Peer aggression and victimization in Dutch elementary schools and sports clubs

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Prevalence, stability, and approach across different contexts

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Peer aggression and victimization in Dutch elementary schools and sports clubs: Prevalence, stability, and approach across different contexts

Pesten op basisscholen en sportclubs: prevalentie, stabiliteit en aanpak van daderschap en slachtofferschap in verschillende contexten

(met een samenvatting in het Nederlands)

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Contents

Chapter 1

Introduction

Background and aim of this dissertation

Peer aggression and victimization are widely regarded as a serious and pervasive problem for children that can persist into adolescence and beyond (Dake, Price, & Telljohann, 2003; Hawker & Boulton, 2000). Media coverage and research devoted to aggressive behavior in schools has grown rapidly in the past three decades. The number of school programs and interventions aimed at preventing peer aggression and its consequences is also increasing (Smith, 2011). However, research has found that school-based aggression (prevention) programs vary substantially in their effectiveness and that they are moderately and temporarily effective at best (Merell, Gueldner, Ross, & Isava, 2008; Smith, Ananiadou, & Cowie, 2003; Smith, Schneider, Smith, & Ananiadou, 2004; Swearer, Espelage, Vaillancourt, & Hymel, 2010; Vreeman & Carroll, 2007). There a few concrete peer aggression programs in the Netherlands but no up-to-date systematic overview of Dutch peer aggression programs. Adema and Kalverboer (1997) compared a number of programs whose effectiveness proved to be disappointing. One explanation for the very modest results achieved by elementary school peer aggression programs could be that many of them are not sufficiently evidence-based in their development and not employed properly by teachers (Kratochwill & Shernoff, 2004; Olweus, 2003; Smith et al., 2004). Another plausible explanation for the short-lived results of elementary school peer aggression programs is that the programs are only applied in the school context. Peer aggression and victimization can also occur in, and interact with, other social contexts in which children live, learn, and play such as local communities, day and residential care, and families (Bowes et al., 2009; Espelage & Swearer, 2003; Monks et al., 2009; Swearer et al., 2010). Thus, addressing the problem only in schools may not be sufficient to solve it.

Like school, participation in a sports club is socially and educationally a significant practice in which children can experiment with different roles and group interaction (Biesta et al., 2001; Coakley, 2009; Nucci & Young-Shim, 2005). Unlike in some Anglo-Saxon countries, organized sports in the Netherlands usually take place in a non-school context. Dutch sports clubs are voluntary and typically community-based organizations where many children regularly meet. Both nationally and internationally, academic studies on peer aggression and victimization in and beyond sports clubs are extremely rare. This is remarkable considering the fact that many children belong to a sports club. To the best of our knowledge, only one empirical study (based on Norwegian data) has been published regarding antisocial involvement both within and outside the sports club. In this study, Endresen and

Olweus (2005) reported an increase of antisocial behavior in male preadolescent power sports participants inside and outside the sports club setting, which they attributed to the "masculine" or "macho" orientation of power sports in practice. We can surmise from this that peer aggression and victimization are likely to occur in a sports club setting.

The general aim of this dissertation is to contribute to the knowledge on peer aggression and victimization in different contexts and on the way elementary schools and sports clubs can help prevent and combat aggressive behavior. We therefore study the potential effectiveness of current peer aggression programs devised in (or translated into) the Dutch language (Chapter 2). Then we map the prevalence and stability of peer aggression and victimization for fourth, fifth, and sixth grade students in both Dutch elementary schools and Dutch sports clubs (Chapters 3 and 4). Finally, we explore the views Dutch sports coaches' hold and the practices they employ to prevent and reduce peer aggression and victimization in their sports clubs, setting off their views and practices against those of elementary school teachers (reference group) (Chapter 5). Before outlining the specific aims, approaches, methods and measurements of each study, we first need to set demarcation criteria in defining peer aggression.

