time I will get it right.

The sports coach played an important role in establishing this confidence. The youths mentioned the sports coach not only as a source of sport-technical knowledge and advice, but also as a source of constant support. Dacey competed in a gymnastics exercise and felt supported by her sports coach, knowing that he was there to help her whenever she lost track in the routine:

Dacey: But I do really try to do it off the top of my head, but if I forget something then I will look at him [the sports coach]… and then he knows too… if she forgets something then I will do this and this.

Nonetheless, a quarter of the youths also demonstrated a lack of confidence while participating in sport. Several participants felt that there were occasions when they felt unable to master an exercise or a skill, and this could lead to feelings of incapability and uncontrollability. The lack of confidence for some youths arose in comparison to the other players on the team. As Sanaa explained, the difference in level among players reduced her confidence when she compared herself with higher level players:

Sanaa: I don't have much self-confidence when playing hockey. Because I think it's kind of difficult. Especially if you look at the others… they are playing on a higher level. Because I'm only playing on level 2, and some people play on level 4.

Experiencing a lack of confidence or having a sense of uncontrollability could also reduce the youths' willingness to continue in the sport or to keep on trying, as Dacey explained when talking about horse riding:

Dacey: Horse-riding is fun, but every now and then I have to gallop. I can do it, but… the problem is that when I gallop, I get really stressed… because I'm afraid that I will fall off. I can always just cling on so I do not fall off. So yeah, I don't really like that. […] and when I don't like it, then I won't do it.

Theme 3: Sport as a nice challenge
For many players, the sports settings offered them challenges with which they liked to deal. This was closely linked to the enjoyment that some of the youths experienced when they saw that they were improving in their sport. For example, Carl described how breaking his personal record in weightlifting motivated him to improve continuously:

> *Interviewer: And can you try to describe what makes fitness so much fun?*
>
> *Carl: Every time you go… sometimes you can break your own record in kilos. And then you are completely happy. And then you are stuck on that [the record] for a few weeks and then you break your own record again. It's just fun… that you can lift more, that's the most fun.*

The lack of a challenge was often perceived as boring and could reduce the motivation to participate in the sports activities. This was often visible when the youths compared their sports activities with the physical education classes in school, which they labelled as boring because they did not need to give their absolute best during these classes. Paul, for example, states:

> *Interviewer: And well, here at school you play sport as well, right? Physical education classes… how do you like those?*
>
> *Paul: They are kind of boring.*
>
> *Interviewer: What makes them boring?*
>
> *Paul: Well I think the exercises are a bit childish compared to what I do myself [American football].*

This theme of 'sport as a nice challenge?' relates strongly to the previous two themes, but it adds a motivational component. Many youths placed a great emphasis on getting the best out of themselves, on making sure that they would do whatever it takes to improve, and on persevering even if they failed the first time. Rachel, for example, stated: *"If you really want to do something, then you have to put in effort".* This value of perseverance was shared by many of the youths, and often they also expected others to live up to this value, especially when they played a team sport. Harris clearly described how perseverance was an important value in his soccer team:

> *Harris: We are sometimes nagging about things in our team. Sometimes there is a guy in our team ehm... well he is a rather good player, but he plays the ball too much. Sometimes he does too much and then the ball is snatched away, and then he has to set things right again. Then we all do our best to set things right again. And then there is someone in our team that messes things up again. That is annoying.*

Negative sports experiences were also reported with regards to this value of perseverance, for example when youths felt annoyed when other team players were unable to demonstrate the same perseverance. Following up on the

previous quote, Harris talked about how his team responded negatively to those players who did not demonstrate this value:

> *Interviewer: How does your team respond in those cases?*
>
> *Harris: Yes… what are you doing?!! Go and run!! What are you doing?! Yelling a bit… like… look at what you are doing! We will lose the match because of this!*

The group pressure to get the best out of yourself could be a source of negative sports experiences as well. Although most youths shared the value of perseverance, some felt incompetent in demonstrating this perseverance during the exercises, and this could lead to feelings of rejection and isolation. Competition was especially a setting where these negative sports experiences could arise. Leon's reason for quitting soccer related to the feeling of being rejected in competitions:

> *Leon: When I was little, I played soccer. But I quit playing soccer because… the other children thought I was a bad soccer player and they didn't want to pass the ball to me. Then I was thinking… I will just quit if they don't want to pass the ball to me.*

Similarly, Tamara talked about her dance group in which a few dancers had less experience in dancing and competitions. She indicated that she sometimes felt annoyed when these inexperienced dancers joined the competitions:

> *Tamara: I get that you join us, just for the dancing. […] But that you join the competition, you shouldn't do that. You will embarrass the entire group.*

The sports coach again played an important role within this theme. The sports coach could create a positive environment in which youths were encouraged to work together and support each other in taking on new challenges, such as competitions. However, in an anecdote shared by Harris, the sports coach negatively contributed to such challenges. Harris described the response of his sports coach when the team was arguing with one of its players because the player did not demonstrate the value of perseverance:

> *Interviewer: And your trainer? What does he do in those cases?*
>
> *Harris: My trainer is yelling. We are sitting in the dressing room and you can already tell by his face… he walks around a little and then suddenly he starts yelling. Guys, you need to try harder! Do not lose! Because this is our final match and then… it will all go wrong… then he gets really angry.*

Discussion

In this study we aimed to explore positive and negative sports experiences of socially vulnerable youth. Three themes were discovered that were included in the youths' experiences: the extent to which they experienced visibility of their

skills, the extent to which they felt confident while playing their sport, and the extent to which they felt sport was a nice challenge that they liked to take on. There seemed to be a fragile balance within each of these themes and the sports coach was often identified as a key-player in tipping the balance towards positive sports experiences.

The youths reported many positive sports experiences and expressed to enjoy themselves while playing a sport. These positive experiences could originate from different sources: in experiencing visibility of their skills, in being confident while playing a sport, and in engaging in challenges. These results show similarities with the existing literature on fun, enjoyment and sources of motivation in youth sport (Jakobsson, 2012; Tjomsland *et al.*, 2015; Weinberg *et al.*, 2000; Weiss & Smith, 2002). Tjomsland *et al.* (2015) found that enjoyment of youth soccer players was related to being with friends, collaborating with team mates, choosing to play the sport, having a supportive coach, and learning new skills and demonstrating mastery of them. Similarly, Jakobsson (2012) interviewed sporting teenagers and found that fun arose in terms of experiencing learning and development, challenging oneself in competition and being involved and engaged with others. As these studies show similarities with our results, it seems that the sources of positive and negative experiences are quite similar for vulnerable and non-vulnerable youths. This is perhaps not surprising, but what is important to add is that, for socially vulnerable youth, the challenges in the sports settings may contain elements that reflect some of the struggles they encounter in everyday life (Andrews & Andrews, 2003; Vettenburg, 1998). For example, sports activities in the secure unit studied by Andrews and Andrews (2003) could exacerbate the youths' anxiety of social comparison, which they were already struggling with in everyday life. In other words, the youths' experiences in everyday life may translate to the sports setting and, as such, can colour their sports experiences. For socially vulnerable youth it is, therefore, important to consider the fragile balance within each of these themes as this influences the extent to which these youths report positive and negative sports experiences. The sports coach is crucial in installing and maintaining a balance in training groups when it comes to these aspects but at the same time is confronted with the imbedded culture of sport to focus on competition, excelling, and individualism (Fraser-Thomas & Côté, 2009; Super, Verkooijen, & Koelen, 2016). It is important for sports coaches to create a supportive environment in which youths can experience feelings of success and acceptance (Haudenhuyse *et al.*, 2014; Super *et al.*, 2016).

The three themes that have been identified in this study are closely interconnected. The visibility of skills and the strategies to develop skills (theme 1) is one source of having confidence in one's sport (theme 2). For example, knowing how you can learn a new technique in gymnastics can give confidence in one's sport. Similarly, seeing sport as an interesting challenge (theme 3) builds on the visibility of skills (theme 1) and the confidence in one's sport

(theme 2). In this respect it was found that competition was something that youths could enjoy, especially when they felt they had the skills to play well and when they felt confident in their sport. Moreover, seeing sport as a nice challenge (theme 3) may be an important motivator for youths to take on new challenges in the sports setting, which in turn can improve the visibility of skills (theme 1). It is not the purpose of this study to create an order in the importance of the themes, nor to say anything about the sequence in which these experiences may take place. The interconnectedness of the various themes does show that youths may enter a positive or negative vicious circle depending on the extent to which they can be moved towards seeing their skills, having confidence in playing their sport and seeing sport as a nice challenge.

Adding to the complexity, the current study also shows that the elements that can contribute to positive experiences and enjoyment at the same time can contribute to negative experiences and feelings of rejection and isolation. For example, in some instances taking on a challenge was mentioned in positive accounts, whereas in other instances being challenged was described as a negative experience. According to the salutogenic model of health, stressors in themselves are neither negative nor positive (i.e., pathogenic or salutogenic), but depending on people's response towards the stressor, people may move in a negative pathway towards 'unease' and reduced well-being or in a positive pathway towards 'ease' and improved well-being (Antonovsky, 1979). In the case of taking on a challenge, youths that are able and have the resources to deal with the challenge would likely report positive experiences, whereas youths in a similar situation without the ability and the resources to deal with the challenge would likely report negative experiences. The process of dealing with stressors, or as Antonovsky (1979) called it, tension management, results in life experiences that are characterised by a certain degree of overload-underload balance, consistency and socially-valued decision-making. These life experiences in return may strengthen or weaken the sense of coherence; people's capacity to deal with stressors in a health-promoting way. It is thus the combined effect of stressors, resources and people's ability to deal with stressors that results in a salutogenic or pathogenic movement (Vinje, Langeland, & Bull, 2017). A clear example of a resource in the sports setting is the sports coach. The sports coach can help youths in dealing with a challenge by giving tips on how to handle a specific situation. In this way, the sports coach can assist in creating meaningful, consistent, and balanced experiences during training sessions as these characteristics are known to facilitate learning experiences and to strengthen sense of coherence. In contrast, if these conditions are absent, the sports experiences of socially vulnerable youth are likely to turn pathogenic and possibly lead to breakdown (Antonovsky, 1979). For those youths that the sports setting presents numerous stressors for which they do not have sufficient resources available nor the ability to use the resources to deal with these stressors, the sports experiences may be negative and may push them further down the negative spiral of vulnerability. A study by Super *et al.* (2016)

amongst community sports coaches showed how sports coaches can create optimal conditions for life skill development from a salutogenic perspective. The sports coaches tried to create meaningful sporting experiences, because these were considered a precondition for engagement and learning. They specifically focused on creating little moments of success and on making sure that the youths felt they belonged to a group (Super *et al.*, 2016). The coaching actions that these sports coaches employed to create little moments of success (i.e., meaningfulness) were directed at making sure that the youths understood 'how things work' (i.e., comprehensibility) and giving them the opportunity to experience mastery (i.e., manageability). Coaching actions directed at comprehensibility were for example to structure the training sessions and to ask questions instead of instructing youths. An example of a coaching action that was directed at manageability was to provide youths with several options to deal with a sports-related challenge and allowing youths to find out which option works best. Hence, these coaching actions could help youths by increasing the visibility of their skills, by strengthening their confidence in their sport, and by engaging youths in manageable challenges.

Several authors have argued that, in order to understand how extra-curricular and community-based activities, such as sports, may contribute to the personal development of young people, we need to study how youth experience these activities (Dworkin, Larson, & Hansen, 2003; Hansen, Larson, & Dworkin, 2003; Haudenhuyse, Theeboom, & Nols, 2013). A large amount of research has been conducted on the developmental outcomes of sports participation for young people (Fraser-Thomas & Côté, 2009; Hansen *et al.*, 2003; Kendellen & Camiré, 2015a). The results of these studies demonstrate a variety of positive outcomes, such as improved social skills, team-work skills, and self-esteem (Holt, Tink, Mandigo, & Fox, 2008; Kendellen & Camiré, 2015b). However, it is important to make a distinction between sports *experiences*, which refer to positive or negative experiences of sport, and the developmental *outcomes* of those specific experiences. Even though it has been pointed out that naturally occurring sport experiences can promote development and growth (Turnnidge, Côté, & Hancock, 2014), there is very limited understanding of how sports experiences relate to these outcomes (Hansen *et al.*, 2003; Haudenhuyse *et al.*, 2013). This study has tried to shed a light on this important question by investigating the sports experiences of socially vulnerable youth from a salutogenic perspective. Unfortunately, based on the current data, we were unable to delve into the link between sports experiences and developmental outcomes, as the interviewees were unable to reflect on the developmental outcomes of their sports participation. Future research could try to examine the link between sports experiences and developmental outcomes in greater detail.

Study Limitations
The current study is not without limitations. First of all, because of ethical reasons, the selection of youths for this study was based on the youth

professionals' assessment of the socially vulnerable nature of the youths. Youth professionals, that purposively selected youths for this study, were informed about the inclusion criteria and Vettenburg's definition of social vulnerability. Because these youth professionals had detailed knowledge about the youths' problems and backgrounds, they were best able to select youths that met the inclusion criterion of being socially vulnerable. As a result of using Vettenburg's definition of social vulnerability, the youths that are included in the study represent a heterogeneous group, including children with problem behaviour, with alcohol or drug problems or coming from problematised families. Previous research has suggested that subgroups of socially vulnerable youth may have very different sports experiences (Lee *et al.*, 2014). However, based on the interviews, we are not able to draw any conclusions about these differences as we were unable to gather information about the problems of the participants for ethical reasons. This limitation arises from some of the conflicting goals that a researcher may be confronted with when conducting research among vulnerable youth groups (Allen, 2002). It is possible that those youths that were most at-risk were not selected by the youth professionals for this study. In addition, because of the selection criterion that the participants should be a member of a local sports or fitness club, we interviewed youths that currently, at least to some extent, attach importance to their participation in sport. These participants might differ from those socially vulnerable youths that attach less importance to their participation in sport and from those that dropped out of sports. Therefore, we have to refrain from generalising the findings of this study to socially vulnerable youth in general, and specifically to those most at-risk. Further research could involve an adult sample to reflect back on their socially vulnerable childhood in order to investigate the sports experiences in close relation to everyday-life experiences.

Secondly, the interviews were conducted in the form of a casual conversation about how the youths experienced their participation in sport. As the interviewers did not use a sheet of interview questions, questions could be raised about the chosen methodology and the reliability of the results. For example, the order of the questions and the depth in which the various topics were discussed differed in the interviews. This means that in some interviews several topics were discussed more thoroughly than in other interviews, also depending on the youths' willingness and capacity to reflect on a topic. Moreover, as the participating youths may be less inclined or willing to talk about negative experiences, we have to be careful in assuming that the youths' sports experiences were mostly positive. However, the interviewers considered the informal nature of the interviews a strength as it allowed greater insights into the experiences of the youths in their own words than a formal interview and it increased the opportunity to create a safe interviewing climate.

Thirdly, sports participation rates of socially vulnerable youth are lower than of their non-vulnerable peers (Vandermeerschen *et al.*, 2015). Research has demonstrated that socio-economic variables such as household income and

parental education are important predictors of children's sports participation (Vandermeerschen *et al.*, 2015; Vella, Cliff, & Okely, 2014). Also parental support is important, especially for children of a lower age. As a result, it was a challenge to find socially vulnerable youths that actually participated regularly in sport and belonged to a local sports club. Consequently, the sample represents a select group of young people that perhaps differ from other socially vulnerable youths that dropped-out of sport.

Conclusion

Socially vulnerable youths described their sports experiences in relation to three themes: the extent to which they experienced visibility of their skills, the extent to which they felt confident while playing their sport, and the extent to which they felt sport was a challenge they liked to take. There was a fragile balance within each of the themes that made the sports experiences either positive or negative for socially vulnerable youths and the sports coach played an important role in tipping the balance towards positive experiences. Depending on the ability of the sports coach to create meaningful, consistent, and balanced experiences, the youths may benefit from sports participation even beyond the sports setting.

Chapter 8

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Chapter 9

How young adults reflect on the role of sport in their socially vulnerable childhood

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Chapter 9

Abstract

Participation in sport has often been related to positive developmental outcomes for socially vulnerable youth. However, we know very little about the role of sports participation in a socially vulnerable childhood. Taking a life-course perspective, we conducted interviews with 10 young adults to reflect on their socially vulnerable childhood and the role of sport in their lives. Using Interpretative Phenomenological Analysis (IPA) we discovered that four different roles of sports participation in a socially vulnerable childhood could be discerned. First of all, sports participation offered youths a safe place that allowed them to escape the struggles they faced in everyday life and that provided them with support, appreciation and feedback that they did not find in other life domains. Secondly, sports participation offered learning experiences that contributed to valuable insights about themselves or the world around them. Thirdly, sport could be an instrument to reach goals and as such sport became a resource in itself. Fourthly, sports participation could fulfil a purpose in life for socially vulnerable youth and become an important part of their identity. The participants' accounts showed how sports participation filled a specific gap in their lives and they mostly shared positive experiences. However, the participants' accounts also indicated the potentiality of sport to instigate a negative spiral of vulnerability, and therefore we have to remain critical towards the value of sports as a tool for positive youth development.

Chapter 9

Introduction

Socially vulnerable youth are characterised as having an accumulated amount of negative experiences with societal institutions (e.g. school, government, community) that can lead to distorted relationships with those institutions and to social disconnectedness (Vettenburg, 1998). They are confronted with feelings of low self-esteem and incompetence, causing a downward spiral of social vulnerability that may persist into adulthood (Hammer & Hyggen, 2010). Social vulnerability reflects cumulative process, because negative experiences with one social institution increase social vulnerability with other institutions over the life course (Vettenburg, 1998). However, this process does not have to be definite; it is a potential situation of risk that can be halted or even reversed. Policymakers and health professionals have a key role in alleviating vulnerability for example by strengthening the personal development of socially vulnerable youth in order to increase their chance of leading a healthy and productive life. From this positive youth development perspective (Lerner, 2009), youths are seen as having the potential to develop and use their strengths to overcome the challenges of everyday life, rather than seeing them as risks to be managed (Damon, 2004). Social interventions based on positive youth development principles aim to understand, engage and educate youths in productive and meaningful activities.

The sports setting is considered to be one of the viable settings in which positive youth development goals can be reached (Weiss & Wiese-Bjornstal, 2009). Sports participation has been associated with improvements in emotional, financial, individual, intellectual, physical, and social capital in youths (Bailey *et al.*, 2013), although some outcomes are more thoroughly supported by literature than others. For policymakers, sport has become a way to address several social issues, such as improving social inclusion, reducing crime rates and improving academic performance. In line with these thoughts, a large number of programs have been developed that aim to enhance the sports participation rates of socially vulnerable youth (Beaulac *et al.*, 2011; Papacharisis *et al.*, 2005), in an attempt to support them to lead a healthy and productive life. Yet, these policy efforts and program initiatives are based on research that is most frequently conducted among non-vulnerable youths and, hence, we have very little understanding about *if* and *how* socially vulnerable youth may benefit from sports participation. A better understanding of the (im)possibilities of sport to alleviate social vulnerability is needed to support these initiatives.

Studies that did focus on the outcomes of sport programs serving socially vulnerable youth have demonstrated mixed results (Armour & Sandford, 2013; D'Andrea *et al.*, 2013; Laberge *et al.*, 2012). In addition, in a systematic review of sport programs serving at-risk youth, it was concluded that most of the studies had a high risk of bias because of their study design (e.g., lack of a control group, no explanation of randomisation procedure, no description of retention reasons). As a result, it is not yet possible to draw any firm

conclusions on the psychological benefits of sport for this group (Lubans *et al.*, 2012). In a study by Haudenhuyse *et al.* (2014), socially vulnerable youth that were interviewed were rather reserved about the benefits of sports participation beyond the sports setting. Moreover, it was found that sports participation for youths in a detention centre could also have negative effects, because challenges in the sports setting resembled some of the struggles they were facing in everyday life (Andrews & Andrews, 2003). For example, sports activities in the detention centre could exacerbate the youths' anxiety of social comparison, which they were already struggling with in everyday life. Hence, the value of sports participation for socially vulnerable youth remains uncertain.

The uncertainty regarding the value of sports participation is further augmented by a lack of understanding about the way in which sports participation could alleviate vulnerability. Coalter (2007) found that the critical success factors of sports programs are the long-term development of social relationships of youths with program staff, and the provision of a safe and motivational sports climate. Haudenhuyse *et al.* (2014) found that sports clubs can offer an environment where youths can find support, meaning, appreciation, security and caring. Furthermore, it has been frequently stressed that creating positive sports experiences is not only essential in keeping them engaged but is also a pre-condition for youth development (Super *et al.*, 2016). Although these studies have started to shed a light on aspects of sports participation that can contribute to youth development, none of these studies have explicitly researched these within the everyday-life context of socially vulnerable youth. Yet, several authors have argued that in order to understand how sports participation can generate wider outcomes, we need to understand the life situations of this specific group (Haudenhuyse, Theeboom, & Skille, 2014; Spaaij, 2009). A recent study amongst socially vulnerable youth in the Netherlands has found evidence that the youths' sports experiences were coloured by their experiences of everyday life (Super *et al.*, 2017). To follow up on these findings, this study aims to examine the role of sports participation in a socially vulnerable childhood, taking a life-course perspective. This perspective is useful to study individual development in changing and dynamic contexts as it allows researchers to understand people's long-ranging developmental trajectories, including the changing temporal, social and historical context in which people lead their lives (Devine, 2005). Hence, the life-course perspective allows us to understand the role of sports participation in terms of its potential to alleviate social vulnerability, by focusing on the everyday life experiences and the developmental trajectory of socially vulnerable individuals. However, given that youths may lack the self-awareness and cognitive capacity to reflect on this (Chinkov & Holt, 2015), young adults were chosen as research participants. Therefore, the role of sports participation in a socially vulnerable childhood was studied by letting young adults reflect on their developmental trajectory and the role of sport in this trajectory.

Chapter 9

Methods and design

Methodology and philosophical underpinnings
Interpretative Phenomenological Analysis (IPA) was employed in this study to investigate how young adults reflect on the role of sports participation in a socially vulnerable childhood (Smith & Osborn, 2003). IPA is useful for developing theories and explanations about people's lived experience of a specific phenomenon (Fade, 2004; Larkin *et al.*, 2006). The phenomenological aspect of IPA urges researchers to try to understand the participant's world by focusing on the participant's experiences and personal perceptions of a specific event (Larkin *et al.*, 2006; Smith *et al.*, 1999). Rooted in critical realism, differences in individual experiences of the same phenomenon are considered possible because people experience different parts of reality (Fade, 2004). IPA, then, does not attempt to produce an objective account but rather tries to get as close as possible to the participant's view to produce a third-person account of an event. In an attempt to stay close to the participant's view, quotes and explanations in the results section need to be integrated.

With the interpretative aspect of IPA, the initial descriptions of experiences are placed within a wider social, cultural and theoretical context, allowing the researcher to reflect on what the experiences mean for the participants (Larkin *et al.*, 2006). As IPA recognises that individual experiences are constructed by research participant and researcher (Larkin *et al.*, 2006), the researcher is seen as a co-constructor of meaning (Morrow, 2005). *"The second-order account aims to provide a critical and conceptual commentary upon the participant's personal 'sense-making' activities* (Larkin et al., 2006: 104)*"*. The researcher's beliefs are not seen as biases to be reduced, but rather as necessary instruments to make sense of the participants' experiences (Fade, 2004).

The researcher employing IPA aims to offer an interpretative account of what the phenomenon means to the participants within their particular context (Larkin *et al.*, 2006) which is especially useful for topics that are dynamic, contextual and subjective (Smith, 2004). Considering that this study aimed to understand what the phenomenon of sport means to participants within the context of their socially vulnerable childhood, IPA is especially useful as a framework for data analysis. It allowed us to consider how young adults made sense of the role that sport had for them, in close connection to their everyday life experiences of being socially vulnerable.

Participants and recruitment
This study is part of the Youth, Care and Sport project set up to study the role of sport in improving the life prospects of socially vulnerable youth (Super *et al.*, 2014). Participants were recruited via several youth organisations that collaborate within the project. These youth organisations provide services to youths who are experiencing problems in their personal development, for example because they have learning or behavioural problems or because they

live in settings that hinder this development (e.g., parents struggling to provide proper care). The services provided by these organisations include school social work and educational counselling services as well as more specialised (mental) healthcare. The contact persons at these organisations were informed about the purpose of the study and were asked to purposively select potential participants following these criteria:

1. Participants have to be young adults between 21 and 35 years old. This age category was chosen because for the reflective part of this study research participants needed to be able to recall important events in their childhood and the role that sports played in their childhood.
2. Participants have been socially vulnerable in their childhood according to Vettenburg's (1998) definition.
3. Participants played a sport during childhood and/or early adolescence.

Before the start of each interview, the researchers checked with the participants whether they matched these criteria.

This study was conducted in accordance with general ethical guidelines for behavioural and social research as approved by the review board of the Wageningen School of Social Sciences. The potential participants were informed about the interview procedure via a telephone conversation. In addition, they were informed about the ethical guidelines for the study, such as their right to leave the study at any time and the confidential use of the data. After the potential participants were informed about the interview procedure, an appointment was made for the interview at their preferred location. All the potential participants agreed to an interview and consequently interviews were conducted with 10 young adults (7 males, 3 females). See Table 1 for more detailed information about the participants.

Data collection strategy
Data was collected with life-course interviews in which the participants reflected on their childhood and the role of sports participation within this childhood. Recalling childhood experiences and specific details of these experiences can be difficult. To facilitate this process, we used time-lining as a tool. Time-lining is a powerful tool to 'view understandings and interpretations of the past, and how pasts shape presents and futures' (Sheridan *et al.*, 2011: 565). It is a highly reflexive process for both the researcher and the participants, and it gives participants the opportunity to formulate and to reflect on experiences while drawing the timeline.

The interview consisted of three parts. First, the participants were instructed to draw their timeline including all relevant aspects of their life trajectories. The interviewees decided upon important aspects of their lives, without interference from the interviewer. The timeline was drawn on a large sheet of paper that included a horizontal axis demarcating the participant's life in years and a vertical axis delineating a continuum of the participant's well-being, formulated as happy–unhappy. The participants were instructed to document any happy

and unhappy moments that they recalled as being important in their lives. Secondly, after the timeline was drawn, the interviewer asked the interviewee to talk about the timeline and the events noted on it. Thirdly, when the interviewee stopped narrating about the timeline, the researcher asked further questions to probe for a better understanding of the various events on the timeline (e.g., Why is this event important to you? Can you describe what happened? Looking back as an adult, what has this event brought you?). The probing questions were also directed at understanding the participant's sports participation history and important sports experiences. This procedure is in line with Zinn's (2005) guidelines for interviewing, because it gives participants space to share their own perspective without interference from the interviewer within the first and second phase of the interview. The interviews lasted between 40 and 84 minutes, and the participants received a gift voucher for their participation.

Data analysis
The interview recordings were transcribed verbatim, and each participant was assigned a pseudonym to guarantee anonymity. The analyses followed the procedure outlined by Smith and Osborn (2003). At the first step, the first and second author individually completed several close readings of a single transcript and made notes in the left-hand margin that reflected initial thoughts and anything of interest. No attempt was made to create higher order themes at this stage (Fade, 2004). Secondly, the first and second author individually reviewed their notes to search for emerging themes, which were then noted in the right-hand margin. Third, after these two rounds of coding, the first and second author discussed the interpretation of the text until agreement was reached. Fourth, the first and second author together looked for connections between the themes and clustered the themes to create superordinate concepts (Smith & Osborn, 2003). This four-step procedure was repeated for each interview transcript. Each subsequent transcript was informed by previous analysis, but the researchers remained sensitive to new ideas arising from the text. When new themes were found during the analysis, the previous interview transcripts were reviewed to see whether these themes were also present in the earlier transcripts. Fifth, a table was constructed for each of the ten interviews that included meaningful quotes to show how the interpretations were embedded in the participants' experiences. These ten tables inspired the writing-up of the result section and Table 1 contains a summary of all relevant information.

Methodological rigour
In line with IPA guidelines (Smith, 2004), the researchers ensured that the analysis was firmly grounded in the data. In analysing the data and writing-up the results, the researchers made sure that attention was paid to the phenomenological and interpretative part of IPA. With regards to the phenomenological part, in the first round of coding notes were made in the margin using the words of the participants, to assure that this part was

descriptive of the participants' accounts. Also, a table was produced for the results section that contains detailed information about the participants' socially vulnerable childhood. Next to paying attention to the phenomenological part of IPA, the researchers also focused on the interpretative part of IPA. Discussions between the first and second author, grounded in the interview transcripts, led to a rich understanding of the phenomenon, as both authors have a different scientific background. Whereas the first author has a background in sport-for-development research, the second author has a background in health promotion. The diversity in background and presuppositions added richness to the analysis, as each of the authors brought in their own perspective on the interview transcripts and the experiences described in the interviews. In addition, because the second author did not conduct the interviews, she had a slightly more distanced view during the analysis, allowing her to act as a 'critical friend'.

Results

Table 1 provides a description of the socially vulnerable childhood for each of the participants. The results section describes the four roles that sports participation had in the participants' socially vulnerable childhood.

Table 9.1 Detailed information about the participants

Pseudonym	Sex	Age	Sport	Current profession	Description of socially vulnerable childhood
Rachel	Female	25	Running	Social work	Rachel's parents got divorced when she was young and she has been placed in care on several occasions. She has spent a part of her childhood in a youth detention centre after coming into contact with the police and youth services. At a very young age she started drinking alcohol and using drugs. She spent a part of her childhood in a rehabilitation centre for these addictions and became a teen mom of a little boy. Her son was soon placed in care as well, after which Rachel lived under supervision of a youth care organisation.
Tom	Male	28	Basketball	Transport planner	Tom was bullied often at school, mainly because he was overweight. At home his little brother received most of the attention of his parents because of his behavioural problems. His parents had financial problems and therefore he was not allowed to play a sport at a local sports club. Tom's parents got divorced when he reached his teenage years. After this divorce he never saw his father again, because his father was unwilling to keep in touch with Tom's younger brother. In his adolescent years, Tom developed a debt as well.
Marc	Male	28	Basketball	Social work	Marc described a turbulent childhood in which he moved on numerous occasions. At home he was the target of domestic violence. His mother held all the best intentions of raising her child, but Marc never received the attention that he needed. His mother placed a lot of emphasis on a good school performance, disregarding all other achievements of her son. Marc was able to get good grades in school, but he disliked going to school. He got into contact with bad friends, was homeless for a while and came into contact with the police. He has been expelled from school a number of times because of the fights he got into and he was convicted for theft in his teenage years.
James	Male	29	Judo	Sports coach (own organisation)	James had a very instable childhood in which his father was a negative factor. His father suffered a haemorrhage after which he showed aggressive behaviour. James' mother tried to create a normal childhood, for example by moving temporarily to a campsite. On this campsite James was assaulted. He experienced a lack of social support, positive attention and structure in his childhood.

Table 9.1 – Continued

Pseudonym	Sex	Age	Sport	Current profession	Description of socially vulnerable childhood
Luis	Male	26	Hockey	Student	Luis has dyslexia and was frequently bullied at school because of this by peers and teachers. He grew up with supporting parents and especially his father has helped him in accepting his dyslexia.
Richard	Male	31	American football	Student/social work	Richards' early childhood is full of good memories, especially of the summer holidays that he spent with his family. But then his grandmother died and the family members started arguing and the bond with others became weaker. Richard grew up without a father and he lived in a bad neighbourhood. He got into contact with the police after several violations of the law. Throughout his childhood he last lost several family members and friends because of illnesses or accidents.
Lisa	Female	27	Fitness	Social work	Lisa's childhood is characterized by a display of problem behaviour. Her mother was unable to deal with this behaviour and at school she was often bullied by other children. After several occasions of domestic violence, Lisa's mother left her husband and moved into a women's shelter with Lisa. Lisa lost several relatives at a young age, which resulted in emotional binge eating. She wat treated for emotional eating but then found happiness in buying things, resulting in serious debts.
Martha	Female	24	Yoga, body pump	Office manager	Martha has been frequently bullied in secondary school, causing trauma-related symptoms similar to rheumatism. She experienced pain on a daily basis and often felt tired. She has been raised by protective parents, leaving her little room to discuss her negative emotions with her family. As a result, she felt very insecure, lonely and isolated in her childhood.
Simon	Male	21	Soccer	Unemployed (finished study)	Simon's parents divorced when he was four years old and he moved in with his mother. His mother had a big debt and Simon had to help his mother out with daily chores. He felt that he had to become an adult at a young age. A car accident during his adolescent years has limited his freedom and ability to do the things he would like to do.
Travis	Male	31	Snowboarding, fitness	Life coach/sports coach	Travis moved from an urban to a rural area in his childhood which he disliked because he lost all his friends. Travis' father died when he was very young and he developed a problematic relationship with his stepfather. He got bullied in school. In his adolescent years he lost his older brother in an accident. After using drugs he got panic attacks, which later on also occurred without using drugs.

Sport as a safe place

The participants' accounts showed that the sports setting was first and foremost a place that offered something that they did not find in other life domains. For many of the participants, the sports setting offered them a home or a safe place, allowing them to escape the struggles of everyday life and to be engaged in activity directed at having fun and enjoying oneself. James had a troubled relationship with his father who turned aggressive after suffering a haemorrhage. He described his father as a bitter man with whom he frequently got into heated arguments, making his home situation one full of tension. He states:

> *So for me, sport was really… to leave the home situation every time I needed. Because my home was not a safe place for me, there was always tension.*

The relationship that some participants had with their sports coach went beyond friendship towards a family-like relationship. Rachel built a strong bond with her sports coach. He supported her getting back the control in her life after a drug addiction, not only by coaching her in running but also by helping her in applying for housing. In this sense, the support that the interviewees received from these social relationships often went beyond the sports setting. This seemed to contribute to their feelings of going to a safe and home-like place. For James the sports coach played an important role in creating a home-like situation. He states:

> *I hugely admired the trainer…. I considered him to be a surrogate father. I trained four times a week with him. So that was instantly... like I was coming home... and that man was always relaxed. While at home it was always stressful and there [at the sports club] it was quiet.*

An important aspect in these accounts was that of finding appreciation and being valued as a person. For most participants, there was a strong contrast between the sports setting and their other life domains, where they often felt they were unable to do well and where they did not find support, positive attention or appreciation. Tom was bullied in school and at home his little brother received most of his parents' attention because of his brother's behavioural problems. This often made him feel that he was invisible. When he started playing basketball, after being invited by a friend, Tom learned that *"there was a group of people that noticed me"*. Rachel struggled with her drug addiction and the court custody of her son. The negative emotions in these life domains were counterbalanced by the positive feedback that she received from her social environment after finishing a 10-mile run:

> *Then we entered the 10-mile run... I got that first real feel-good feeling of running [...] I was really proud of that, you know. Then things started to change on [social media platform], I got lots of positive feedback from my environment and that did actually gives me strength.*

The positive attention and appreciation motivated the participants to continue playing the sport. Yet, not all the sports experiences of the participants were positive and supporting. Negative experiences could arise when the sports setting reflected some of the struggles of everyday life. Martha was bullied in school, causing trauma-related symptoms similar to rheumatism. In the sports setting she was again confronted with bullying behaviour similar to her experiences in the class room:

> *At school we had often… we had sports, but it was never fun, because I was always picked last. I was not good at gymnastics and I could not vault very well, and I could not run very fast. At least, the others were always faster and so I was not good enough, which was what people told me on a daily basis.*

That the sports environment is not always one in which people feel supported and appreciated is also confirmed by the story of Simon. His parents divorced when he was four years old and he felt that he had to become an adult at a young age after his mother developed a big debt. The negative team dynamics in Simon's soccer team caused him to quit playing soccer. The negative atmosphere was caused by the fact that they frequently lost in the competitions, causing friction between the players. Even though Simon points out *"that's the way it goes in sport"*, he left this soccer team to join an indoor soccer team of a social work organisation in which *"the balance between the players was more even"*. Smilingly he added *"yes, those were good times"*.

Sport as a learning experience
Next to offering a safe place, the sports setting could also offer learning experiences for the participants. These learning experiences were often described as moments in which the participants learned something about themselves or the world around them. For example, Marc described how his basketball team became league champion. This was a special moment for him, because his team consisted of people from very different backgrounds and nobody in 'the outside world' believed that they would be able to win that year's competition. There were many stressors in the sports setting and also in his personal life (e.g., domestic violence, getting into contact with the police after committing theft, homelessness), and so the championship symbolised a victory over these stressors. In that way, the championship can be seen as a learning experience for Marc. Similarly, Rachel felt that through running she has learned that *"in sport you encounter many things that you will also find in everyday life, the good things and the bad things"*.

So then what does the sports setting offer its participants that allows them to experience these insightful moments? First, the sports setting seemed to offer resources to deal with challenges, that the participants felt were lacking in other life domains. These resources could be internal, such as discovering that you have a strong perseverance while playing a sport, as Rachel discovered when she started to run. The resources could also be present in the sports

environment, for example a supportive sports coach that can help in learning new things. Secondly, socially vulnerable youth valued the challenges that were present in the sports setting. It is important to note that the challenges that the participants encountered in the sports setting were not necessarily described as negative situation, but rather they were situations in which the participants were dared to try something new or were required to give their best. The sports setting could offer micro-situations of everyday life in which youths could practice and learn to understand to deal with challenges that in everyday life are more complex and more emotionally laden. Travis described a turbulent childhood with several traumatic events, such as the loss of his father at a young age and the unexpected death of his brother due to an accident. Travis considered the sports setting a playground for life where one could discover how to deal with stressors that in everyday life are much stronger:

Then you see that sport is… for me it is a metaphor for life... is that it is a playground where you can see for yourself... 'hey, how do I deal with specific situations, specific emotions and feelings?'. And if you take that specific emotion and put it to the power 10 or 100, then perhaps you have this one [points at a low point on his timeline where his brother died], but it is the same construct... about how you deal with it. You can apply that [in everyday life], it makes you better able to cope.

So the learning experiences that the participants described were taking place when they encountered a challenge and used their resources to deal with these challenges. These experiences offered insights on the resources that they had and how to handle challenging situations in the sports setting. Yet, the learning experiences that sports participation can offer are not always positive, because the participants also described several negative experiences. These negative experiences could arise when there was an imbalance between the challenges in the sports setting and the participants' resources to deal with those challenges. These situations could lead to negative experiences and feelings of incompetence and failure. As an example, James, who had an aggressive father, suffered from the negative behaviour of the judo coach because he did not receive the support that he needed:

He was just a nasty person. If you performed well… then he looked at you and then he would talk to you, you would be sure to make it. If you did not perform well, then he just ignored you completely. And if he talked to you, then it was something really blunt. And I just needed the love, I always needed love. The patch on the shoulder, Tom come on! You are doing ok, just keep on going.

Important to note is that the sports setting offered resources to socially vulnerable youth, but at the same time resources were also needed to engage in sports activities. A lack of resources was sometimes mentioned as a barrier to participating in sport, for example a lack of money to pay the membership fee or a lack of parental support. For most of the participants, friends and family members were a resource to start engaging in sport, because the participants were often introduced to a community sports club via friends and family. Next to

social support, financial support could also help in bringing down one of the barriers for the youths' sports participation. Having the resources available to start the participation in sport subsequently provided the participants the opportunity to acquire new resources in the sports setting, for example because they got social support from peers. In that way, there seems to be a vicious circle in which resources are needed to participate in a setting that allows for the acquisition of new resources.

Sport as an instrument to reach goals
A third role of sport that emerged from the interviews was that of sport as an instrument to reach a specific goal. Some of the participants started playing a sport with a specific goal in mind (e.g., stress reduction or anger management); others identified a specific goal that could be reached with sport when they played the sport for a while (e.g., feeling happy and fit). Nonetheless, what combines these accounts is that sport was actively used to reach a goal. The role of 'sport as a safe place' differs from that of 'sport as an instrument' in that, in the former, the *setting* offered people something they did not find in everyday life whereas, in the latter, people consciously used *sport activities* to reach a specific goal and consequently sports was a resource in itself. For example, Rachel used running as an instrument to reduce her dependence on drugs. Other goals that sports participation fulfilled for the participants were giving stability to life, being able to express oneself, and feeling healthy and happy. Lisa's childhood was negatively controlled by her problem behaviour for which her mother did not have a solution. In her adolescent years, Lisa started to participate in sport and she learned that this could help her find a moment of rest. She started to see that sports participation was an important resource in order to relax in the evening:

> *For me it is very difficult to indicate that … for me sport is sometimes my moment of rest. By just intensely playing my sport ... and at that moment I am not thinking about everyday life things. Where one person needs his rest, I actually need an outlet. Because that allows me to sit on the couch in the evening thinking... I did it, now I can rest.*

In relation to everyday life, sport was used as a means to fill a depleted source of energy and as a way to deal with challenges on a day-to-day basis. Lisa, for example, stated: *"And because I started to enjoy it...I could put all my energy into it... I noticed that it gave me a positive feeling"*. Martha had to deal with pain from trauma-related symptoms similar to rheumatism on a daily basis and as a result she often felt tired. She discovered that body-pump (i.e., exercises to train muscles) does not only give her physical strength, but also mental strength and energy to deal with her disability. By contrast, being unable to play a sport because of an injury could be a source of stress and could lead to a reduction in positive energy. This is shown by Luis who was frequently bullied in school, by both peers and teachers, because of his dyslexia. He discovered to be an excellent hockey player and started to play on a high competitive level.