Definition of peer aggression

Demarcation criteria

In this dissertation, we use the following demarcation criteria to define peer aggression: (a) It involves an intention to hurt or discomfort another person; (b) It is a form of aggressive behavior that occurs repeatedly and over time; (c) There is an imbalance in strength or an asymmetric power relationship between perpetrator and victim. This construct of peer aggression is closely linked to definitions of bullying. Both peer aggression and bullying are usually regarded as subcategories of aggressive behavior. Both constructs entail the intentional doing of harm (criterion a) and behavior carried out repeatedly and over time (criterion b). Furthermore, many peer aggression definitions refer to individuals in conflicts who are more or less equal in terms of physical, verbal, or psychological strength. When defining bullying, as opposed to peer aggression, many studies (cf., Olweus, 2003, n.d.; Salmivalli & Peets, 2009; Solberg, Olweus, & Endresen, 2007) emphasize the power differential (criterion c) between the perpetrator(s) and a weaker or defenseless victim, although some studies emphasize repeated aggressive behavior as a distinctive criterion (cf., Hunter, Boyle, & Warden, 2004). In this dissertation, the terms peer aggression and bullying

are used more or less interchangeably. Our construct of peer aggression can refer to behavior in both equal *and* asymmetric power relationships between perpetrator and victim. In Dutch, there is no direct equivalent for "peer aggression" and generally the word "bullying" (i.e., "pesten" in Dutch) is used. Therefore, we speak of "bullying" and "anti-bullying programs" in Chapter 2. The reason we consistently use the term "peer aggression" in the remaining chapters of this dissertation is that we assessed children's subjective experiences with peer aggression using a Dutch translation of the Social Experience Questionnaire-Self Report (SEQ-S) as originally formulated by Crick and colleagues (Crick, 1997; Crick & Grotpeter, 1995,1996; Grotpeter & Crick, 1996). The SEQ-S measures peer aggression and victimization without referring to the power differential between the perpetrator and the victim. In Chapter 5, regarding our qualitative study on coaches' views and practices, we also use the term peer aggression consistently, even in cases where coaches' descriptions of peer aggression refer to power differential criteria and in the original Dutch interviews were referred to as "pesten" (bullying). Finally, with regard to the sports club context, it should be stressed that our construct for peer aggression refers only to off-field aggressive behaviors by peers (e.g., in cafeterias, hallways, locker rooms, and bicycle sheds). We exclude on-field aggressive behaviors by athletes, a phenomenon widely discussed in sports literature (Coulomb-Cabagno & Rascale, 2006; Cox, 2011; Keeler, 2007; Kerr, 2002; Loughead & Leith, 2001; Mintah et al., 1999; Rowe, 1998; Rutten et al., 2008; Tenenbaum, Sacks, Miller, Golden, & Doolin, 2000). We exlude this because on-field aggressive behavior, such as hostile aggression (i.e., anger and aggression against another person for its own sake) and instrumental aggression (i.e., aggression against another person as a means to a competitive outcome such as an irregular tackle to prevent an opponent from scoring), are game-related and match-related aggressive acts. They do not meet all the demarcation criteria for peer aggression set in this dissertation.

Forms of peer aggression

With respect to peer aggression, two forms of aggression can be distinguished: overt aggression and relational aggression. Overt aggressive behavior harms others through physical damage (e.g., hitting, pushing), material damage (e.g., scratching or tearing someone's schoolbooks or clothes, hiding possessions, taking things away), and through verbal damage (e.g., name calling, verbal threats of violence). Unlike overt peer aggression, relational peer aggression harms others through manipulation or control of peer relationships with others. This includes rumor spreading, ignoring and threatening to withhold friendship to

control others (Crick, 1997; Crick & Grotpeter, 1996). Cyber aggression (i.e., transmission of aggressive behavior via the Internet or mobile phones) is a relatively new phenomenon and may include elements of both overt and relational aggression (Dempsey, Sulkowski, Dempsey, & Storch, 2011). With respect to gender, overt aggression seems to be more typical of boys (Crick, 1997; Crick & Grotpeter, 1995; Putallaz et al., 2007). Empirical findings with regard to gender differences in relational aggression are more inconsistent. Meta-analytic reviews indicated either that girls were more relationally aggressive than boys, or that no gender differences were found (Archer, 2004; Card, Stucky, Sawalani, & Little, 2008; Dake et al., 2003).