However, when he got injured, he immediately noticed the physical and mental consequences of his inability to play sport. He started to feel listless. Finally, several participants mentioned that their participation in sport gave structure and stability to life. On a weekly basis, they had something to look forward to and they structured their life around sport. Tom, who received little attention from his parents, said: *"So yes… for me it created a lot of rest, because I had the stability. Like yes... tomorrow evening I will play sport again"*. These accounts show that sports participation was actively used as a resource by the participants to reach various goals in their lives.

In the participants' accounts, there was a strong emphasis on 'taking control over one's life' and 'being responsible for one's choices and actions'. Sport could be one of the strategies to take control over one's life by using it as a resource to reach a specific goal. At the same time, this sense of control that could be gained through sports could also result in negative experiences, as described by Travis. For him, sport was a tool for building self-confidence by trying to control his fat percentage. His focus on his fat percentage, and the need to be in control of this, resulted in what he called a compulsive tendency:

> *And I think that there is a certain… if I am really honest, there still is a certain compulsive edge... when I notice that my fat percentage goes up, that I feel fat. And that has a significant impact on my feeling of happiness and it's like that even up till today. [...] I do get more and more insights on that it has a compulsive edge and that makes me feel unhappy as well... which I even dislike really.*

A similar compulsive tendency can be found in the story of Rachel, who used running as a strategy to reduce her dependency on drugs. However, she believed in this strategy so strongly that she continued to run even when she felt that she had reached her physical boundaries. With the help of her sport coach she has now learned to recognise her boundaries and to define reachable targets for running.

Sport as a purpose in life
A fourth role of sports participation in the lives of socially vulnerable youth was that sport gave them a purpose in life. The participants' accounts showed a life trajectory in which the youths were searching for meaning in life. Within this fourth role of sports participation, sports participation was seen as something that gave direction to life and thus became an important part of the participant's identity. Participation in, and love of, sport transcended its value beyond the sports setting and also gave direction to other life domains, for example in finding a job. Simon felt a strong responsibility to care for the family because he was the only man in the house after his father left. He had to be an adult at a young age, helping his mother in paying off her debt. He felt that his life really started when he turned 15 after coming into to contact with a community sports club that offered various sports to socially vulnerable youth. Simon emphasised that sports gave him a purpose in life to strive after, including his work life:

Sport has perhaps become the biggest part of my life… and it made me who I am today. And perhaps without sport I wouldn't have come this far... I would have become a mason perhaps, on a lower vocational education level [...]And then I would be laying bricks right now.

 Sport for some of the participants not only gave direction in various life domains, but also started to reflect some of the core values by which they wanted to live, as sport became an important part of their identity. James referred to judo as a way of life or a religion, because it offered him norms and values by which he wanted to live. For him, judo became an important part of his life and the values of the sport became a strong part of his identity. He explained:

It turns you into a person that is modest, so you are not a show-off. As a judoka you are not a show-off, whereas in [other types of] competitive sports you only see arrogant boys and people that are solely focused on themselves. But it [judo] turns you into a modest person and a person that stands firm in life. That is why it is a way of life.

 Finding a purpose in life gave the participants the motivation to formulate clear goals and plans for the future. Several participants demonstrated a strong desire and motivation to be valuable in life, for example by helping socially vulnerable youth in their own neighbourhood. These plans for the future also helped them to organise and structure their life. Rachel, for example, wanted to use her experiences with running to help other youths in her neighbourhood by offering easily accessible sports activities. When asked for the most important thing she wanted to achieve with these youths she states: *"Every child wants to hear that it is important to believe in themselves.. and yes… that there is a solution to every problem"*. Also Luis, who was bullied by both peers and teachers because of his dyslexia, has found in sport the motivation to make plans for the future: *"sport is just a fantastic metaphor to reach things".* He has shown to be ambitious and is striving after a career as a hockey coach, because he has found a strong passion in helping other people:

I just want to… for me the essence is not the ball and the stick [of hockey], even though I do really like that... but it is mainly ... coaching people, working with people. You can find that in hockey, but also in other things.

 Although finding a purpose in life helped most of the participant to organise and structure their life, the strong focus on sport could also distract from other important things in life. Marc had a turbulent childhood: he received very little positive attention from his mother, he frequently got in to contact with the police, and he was homeless for a while. In contrast to these many negative experiences, the people in the sports setting valued and appreciated him for his performance and they soon became his friends. The sports setting offered Marc a place to escape everyday life and the struggles that came with it. However, the time he invested in playing basketball made it impossible to finish school:

Usually I did not go to school the first three hours. I had the biggest 'too-late-list' of the entire school. [...] I did not pass the exams that year. We trained five times a week and we had a final, a semi-final coming up and that sort of thing. Honestly, I actually chose basketball instead of school at that time.

Sports participation can provide its participants a strong motivation to reverse the downward spiral of vulnerability by providing a purpose or a direction in life. The influence of sports participation on the development of youths then transcends the boundaries of the sports setting, into other life domains.

Discussion

This study aimed to investigate how young adults reflect on the role of sports participation in their socially vulnerable childhood. Very little research on the value of sports participation has been conducted among these youths and, hence, it is still uncertain whether sports participation can alleviate vulnerability. At the same time, policymakers and health professionals increasingly encourage socially vulnerable youth to participate in sport to strengthen their personal development. To support these initiatives, a better understanding of the (im)possibilities of sport to alleviate social vulnerability is needed. Previous research has suggested that the sports experiences of socially vulnerable youth may be coloured by their experiences in everyday life (Haudenhuyse, Theeboom, & Skille, 2014; Super *et al.*, 2017). This study has supported the claim that the roles that are ascribed to sports participation are intermingled with the youths' everyday life experiences. The participant's described four different ways in which sports participation has contributed to their personal development and has helped them to overcome the struggles they faced in everyday life. The results led to the conclusion that sports participation filled a specific gap in in their childhood, and hence the role that sports participation played in the participants' socially vulnerable lives could not be understood without understanding how they experienced their childhood. In addition, the results showed that sports did not only play a positive role, but that youths could also have negative sports experiences that can increase their vulnerability.

The participants benefitted from their contact with a community sports club because it offered them a safe place in which they could find meaningful challenges, positive social relationships and a place where they could escape the struggles of everyday life. In line with a study by Haudenhuyse, Theeboom, Nols *et al.* (2014) the sports setting offered youths a safe place where they could get support, appreciation and positive feedback in an otherwise often turbulent life. According to Vettenburg's (1998) definition of social vulnerability, negative experiences with institutions can cause a downward spiral of vulnerability, increasing feelings of stigmatisation, low self-esteem and social disconnectedness. Participation in sport might mitigate the negative spiral of

social vulnerability as it offers participants positive experiences with an institution in contrast to the many negative experiences they have with other institutions.

The results showed that the sports setting could offer learning experiences to socially vulnerable youth that provided them with insights about themselves and the world around them. Research in the sport-for-development area has demonstrated that youths can learn to develop various life skills (Bailey *et al.*, 2013), although mixed results have been found for vulnerable youth groups (Lubans *et al.*, 2012). In addition, literature has suggested that through sport, athletes can strengthen their coping skills (Tamminen & Holt, 2012), allowing them to better deal with stressors in the sports setting and, related to that, also in other life domains. Yet it is important to note that the participants' experiences in this current study within the theme of 'sport as a learning place' did not only relate to the development of new resources (such as skills), but also related to recognising strengths and weaknesses they already possessed. Hence, exercises in the sports setting could be set-up to develop new skills, but also increase the youths' insights about the skills they already possess. These increased insights on the skills they possess can further support their personal development also within other societal domains, such as at school.

The results showed that sports participation could serve as an instrument for dealing with everyday life stressors. Some of the participants actively used sports to reach a predefined goal, for example using running as a medicine against stress. In this way, sports participation became a valuable resource of the participants to deal with everyday life stressors. However, the interviews also showed that there is a complex interplay between the resources that are needed to start participating in sport and the benefits that can be derived from sports participation. A lack of resources could hinder sports participation and, thus, also the acquisition of new resources. In this respect, most of the participants in this study started participating in sport after being introduced to a local sports club by a friend or relative, pointing to the importance of having resources available to start participating in sport. This vicious circle of resources indicates that it is important for health professionals to provide socially vulnerable youth with the opportunities to participate in meaningful activities. A good example of such a policy initiative in the Netherlands is the Youth Sports Fund (Jansma & Maks, 2014). This fund can be used to pay the subscription fee to local sports clubs when parents are unable to do so. In addition, the Youth Sports Fund can be used to buy sports clothes and materials, so the youths can engage in the sports activities like their peers, giving them the opportunity to acquire new resources in the sports setting. Creating inclusive sports activities, by reducing these barriers, gives socially vulnerable youth the opportunity to participate in a positive developmental setting.

Sports participation could also fulfil a purpose in life for socially vulnerable youth and become an important part of their identity. The participants described their sports participation as a way of life or a religion. This quest also seemed to

stem from their socially vulnerable status, because they were often unable to find purposefulness in other life domains. In the Umeå 85+ study, having a purpose in life was positively related with resilience in an older population, suggesting that having a purpose in life may help in dealing with adverse events (Nygren *et al.*, 2005). In addition, a recent meta-analytical study found that having a purpose in life was associated with a reduced risk for all-cause mortality (Cohen *et al.*, 2016). Hence, allowing youths to find a purpose in life can have positive effects across the lifespan. However, for health professionals it is not possible to steer their target group towards findings a purpose in life, because this is a highly individual and uncontrollable process. It is possible for health professionals to offer an array of activities from which youths can select those activities that best match their interests and needs. In that way, they get the opportunity to find an activity that fills an empty space in their lives, be it sport or something else. It has to be added as well that people may lose the opportunity to participate in sport (e.g., due to an injury), and hence are unable to participate in those activities that offer them a purpose in life. This may be a very fragile position to be in, especially for those groups that are already vulnerable. In that sense it is important to keep youths engaged in the activities that they have chosen to participate in, for example by allowing them to volunteer in the sports club.

For youth and sports professionals that are interested in the potential of sport for positive youth development, the results showed that the value of sports participation goes beyond providing a setting in which young people can develop skills, competencies, and behaviours. Four different roles of sports participation in a socially vulnerable childhood were discerned that each require a different approach to organising sport for this specific group. For example, within the role of sport as a learning experience, a setting has to be created in which these learning experiences are designed and implemented. Sports coaches for example could ask questions that facilitate reflection on the youths' experiences and with that the sports coaches facilitate youth-driven learning (Super *et al.*, 2016). Within the role of sport as a safe haven, specific attention should be given to development of a safe and supportive context, where potential stressors for youths are minimised (Curran *et al.*, 2015; Fraser-Thomas *et al.*, 2005). Hence, depending on the needs and interests of socially vulnerable youths, sports activities can be adapted to support a specific role. Moreover, youth professionals can, together with the youths, try out various sports activities to find those that match their needs and interests.

A critical note on sport for positive youth development
In line with previous research, the participants' accounts also demonstrated that the sports setting can be a place in which people have negative experiences (Andrews and Andrews, 2003; Fraser-Thomas and Côté, 2009). For example, it was shown that the sports setting is not always a safe place, as negative experiences of team and competitive pressure may also reproduce the negative

experiences these youths have in everyday-life. A previous study among Dutch socially vulnerable youth has demonstrated that there exists a fragile balance between positive and negative sports experiences and that is not self-evident that their sports experiences are positive and supportive (Super *et al.*, 2017). These negative experiences within the sport setting then could also exacerbate the negative spiral of vulnerability. Massey and Whitley (2016) found that, amongst former athletes who had experienced adverse events in their childhood, some shared a positive narrative of 'sport for good', whereas others shared a negative narrative of 'sport as a place of celebrated deviance' or a neutral sport narrative. Massey and Whitley (2016) state that the experience of sport as positive or negative depended on a number of factors such as the structure provided or the relationships developed. In addition, the sports coach has been identified as a key player in tipping the balance towards positive experiences (Super *et al.*, 2017). In the absence of these factors, sport also has the potential to become another risk factor for youth. Very little research has been conducted regarding the potential negative influence of sports participation on the development of young people. Yet, given the focus of policymakers to use sport for positive youth development, this warrants more attention.

Critics have contended that there is "nothing about sport itself that is magical" (Papacharisis *et al.,* 2005:247) and that sport in itself does not lead to all kinds of positive outcomes (Danish, Forneris, & Wallace, 2005). This current study seems to confirm this idea, because the value that was attached to sports participation mainly related to those aspects that potentially could also be found in activities. In line with this thought, it has been argued that sport can be a necessary condition for positive outcomes, but not a sufficient condition (Draper & Coalter, 2016). Giving attention to the sufficient conditions for youth development through sport, and thus supporting the four functions of sports participation, requires a strong commitment from the sports coach and the community sports club. However, in the Netherlands and many other Western European countries, the sports sector is organised in local sports clubs where community sports coaches are often volunteers without formal coaching training. Creating positive sports experiences for socially vulnerable youth may be difficult for these sports coaches, especially because the sports setting is one of competition, individualism and excellence (Super *et al.*, 2016). So the question remains to what extent we can expect community sports coaches to create supportive environments for socially vulnerable youths and to what extent we can expect positive outcomes of sports participation when they join community sports clubs.

Study limitations
Because of the selection criterion that the participants should have participated in sport at least during some of their childhood, we interviewed people that currently, at least to some extent, attach importance to their participation in sport. These participants might differ from those socially vulnerable youths who

dropped out of sport. Therefore, it would be wrong to assume that these four roles of sports participation would hold for every youth. On the contrary, the interview transcripts clearly showed that these participants found something in sport that could perhaps also be found in other extracurricular activities. Further research could include a wider array of extracurricular activities in order to examine how socially vulnerable youths benefit from various activities and perhaps use different activities for different purposes. In addition, due to the research aim (i.e., to identify the role that sports participation could play in alleviating social vulnerability) and the selection criteria for research participants (i.e., participation in sport during childhood), it is likely that we were predisposed to find positive sports experiences rather than negative sports experiences. Therefore, we should refrain from drawing conclusions about the relative presence of positive and negative sports experiences in a socially vulnerable childhood. To demonstrate that negative sports experiences were present in the participant's stories even though the majority of the experiences were positive, the negative outlook on the four roles of sports participation were described in the results section where this was relevant. Thirdly, it is important to note that the interviews were a reflexive process for both the interviewer and the participants. This reflexivity is an integral part of the time-lining method (Sheridan *et al.*, 2011) and one of the strengths of this method because it allows participants to see events from different perspectives, and this may lead to new insights for the researchers and the interviewees. However, it also introduced a possible source of bias, especially because the interviewees were introduced to the topic of sport prior to the interview. Consequently, the participants may have been more inclined to talk about the role of sport in their childhood than they would have been if the researchers had not introduced the topic prior to the interview.

Conclusion

The role of sports participation for socially vulnerable youth seemed to be closely connected to their experiences in everyday life and the stressors they were facing in various life domains. Thus, their participation in sport gave them something they could not find in everyday life, be it support and appreciation, learning experiences, an instrument to reach goals or a purpose in life. The participants benefited from their participation in sport as it helped them to overcome some of the struggles they faced in everyday life. However, the participants' accounts also indicated the potentiality of sport to instigate a negative spiral of vulnerability, and therefore we have to remain critical towards the value of sports as a tool for positive youth development.

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Chapter 9

Chapter 10

General discussion: What is the value of sports participation in a socially vulnerable childhood?

Chapter 10

Introduction

In the Netherlands, policymakers and health professionals aim to increase young people's participation in sport, not only to improve physical health, but also to improve social, psychological, and cognitive health aspects (VWS, 2011). This trend follows scientific research that demonstrates the plethora of positive outcomes associated with sports participation, such as improved life skills, improved coping skills, increased self-esteem, and strengthened social networks (for a review see: Bailey *et al.*, 2013; Eime *et al.*, 2013). Increasing sports participation rates seems especially relevant for *socially vulnerable youth*, who are characterised as having an accumulated number of negative experiences with the societal institutions in their lives, leading to distorted relationships with those institutions and sometimes to social disconnectedness (Vettenburg, 1998). From a positive youth development perspective, it is argued that socially vulnerable youth can benefit from the positive outcomes attributed to sports participation, because this can support these youths in dealing with the challenges they face in everyday life (Damon, 2004). Moreover, as socially vulnerable youth are known to participate less in sport than their non-vulnerable peers (Vandermeerschen *et al.*, 2015), there is great potential to engage these young people in a pedagogical and supportive setting. However, given the limited amount of research conducted on the value of sports participation for *socially vulnerable youth*, there is still uncertainty about whether and how sports participation is beneficial for this specific group. Therefore, this thesis aimed to unravel the value of sports participation for socially vulnerable youth.

To further extend current literature in the sport-for-development field, the research conducted for this thesis was inspired by the salutogenic model of health (Antonovsky, 1979). The salutogenic model of health focuses on the question of how people manage everyday-life stressors in such a way that they can maintain or improve their health. Given that socially vulnerable youth are recurrently confronted with stressors, the salutogenic model of health may offer new insights into how youths may strengthen their ability and capacity to select and use resources in a health-promoting way through their participation in sport.

Four research objectives were formulated to address the overall research aim to unravel the value of sports participation for socially vulnerable youth. Given the salutogenic focus of this thesis, the first research objective was to conduct a literature review to provide insights into the mechanisms underlying sense of coherence so that these can be used to underpin health promotion activities that aim to strengthen sense of coherence (Chapter 5). The second research objective was to provide insights into the relation between sports participation and youth developmental outcomes among socially vulnerable youth. A systematic literature review was conducted to examine the evidence on the development of life skills in sports programmes serving socially vulnerable youth (Chapter 4). The relation between sports participation and youth developmental outcomes was further explored by questionnaire research conducted in a Dutch socially vulnerable youth population (Chapter 6). The third

research objective was to examine, through semi-structured interviews, how community sports coaches can create optimal social conditions for life skill development and transferability (Chapter 7). The fourth research objective was to explore how socially vulnerable youth experience their participation in sport (Chapter 8) and to examine the role that sports participation has in a socially vulnerable childhood (Chapter 9). Open interviews and life-course interviews were used to answer these research questions.

This chapter summarises the main findings of this thesis (Chapters 4 to 9). Following this summary, the integrated findings of the thesis are presented in relation to the scientific literature. Then the added value of the present research is discussed, and methodological considerations are presented. Based on the integrated findings, implications for practice are discussed and recommendations are offered for policymakers and health professionals that aim to use sport as a means to achieve positive youth development. Finally, areas for further research are suggested.

Summary of main findings
An overview of the main findings is given in Table 10.1.

In **Chapter 4,** results from a systematic literature review that aimed to examine the evidence on the development of emotional, cognitive, and social life skills in sports programmes serving socially vulnerable youth are reported. A secondary aim of the systematic review was to summarise what these studied sport programmes reveal about conducive conditions for life skill development. Eighteen studies were included in the review with very diverse research settings, study designs, research methods, and reported life skills. Every included study reported improvements in at least one life skill. However, five of the quantitative studies also reported that several life skills did not improve during a sports programme. In addition, in several qualitative studies, researchers doubted whether the life skills that youths said that they developed during the sports programme were transferred to other societal domains (e.g., school or work environment). With regard to the second study aim, only five of the included studies examined the conducive conditions for life skill development. In sum, relatively few studies have been published that investigate life skill development of socially vulnerable youth within sports programmes. Moreover, many of the included studies experienced a high risk of bias, for example because they had no control group. Hence, the results have to be treated with caution. Future research may benefit from alternative research approaches to investigate the value of sports participation for socially vulnerable youth.

In **Chapter 5,** the salutogenic model of health was discussed in detail: the mechanisms that underlie sense of coherence were explored, and the opportunities for strengthening sense of coherence in health promotion activities were identified. Sense of coherence refers to people's ability to deal with stressors in a health-promoting way by orienting them regarding a specific

stressor and the resources that might be available to deal with everyday-life stressors. Recent studies have suggested that sense of coherence can be strengthened and developed in health promotion interventions. From a thorough examination of available literature on the salutogenic model of health, two opportunities for strengthening sense of coherence were identified. First, it was found that health professionals can assist people in identifying, selecting, and using generalized resistance resources (GRRs) that are available to them to deal with everyday-life stressors. This behavioural mechanism brings up the possibility to intervene in people's behavioural responses to stressful situations in a health-promoting way. Second, it was found that people can be trained to see stressful situations as more consistent, with a load balance, and as socially valuable. This perceptual mechanism allows health professionals to train people to see the world as more comprehensible, manageable, and meaningful. These two processes of *empowerment* and *reflection* are important for the development of sense of coherence, are closely interconnected, and can be considered reinforcing processes in the healthy development of individuals. Besides focusing on these processes, health professionals need to pay attention to the environment in which people live and the resources available to them to deal with stressors. GRRs are vital both in creating life experiences that strengthen sense of coherence and in engaging with these GRRs to move towards health. These insights underpinned and supported the data collection and analysis of the empirical studies presented in Chapters 6 to 9.

In **Chapter 6**, we explored the relation between sports participation and five distal youth developmental outcomes (i.e., problem behaviour, pro-social behaviour, school performance, subjective health, and wellbeing) and two proximal youth developmental outcomes (i.e., self-regulation skills and sense of coherence) among a group of Dutch socially vulnerable youth (N = 187). In addition, we investigated the stability of the relation between sports participation and youth developmental outcomes. Two identical questionnaires were administered by youth professionals at a six-month interval. Seventy percent of the socially vulnerable youth participated in sport in the month prior to the questionnaire, at both measurements. In addition, about half of the youths were members of a sports or fitness club. With regard to the five distal youth developmental outcomes, a positive relation was found between sports participation and pro-social behaviour, subjective health, and wellbeing, but not with problem behaviour. These findings proved stable across the two measurements. School performance was related to sports participation at the first, but not at the second, measurement. With regard to the proximal youth developmental outcomes, a positive and stable relation of sports participation was found with sense of coherence, but not with self-regulation skills. Even though the findings indicate that sports participation is positively related to several youth developmental outcomes for socially vulnerable youth, because of the study design, no conclusions can be drawn about a causal relationship between sports participation and youth developmental outcomes.

Chapter 7 aimed to investigate how community sports coaches create optimal social conditions for life skill development and transferability. Fifteen community sports coaches working with socially vulnerable youth in local sports clubs were interviewed on how they provide training to these youths. In addition, they were presented with several training scenarios and asked how they would respond in these specific situations. The results showed that the sports coaches believed that youths transferred life skills from the sports setting to other societal domains, but the sports coaches did not employ specific strategies to increase life skill transferability. The sports coaches did, however, have clear ideas about how to create optimal conditions for the life skill development of socially vulnerable youth. First and foremost, coaching activities were directed at creating a supportive environment in which the youths could have meaningful experiences. Meaningfulness was considered a pre-condition not only for youth engagement but also for life skill development. The sports coaches mentioned a plethora of coaching actions that they used to create little moments of success (i.e., meaningfulness). These actions were directed at making sure that the youths understood 'how things work' (i.e., comprehensibility) and giving them the opportunity to experience mastery (i.e., manageability). However, the sports coaches sometimes faced a dilemma in providing sport to socially vulnerable youth as they struggled to find a balance between comprehensibility, manageability, and meaningfulness.

In **Chapter 8**, the positive and negative sports experiences of socially vulnerable youth participating in a Dutch local sports club were explored. Open interviews were conducted with 22 socially vulnerable youth, and an inductive content analysis was conducted to explore the topics found in the youths' positive and negative sports experiences. Three themes were discovered in the youths' sports experiences: the extent to which they experienced visibility of their skills, the extent to which they felt confident while playing their sport, and the extent to which they felt sport was a nice challenge that they liked to take on. The three themes are closely interconnected, showing that youths may enter a virtuous (positive) or a vicious (negative) circle depending on the extent to which they can be supported in recognising their skills, in having confidence in playing their sport, and in seeing sport as a nice challenge. As the challenges in the sports setting may reflect some of the struggles that youths face in everyday life, these everyday-life experiences may colour their sports experiences. Hence, within each of the three themes there was a fragile balance between positive and negative sports experiences, and the sports coach was identified as a key player in tipping the balance towards positive sports experiences.

Chapter 9 aimed to investigate how young adults reflect on the role of sports participation in a socially vulnerable childhood. Life-course interviews were conducted with 10 young adults who had been socially vulnerable in their childhood. Using timelining as a tool, the participants reflected on their socially vulnerable childhood and demarcated any happy and unhappy moments that they recalled were important in their lives. Through Interpretative

Phenomenological Analysis, the role of sports participation in a socially vulnerable childhood was examined. The results showed that four different roles could be discerned for sports participation. First of all, sports participation offered youths a setting in which they felt safe and where they could find support and appreciation. Secondly, sports participation offered learning experiences that provided its participants with insights about themselves and the world around them. Thirdly, sports participation could be used as an instrument to reach goals, and, thus, sport became a resource in itself. Fourthly, sports participation could fulfil a purpose in life for socially vulnerable youth, where sport also gave direction to life in general and became an important part of their identity. The participants' accounts also indicated the potentiality of sport to instigate a negative spiral of vulnerability. The role of sports participation for socially vulnerable youth seemed to be closely connected to their experiences in everyday life and the stressors they were facing in various life domains.

Summarising, the findings provide insights into the mechanisms underlying sense of coherence and identifies opportunities for strengthening sense of coherence in health promotion activities (i.e., research objective 1). Two opportunities for strengthening sense of coherence were identified, referred to as the behavioural mechanism and the perceptual mechanism. Both *empowerment* and *reflection* processes are important for the development of sense of coherence and can strengthen individuals' healthy development.

The findings provide insights into the relation between sports participation and youth development for socially vulnerable youth (i.e., research objective 2). In the systematic review, it was demonstrated that relatively few studies have been conducted regarding the life skill development of socially vulnerable youth in sports programmes and that the available evidence is inconclusive regarding the benefits of sports. In the quantitative study, a positive relation was found between sports participation and several youth developmental outcomes (i.e., pro-social behaviour, subjective health, wellbeing, school performance, and sense of coherence) but not with problem behaviour and self-regulation skills. Because of the study design, however, no conclusions can be drawn about a causal relationship between sports participation and youth development.

The findings also demonstrated the crucial role of the sports coach in achieving optimal social conditions for life skill development and transferability (i.e., research objective 3). The community sports coaches mainly adopted an implicit approach to life skill transferability, meaning that they did not employ explicit strategies to stimulate the transfer of life skills from the sports setting to other societal domains. Nonetheless, the sports coaches believed that socially vulnerable youth could develop life skills in the sports setting that could also be used in school, the family, or the community. Coaching actions were directed at creating meaningful, consistent, and load-balanced sports experiences for socially vulnerable youth.

    Finally, the findings shed light on how socially vulnerable youth experience their participation in sport and the role that sports participation could play in a socially vulnerable childhood (i.e., research objective 4). Whether the youths had positive or negative sports experiences depended on an intricate balance of the extent to which they experienced visibility of their skills, the extent to which they felt confident while playing their sport, and the extent to which they felt sport was a nice challenge that they liked to take on. The roles that sports participation could play in a socially vulnerable childhood are diverse. As the challenges that socially vulnerable youth face in the sports setting can resemble some of the struggles they find in everyday life, their negative sports experiences could also potentially increase feelings of vulnerability.

Table 10.1 Summary of main findings

Thesis chapter	Overall research objective	Research question	Methods	Main findings
Chapter 4	To provide insights into the relation between sports participation and youth development for socially vulnerable youth.	What is the evidence on life skill development in sports programmes serving socially vulnerable youth from both quantitative and qualitative studies? What do these included studies reveal about conducive conditions for life skill development?	Systematic literature review.	• Eighteen studies reported on emotional, cognitive, and social life skill development in sport programmes serving socially vulnerable youth. • The included studies were diverse in terms of setting, study design, research method, and reported life skills. • Every included study reported improvements in at least one life skill. • Five of the included quantitative studies also reported no developments in several life skills. • Improvements in emotional life skills were reported in fewer studies than improvements in social and cognitive life skills were. • The included studies experienced a high risk of bias, and, hence, the results on the development of life skills have to be treated with caution. • Only five of the included studies examined the conducive conditions for life skill development.

Chapter 5	To provide insights into the mechanisms underlying sense of coherence in order for these to underpin health promotion activities that aim to strengthen sense of coherence.	What are the mechanisms underlying sense of coherence and what are the opportunities for strengthening sense of coherence in health promotion?	Literature review.	• The development of sense of coherence is a complex, interactive, and interdependent process.
				• Two opportunities for strengthening sense of coherence are identified
				1. Behavioural mechanism
				  • Direct effect of successful tension management on SOC
				  • Health promotion activities aiming at empowerment can support people to identify, select, and use generalized resistance resources (GRRs) that are available to them to deal with stressors
				2. Perceptual mechanism
				  • Indirect effect of successful tension management on sense of coherence
				  • Health promotion activities aiming at reflection can improve people's understanding of stressful situations with a specific focus on consistency, load balance, and socially valued decision making.
				• Health promotion activities should aim to create supportive settings in which there are sufficient resources available to deal with stressors.

Table 10.1 – Continued

Thesis chapter	Overall research objective	Research question	Methods	Main findings
Chapter 6	To provide insights into the relation between sports participation and youth development for socially vulnerable youth.	What is the relation between sports participation and youth developmental outcomes among socially vulnerable youth?	Two questionnaires administered at a 6-month interval, comparing three groups of sports participation, repeated-measures ANOVAs (continuous outcomes), and Kruskal-Wallis (ordinal outcomes).	• 70% of the socially vulnerable youths participated in sport at least once a week in the month prior to the questionnaire, at both measurements. • About half of the youths were members of a sports or fitness club. • Average scores on the youth developmental outcomes did not differ between baseline and follow-up. • Between baseline and follow-up, 19.9% of the youths did not participate in sport, 8.1% started to participate, 10.8% stopped participating, and 61.3% continued participating. • Sports participation was positively related to pro-social behaviour, subjective health, wellbeing, and sense of coherence. These findings were stable across the two measurements. • Sports participation was positively related to school performance at the first, but not the second, measurement. • Sports participation was not related to problem behaviour and self-regulation skills.
Chapter 7	To examine whether and how community sports coaches create optimal social conditions for life skill development and transferability.	How do community sports coaches create optimal social conditions for life skill development and transferability?	Semi-structured interviews, scenarios, thematic analysis based on salutogenic theory.	• The sports coaches believed strongly in the transferability of life skills to other social domains, but they generally adopted the implicit approach, implementing no specific activities to support transferability. • The sports coaches held clear ideas about how to create optimal social conditions for personal development in the sports setting. • The most important aim of sports coaches was to create a supportive environment for socially vulnerable youths, rich in meaningful experiences and little moments of success. • To create little moments of success, coaching actions were directed at making sure that the youths understood how they could achieve success (i.e., comprehensibility) and giving them the opportunity to experience mastery (i.e., manageability). • The sports coaches sometimes struggled to find a balance between comprehensibility, manageability, and meaningfulness.

Table 10.1 – Continued

Thesis chapter	Overall research objective	Research question	Methods	Main findings
Chapter 8	To explore how socially vulnerable youth experience their participation in sport and the value they derive from sports participation in a socially vulnerable childhood.	What are the positive and negative sports experiences of socially vulnerable youth?	Narrative interviews, anecdotes, inductive content analysis.	• Three themes emerged in the youths' positive and negative sports experiences: • The extent to which the youths experienced visibility of their skills • The extent to which the youths felt confident while playing their sport • The extent to which the youths felt that sport was a nice challenge that they liked to take on. • Within each theme, there was a fragile balance between positive and negative sports experiences. • The sports coach was identified as a key player in tipping the balance towards positive experiences.
Chapter 9	To explore how socially vulnerable youth experience their participation in sport and the value they derive from sports participation in a socially vulnerable childhood.	How do young adults reflect on the role of sports participation in a socially vulnerable childhood?	Life-course interviews, timelining, Interpretative Phenomenological Analysis.	• Four different roles of sports participation could be discerned: • Sports participation offered youths a setting in which they felt safe and where they could find support and appreciation • Sports participation offered youths learning experiences that provided them with insights about themselves and the world around them • Sports participation could be an instrument to reach goals, and, thus, became a resource in itself • Sports participation could fulfil a purpose in life for socially vulnerable youth, where sport also gave direction to life in general and became an important part of their identity. • The role of sports participation for socially vulnerable youth was closely connected to their experiences of everyday life and the stressors they were facing in various life domains. • The life-course interviews also indicated the potentiality of sport to instigate a negative spiral of vulnerability.

Integrated findings: theoretical discussion
The results from the six studies presented in Chapters 4 to 9 provide a deeper understanding of the value of sports participation for socially vulnerable youth. The integrated findings of these chapters provide us with four important observations that are further discussed below.

1. Sports participation and youth development: a complex relation
Current sport-for-development literature focuses on examining the relation between sports participation and youth developmental outcomes (Bailey *et al.*, 2013; Eime *et al.*, 2013; Lubans *et al.*, 2012), predominantly investigated in non-vulnerable youth populations. In the quantitative study in this thesis (Chapter 6), this relation was investigated among socially vulnerable youth, and it was found that sports participation was positively related to several developmental outcomes for this group: pro-social behaviour, school performance, subjective health, wellbeing, and sense of coherence, but not to problem behaviour and self-regulation skills. These findings partially corroborate existing evidence on the relation between sports participation and youth developmental outcomes, but, because of the study design, they do not provide evidence on a causal relation between sports participation and youth development. The systematic review conducted for this thesis (Chapter 4) also showed that no firm conclusions could be drawn about the causal relation between sports participation and youth development for socially vulnerable youth. The 18 included studies all experienced a high risk of bias because of their study design, for example because they had no control group or because participants were not randomised across the conditions. The lack of causal evidence is perhaps due to the difficulties of conducting research in vulnerable groups (Whitley *et al.*, 2014).

Establishing a causal relation is difficult because reciprocal relations exist between youth developmental outcomes and sports participation (Antonovsky, 1979; Piché *et al.*, 2015). For example, in the quantitative study (Chapter 6), sports participation was found to relate positively to sense of coherence. Youths' ability to deal with everyday-life stressors (i.e., sense of coherence) can be an important determinant of the likelihood of their participating in sport. At the same time, the sports setting may offer them the opportunity to strengthen their sense of coherence as they are engaged in meaningful activities. In a similar vein, internalising symptoms (e.g., anxiety and depression) and externalising symptoms (e.g., aggressive or hyperactive behaviour) can be a barrier to sports participation (Manz *et al.*, 2016), and hence youths with less problem behaviour and more pro-social behaviour may be more likely to participate in sport. On the other hand, it has been found that sports participation for girls in a residential treatment setting decreased their

internalising and externalising symptoms compared to treatment-as-usual (D'Andrea *et al.*, 2013).

What further complicates establishing the relation between sports participation and youth development is that sports participation is not only related to positive youth development. The studies in this thesis have also pointed to the potentiality of sport to diminish youth development. In the interviews with socially vulnerable youths (Chapter 8), it was found that their sports experiences depended on an intricate balance of the extent to which they experienced visibility of their skills, the extent to which they felt confident while playing their sport, and the extent to which they felt that sport was a challenge they liked to take on. Indeed, various studies have demonstrated that sports participation can be a source of negative experiences, even more than other extracurricular activities (Bean *et al.*, 2014; Fraser-Thomas & Côté, 2009; Larson *et al.*, 2006). Negative experiences in the sports setting are for example related to poor coach–athlete relationships, pressure to perform, and negative peer interaction (Fraser-Thomas & Côté, 2009), which are associated with reduced mental health and several risk behaviours. Vettenburg's (1998) definition of social vulnerability emphasises the cumulative process that underlies the spiral of vulnerability. The negative experiences within the sports setting can be added to the already accumulated negative experiences with other societal institutions, potentially pushing youths further down the spiral of vulnerability. The potentially negative influence of sport on youth development was also demonstrated in the life-course interviews (Chapter 9). For each of the four roles of sports participation (i.e., sport as a safe place, as a learning experience, as an instrument to reach goals, and as a purpose in life), a negative outlook could be identified as well. For example, the sports setting was valued as a safe haven in a turbulent childhood, but in some of the participants' accounts the sports setting resembled yet another societal domain in which they received negative feedback or where they lacked social support. These negative experiences could hinder the positive development of socially vulnerable youth.

A final observation regarding the relation between sports participation and youth developmental outcomes is that critics have argued that sport *in itself* does not necessarily lead to all kinds of positive outcomes (Coalter, 2013; Danish *et al.*, 2005). This thesis seems to confirm this idea, because the value attached to sports participation by the participants in the life-course interviews related mainly to those aspects that potentially could also be found in other settings and activities (Chapter 9). For example, the participants valued the appreciation and positive support they received in the sports setting. Hence, the value that was attached to sports participation was not necessarily restricted to sports elements. In line with this thought, it has been argued that sport cannot be a sufficient condition for positive youth development (Draper & Coalter, 2016). Other elements, such as the presence of valuable social relationships and feelings of belonging, are important in reaching positive outcomes (Coalter, 2013). The building of valuable social relationships with adults and peers in the

sports setting has often been labelled as one of the important non-sport aspects that contribute to positive youth development (Armour & Sandford, 2013; Armour *et al.*, 2013; Flett *et al.*, 2013). Hence, if we quantitatively assess the relation between sports participation and youth development by measuring sports participation frequency and duration, we might be wrongly attributing findings to sport elements, whereas other non-sport factors may be more important in influencing positive youth development.

2. The interrelatedness of the sports setting with other societal domains
The integrated findings show that, in order to understand the value of sports participation for socially vulnerable youth, we need to consider the sports setting in conjunction with the other societal domains in which these youths grow up (see Figure 10.1). The interviews with socially vulnerable youth suggested that their sports experiences were coloured by their everyday-life experiences, such as by the stressors they experienced in other societal domains (Chapter 8). This idea was further supported in the life-course interviews, where the reflections on the role of sports participation in a socially vulnerable childhood (i.e., sport as a safe place, as a learning experience, as an instrument to reach goals, and as a purpose in life) were closely connected to the participants' everyday-life experiences and the stressors they were facing in various societal domains (Chapter 9). For example, for some participants, sports participation served as an instrument to give them positive energy or to reduce stress in a turbulent childhood. In these examples, the role that sport had for the participants was directly linked to their experiences of a stressful and turbulent life. In other words, the development of socially vulnerable youth in the sports setting cannot be understood to take place separately from other societal domains (Haudenhuyse, Theeboom, & Skille, 2014). This observation is further supported when we consider that learning takes place when people compare experiences within and across societal domains (Tully, 2007). In the current literature on the development of life skills through sport, researchers are often concerned with the question of how young people may be taught to use the life skills that they have developed in the sports setting in other societal domains (Bean & Forneris, 2016; Bean *et al.*, 2016; Turnnidge *et al.*, 2014), reflecting a rather linear view of the transfer process. The findings in this thesis suggest that a more interactive perspective, in which the development of young people within the sports setting is considered in close connection to their development in other societal domains, may provide a more holistic understanding of youth development.

   The interconnectedness of societal domains is also reflected in the salutogenic model of health. According to the salutogenic model of health, salutogenic or pathogenic movement results from the combined effect of stressors, resources, and people's ability to deal with stressors (Vinje *et al.*, 2017). These three aspects are not domain specific, meaning that they are not restricted to operate or to be relevant in one specific societal domain. For

example, people's ability to deal with stressors in a health promoting way, referred to as sense of coherence, captures a global orientation that is relevant across different societal domains and across various life phases. Similarly, generalized resistance resources (e.g., perseverance, social support, reflection skills) have a wide-ranging utility and can be applied to resolve tension from different stressors (Mittelmark *et al.*, 2017). The point is that, if we want to understand how youth development is influenced by participation in sport, we need to investigate how stressors, resources, and people's ability to deal with stressors and resources develops across societal domains, not solely within the sports setting (see Figure 10.1). The findings from the life-course interviews demonstrated that sports participation offered youths learning experiences that provided them with insights about themselves and the world around them (Chapter 9). For example, sports participation offered youths micro-situations of everyday life that allowed them to learn how they could deal with challenges that in everyday life are more complex and emotionally laden. The sports setting offered these youths a place where they could practice with identifying stressors and resources, and where they could strengthen their ability to deal with these stressors. These insights could then be applied to other societal domains as well and support youths in dealing with everyday-life challenges, which could further strengthen their ability to deal with stressors in a health-promoting way.
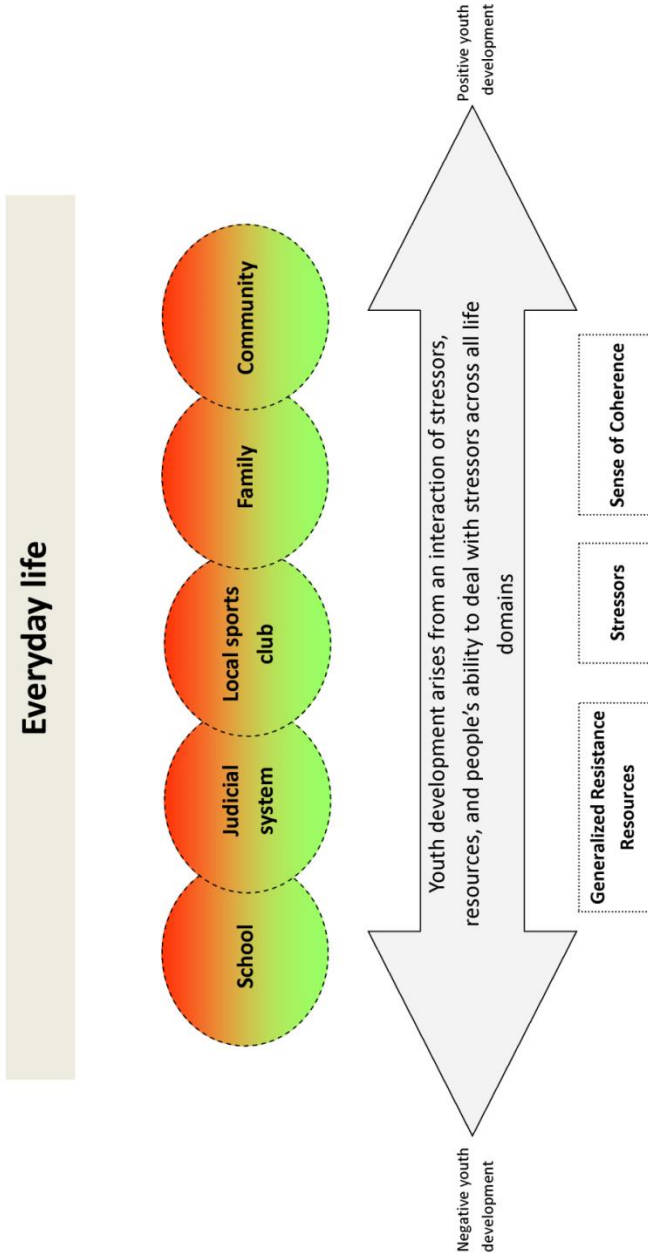
Figure 10.1 The interconnectedness of societal domains in achieving youth development

3. The essential role of community sports coaches in youth development
The local sports club is often considered to be an interesting setting for positive youth development for three reasons. First of all, it is considered to be a setting that is especially suitable for implementing positive youth development principles (Fraser-Thomas *et al.*, 2005), because the sports activities can be intentionally structured to achieve positive youth development (Bean & Forneris, 2016). As pointed out by Coakley (2011), the sports club is one of the pedagogical climates that "*consigns them* [young people] *to adult-controlled environments* (p.308)", and it is a place where young people can learn from positive adult role models. Second, the sports setting has also been recognised as a place where youth development problems can be signalled by the sports coaches, who can then call in a health professionals for support. Third, sport has a strong capacity to engage young people (Gould & Carson, 2008; Haudenhuyse *et al.*, 2013), and, therefore, sports participation is often seen as an inclusionary activity that allows socially vulnerable youth to participate in a meaningful leisure-time activity.