Specific aims and approaches of each study

The first aim of this dissertation is to take inventory of actual anti-bullying programs currently used in Dutch elementary schools and sports clubs. This will provide insight into the (potential) effectiveness of the anti-bullying programs in these two contexts (Chapter 2). There are plenty of programs for training elementary school teachers to identify and tackle peer aggression (Smith et al., 2003; Vreeman & Carroll, 2007). During the research period, however, we could not find specific anti-bullying programs for sports clubs. Furthermore, an up-to-date, systematic overview of anti-bullying programs in Dutch elementary schools did not exist. Finally, anti-bullying programs, developed and/or used for Dutch elementary schools, had not been made sufficiently explicit in practice to be subjected to a proper impact study (Veerman & Van Yperen, 2006). Therefore, the study in the second chapter was limited to school-based anti-bullying programs. We formulate general theoretical and methodical conditions (Bartholomew, Parcel, Kok, & Gottlieb, 2006; Green & Kreuter, 2005) to assess the effectiveness of anti-bullying programs and an evaluation form for use in assessing the *potential* effectiveness of anti-bullying programs used in Dutch regular elementary schools. The overall purpose is to recommend ways to improve the quality and effectiveness of the programs examined and to encourage intervention developers to creat evidence-based programs.

The second aim of this dissertation is to examine students' experiences with peer aggression and victimization in both the elementary school and sports club contexts (Chapter 3 and 4). We assume that the pervasiveness of peer aggression and victimization is not restricted to one context but that aggressive behavior is likely to occur across and interact with other contexts. Insight into the pervasiveness and constancy of patterns of peer aggression and

victimization across contexts is an important step in identifying targets for intervention strategies and necessary for developing community-oriented school aggression prevention programs (Bowes et al., 2009; Espelage & Swearer, 2003; Pepler & Craig, 2011; Swearer et al., 2010). From a behavioral ecological point of view (Pellegrini, 2008), we argue that the use of aggressive behavior not only depends on individual child characteristics but also on contextual characteristics or factors in a child's life. From an evolutionary perspective on social dominance relations, peer aggression is viewed as a strategy individuals employ to gain, maintain or control resources in social group contexts. These resources may include goods, love and social status in relationships (Hawley, 1999; Pellegrini, 2004, 2008; Pellegrini & Long, 2002).

The study in Chapter 3 examines (self-reported) peer aggression and victimization with a specific eye on contextual variation in the elementary school and sports club contexts. Incidents are compared by sports participation (i.e., athletes versus dropouts), aggressive behavior roles (i.e., perpetrator, victim, aggressive victim, not involved), and gender. It is important that aggressive victims are considered independent of perpetrators and victims of peer aggression. Past research suggests that aggressive victims demonstrate higher levels of physical and verbal aggression (Craig, 1998). Such children are particularly at risk for physical and psychosocial problems (Haynie et al., 2001; Kumpulainen et al., 1998; Schwartz, Proctor, & Chien, 2001). In this study, we assume that a competitive and masculine-orientated sport socialization process may reinforce aggressive behavior on the part of sports participants (Coakley, 2009; Endresen & Olweus, 2005; Knoppers, 2006) and that aggressive behavior in one context may generalize to interpersonal relationships in other contexts (Endresen & Olweus, 2005; Mintah, Huddleston, & Doody, 1999; Rowe, 1998) such as the elementary school setting. Furthermore, it is plausible that less athletic and competitively oriented children are more likely to be victimized and quit their sport (Baar, 2003; Coakley, 2009; Knoppers, 2006; Smoll & Smith, 1997). Furthermore, sports groups are less socially stable than classrooms because they change in composition nearly every year. This requires children to re-establish their position in the group, making it more difficult for them to acquire and maintain social status (Pellegrini, 2008). A switch of social network or context may elicit a change in aggressive behavior. This pattern is in line with the temporary increase of peer aggression and victimization during the transition from elementary school to high school (Hawley, 1999; Pellegrini, 2004; Pellegrini & Long, 2002). Finally, sports clubs are a less structured and supervised setting than elementary schools. Past studies have shown that peer

aggression mostly occurs in unstructured settings (e.g., playgrounds, cafeterias, and hallways) where there is less supervision (Craig, Pepler, & Atlas, 2000; Vaillancourt et al., 2010).