Significant effort is required from sports clubs and coaches to create a sports environment that is conducive to positive youth development, suitable for the signalling of problem behaviour, and inclusive of socially vulnerable youth. However, community sports clubs in the Netherlands are often run by volunteers and sports coaches who most often do not receive any formal coaching training. Moreover, for the community sports coaches that do receive coaching training, very often this training focuses on the technical aspects of sports coaching (e.g. exercises to develop specific sporting skills) and not on the pedagogical knowledge and skills that are necessary for supporting life skill development and transferability. The activities offered at local sports clubs to socially vulnerable youth fall under Coalter's (2007) category of *sport* activities, meaning that the main focus of the activities is on playing a sport in the hope that this will lead to changes in youth developmental outcomes. Very often, no additional elements are implemented in the sports setting to support the personal development of young people. Yet, as pointed out by Turnnidge *et al*. (2014), even in sport activities that are founded on the implicit approach to life skill development and transfer, the sports coach plays a vital role in creating optimal social conditions for socially vulnerable youth. This begs the question of how community sports coaches in the Netherlands can create optimal conditions for life skill development and transfer.

In line with the current literature (Cronin & Allen, 2015; Gould & Carson, 2008), the integrated findings show that the sports coach was identified as a key player in the sports experiences of socially vulnerable youth, because the sports coach could tip the fragile balance of positive and negative sports experiences towards positive experiences (Chapter 8). The interviews with the sports coaches showed that they did not intentionally use strategies to stimulate life skill transferability (Chapter 7), and, hence, they fitted within the implicit

approach to transfer as identified by Turnnidge *et al*. (2014). Yet, all the sports coaches had very clear ideas about their coaching philosophy and coaching actions. Their philosophies were directed at creating a safe, fun, and motivational sports climate for youths. The sports coaches' prime objective was for youths to enjoy themselves and to have fun. In addition, the sports coaches emphasised that they aimed to provide youths with meaningful sports experiences by creating a sports environment in which the youths could feel 'normal' and appreciated (Chapter 7). A close examination of the coaching actions demonstrated that these were directed at creating meaningful sporting experiences by making sure that the youths could understand 'how things work' and by giving them the opportunity to experience mastery. Hence, the sports coaches' actions were structured around creating comprehensibility, manageability, and meaningfulness, in line with salutogenic theory (Antonovsky, 1979). An examination of the salutogenic model (presented in Chapter 5) revealed two possible mechanisms to strengthen these three components of sense of coherence: the behavioural and the perceptual mechanism. These two mechanisms point to two opportunities for strengthening sense of coherence. First, activities directed at empowering people to identify and select appropriate resources to deal with stressors may facilitate the further development of sense of coherence. Secondly, activities directed at reflection – specifically on consistency, load balance, and socially valuable decision making – can increase people's understanding of stressful situations. This increased understanding may also strengthen sense of coherence. Looking back at the results from the interviews with the sports coaches (Chapter 7), it could be argued that the coaching actions could be coupled to these two mechanisms. For example, the coaching action of 'creating manageable challenges' could empower young people to experiment with resources to complete an exercise, giving them the feeling of being able to take up the challenge. Similarly, the coaching action of 'asking questions' could aid the youths' reflection on available resources that they could use to complete an exercise. In this way, the coaching actions were directed at creating salutogenic learning environments for socially vulnerable youth.

The coaching philosophies placed a strong emphasis on fun and enjoyment in the sports activities because the sports coaches felt that this led to an increased motivation to continue participating in sport (Chapter 7). Deci and Ryan (1985) distinguish between different types of motivation, ranging from high levels of self-determination (i.e., experiences, ideas, and interests are internalised) to low levels of self-determination (i.e., controlling or amotivated regulation). In addition, they identified three basic innate psychological needs that, once they are satisfied, yield increased self-motivation and improved wellbeing: autonomy, competence, and relatedness (Deci & Ryan, 1985). The need for autonomy refers to the active process of seeking control and self-regulating behaviour. The need for competence refers to people's striving towards mastery and skill development, and the wish to be effective. The need

for relatedness refers to people's search for meaningful relations with others and the wish to support, and be supported by, others. For socially vulnerable youth, sports participation may satisfy one or more of these three innate psychological needs, for example because the sports setting gives youths the opportunity to demonstrate autonomy, it allows youths to experience mastery of skills, and it provides valuable social relationships with sports coaches or peers. A review by Vallerand and Losier (1999) showed that various social factors present in the sports setting, amongst which the coaches' behaviour, influence people's motivation to participate in sport and the outcomes that sport has for these people. Therefore, sports coaches' ability to satisfy the three basic psychological needs and support self-determined behaviour may be crucial, not only for youth engagement, but also to achieve positive outcomes through sport. This is even more important because previous research has pointed out that, when these basic psychological needs are not met, youth engagement and enjoyment may diminish and the risk of anxiety, negative affect, and depression may increase (Jowett *et al.*, 2016). As many community sports coaches in the Netherlands have no pedagogical background, it can be questioned whether they are equipped to stimulate self-determined behaviour, and thus positive outcomes, among socially vulnerable youth.

4. A salutogenic understanding of youth development
The current sport-for-development literature is predominantly based on the positive youth development approach, which considers youths from the perspective of their potential in terms of the resources and assets that they possess to lead a healthy and productive life. From this perspective, the sports setting is considered to offer youth meaningful activities that can strengthen their assets and resources, and that can educate them in leading a healthy and productive life (Damon, 2004). The research conducted for this thesis was based on the salutogenic model of health, which centres on the question of how people manage everyday-life stressors in such a way that they maintain or improve their health and wellbeing (Antonovsky, 1979, 1987). In line with the salutogenic model of health, in this thesis, we have depicted youth development as a continuum along which young people can move between positive and negative youth development, depending on their ability to successfully manage the stressors they face in everyday life (see Figure 10.1). Reflection on the integrated findings from a salutogenic perspective offers a number of insights on the processes underlying youth development through sport.

Finding meaningfulness in sport
The motivational component of sense of coherence, meaningfulness, has been posited as most important for salutary movement (Antonovsky, 1987). Meaningfulness is seen as the driving force to understand the stressors that a person is facing and to find coping strategies to deal with these stressors. According to Antonovsky (1987), "*the motivational component of*

meaningfulness seems most crucial. Without it, being high on comprehensibility or manageability is likely to be temporary (p.22)".

The integrated findings demonstrate the central role of finding meaningfulness in sport. For socially vulnerable youth, the extent to which they felt that sport was a positive challenge that they liked to take on was an important theme in their sports experiences (Chapter 8). Moreover, seeing sport as a positive challenge could be an important motivator for youths to take on new challenges in the sports setting, which in turn could improve the visibility of the youths' skills and increase their confidence in their sport. The life-course interviews showed that finding a purpose in life was one of the roles that sports participation could play, giving direction to life in general and becoming an important part of a person's identity (Chapter 9). The importance of meaningfulness for the development of socially vulnerable youth was further emphasised by the sports coaches (Chapter 7). They considered meaningfulness as a pre-condition for youth engagement and life skill development. Therefore, it seems vital that health professionals and sports coaches support youths in finding meaningfulness in sport in order to achieve positive youth development through sport. Yet, this task may prove to be a very difficult one, as finding meaningfulness is a highly individual process that is difficult or even impossible to steer. Implications of this finding for health professionals are discussed further on in this chapter (see 'Implications for practice').

Generalized and specific resistance resources in sport

In the salutogenic model of health, generalized and specific resistance resources (GRRs and SRRs) play a dual role (see Figure 10.2). First, GRRs and SRRs are vital in tension management, as people can apply and use resources to deal with the stressors that they encounter (Antonovsky, 1979). Successful application of these resources can prevent the tension from the stressors from developing into stress, resulting in the maintenance or improvement of a person's health. In contrast to SRRs, which are only relevant in a specific setting and for a specific stressor, GRRs have a wide-ranging utility (Mittelmark *et al.*, 2017). What is important to note is that the presence of resources in itself does not lead to improvements in a person's health status, but people actively have to identify and use SRRs and GRRs to resolve tensions. Secondly, GRRs and SRRs are essential in providing life experiences that are conducive to a strong sense of coherence (i.e., people's capacity to cope with stressors in a health-promoting way). GRRs and SRRs provide individuals with sets of meaningful and coherent life experiences – characterised by consistency, an underload–overload balance, and socially valued decision making – that can further strengthen their sense of coherence (Antonovsky, 1987).

The integrated findings of this thesis show us the various SRRs and GRRs that socially vulnerable youth can find in the sports setting, as well as supporting the notion of a dual role for GRRs and SRRs in positive youth development. First, regarding the role of GRRs and SRRs in tension

management, various GRRs and SRRs were present in the sports setting that helped socially vulnerable youth to deal with the challenges that they encountered in the sports club. The interviews with socially vulnerable youth, for example, demonstrated that the youths felt that the sports coach was an important factor in dealing with those challenges (Chapter 8). The peers of socially vulnerable youth were another important resource, for example by supporting one another with positive feedback during competitions. In this way, the support of the sports coach or peers can be considered an SRR that youths used to deal with the challenges experienced there. The sports coach could also serve as a GRR for the youths, as some participants in the life-course interviews said that they had built family-like relationships with the sports coach from which they received social support even beyond the sports setting in other societal domains (Chapter 9). Interestingly, the life-course interviews showed us that sports participation could be seen as an instrument to deal with the stressors of everyday life, for example to deal with the stress resulting from bullying experiences in school or a drug addiction. In these cases, sports participation itself could be seen as a GRR that was actively used to deal with the challenges encountered in other societal domains.

Secondly, given the role of GRRs and SRRs in creating valued life experiences, the integrated findings show that the presence of resources in the sports setting also played an important role in creating meaningful and consistent sports experiences. For example, the interviews with socially vulnerable youth demonstrated the importance of the sports coach in creating positive, and minimising negative, sports experiences (Chapter 8). In the positive sports experiences, youths expressed a good understanding of their strengths and skills, a strong confidence while playing a sport, and a strong belief that sport was a challenge they liked to take on. These three characteristics show similarities with the three components of sense of coherence (i.e., comprehensibility, manageability, and meaningfulness). The interviews with the sports coaches also showed that sports coaches were focused on creating consistent, balanced, and meaningful sports experiences for socially vulnerable youth (Chapter 7). When sports coaches manage to create these life experiences for socially vulnerable youth, this can strengthen the youths' sense of coherence – an ability that could be beneficial over their lifespan and in different societal domains. Indeed, in the life-course interviews, one of the roles of sports participation was that it offered youths learning experience through which they gained insights about themselves and the world around them. This does not necessarily mean that they developed new competencies or skills; they could also be supported in recognising the strengths and weaknesses they already possessed. In salutogenic terms, these insights could contribute to an increased comprehensibility of the resources available to them, not only in the sports setting, but in everyday life as well.
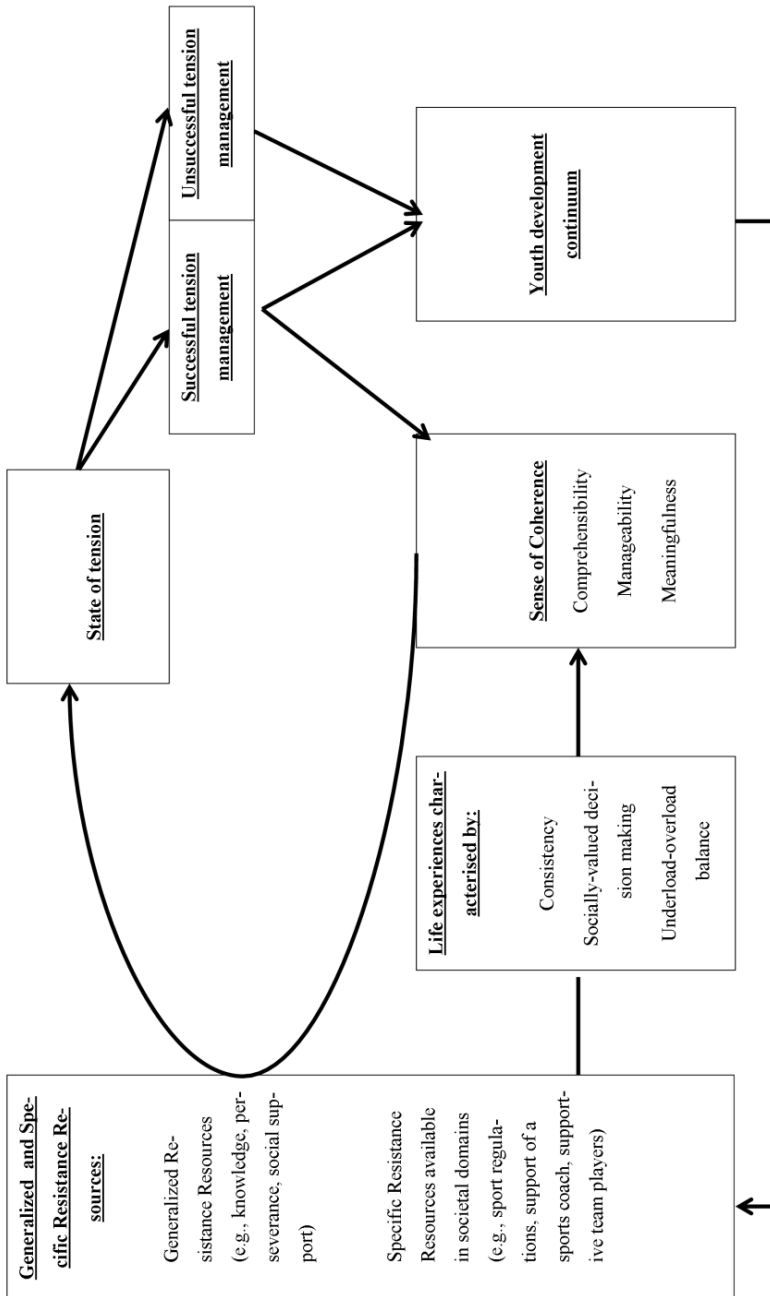
Figure 10.2 A salutogenic view on youth development (adapted from Antonovsky, 1979)

Added value of the present research

The systematic review conducted for this thesis showed that very little research has been conducted on the benefits of sports programmes for socially vulnerable youth. In a similar vein, there is a lack of studies in which the voices of socially vulnerable youth are heard regarding their sports experiences and how they value sport in their lives. As in many research fields, studies conducted among so-called WEIRD populations (White, Educated, Industrialised, Rich, and Democratic) are overrepresented (Henrich *et al.*, 2010; Ten Broeke, 2015). This gap is perhaps due to the difficulties of conducting research in vulnerable groups, when researchers are confronted with barriers such as high attrition rates, informed consent procedures, and imbalanced power relations (Whitley *et al.*, 2014). This thesis has attempted to study a group that is underrepresented in the literature but is at the same time affected by policy and health interventions based on studies conducted in WEIRD populations.

It could be argued that the results presented in this thesis might be similar if the studies were conducted among non-vulnerable youths (i.e., youths who are not experiencing problems in growing up), for example regarding the elements in the sports setting that contribute to positive and negative sports experiences (Chapter 8). What is important to point out, though, is that the vulnerable youth studied in this thesis have an accumulated number of negative experiences with the societal institutions in their lives, whereas their non-vulnerable peers enter the sports setting without, or with less, emotional baggage. For socially vulnerable youth, participation in sport can add positive sports experiences to these accumulated negative experiences in other societal domains and, therefore, can stop or reverse the negative spiral of vulnerability. When these youths have negative sports experiences however, this can potentially push these youths further down the spiral of vulnerability. For non-vulnerable youths, the balance may be less precarious. *Although the processes might run through the same mechanisms, the implications resulting from such processes on the lives and sport club participation of socially vulnerable young people are quite different* (Haudenhuyse, Theeboom, Nols, & Coussée, 2014: 191)". This thesis has contributed to an increased understanding of the value of sports participation for this group of socially vulnerable youth and the processes underlying youth development through sport.

The studies conducted for this thesis have focused on the role of sports participation for socially vulnerable youth in a Western European, club-based sports sector. So far, studies have often focused on specific sport programmes or sport-plus programmes (i.e., programmes that include additional elements directed at achieving positive youth development), as it is shown that the intentional structuring of the sports environment according to positive youth development principles is beneficial for socially vulnerable youth (Armour *et al.*, 2013; Bean & Forneris, 2016; Lubans *et al.*, 2012). Yet, many socially vulnerable youth in the Netherlands participate in local sports clubs and not in sport-plus programmes. Health professionals and policymakers are encouraging

these youths to participate in sport with the aim of achieving wider social and educational outcomes (VWS, 2011). Hence, it is very relevant to study whether and how socially vulnerable youth benefit from sports participation outside sport-plus programmes. The results show that sports participation outside these sport-plus programmes can serve several roles in the lives of socially vulnerable youth. In addition, it was found that sports participation was positively related to various youth developmental outcomes (e.g., pro-social behaviour, subjective health, sense of coherence).

Taking a salutogenic perspective on the value of sports participation for socially vulnerable youth allowed us to examine the underlying mechanisms and processes of sports participation for the alleviation of social vulnerability. The current literature in the sport-for-development field has often adopted a positive youth development approach, which shows interesting parallels with the salutogenic model of health (Damon, 2004; Dell *et al.*, 2013; Sanders *et al.*, 2015). Both approaches focus on the healthy development of individuals, asking how resources or assets can be strengthened in order to lead a healthy and productive life, rather than focusing on the pathogenic movement towards ill-health or negative youth development. Both approaches also stress that changes in health or youth development originate from the interaction of the individual with his/her environment and are, therefore, systems-focused approaches.

Although similarities exist between the two approaches, adopting the salutogenic model of health has offered a deeper and richer understanding of the value of sports participation for socially vulnerable youth (see Table 10.2). It specifically drew our attention to the mechanisms and processes underlying youth development through sport. First, in this thesis, youth development was considered to be a continuum along which socially vulnerable youth could move. As a result of this understanding, it was investigated how sports experiences could move young people towards the positive end of the continuum as well as towards the negative end. Secondly, in relation to the former observation, the salutogenic model of health drew our attention to the interplay of resources, stressors, and people's ability to deal with stressors in the movement along the youth development continuum. This understanding created awareness about the relevance of studying the sports setting in close connection with everyday life, as generalized resistance resources, stressors, and people's ability to deal with stressors are not domain specific. Third, given the processes underlying a salutogenic movement, it was found that sports participation could serve several roles in a socially vulnerable childhood. This finding has diversified our understanding of the value of sports participation for socially vulnerable youth. Fourth, life experiences play an important role in the salutogenic model of health, and, hence, this thesis was directed at understanding what elements in the sports setting create positive and negative sports experiences for socially vulnerable youth and how community sports coaches could create optimal social conditions for youth development. And fifth, as we considered the interrelatedness of the three components of sense of coherence, dilemmas in

using sport for positive youth development were laid bare. In sum, the studies reported in this thesis further support the current sport-for-development literature and, by adopting a salutogenic perspective, add to a deeper and more holistic picture of the value of sports participation for socially vulnerable youth.

Table 10.2 Added value of adopting the salutogenic model of health to study the role of sports participation in a socially vulnerable childhood

Observation based on the salutogenic model of health	Relevance for this thesis
Health is a continuum along which people can move towards better health (positive end) or towards ill-health (negative end).	Youths can move along a continuum of youth development. This process is fragile for socially vulnerable youth.
The movement along the health continuum arises from the interplay between stressors, resources (GRRs and SRRs), and people's ability to cope (sense of coherence). With the exception of SRRs, these elements are not domain specific.	The movement along the youth development continuum arises from an interplay of resources, stressors, and youths' ability to cope, not only within the sports setting, but across societal domains.
Salutogenic movement is instigated when people engage with stressors and apply resources to deal with the stressors they encounter. This engagement with stressors results in learning experiences that further strengthen sense of coherence.	Sport could serve several roles in a socially vulnerable childhood: sport as a safe place, sport as learning experience, sport as an instrument to reach goals, and sport as a purpose in life.
Sense of coherence is strengthened when people have life experiences characterised by consistency, a load balance, and socially valued decision making.	Sports coaches can support the positive development of socially vulnerable youth by creating meaningful, consistent, and balanced sports experiences.
The three components of sense of coherence are interrelated and cannot be considered separately.	Sports coaches face several dilemmas in creating optimal conditions for youth development. These dilemmas arise because sports coaches struggle to find a balance between the three components of sense of coherence.

Methodological considerations

This study adopted a mixed-methods design (Bazeley & Kemp, 2012), with one systematic review, one theoretical article, one quantitative study, and three qualitative studies, leading to a rich understanding of the value of sports participation in a socially vulnerable childhood. Multiple data collection methods were employed to access relevant data from various sources (e.g., youths and sports coaches): questionnaires (Chapter 6), semi-structured interviews (Chapter 7), unstructured interviews (Chapter 8), and life-course interviews (Chapter 9). Current research in the sport-for-development field has been occupied with studying the effectiveness of sport (programmes) in achieving positive youth development. By employing mixed methods, this thesis offered insights into not only the quantitative relation between sports participation and youth developmental outcomes, but also the processes and mechanisms

underlying this relation. To provide insights into the relation between sports participation and youth developmental outcomes, questionnaires were administered among socially vulnerable youth. These questionnaires allowed for a quantitative assessment of the frequency of sports participation in relation to youth development outcomes. The sports experiences of socially vulnerable youth were best captured by open interviews, as these allowed youths to openly discuss how they feel about sport (Haden & Hoffman, 2013). In addition, the unstructured nature of the interviews gave the researchers greater flexibility in creating a safe interview climate, as more structured interviews could resemble a therapeutic setting for socially vulnerable youth. Life-course interviews were chosen as the data collection method for adults to reflect on the role of sports participation in their socially vulnerable childhood. Life-course interviews allow the researcher to consider the relevance of a phenomenon within the context of a person's everyday life (Devine, 2005). Taken together, these different studies employing different methods for data collection provided multiple perspectives on the phenomenon of sport, with mutually complementing evidence to create a larger whole (Bazeley & Kemp, 2012).

A methodological strength in the quantitative study was that two identical questionnaires were administered to capture the stability of the relation between sports participation and youth developmental outcomes. Socially vulnerable youths often face a turbulent childhood with an accumulated number of negative experiences with the societal institutions in their lives (Vettenburg, 1998). Their day-to-day experiences of the stressors they are facing may determine both their ability to participate in sport and their developmental status (Manz *et al.*, 2016; Ortlieb *et al.*, 2013; Vandermeerschen *et al.*, 2015). As a result of this unstable situation, a 'snapshot' using one cross-sectional survey may offer an unreliable view on the relation between sports participation and youth developmental outcomes.

Several limitations of the quantitative study have also to be factored into the interpretation of the results. First, the questionnaires relied on self-report, which can lead to biased observations, and also the participants were informed about the aim of the study. The disclosure of the study aim could have steered the participants' answers. Secondly, disclosing the aim of the study could also have led to a self-selection bias, whereby youths who were interested in sport were more likely to participate in the study than youths who did not participate in sport. The youth professionals that administered the questionnaires tried to reduce this possible bias by encouraging all youths to participate in the questionnaire, regardless of their sports history. However, as on ethical grounds youth professionals have to be careful about encouraging youths to participate in studies because of the dependence relation they have with the youths, sports-minded youths may be overrepresented in the sample. Therefore, we have to be cautious about generalising this study's findings.

In the qualitative studies, various methods were used to facilitate reflection on important aspects of sport in a socially vulnerable childhood. Scenarios were

used in the interviews with sports coaches to create a better understanding of how they provide training to socially vulnerable youth. In the life-course interviews, we used timelining as a tool to facilitate the recollection of important events in a person's life (Sheridan *et al.*, 2011). The use of the timelines in the life-course interviews proved useful in analysing the participants' childhood experiences in depth, potentially leading to new insights that otherwise may have been overlooked. As pointed out by Sheridan *et al.* (2011), the reflexivity of the timelining method should be considered a strength because it allows people to see events from different perspectives. The scenarios also proved useful because they ensured that all aspects of the heterogeneous group of socially vulnerable youth (i.e., in terms of their characteristics and behaviour) were covered in the interviews with the sports coaches. However, the use of the scenarios also possibly introduced a bias in the data, because the participants' responses may have been influenced by the scenarios provided to them.

The socially vulnerable youth group studied in this thesis represents a heterogeneous group, including children with problem behaviour, living in problematised circumstances, or coming from deprived neighbourhoods. Previous research has suggested that subgroups of socially vulnerable youth may have very different sports experiences (Lee *et al.*, 2014), and, hence, they may report very different benefits from participation in sport. Following this observation, it was chosen to conduct life-course interviews that paid specific attention to the everyday-life experiences of socially vulnerable youth. The results show that the role that sports can play in an individual's life was strongly connected to his/her everyday life. For the other studies in this thesis, it could be argued that the heterogeneity of the sample complicates drawing conclusions about the value of sport for socially vulnerable youth in general. Although it is certainly true that we have to be careful in making generalisations for all socially vulnerable youth, the heterogeneity of the sample could also be considered a strength, as the diversity of the sample adds richness to the data. It would have been useful to collect data about the background of the youths included in the various studies, but for ethical reasons this was not possible. Medical information falls under the client confidentially agreement between medical staff and clients, and, therefore, the researchers could not be informed about the youths' medical background by the youth professionals. In addition, to ensure that the youths would feel safe during the interviews, no questions were asked about their vulnerable nature. It also has to be noted that it is likely that youths that were most at-risk were not included in the study. First of all, their problems may have prevented them from participating in the study. And secondly, they are also less likely to participate in sport, which was an inclusion criterion for the interviews with socially vulnerable youth and the life-course interviews with adults. Therefore, we have to refrain from using the results of this thesis to theorise about the benefits of sport for this most vulnerable group of young people.

During the research for this thesis, various obstacles were raised that made it impossible to conduct the research in the way stipulated in the study protocol (Chapter 2). For example, several changes in the research setting necessitated adaptations to the quantitative part of this research. In addition, the ethical approval procedure restrained the data collection with the questionnaires, and progressive insights during the data collection presented new burning questions, both requiring adaptations to the original study design. The flexible approach to conducting research can be considered a weakness and begs the question of whether valid answers could be given to the research questions. Indeed, we were unable to answer some of the questions stipulated in the study protocol. However, the flexibility also allowed the researchers to investigate a population that is often underrepresented in research (Aldridge, 2014; Whitley *et al.*, 2014). Moreover, adapting the research to the reality of the participants' lives also offers an honest and valid perspective of the phenomenon of sport that otherwise may have been impossible to explore.

Although the integrated findings support the notion that sport on an individual level can support the personal development of socially vulnerable youth, we have to be careful in generalising these findings to the societal level. Policymakers more and more aim to increase the sports participation rates of socially vulnerable youth to deal with social issues such as reducing crime rates, increasing social inclusion, and improving life prospects. However, it has been warned that sports programmes focus on individual (micro) level outcomes, and, thus, it would be misplaced to generalise these effects to the societal (macro) level. Individuals live and act within an environment in which societal structures impose unequal opportunities to participate and to be socially included. In this regard, Coalter (2015) argues that, instead of claiming that sport can contribute to social inclusion, we should understand that "*various aspects of social inclusion precede such participation* (p. 21)". Ascribing positive benefits to sports participation for socially vulnerable youth also generates the risk of blaming-the-victim, as institutional structures and societal arrangements may keep young people socially vulnerable regardless of, or even because of, their participation in sport (Weiss, 1993). We therefore have to remain critical about the use of sport as a means to achieve positive youth development.

Implications for practice

Policymakers in the Netherlands, and elsewhere in the world, have increasingly adopted sport as a tool to alleviate social problems and to achieve wider social and educational outcomes (VWS, 2011). The integrated findings of this thesis support these policy efforts by showing how sport could contribute to personal development among socially vulnerable youth. A number of recommendations follow from the integrated findings to create conducive conditions for positive youth development through sport.

1. Support socially vulnerable youth in finding meaningfulness
The integrated findings demonstrate the importance of finding meaningfulness in sport. Given that finding meaningfulness is a highly individual process, it is difficult for health professionals to steer socially vulnerable youth to find meaningfulness in sport. Although such youth can certainly find a purpose in life through their participation in sport, other activities such as art, music, or connecting with nature may equally contribute to filling a gap in a youth's life and be meaningful to him/her. In this respect, it is important that youth professionals offer youths an array of activities, not limited to sport, from which they can select and try out a number of them, giving them the freedom to find something that matches their needs.

2. Recognise and use the different roles of sport
Related to the previous point, the integrated findings show that the value of sports participation goes beyond providing a setting in which young people can develop skills, competencies, and behaviours. Four different roles of sports participation in a socially vulnerable childhood were discerned that each require a different approach to organising sport for this specific group (i.e., sport as a safe place, as a learning experience, as an instrument to reach goals, and as a purpose in life). For example, within the role of sport as a learning experience, a setting has to be created in which these learning experiences are designed and implemented. Sports coaches could, for example, ask questions that facilitate reflection on the youths' experiences, thereby facilitating youth-driven learning. Within the role of sport as a safe haven, specific attention should be given to the development of a safe and supportive context, where potential stressors for youths are minimised. Whereas some elements may be supportive of one specific role of sports participation, for another role they may be less appropriate. A clear example of this is the competitive element of the sports setting. Whereas this competitive element may be especially useful in creating learning experiences, it may also introduce extra stressors to socially vulnerable youth and diminish their sense of safety within the sports setting. Hence, depending on the needs and interests of socially vulnerable youths, sports activities can be adapted to support a specific role.

3. Diversify sports activities
To emphasise the importance of non-sport components in achieving positive youth development, Coalter (2007) distinguishes between *sport* activities, *sport-plus* activities, and *plus-sport* activities. In *sport* activities, the main focus is on the sport components of the activity. In *sport-plus* activities, the focus is also on playing a sport but, in addition, specific attention is paid to non-sport components that are conducive to life skill development. In *plus-sport* activities, the main focus is on the positive youth development aspects of the activity in which sport is merely used as a vehicle to deliver the programme elements. For youths who are more vulnerable, it has been suggested that the intentional

structuring of sports activities becomes more important for achieving youth development (Bean & Forneris, 2016), and hence a shift towards *plus-sport* activities is needed. However, the integrated findings in this thesis show that, for socially vulnerable youth, it can be important to be engaged in *sports* activities that are solely directed at having fun and enjoying oneself. When the sports setting becomes yet another setting in which youths feel they have to develop skills, learn, and do well, this may militate against the positive influence of sports participation by taking away its core value as an enjoyable leisure-time activity, giving youths a purpose in life and allowing them to escape the struggles of everyday life. In this respect, sports coaches have warned that socially vulnerable youths should feel 'normal' while participating in sport and should not be labelled 'problematic' or 'in need of extra support' (Chapter 7). Medicalising sport can be beneficial for a specific group of young people who are in need of such structured sports programmes, as an alternative to other forms of therapy or youth care programmes. However, for other socially vulnerable youths, medicalising sport may take away the very power that sport has for them. Hence, the sports activities that are offered to socially vulnerable youth need to be diversified and matched to their need to find a more or less structured sports activity. Youth professionals need to check with their youth clients which sports activities match each youth's developmental goals.

4. Support sports coaches in creating optimal social conditions
The integrated findings show sports coaches' crucial role in creating optimal social conditions for positive youth development. Even though the importance of creating a safe and motivational sports climate has been frequently stressed in the literature and throughout this thesis, sports coaches may not always be able to influence these conditions in a positive way. First of all, the study among community sports coaches has demonstrated that they face several dilemmas in creating meaningful, consistent, and balanced sports experiences for socially vulnerable youth. These dilemmas arose because the sports coaches struggled to find a balance between the three components of sense of coherence. Creating meaningful sports experience requires youths to enjoy the challenges that they encounter when they participate in sport, as these meaningful experiences may encourage them to understand 'how things work' (i.e., comprehensibility) and to take on new and more difficult challenges with confidence (i.e., manageability). On the other hand, a certain amount of comprehensibility and manageability is also required to create meaningful experiences. Especially given the inherently competitive nature of sport, it may be very difficult for sports coaches to positively influence feelings of manageability among socially vulnerable youth. Second, in the traditional, club-based sports sector in many Western European countries, including the Netherlands, sport is often taught by volunteer sports coaches who do not receive any formal coaching training. It is within this setting that many young people in the Netherlands participate in sport, and, therefore, it is perhaps too much to expect these sports coaches to create sports

environments that are conducive to positive youth development without any pedagogical support or training. Given that policymakers and health professionals are increasingly supporting the use of sport as a means to achieve positive youth development, more attention should be given to the training of sports coaches to do so effectively. However, it has to be remembered that these sports coaches are often volunteers and so the time investment in this training should be minimal. In addition, it might be beneficial to show how sports coaches can personally benefit from this training as the team atmosphere becomes more positive.

5. Create an inclusionary sports activity
Sport is often portrayed as an inclusionary activity that has the capacity to attract young people in vulnerable populations (Gould & Carson, 2008; Haudenhuyse *et al.*, 2013). At the same time, sport can also produce exclusionary processes because socially vulnerable youth can experience barriers to taking up a sport (Vella *et al.*, 2014) or because they encounter the same struggles in the sports setting as they do in everyday life, possibly leading to sports drop-out (Andrews & Andrews, 2003; Massey & Whitley, 2016). The exclusionary processes surrounding participation in sport can amplify the vulnerability of these young people. In the Netherlands, the Youth Sports Fund can be used to pay the subscription fee to sports clubs when parents are unable to do so (Jansma & Maks, 2014). Although the financial aspect is an important barrier to taking up a sport, other barriers may prevent socially vulnerable youths from starting to participate in sport or hinder them from continuing to participate. Especially for younger children, parental involvement is crucial for participation in sport (Vella *et al.*, 2014). This thesis demonstrated that the social network of socially vulnerable youths was important to start participating in sport (Chapter 9). Therefore, more attention needs to be paid to the barriers to sports participation for socially vulnerable youth beyond financial hurdles, and youth professionals need to be supported in implementing interventions that can reduce these barriers. An example of such an intervention is Special Heroes, in which diverse sports activities are offered in special education schools by local sports organisations (Mannen & Dijkhuis, 2013). In this way, socially vulnerable youth can become acquainted with various sports in a safe (school) location, allowing them to find an enjoyable leisure-time activity that after the intervention they can continue at a local sports club.

6. Strengthen the collaboration between (youth) care organisations and sports organisations
The integrated findings of this thesis and the abovementioned recommendations support policy efforts in the Netherlands by showing how sport could contribute to the personal development of socially vulnerable youth. However, supporting socially vulnerable youth in their personal development requires a strong commitment from youth professionals, policymakers, sports clubs, and sports

coaches, but the necessary collaboration between these actors is not always easy to organise. Previous research has shown that collaboration between youth care organisations and sports organisations faces several barriers, for example because the actors have different aims, interests, and cultures (Hermens *et al.*, 2017; Hermens *et al.*, 2015). The prime aim of youth care organisations is to efficiently organise care around clients who are experiencing problems in growing up, and very often youth professionals do not perceive sports clubs as a youth development setting. Similarly, sports clubs and sports coaches are focused on organising leisure-time activities and so often they hesitate to collaborate with youth care organisations because they fear the negative effects of having socially vulnerable youth at the local sports clubs (e.g., conflicts in sports teams). Moreover, within the changing political context, in which policymakers emphasise that care needs to be organised as much as possible in youths' social networks, sports clubs are increasingly burdened with pedagogical responsibilities. However, many sports clubs and sports coaches feel that they are unequipped for these responsibilities, and they question whether it is their responsibility to provide informal care to socially vulnerable youth. That is not to say that sports clubs are unwilling to create a supportive and motivational sports climate for young people, but a careful balance has to be sought between the capacities and willingness of local sports clubs and the pedagogical conditions imposed by policymakers and health professionals. Strengthening the collaboration between the actors in the social domain could help to create awareness of the (im)possibilities of local sports clubs contributing to the positive development of socially vulnerable youth. A strengthened collaboration could also create awareness of the problems that the various actors may face in creating the conditions under which sports participation could contribute positively to youth development.

Conclusions and implications for further research
This thesis has increased our understanding of the value of sport for socially vulnerable youth. The findings demonstrate that sports participation can serve several roles in a socially vulnerable childhood to support personal development. At the same time, socially vulnerable youth may come across challenges in the sports setting that reflect the struggles that they face in everyday life. These challenges in the sports setting can result in negative sports experiences and increased feelings of vulnerability. The sports coach's central role in creating a supportive and positive sports climate for socially vulnerable youth has been stressed.

It has often been pointed out that sport in itself does not produce all kinds of positive outcomes (Danish *et al.*, 2005) but that the conditions that are present in the sports setting are essential for achieving positive development. In this respect, Coalter (2015) has argued that more research is needed that focuses on the sufficient conditions for personal development through sport and "*the*

mechanisms, processes and experiences which might produce positive impacts for some participants (p. 19)". The studies conducted for this thesis contributed to this understanding by focusing on the sports experiences of socially vulnerable youth and by shedding light on the mechanisms underlying the reported benefits of sports participation. Given the interest of policymakers and health professionals in using sport as a means to achieve positive youth development, a more thorough understanding of the sufficient conditions for positive development through sport is still needed, especially within a Western club-based sports sector where sports coaches are often volunteers without formal coaching training. Hence, it would be useful to investigate how sports coaches could support the personal development of youths without requiring time-intensive interventions.

The results of this thesis showed that finding a purpose in life or finding meaningfulness is a powerful mechanism in youth engagement and in the salutogenic movement towards positive youth development. In this respect, offering youths an array of activities, not limited to sport, may prove useful in achieving positive youth development. In addition, the findings of this thesis indicate that the value attached to sports participation relates mainly to those aspects that potentially could also be found in other settings and activities. As it has been shown that the developmental experiences of young people differ across extracurricular activities (Larson *et al.*, 2006), further research could examine whether and how various extracurricular activities could contribute to alleviating vulnerability and to what extent these activities fulfil similar roles in a socially vulnerable childhood as was found for sports participation in this thesis.

The salutogenic model of health has proved useful for understanding the mechanisms underlying youth development. It was found that youth development arises from the interaction between stressors, resources, and youths' ability to deal with stressors across societal domains. These insights call for more research that investigates the value of sport, and other extracurricular activities, in close connection with participants' everyday life. Furthermore, as learning in sport has received only limited attention in current research, future studies should focus on *how* people learn from their sports participation in a holistic way (i.e., across various societal domains). As pointed out by Quennerstedt *et al.* (2014): "*Those studies that do focus on learning tend to discuss learning rather than analyse the learning that actually takes place in the context of a clear theoretical perspective rooted in theories of learning* (pp. 885–886)". An appreciation of how young people learn while playing a sport can be used to structure the sports setting in such a way that it is conducive to positive youth development.

The group of socially vulnerable youth studied in this thesis is heterogeneous. As subgroups of socially vulnerable youth may experience sport in dissimilar ways (Lee *et al.*, 2014), may experience different barriers to participating in sport, and may benefit from sport in different ways, further research may benefit from focusing on specific groups of socially vulnerable

youth. These insights may also further support the idea posited in this thesis that sports activities for socially vulnerable youth need to be diversified to match the capacities, needs, and interests of individual young people.