The study in Chapter 4 compares participants in different types of sports (i.e., martial arts, contact, and non-contact sports participants) as to their resource control strategies roles (i.e., coercive-aggressive, purely prosocial, and Machiavellian). We examine these strategies by sport type, contextual variation, and gender. Machiavellians are "bistrategic controllers", who are competent and successful in using both coercive and prosocial strategies to achieve their goals, such as friendships or prestige. Because of their prosocial skills and their social attractiveness among peers, they are difficult for adults to trace and monitor as perpetrators of peer aggression (Hawley, 2003; Hawley, Little, & Card, 2007). Studies (cf., Bierman, Smoot, & Aumiller, 1993; Crick, 1996) show that aggressive children who lack prosocial skills may be particularly problematic and at risk for peer rejection and future social maladjustment. In line with power sports "enhancement" (Endresen & Olweus, 2005) and "contextual" considerations (Craig et al., 2000; Vaillancourt et al., 2010) of the former study (Chapter 3), it is plausible that participants of martial arts (in particular) report more peer aggression in both contexts, in part because of the high degree of physical player-to-player contact in this type of sport. Regarding the prevalence of roles for resource control strategy (Hawley, 1999; 2003; Hawley et al., 2007; Hawley, Little, & Pasupathi, 2002), the contact sports participants in our study may be more likely to be Machiavellians than the other types of sport participants in the sports club context. The contact sports participants in this study are all team sports players, which requires them to be both competitive and cooperative.

The third aim of this dissertation is to gain insight into sports coaches' views and practices with respect to prevention and reduction of peer aggression and victimization in Dutch sports clubs (Chapter 5). To the best of our knowledge, as we know from international literature, no academic research has been done into coaches' subjective experiences of, and approaches to, peer aggression and victimization in the context of the sports club, nor is there a national policy regarding these phenomena in the Dutch sport context. Sports coaches are primarily responsible for preventing and intervening in potentially problematic group socialization processes in sports clubs. Therefore, we explore Dutch sports coaches' general views and practices in approaching peer aggression and victimization in their sports clubs in order to formulate more sports club-specific priorities in terms of policy, intervention and further research. With regard to general views, based on sports and school referred studies and common practice arguments (see Chapter 5), we assume that coaches, compare unfavorably to

teachers with regard to awareness of and ability to define, to indentify and to spot peer aggression and victimization. In term of practice, we explore coaches' preventive and corrective efforts (Kochenderfer-Ladd & Pelletier, 2008; Olweus, 1993; Van Hattum, 1991; Yoon & Kerber, 2003) and whether the coaches opt for a rule-sanction approach or a problem-solving approach (Ellis & Shute, 2007; Rigby, Smith, & Pepler, 2004) in their efforts to tackle peer aggression and victimization in sports clubs. Coaches may be more focused on teaching the children sports in the short amount of time they have available. The problem-solving approach is more time-consuming and smoothing out disruptions in social group processes is likely to be more difficult. Furthermore, we explore coaches' perceptions of their own ability to deal with these aggressive behaviors among athletes. School-based studies (Bauman & Del Rio, 2005; Boulton, 1997; Bradshaw et al., 2007; Van Hattum, 1997; Yoon & Kerber, 2003) show no clear results as to how accurately teachers estimate their own ability to influence peer aggression and victimization. Furthermore, we explore how coaches' approach to peer victimization in sports clubs relates to their personal beliefs (Kochenderfer-Ladd & Pelletier, 2008). We expected coaches to hold either normative (e.g., peer aggression is a way to learn social norms) or assertive beliefs (e.g., a child should stand up for or defend oneself), due in part to a presumed masculine and physical approach to teaching children sports (Coakley, 2009; Endresen & Olweus, 2005; Knoppers, 2006; Nucci & Young-Shim, 2005). Finally, we explore whether coaches are familiar with peer aggression programs and protocols and whether sports clubs put these into practice. We are not aware of the existence of sports club-oriented peer aggression programs.

Methods and measurements

Potential effectiveness

In order to explore the potential effectiveness of anti-bullying programs in Dutch elementary schools (Chapter 2), we developed an evaluation form listing specific theoretical and methodological assessment criteria, based largely on Green and Kreuter's Health Promotion Planning Model (Green & Kreuter, 2005) and on the Intervention Mapping Protocol by Bartholomew and colleagues (2006). The evaluation form contains elementary criteria regarding: (1) the empirical foundation of the program in social and epidemiological analysis; (2) the design match with the causes of peer aggression; (3) the operational attunement of the program to behavioral and environmental conditions; (4) specific and operational goals of the program; (5) the operational methodology; (6) the implementation protocol, and (7) the

evaluation plan. With this content analysis, we examine to what extent Dutch anti-bullying programs for elementary school meet these general methodical conditions for effectiveness. General methodical conditions can be regarded as a priori directional or promising principles for successful interventions.