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Chapter 10

Summary

Background

Sport is often recognised as an avenue for the positive development of young people, because sports participation has been positively linked to improvements in physical, cognitive, social, and emotional health. In line with these findings, policymakers and health professionals in the Netherlands, and elsewhere in the world, encourage *socially vulnerable youth* to participate in sport. Socially vulnerable youth are characterised as having an accumulated number of negative experiences with the societal institutions in their lives, leading to distorted relationships with those institutions and, eventually, to feelings of isolation and low self-esteem. As socially vulnerable youth participate less in sport than their non-vulnerable peers, encouraging them to participate in sport may support these youths in leading a healthy and productive life. However, to date, our understanding of the role of sport in positive youth development has been primarily based on research conducted in non-vulnerable populations, and very little research has been conducted among socially vulnerable youth. Moreover, we know very little about how sport can potentially support these youths in their personal development and under which conditions sport can do so.

Aim

The overall aim of this thesis is to unravel the value of sports participation for socially vulnerable youth. Given the salutogenic focus of this thesis, the first research objective is to provide insights into the mechanisms underlying sense of coherence so that these may underpin health promotion activities that aim to strengthen sense of coherence. Secondly, given the limited amount of research conducted on the value of sports participation for socially vulnerable youth, this current study aims to unravel *whether* this youth group may benefit from playing a sport at a local sports club (objective 2). As previous studies have shown that the social conditions in the sports setting are very important for achieving positive youth developmental outcomes, this study also aims to investigate how community sports coaches can create optimal social conditions for life skill development and transferability (objective 3). And fourth, this study aims to understand how socially vulnerable youth experience their participation in sport and the value they derive from sports participation (objective 4).

Methods

This study adopted a mixed-methods design, with one theoretical article, one systematic review, one quantitative study, and three qualitative studies. For the systematic review, 18 studies were identified – in seven electronic databases – that reported on life skill development in sports programmes serving socially vulnerable youth. For the quantitative study, two identical questionnaires were administered at a six-month interval among 187 socially vulnerable youth,

measuring youth developmental outcomes and sports participation rates. Semi-structured interviews were conducted with 15 community sports coaches to examine how they create optimal social conditions for life skill development and transferability. Open interviews were conducted with 22 socially vulnerable youths to explore their sports experiences, and life-course interviews were conducted with 10 adults who had been socially vulnerable in their childhood to reflect on the value of sport in their lives. The results from these studies provide a complete and comprehensive picture of the value of sport in a socially vulnerable childhood.

Results

In Chapter 4, findings from the systematic literature review are presented. The 18 reviewed studies showed mixed results regarding the development of emotional, cognitive, and social life skills in the sports programmes. Improvements in at least one life skill were reported in each of the 18 studies, and five studies also reported no or negative developments in one or more life skills. As many of the included studies experienced a high risk of bias, the results of these studies have to be treated with caution.

Chapter 5 presents the salutogenic model of health that underpinned and supported data collection and analysis in the empirical studies (in Chapters 6 to 9). The underlying mechanisms of sense of coherence were investigated to identify opportunities for health promotion activities to strengthen sense of coherence. Two mechanisms for strengthening sense of coherence were identified: the behavioural mechanism and the perceptual mechanism. The behavioural mechanism offers the possibility of intervening in behavioural responses to stressful situations in a health-promoting way. The perceptual mechanism allows health professionals to train people to see the world as more comprehensible, manageable, and meaningful. These two processes of *empowerment* and *reflection* are important for the development of sense of coherence, are closely interdependent, and can be considered reinforcing processes. Besides focusing on these processes, health professionals need to pay attention to the environment in which people live and the resources that are available to them to deal with stressors. The presence of resources is vital both in creating life experiences that strengthen sense of coherence and in engaging with these resources to move towards health.

In Chapter 6, the relation between sports participation and five distal youth developmental outcomes (i.e., problem behaviour, pro-social behaviour, school performance, subjective health, and wellbeing) and two proximal youth developmental outcomes (i.e., self-regulation skills and sense of coherence) were explored among a group of Dutch socially vulnerable youth ($N = 187$). The analyses demonstrated that, with regard to the five distal youth developmental outcomes, a positive relation was found between sports participation and pro-social behaviour, subjective health, and wellbeing, but not with problem

behaviour. These findings proved stable across the two measurements. School performance was related to sports participation at the first, but not at the second, measurement. With regard to the proximal youth developmental outcomes, a positive and stable relation of sports participation was found with sense of coherence, but not with self-regulatory skills. The findings indicate that sports participation is positively related to several youth developmental outcomes for socially vulnerable youth, but, based on the current data, no conclusions can be drawn about the causal relationships between sports participation and youth developmental outcomes.

Chapter 7 presents findings from interviews conducted with 15 community sports coaches with the aim of examining how they create optimal social conditions for life skill development and transferability. The sports coaches believed that youths transferred life skills from the sports setting to other societal domains, but they did not employ specific strategies to increase life skill transferability. The sports coaches did, however, have clear ideas about how to create optimal conditions for the personal development of socially vulnerable youth. First and foremost, coaching activities were directed at creating a supportive environment in which the youths could have meaningful experiences. The sports coaches mentioned a plethora of coaching actions that they used to create little moments of success (i.e., meaningfulness). These actions were directed at making sure that the youths understood 'how things work' (i.e., comprehensibility) and giving them the opportunity to experience mastery (i.e., manageability). However, the sports coaches sometimes faced a dilemma in providing sport to socially vulnerable youth as they struggled to find a balance between comprehensibility, manageability, and meaningfulness.

In Chapter 8, the sports experiences of socially vulnerable youth were explored to elucidate what contributes to positive and negative sports experiences. Three themes were discovered in the youths' sports experiences: the extent to which they experienced visibility of their skills, the extent to which they felt confident while playing their sport, and the extent to which they felt sport was a nice challenge that they liked to take on. There was a fragile balance within each of the themes, and the sports coaches played an important role in installing and maintaining a supportive environment in which the youths could have meaningful, consistent, and balanced sports experiences. In addition, the results showed that it is not self-evident that, for socially vulnerable youth, sports experiences are positive and supporting, as for some youths the challenges in the sports setting may reflect the struggles that these youths find in everyday life.

Chapter 9 presents findings from life-course interviews conducted with 10 young adults who had been socially vulnerable in their childhood, with the aim of reflecting on the role of sport in their lives. The results showed that four different roles could be discerned for sports participation. First of all, sports participation offered youths a setting in which they felt safe and where they could find support and appreciation. Secondly, sports participation offered

youths learning experiences that provided them with insights about themselves and the world around them. Thirdly, sports participation could be used as an instrument to reach goals and, thus, sport in itself became a resource. Fourthly, sports participation could provide a purpose in life for socially vulnerable youth, where sport also gave direction to life in general and became an important part of their identity. The role of sports participation for socially vulnerable youth seemed to be closely connected to their experiences in everyday life and the stressors they were facing in various life domains. The participants' accounts also indicated the potentiality of sport to instigate a negative spiral of vulnerability.

Conclusions

In Chapter 10, the integrated findings demonstrate the complex relation between sports participation and youth development. Current studies in the field have provided inconclusive evidence regarding the life skill development of socially vulnerable youth in sports programmes. Several positive relations were found between sports participation and youth developmental outcomes in this thesis, but these findings provide no evidence of a causal relationship. Furthermore, it was found that sports participation can play several roles in a socially vulnerable childhood that go beyond providing a setting in which youths can develop new skills, competencies, and behaviours. The roles of sport could be defined more broadly and include the importance of the sports setting in offering a safe haven for youths and providing them with a purpose in life. Policymakers and health professionals that aim to increase youths' sports participation rates to achieve positive youth development have to recognise the various ways in which sport could contribute to youth development and organise sports activities in such a way that they can contribute to these various roles.

The integrated findings also show that sports participation is related not only to positive youth development, but also to negative sports experiences that can diminish youth development and even increase vulnerability. Negative sports experiences were reported when the sports setting reflected the same struggles for youths as they encountered in everyday life. When there was an imbalance between the challenges in the sports setting and the resources that youths felt were available to deal with these stressors, feelings of failure and rejection could harm the youths. The sports coach was identified as a key player in tipping the balance towards positive sports experiences by creating a positive and motivational sports climate. However, supporting socially vulnerable youth in their personal development requires a strong commitment from youth professionals, policymakers, sports clubs, and sports coaches, but the collaboration between these actors is not always easy to organise. As an example, many sports coaches in the Netherlands, and elsewhere, are volunteers who do not receive formal coaching training; this makes it very difficult for them to create optimal social conditions that are conducive to youth

development. Hence, health professionals and policymakers have to remain critical towards to use of sport as a means to achieve positive youth development, given the considerations stipulated in this thesis

The integrated findings from this thesis show that finding meaningfulness in sport is an important factor in the positive development of socially vulnerable youth. For socially vulnerable youth, being engaged in positive challenges in the sports setting was an important motivator for them to take on new challenges in the sports setting; this in turn improved the visibility of their skills and increased their confidence in their sport. Also, the sports coaches focused on creating a meaningful sports activity by establishing an environment in which socially vulnerable youth could feel normal, accepted, and supported. This means that, when the sports setting becomes yet another setting in which youths feel they have to develop skills, learn, and do well, this may militate against the positive influence of sports participation by taking away its core value as an enjoyable leisure-time activity. Medicalising sport can be beneficial for a specific group of young people who are in need of alternative forms of therapy or youth care programmes, but for others it can take away the power that sport has for them. Hence, policymakers and health professionals have to offer a wide variety of sports activities to socially vulnerable youth from which they can choose an activity that best matches their developmental status and personal interests.

Samenvatting

Achtergrond

De sportomgeving wordt vaak gezien als een veelbelovende setting om te werken aan de positieve persoonlijke ontwikkeling van jongeren, omdat sportdeelname positief gerelateerd is aan fysieke, cognitieve, sociale en emotionele gezondheid. In het verlengde daarvan moedigen beleidsmakers en gezondheidsprofessionals, zowel in binnen- als buitenland, kwetsbare jongeren aan om te gaan sporten. Kwetsbare jongeren worden vaak geconfronteerd met een breed scala aan negatieve ervaringen die ze hebben met de sociale instituties in hun leven, leidend tot verstoorde relaties met die instituten en, uiteindelijk, tot gevoelens van isolatie en een laag zelfvertrouwen. Omdat kwetsbare jongeren minder sporten dan hun niet-kwetsbare leeftijdsgenoten kan het verhogen van de sportdeelname in deze groep een effectieve strategie zijn om hun persoonlijke ontwikkeling te ondersteunen. Echter, onze kennis van de rol die sport kan spelen in de positieve ontwikkeling van kwetsbare jongeren is beperkt, omdat het meeste sportonderzoek is uitgevoerd onder niet-kwetsbare populaties. Daarnaast weten we weinig over hoe sport kan bijdragen aan de persoonlijke ontwikkeling van kwetsbare jongeren en onder welke voorwaarden die bijdrage positief kan zijn.

Studiedoel

Het hoofddoel van deze thesis is om de waarde van sport voor kwetsbare jongeren te ontrafelen. Het salutogene model van gezondheid heeft ten grondslag gelegen aan de verschillende deelstudies binnen deze thesis. Daarom is het eerste onderzoeksdoel om inzicht te genereren in de mechanismes die ten grondslag liggen aan de relatie tussen sense of coherence (SOC) en gezondheid (onderzoeksdoel 1). Dit inzicht kan gezondheidsprofessionals ondersteunen in het versterken van de SOC binnen gezondheidsinterventies. Ten tweede, gegeven het beperkte onderzoek naar de waarde van sport voor kwetsbare jongeren, is het doel van deze studie om te onderzoeken of de groep van kwetsbare jongeren baat heeft bij het sporten bij een lokale sportvereniging (onderzoeksdoel 2). Eerdere studies hebben laten zien dat de sociale voorwaarden binnen de sportomgeving heel belangrijk zijn voor het verbeteren van de persoonlijke ontwikkeling van jongeren. Daarom heeft deze studie het doel te onderzoeken hoe sportcoaches optimale sociale condities kunnen creëren voor het ontwikkelen van vaardigheden tijdens het sporten (onderzoeksdoel 3). Ten vierde probeert deze studie te begrijpen hoe kwetsbare jongeren hun sportdeelname ervaren en te achterhalen wat de waarde van sportdeelname is voor deze groep (onderzoeksdoel 4).

Methoden

Deze studie heeft een zogenaamd 'mixed methods design' waarbij gebruik gemaakt is van zowel kwantitatieve als kwalitatieve onderzoekstechnieken. De

thesis bestaat uit één theoretisch artikel, één systematisch literatuuronderzoek, één kwantitatieve studie en drie kwalitatieve studies. Voor het systematisch literatuuronderzoek zijn 18 internationale studies geïdentificeerd – in zeven elektronische databases – die rapporteren over de ontwikkeling van vaardigheden van kwetsbare jongeren tijdens de sportprogramma's waar zij aan deelnamen. Voor de kwantitatieve studie zijn onder 187 kwetsbare jongeren twee identieke vragenlijsten afgenomen met een interval van 6 maanden. Deze vragenlijsten bevatten allerlei vragen over de persoonlijke ontwikkeling van de jongeren en vragen over hun sportdeelname. Semigestructureerde interviews werden afgenomen bij 15 sportcoaches om te onderzoeken hoe zij optimale sociale condities creëren om de ontwikkeling van vaardigheden tijdens het sporten te stimuleren. Open interviews werden afgenomen bij 22 kwetsbare jongeren om hun sportervaringen te verkennen en levensloop-interviews werden afgenomen bij 10 jongvolwassenen om te reflecteren op de waarde die sport in hun kwetsbare jeugd had. De resultaten van deze studies leveren een compleet en diepgaand beeld van de waarde van sport voor kwetsbare jongeren.

Resultaten

In hoofdstuk 4 worden de bevindingen van het systematische literatuuronderzoek gepresenteerd. De 18 geïncludeerde studies laten een gemixt resultaat zien over de ontwikkeling van emotionele, cognitieve en sociale vaardigheden van kwetsbare jongeren binnen de sportprogramma's. Verbeteringen in ten minste één vaardigheid werden gerapporteerd in alle 18 studies, en vijf studies rapporteerden ook geen of een negatieve ontwikkeling in één of meerdere vaardigheden. Omdat veel van de geïncludeerde studies een hoog risico hebben op een bias, moeten de resultaten van de studies met enige terughoudendheid behandeld worden.

Hoofdstuk 5 presenteert het salutogene model van gezondheid dat de dataverzameling en -analyse in de empirische studies (hoofdstuk 6 t/m 9) heeft ondersteund en onderbouwd. De onderliggende mechanismen van sense of coherence (SOC) werden onderzocht om mogelijkheden te identificeren om de SOC te versterken door middel van gezondheidsinterventies. Twee mechanismen voor het versterken van de SOC zijn gevonden: het gedragsmechanisme en het perceptiemechanisme. Het gedragsmechanisme biedt de mogelijkheid om te interveniëren in stressvolle situaties om gezond gedrag te bevorderen. Het perceptiemechanisme stelt gezondheidsprofessionals in staat om mensen te trainen om de wereld als meer begrijpelijk, hanteerbaar en betekenisvol te ervaren. De twee processen van *empoweren* en *reflectie* zijn belangrijk voor de ontwikkeling van SOC, zijn sterk afhankelijk van elkaar, en worden beschouwd als elkaar versterkende processen. Naast het focussen op deze twee processen, is het belangrijk dat gezondheidsprofessional aandacht besteden aan de omgeving waarin mensen leven en de hulpbronnen (resources) die beschikbaar zijn voor mensen om met stressoren om te gaan. De aanwezigheid van deze

hulpbronnen is essentieel, zowel in het creëren van levenservaringen die SOC kunnen versteken als in het gebruiken van de hulpbronnen om de gezondheid te verbeteren.

In hoofdstuk 6 is de relatie tussen sportdeelname en vijf distale ontwikkeldoelen (probleemgedrag, pro-sociaal gedrag, schoolprestaties, subjectieve gezondheid en welzijn) en twee proximale ontwikkeldoelen (zelf-regulatieve vaardigheden en sense of coherence) onderzocht binnen een groep van Nederlandse kwetsbare jongeren (N = 187). De analyses laten zien dat, ten aanzien van de vijf distale ontwikkeldoelen, sportdeelname een positieve relatie had met pro-sociaal gedrag, subjectieve gezondheid en welzijn, maar niet met probleemgedrag. Schoolprestaties waren positief gerelateerd aan sportdeelname tijdens de eerste meting, maar niet bij de tweede meting. Ten aanzien van de twee proximale ontwikkeldoelen is een positieve en stabiele relatie gevonden tussen sportdeelname en sense of coherence, maar niet met de zelf-regulatieve vaardigheden. De resultaten geven aan dat sportdeelname positief samenhangt met de positieve ontwikkeling van kwetsbare jongeren, maar, gebaseerd op de huidige data, kunnen we geen conclusies trekken over het causale karakter van de relatie tussen sportdeelname en een positieve persoonlijke ontwikkeling.

Hoofdstuk 7 presenteert de bevindingen van de interviews die zijn uitgevoerd met 15 sportcoaches, met als doel het verkennen van hoe zij optimale sociale condities creëren voor het ontwikkelen van vaardigheden van kwetsbare jongeren tijdens het sporten. De sportcoaches geloven dat jongeren de levensvaardigheden die zij aanleren tijdens het sporten ook gebruiken in andere levensdomeinen, zoals op school of thuis. De sportcoaches gebruiken echter geen specifieke strategieën om deze zogenaamde transfer van vaardigheden te stimuleren. Ze hebben wel duidelijke ideeën over hoe ze optimale situaties kunnen creëren in de sportomgeving om de positieve ontwikkelen van hun sportende jongeren te versterken. Coachactiviteiten zijn vooral gericht op het creëren van een positief en motivationeel sportklimaat waarin jongeren betekenisvolle ervaringen kunnen opdoen. De sportcoaches noemden een heel scala aan coachacties die ze gebruiken om kleine succesmomenten voor de jongeren te genereren (d.w.z. betekenisvolheid). Deze acties zijn gericht op het zorgen dat jongeren begrijpen hoe dingen werken (d.w.z. begrijpelijkheid) en op het creëren van situaties waarin jongeren hanteerbaarheid kunnen ervaren. Echter, de sportcoaches ervaren soms ook dilemma's in het verzorgen van sportlessen aan kwetsbare jongeren, omdat ze het lastig vinden om een balans te vinden tussen begrijpelijkheid, hanteerbaarheid en betekenisvolheid.

In hoofdstuk 8 worden de sportervaringen van kwetsbare jongeren verkend om te achterhalen welke factoren bijdragen aan positieve en negatieve sportervaringen. Drie thema's zijn gevonden in de verhalen van kwetsbare jongeren over hun sportdeelname: de mate waarin ze het gevoel hebben dat hun vaardigheden zichtbaar zijn, de mate waarin ze vertrouwen hebben tijdens het sporten, en de mate waarin ze het sporten ervaren als een leuke uitdaging.

De resultaten laten zien dat er een fragiele balans is tussen positieve en negatieve ervaringen binnen ieder thema. De sportcoach speelt een belangrijke rol in het opzetten en behouden van een positief sportklimaat waarin de jongeren betekenisvolle, consistente en gebalanceerde sportervaringen kunnen hebben. Daarnaast tonen de resultaten aan dat het niet vanzelfsprekend is dat, voor kwetsbare jongeren, sportervaringen positief en ondersteunend zijn. Dat komt doordat voor sommige jongeren de sportomgeving uitdagingen biedt die gelijk zijn aan de uitdagingen die ze in het dagelijks leven tegen komen.

Hoofdstuk 9 presenteert de bevindingen uit de levensloopinterviews die werden afgenomen bij 10 jongvolwassenen die kwetsbaar zijn geweest tijdens hun jeugd. Het doel van de interviews was om te reflecteren op de rol die sport heeft gespeeld in hun kwetsbare jeugd. De resultaten laten zien dat er vier verschillende rollen voor sport te onderscheiden zijn. Ten eerste biedt sport jongeren een plek om zich veilig te voelen en een plek waar ze steun en waardering kunnen vinden. Ten tweede kan sport jongeren leerervaringen bieden die hen inzicht geven in zichzelf en de wereld om hen heen. Ten derde kan sport door de jongeren gebruikt worden als een instrument om doelen te bereiken en in die zin kan de sport zelf dus een hulpbron worden. Ten vierde kan sportdeelname ook een doel in het leven bieden voor kwetsbare jongeren waarbij sport ook richting geeft aan het leven in het algemeen en een belangrijk onderdeel wordt van iemands identiteit. De rol van sport voor kwetsbare jongeren lijkt sterk verbonden te zijn met de alledaagse ervaringen van de jongeren in andere levensdomeinen en de stressoren die ze in die andere domeinen ervaren. De verhalen van de deelnemers laten zien dat sport ook de kwetsbaarheid van de jongeren verder kan vergroten.

Conclusie

In hoofdstuk 10 laten de geïntegreerde bevindingen uit de studies zien dat er een complexe relatie bestaat tussen sportdeelname en de persoonlijke ontwikkeling van kwetsbare jongeren. Bestaand sportonderzoek heeft nog geen overtuigend bewijs geleverd voor een positieve persoonlijke ontwikkeling van kwetsbare jongeren door hun sportdeelname. In deze thesis werden verschillende positieve relaties gevonden tussen sportdeelname en de ontwikkeldoelen van kwetsbare jongeren, maar de bevindingen leveren geen bewijs voor een causale relatie. Daarnaast is gevonden dat sportdeelname verschillende rollen kan spelen in een kwetsbare jeugd die verder gaan dan het aanbieden van een setting waarin jongeren nieuwe vaardigheden, competenties en gedragingen kunnen ontwikkelen. De rol die sport kan spelen moet breder gedefinieerd worden en omvat ook het belang van sport in het creëren van een veilige thuishaven en het bieden van een doel in het leven voor deze groep jongeren. Beleidsmakers en gezondheidsprofessionals die tot doel hebben de sportdeelname onder jongeren te verhogen om daarmee de persoonlijke ontwikkeling te stimuleren moeten de verschillende manieren waarop sport

daaraan kan bijdragen herkennen en sportactiviteiten organiseren zodanig dat ze bijdragen aan die verschillende rollen.

De geïntegreerde bevindingen tonen aan dat sportdeelname niet alleen gerelateerd is aan een positieve ontwikkeling van jongeren, maar dat negatieve sportervaringen ook de ontwikkeling van jongeren kan verslechteren en daarmee hun kwetsbaarheid kan vergroten. Negatieve sportervaringen werden gerapporteerd wanneer de sportomgeving dezelfde uitdagingen biedt als de uitdagingen die kwetsbare jongeren in hun dagelijkse leven tegenkomen. Wanneer de jongeren een onbalans ervaren tussen de uitdagingen in de sportomgeving en de hulpbronnen die ze tot hun beschikking hebben om met die uitdagingen om te gaan, kunnen gevoelens van mislukking en afwijzing optreden. De sportcoach werd vaak aangewezen als een belangrijk persoon in het laten doorslaan van de balans naar positieve sportervaringen door het creëren van een positief en motivationeel sportklimaat. Echter, het ondersteunen van kwetsbare jongeren in hun persoonlijke ontwikkeling vergt een sterk engagement van jeugdprofessionals, beleidsmakers, sportclubs en sportcoaches, maar de samenwerking tussen deze actoren is niet altijd makkelijk te organiseren. Bijvoorbeeld, veel sportcoaches in Nederland zijn vrijwilligers die geen formele coachingstraining krijgen; dat maakt het erg moeilijk voor hen om sociale condities te creëren die gunstig zijn voor de positieve ontwikkeling van kwetsbare jongeren tijdens het sporten. Kortom, gezondheidsprofessionals en beleidsmakers moeten kritisch blijven ten aanzien van het gebruik van sport als middel, gegeven de overwegingen die in deze thesis genoemd zijn.

De geïntegreerde bevindingen in deze thesis laten zien dat het vinden van betekenisvolheid in het sporten een belangrijke factor is in de positieve ontwikkeling van de jongeren. Voor kwetsbare jongeren is het aangaan van positieve uitdagingen in de sportomgeving een belangrijke motivator om ook nieuwe uitdagingen aan te gaan buiten de sport. De resultaten laten zien dat het aangaan van die uitdagingen ook zorgt voor een grotere zichtbaarheid van de vaardigheden bij jongeren en een verhoogd zelfvertrouwen tijdens het sporten. De sportcoaches richtten zich dan ook op het scheppen van deze betekenisvolle sportactiviteiten door het creëren van een sportomgeving waarin kwetsbare jongeren zich normaal, geaccepteerd en gesteund voelen. Dat betekent ook dat, wanneer de sportomgeving weer een omgeving wordt waarin jongeren voelen dat ze vaardigheden moeten ontwikkelen en zich moeten verbeteren, dit de positieve invloed van sport teniet kan doen. Immers, het inzetten van sport als middel om tot persoonlijke ontwikkeling te komen kan de kernwaarde van sport als leuke vrijetijdsbesteding ondermijnen. Het medicaliseren van sport kan nuttig zijn voor een specifieke groep jongeren die gebaad is bij alternatieve vormen van therapie of interventie, maar voor anderen kan het afbreuk doen aan de kracht van sport. Kortom, beleidsmakers en gezondheidsprofessionals moeten een breed scala aan sportactiviteiten bieden waaruit kwetsbare jongeren

zelf een activiteit kunnen kiezen die goed past bij hun ontwikkeldoelen en persoonlijke interesses.

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"Was ihn nicht umbringt, macht ihn stärker"
Nietzsche, Twilight of the Idols, 1888

Full of enthusiasm and energy I started with my PhD project Youth, Care and Sport in 2014. In the years before, during the bachelor and the master, I had assured many relatives and friends that I would never start in a PhD position. But I had just finished an internship at the National Institute of Public Health (RIVM) on the relationship between sense of coherence and mortality rates in the Netherlands. It was my first experience with real science and it turned out that I really enjoyed the process of formulating a research question, diving into the data to see if I could find an interesting pattern, and writing a concise and to-the-point scientific article. Then along came a job opening at the Health and Society chair group for a PhD candidate investigating the effect of sports participation on the personal development of socially vulnerable youth. No doubt this topic combined several topics that I was interested in: sport, youth and learning. Finding out that doing research was something that gave me lots of energy during my internship, made the choice to apply for this project a logical step. And so I was super excited to hear that I was allowed to work on this topic for four years. It seemed such a long period at that time.

Time flew by, many challenges regarding the research process made it an interesting process. And it turned out that doing this project was so much more than doing research. During the four years of the PhD, I was able to contribute to education activities at the chair group, something that I have been passionate about since I was a young girl. Giving workshops to professionals in the field, being a member of the WASS PhD Council, going to conferences, enjoying a three-month internship in Trondheim, a teaching job at the HAN, these are just a few activities that completed the PhD experience. It was an enriching, positive and exciting ride.

And then comes the point that you realise that time is flying by, just a little year left to finish up. It is the time that you realise that you have been identifying more knowledge gaps in the past four years, than filling them. It has been the very passionate and enthusiastic response of the project partners and other interested people that have convinced me that this project did not only contribute to our scientific understanding of the value of sport for socially vulnerable youth. It has made a real contribution to real life. And perhaps that has been the energising factor in this whole process.

Om de vele mensen te bedanken die heel belangrijk zijn geweest voor het laten slagen van het onderzoeksproject, schakel ik over op het Nederlands. Vanaf het begin van het project zijn een aantal projectpartners zeer betrokken geweest: Jan en Harry (FlexusJeugdplein), Sanne, Nadia en Carola (Rotterdam Sportsupport), Willie (KcSport), Lyne (Gemeente Rotterdam) en Carin (Jeugdzorg Nederland). Jullie hebben het project handen en voeten gegeven, door alle projectpartnerbijeenkomsten aanwezig te zijn en ons vol te stoppen

met goede ideeën. Daarnaast was jullie inzet in de werving van deelnemers aan de onderzoeksactiviteiten onmisbaar. De stuurgroep (Sanne, Pieter en Adrie) wil ik bedanken voor hun inzet om het project te laten landen in Rotterdam.

In de loop van de projectperiode zijn er veel nieuwe mensen betrokken geraakt bij het onderzoeksproject. Ik wil iedereen bedanken die een steentje heeft bijgedragen, hoe groot of klein dan ook, in de werving van deelnemers, het verzamelen van data, of het opzetten en uitvoeren van allerlei workshops en activiteiten. In het bijzonder een grote dank voor de jeugdhulporganisaties en cluster-4 scholen die betrokken zijn geweest bij het vragenlijstonderzoek (FlexusJeugdplein, Altra, Spirit, VSO de Isselborgh, Orion college).

Daarnaast waardeer ik zeer de tijd die alle deelnemers in het onderzoek hebben gestoken met het invullen van de vragenlijsten. Alle jongeren die bereid waren om mij hun sportverhalen te vertellen wil ik laten weten dat ik dat zeer gewaardeerd heb. Ook de sportcoaches en de jongvolwassenen die ik heb mogen interviewen wil ik zeer bedanken voor hun openhartige en persoonlijke verhalen. Zonder jullie was het niet gelukt om zo veel waardevolle informatie te kunnen verzamelen.

During the PhD project I received a lot of support from my colleagues and supervising team. I will start off by thanking Niels for his support, enthusiasm, and continuous belief in the succeeding of the project. You made the start of the PhD project so much easier by sharing your years of experience on the topic and by introducing me into your network. I appreciate your willingness to review my writings, especially those for a professional audience. Setting aside our differences has allowed us to combine each of our strengths and has resulted in scientifically sound and very interesting research results that are useful for policymakers and professionals that want to use sport as a means to reach positive youth development. The final brochure is a real cherry on top! I enjoyed working with you and have fun memories of us traveling to Antwerp and Bergen.

To Kirsten, thank you for all your support during the PhD project. You allowed me to find my own way and become an independent researcher. On the background, you were always there when I had questions and you were always quick and to-the-point when reading my manuscripts, even when you stayed in Australia. I appreciate the opportunity you gave me to participate in the course Health Psychology, I have always wanted to become a real teacher. I also remember many occasions where we had a lot of fun, for example in an attempt to record a video clip for our Belgian colleagues. To Maria, thank you for your continuous support and always critical feedback. I appreciate your contribution to the scientific foundation of the research project. To Karlijn, a special thanks for being such a great roommate. You have proved to be a great listening ear, with whom I could discuss the ongoing research process (and all that comes with it) and I could share our passion for sport. To Marion, Emily, Carlijn, Valérie, Christianne, Mariette, Yvette, Franshelis, Lette, Lisanne, Kristel, Lenneke, Annemarie en Laura, thank you for being such a great colleagues! I

enjoyed the lunch walks, the HSO trips, the WE days, the Christmas dinners and all the small talks. I would also like to thank Carlijn for her contribution to two of the papers that are included in this thesis. You have added a strong analytical layer to the findings and with that you have helped me to structure my thoughts.

Thanks to all the support staff: Carry, Hedy, Margaret and Sandra. You had the patience to repeatedly explain me where to file all the different expense forms and answered all my questions on practical issues. Thank you Geir Arild Espnes, Unni Karin Mosknes and all other colleagues at the *Senter for helsefremmende forsknig* for making my stay in Trondheim so great. Tusen takk! I would also like to express my gratitude to my opponents: Marije Deutekom-Baart De La Faille, Reinhard Haudenhuyse, Marcel Verweij and Toril Rannestad. A special thank you for Reinhard and Toril for traveling to the Netherlands for my defence.

Last, but certainly not least, I would like to thank my family and friends! At the start of the bachelor program we quickly became good friends, and you are still my closest friends: Ilse, Roel and Kai. You supported me, in good and bad times, for which I can't say how much I appreciate your encouragement and continuous belief in me. Also thank you Kai and Roel for being my paranymphs, to be so well prepared for the job and for offering such a true support throughout. All my badminton friends at the Lobbers and BC Barneveld, a real special thanks! Two to three times a week playing a fantastic game with friends has provided me with so much positive energy and optimism. In particular my old team mates at the Lobbers: Stephanie, Maartje, Niels, Chen and Marvin, and my team mates from previous and coming year at BC Barneveld: Remke, Kenneth, Thomas, Naomi, Ben and Ezra. We have a lot of fun on and off the court. And great dinners too! A special thanks to Stephanie and Maartje for being such a good friends. It is a pity we are not on court together anymore every week.

And then to my dearest family, I want to thank everyone for their support and encouragement. Mom and dad, you are loving people. You always have my back, support me in difficult times, celebrate with me the good times. It has not always been easy, but with a practical *'mouwen-opgestroopt'* attitude you always manage to solve any issue. You were always enthusiastic to know everything about the project and how it was developing. You even bravely attempted to read all of my articles. I wouldn't know what to do without your love, appreciation and encouragement. Ingrid, my loving sister, mental support team and best friend. The past few years have been very much fun; we lived, travelled, laughed, cried, ... together. You helped me with practical issues during various studies: you managed to write a computer script that easily combined a few data sets without a sweat, you nicely illustrated a scientific poster with three drawings that are now also included in my thesis (and as a bonus we have secretly added a few more), and you have made a fantastic

drawing for the cover of my thesis. Thank you for all of that! But more importantly, in all these years, you were my best friend. I can't say how much I value you, mom and dad in my life. Love you all, Sabina.

About the author

Sabina Super was born on 18 February 1988 in Emmen, the Netherlands. She has spent most of her childhood in Ter Apel, where she also graduated from the Rijksscholengemeenschap Ter Apel in 2006. She then moved to Wageningen to start with the bachelor program Applied Communication Science at Wageningen University and Research, from which she graduated cum laude in 2010. She then continued with two master programs to combine her passion for social psychology, health, and communication. In 2013, she graduated from the master Applied Communication Science and the master Health and Society, both obtained at Wageningen University and Research.

An internship at the National Institute of Public Health and the Environment (RIVM) during her master program sparked Sabina's interest for doing research. She applied for a PhD position at the chair group Health and Society in 2013 and started her PhD journey in July of the same year. The PhD project Youth, Care and Sport focused on the value of sport in a socially vulnerable childhood. As part of the project, Sabina invested time in valorisation activities such as giving professional workshops, writing popular and professional articles, and organising various symposia and conferences for project partners. Next to doing research, Sabina filled her PhD trajectory with education activities, a membership of the WASS PhD Council and WASS Education Committee, national and international conferences, and an internship at the Norwegian University of Science and Technology (NTNU). In addition, she has spent time on teaching activities for both the bachelor and the master program of Health and Society. In 2016, she was temporarily employed as a teacher by the Hogeschool of Arnhem and Nijmegen (HAN).

Sabina's current position as a researcher and teacher at the chair group Health and Society of Wageningen University and Research allows her to combine her passion for teaching and doing research. Her research interest concerns the ability of (young) people to deal with stressors in a health-promoting way, the development of this ability in childhood and young adulthood, and the role of so-called life experiences in this development, be it in sport or in other life domains.

Sabina lives in Wageningen and in her spare time she loves to play badminton, to go for a walk or to cook for friends.

List of publications

Articles in international scientific journals

Super, S., Wentink, C., Verkooijen, K., and Koelen, M. (2017) How adults reflect on the role of sport in a socially vulnerable childhood. *Qualitative Research in Sport, Exercise and Health*, Online first. doi. 10.1080/2159676X.2017.1361468

Hermens, N., Super, S., Verkooijen, K., and Koelen, M. (2017) A systematic review of life skill development through sports programmes serving socially vulnerable youth. *Research Quarterly for Exercise and Sport*, Online first. doi. 10.1080/02701367.2017.1355527

Super, S., Wentink, C., Verkooijen, K., and Koelen, M. (2017) Exploring the sports experiences of socially vulnerable youth. *Social Inclusion*, vol. 5 (2), p. 198-209.

Super, S., Verkooijen, K., Koelen, M. (2016) The role of community sports coaches in creating optimal social conditions for life skill development and transferability – a salutogenic perspective. *Sport, Education and Society*, in press. doi. 10.1080/13573322.2016.1145109

Super, S., Wagemakers, M.A.E., Picavet, H.S.J., Verkooijen, K.T., and Koelen, M.A. (2015) Strengthening sense of coherence: opportunities for theory building in health promotion. *Health Promotion International*, vol. 31 (4), p. 869-878.

Hermens, N., Super, S., Verkooijen, K., and Koelen, M. (2015) Intersectoral action to enhance the social inclusion of socially vulnerable youth through sport: an exploration of the elements of successful partnerships between youth work organisations and local sports clubs. *Social Inclusion*, vol. 3 (3), p. 98-107.

Super, S., Hermens, N., Verkooijen, K., and Koelen, M. (2014) Enhancing life prospects of socially vulnerable youth through sport participation: a mixed methods study. *BMC Public Health*, vol. 14, 703. doi. 10.1186/1471-2458-14-703

Super, S., Verschuren, W.M.M., Zantinge, E.M., Wagemakers, M.A.E., and Picavet, H.S.J. (2014) A weak Sense of Coherence is associated with a higher mortality risk. *Journal of Epidemiology and Community Health*, vol. 68, p. 411-417.

List of conference presentations

Super, S., Hermens, N., Verkooijen, K., and Koelen, M. (2016) Is sport positief voor de persoonlijke ontwikkeling van kwetsbare jongeren? Dag van het Sportonderzoek, Groningen, Netherlands, 10 November 2016.

Super, S., Wentink, C., Verkooijken, K., and Koelen, M. (2016) Community sports clubs: a salutogenic environment for socially vulnerable youth? Health Promotion Research – An International Forum, Trondheim, Norway, 28th until 30th of September 2016.

Super, S., Verkooijen, K., Hermens, N., and Koelen, K. (2015) Creating positive experiences for life skill development in sport. Poster presentation. TAFISA World Congres, Budapest, Hungary, 14th until 18th of October 2015.

Buysse, W., Super, S., and Westerhof, W. (2015) Opvoeden samen met de buurt. De Pedagogische waarde van de sportvereniging. Workshop. Vereniging Sport en Gemeente (VSG) Congres, Amersfoort, Netherlands, 23 and 24 September 2015.

Super, S. (2013) Sporten binnen de jeugdzorg: Het versterken van toekomstperspectieven. Dag van het Sportonderzoek (DSO), Eindhoven, Netherlands, 7 November 2013.

Sabina Super
Wageningen School of Social Sciences (WASS)
Completed Training and Supervision Plan

Wageningen School
of Social Sciences

Name of the learning activity	Department/Institute	Year	ECTS*
A) Project related competences			
ETC-PHHP Summer School – Mobilising Local Health Promotion Systems for Equity	EHESP French School of Public Health, Rennes, France.	2014	8
ETC-PHHP Symposium Pitch: *'Positive sports experiences for socially vulnerable youth'*	Concha Colomer Symposium, Health and Society, Wageningen	2016	0.5
'Sporten binnen de jeugdzorg: Het versterken van toekomstperspectieven'	Day of Sport Research (DSO), Eindhoven	2013	1
'Is sport positief voor de persoonlijke ontwikkeling van kwetsbare jongeren?'	Day of Sport Research (DSO), Groningen	2016	1
'Een zwakke Sense of Coherence is geassocieerd met een hoger sterfterisico'	National Public Health Conference (NCVGZ), Rotterdam	2014	1
Workshop: *'Opvoeden samen met de buurt. De pedagogische waarde van de sportvereniging'.*	Conference 'Vereniging Sport en Gemeenten' (VSG), Amersfoort	2015	1
'Creating positive experiences for life skill development in sport'	Tafisa World Congres, Budapest, Hungary	2015	1
'Community sports clubs: a salutogenic environment for socially vulnerable youth?'	Health Promotion Research – An International Forum, Trondheim, Norway	2016	1
B) General research related competences			
Introduction course	WASS, Wageningen	2013	1
Quantitative data analysis, YRM 60306	Research Methodology Group, Wageningen University	2013	6
Creative interviewing techniques	Dublin City University, Dublin	2014	2
Wageningen PhD Symposium 'Connecting Ideas, Combining Forces'	Wageningen PHD Council, Wageningen	2015	0.3
C) Career related competences/personal development			
Lecturer in the courses 'Health Psychology' and 'Health Policy in Action'	Health and Society (HSO), Wageningen	2013-2017	4
Student thesis (MSc and BSc) co-supervision	HSO, Wageningen	2013-2017	
Chair of WASS PhD Council	WASS	2013-2015	5
Career orientation	WGS, Wageningen	2015	1.5
Review papers for scientific journals	HSO, Wageningen	2013-2017	2
Orientation on teaching for PhD candidates	WGS, Wageningen	2016	1
Internship at the Norwegian University of Science and Technology	NTNU, Trondheim, Norway	2016	3
Total (30 - 45 ECTS)			**40.3**

Propositions

1. In competitive sport, the youth's response to winning and losing determines whether positive or negative youth development occurs.
    (this thesis)

2. Governments better invest in strengthening the pedagogical skills of community sports coaches than in sport-plus interventions.
    (this thesis)

3. Medical ethical guidelines hinder ethical research in vulnerable groups.

4. Involvement of field professionals in the early stages of the research process is a prerequisite for conducting high-impact social science research.

5. Transparent scientific conduct requires researchers to include information in scientific articles on their progressive insights during the research process.

6. Valorisation activities are part of a meaningful PhD trajectory.

7. Sport amplifies inequity.

Propositions belonging to the thesis, entitled:

**"S(up)port your future! A salutogenic perspective
on youth development through sport"**

Sabina Super
Wageningen, 5th October, 2017