Peer aggression, victimization, and prosocial behavior

For the studies in Chapter 3 and 4 of this dissertation, we use the "Dealing With Other Kids Questionnaire" *("Omgaan Met Elkaar Vragenlijst")*, our Dutch translation of the SEQ-S (Crick, 1997; Crick & Grotpeter, 1995, 1996; Grotpeter & Crick, 1996). The subscales of this self-report questionnaire measure the occurrence of peer aggression, victimization, and prosocial behavior in the two different contexts on a five-point Likert scale that range from 1 (= never) to 5 (= all the time). We developed two versions of this measure: one for the school context and one for the sports club context. The Aggression Scale consists of 10 items (study Chapter 3) or 11 items (study Chapter 4). Sample questions are: *"How often do you hit, kick, or punch others?"* (physical), *"How often do you say mean things to others, insult others, or put others down?"* (verbal), and *"How often do you say unfavourable things about someone to others?"* (relational).The Victimization Scale (study Chapter 3) similarly consists of 10 items:*"How often do you get hit, kicked, or punched by another kid?"* (physical), *"How often do others say mean things to you, insult you, or put you down?"* (verbal), and *"How often does another kid say unfavorable things about you to make others not like you anymore?"* (relational). The Prosocial Behavior Scale (study Chapter 4) consists of six items (e.g., *"How often do you cheer up other kids who feel upset or sad?"*). We also administer the Recipient of Prosocial Behavior Scale, similarly consisting of six items, but we have not used the data obtained from it in this dissertation.

Arguments in favor of the SEQ-S

We have several arguments in favor of the SEQ-S to gather the data on peer aggression and victimization in the way we used this instrument. Firstly, this questionnaire can easily be transferred to the sports club context and allows children to report peer aggression and victimization that occur outside the immediate context of the classroom. Other instruments such as peer reports, often have to be restricted to the classroom setting. Peer aggression and victimization are prevalent in small and relatively stable groups in which the peers stay together for a longer period of time. In the Dutch sports context, however, children must re-establish their social position to their peers on an almost annual basis. Sports group sizes

and/or group settings are often too small or ambiguous to apply the peer-reporting technique. Secondly, earlier experiences of dropouts at the sports club (Chapter 3) can only be studied through self-reports. Thirdly, the SEQ-S also contains a prosocial behavior subscale which is relevant for the study in Chapter 4 of this dissertation regarding Machiavellianism in children. Fourthly, we introduce our Dutch translation of the SEQ-S to students as "Dealing With Other Kids Questionnaire" and not explicitly as a peer aggression/victimization questionnaire. This is not similar to, for example, the Olweus Bully/Victim Questionnaire (Solberg & Olweus, 2003), a self-report questionnaire that provides children with a definition of bullying and explicitly ask them two general questions regarding the frequency of being bullied and bullying other students at school in the past couple of months. In this dissertation, we do not reveal the specific content and aims of the "Dealing With Other Kids Questionnaire"; the peer aggression and prosocial behavior subscales are not presented separately in the questionnaire, but are mixed together in order to avoid influencing children's responses. This contributes to the validity and reliability of the data. Our final argument in favour of using the SEQ-S is that Crick and colleagues simultaneously developed a peer report version (i.e., the SEQ-P) to assess children's experiences with peer aggression, victimization, and prosocial behavior (cf., Crick, 1996, 1997; Crick & Bigbee, 1998; Crick & Grotpeter, 1995; Crick & Werner, 1998; Crick, Grotpeter, & Bigbee, 2002; Cullerton-Sen & Crick, 2005; Grotpeter & Crick, 1996; Masten, Morison, & Pellegrini, 1985; Van Lier, Vuijk, & Crijnen, 2005; Vuijk, 2006). In this dissertation, the focus is on aggressive behavior *across* contexts. However, we cannot apply the peer-reporting technique in sports groups (see argument one). Nevertheless, we gather the SEQ-P in order to allow comparison of self-reported and peer-reported data for future research intentions on peer aggression and victimization in the elementary school context. There is a lack of systematic research comparing self reports (which measure children's subjective experiences) and peer reports (which measure children's social reputation) of peer aggression and victimization. In comparison to peer reports, self reports have several advantages and disadvantages. This will be discussed further in the Epiloque to this dissertation.

Approaches to assessing prevalence and stability

We use two approaches to assess the prevalence and stability of peer aggression and victimization across the two different contexts (Chapters 3 and 4). The first is a *variable-oriented* approach, which provides scores of the degree of these behaviors on single variables measured in continuous scores. The second approach is a *person-oriented approach*, in which

children are classified according to aggressive behavior roles (i.e., perpetrator, victim, aggressive victim, not involved) (second study) and resource control roles (i.e., coercive-aggressive, purely prosocial, and Machiavellian) (third study). By combining both approaches we were able to gather more complete and specific information about peer aggression and victimization patterns (Salmivalli & Kaukiainen, 2004).

Sports coaches' views and practices

In-depth interviewing is a qualitative technique for obtaining richly and detailed information about new and complex phenomena (Boeije, 2010). In order to explore sports coaches' subjective views and practices with regard to peer aggression and victimization in the sports club context (Chapter 5), we developed a topic scheme consisting of 5 topics with several initially open-ended questions concerning respondents': (1) general views, (2) attributions of causes and outcome expectations regarding peer aggression and victimization, (3) personal actions to deal with peer aggression and victimization and respondents' opinion on the effectiveness of their approach, (4) used protocols and programs and their perceived effectiveness, and (5) need for further information on peer aggression and victimization and the way in which respondents would like to receive information. In this study, we also interview elementary school teachers as a reference group to be able to put the coaches' views in perspective.

Dissertation overview

The next four chapters of this dissertation discuss the studies that have been introduced in the first chapter. Chapter 2 deals with the study on general methodical conditions for effectiveness and potential effectiveness of anti-bullying programs in Dutch elementary schools. Chapter 3 describes the study on the prevalence and stability of peer aggression and victimization across the elementary school context and the sports club context according to sports participation, aggressive behavior roles, and gender. In Chapter 4 we continue to examine children's experiences with peer aggression and prosocial behavior towards others and the prevalence and stability of Machiavellianism in children in both the school and sports club context. In Chapter 5, the focus will be on Dutch sports coaches' general views and practices in approaching peer aggression and victimization in their sports clubs. Chapter 6, the Epilogue, summarizes the studies and discusses the overall findings and implications for future research, intervention, policy, and practice.

Chapter 2

General methodical conditions for effectiveness and potential effectiveness of anti-bullying programs in Dutch elementary schools

The purpose of this study was to create and evaluate an inventory of Dutch anti-bullying programs that have been developed and/or used for elementary schools. Based on their findings, the researchers recommend ways to improve the quality and effectiveness of anti-bullying programs. The researchers also propose further research into the use of evidence-based practices by teachers and other prevention workers to reduce bullying in schools.

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Introduction

Newspaper columns and TV talk shows reflect the topicality of the issue of bullying and the many anti-bullying campaigns and assertiveness training programs illustrate the social urgency of bullying prevention. Bullying may lead to psychosomatic illnesses, depression and suicidal thoughts (Crone, Wiefferink, & Reijneveld, 2005; Fekkes, 2005; Fekkes, Pijpers, Fredriks, Vogels, & Verloove-Vanhorick, 2006; Van der Wal & Diepenmaat, 2002; Van der Wal, De Wit, & Hirasing, 2003). It may also lead to undesirable behavior such as smoking and alcohol and drug abuse (Mooij, 2001, 2005). Bullying is also a significant precursor of criminal and anti-social behavior (Fekkes, 2005; Junger-Tas & Van Kesteren, 1999; Junger-Tas, 2000; Olweus, 1992, Van der Wal & Diepenmaat, 2002; Van der Wal, De Wit, & Hirasing, 2003).

Both nationally and internationally, the number of programs aimed at preventing bullying and its consequences is increasing. When measured, however, the effects of these programs tend to be short-lived and the results limited and varied (Smith, Ananiadou, & Cowie, 2003). In addition, it has been questioned whether it is fair to expect teachers, coaches, parents and children to invest time and energy in programs whose effectiveness cannot be accurately predicted (Veerman, Janssens, & Delicat, 2005). Therefore, gaining insight into the effectiveness of intervention programs is crucial, as is the development of more evidence-based anti-bullying programs.

The lack of solid (evidence-based) knowledge about the impact of interventions is increasing the need for scientific substantiation of the effectiveness of such programs (Veerman & Van Yperen, 2006). One well-known Dutch attempt to provide more insight into the effectiveness of interventions is the Database of Effective Youth Interventions (*Databank effectieve jeugdinterventies*) run by the Dutch Institute for Care and Welfare (*Nederlands Instituut voor Zorg en Welzijn*; NIZW, 2006). This database provides professionals, policy makers and financers with an overview of promising and effective interventions in the field of youth and pedagogy. The criteria used by the NIZW database to describe and assess interventions are similar to the general methodical conditions for effectiveness that are distinguished in this article. However, the database does not yet contain any anti-bullying programs. Another Dutch initiative is called the Prevention Effect Management Instrument (*Preventie Effectmanagement Instrument*; Preffi) designed by the Netherlands Institute for Health Promotion (*Nationaal Instituut voor Gezondheidsbevordering en Ziektepreventie*

(NIGZ). This diagnostic tool contains guidelines for effective health promotion and prevention (Kok, Molleman, Saan, & Ploeg, 2005; Molleman, 2005). It is aimed at the evidence-based development of interventions and at improving and assessing the effectiveness of interventions in terms of health promotion and prevention. 'Preffi' largely corresponds to the general methodical conditions for effectiveness discussed in this article. Both approaches were independently based on the effectiveness criteria of Green and Kreuter's planning model (Green & Kreuter, 2005) and of the 'Intervention Mapping' protocol proposed by Bartholomew, Parcel, Kok and Gottlieb (2006).

Due to the considerable amount of time and money required to develop anti-bullying and other intervention programs, it is becoming ever more imperative to make the interventions implemented as explicit as possible. Quality requirements and the need for cost effectiveness in health care, youth care and education are driving the government to demand evidence-based interventions that have proven effective as a precondition for funding. Ross-Van Dorp, former State Secretary for Health, Welfare and Sport, has even considered introducing a quality seal as a performance indicator for assessing intervention programs (Ross-Van Dorp, 2006). The next step might be to establish an accreditation system which requires interventions to meet a set of methodological criteria and be proven effective in practice.

This article is based on an overview of Dutch anti-bullying programs developed for, or implemented in, regular elementary schools over the past ten years. Based on this overview, some conclusions are drawn with respect to the potential effectiveness of these anti-bullying programs.

Research questions

The ideal research design, in which Dutch anti-bullying programs are tested for their effectiveness using a randomized controlled trial (RCT), is not (yet) available. Without this experimental design it is extremely hard to determine whether the program itself is effective or if other factors influenced the results. Moreover, many interventions have not been made sufficiently explicit in practice to be subjected to a proper impact study (Veerman & Van Yperen, 2006). Therefore, this article uses general methodical conditions for effectiveness to estimate the potential effectiveness of anti-bullying programs. The following two questions are posed:

1. Based on current theory, what general methodical conditions can be formulated to assess the effectiveness of an anti-bullying program?
2. To what extent do Dutch anti-bullying programs for elementary schools meet these general methodical conditions for effectiveness?

General methodical conditions for effectiveness

The general methodical conditions for effectiveness can be regarded as a priori directional or promising principles that create the context in which a bullying prevention intervention can succeed. Each program's actual effectiveness will have to be proven through research. Often, the intervention will have to take into account specific (school-related) conditions that may necessitate changes to the program. Hence, a program that meets the general methodical conditions does not automatically guarantee success.

Most of the criteria that an effective program should meet are taken from Green and Kreuter's planning model, which is widely used in health promotion and prevention (cf. Kok, Molleman, Saan, & Ploeg, 2005; Molleman, 2005). This model advocates a multi-stage intervention approach consisting of analysis of the initial situation, design, implementation and evaluation. It is based on the principles of health promotion which encourage people to adopt a healthy lifestyle and to create the healthiest possible living environment. As such this model is a suitable basis to take a systematic approach to bullying. In the introduction to this article it was explained that bullying is taken to mean all behavior that can physically, psychologically and socially harm bullies and their victims alike. Therefore, it is legitimate to brand bullying as a health risk that is worth preventing. Green and Kreuter's model provides clear steps for planning and evaluating health promotion and behavior control, but fails to make explicit how the formulated problem was translated into the practical method (cf., Schaalma, Kok, & Meertens, 2003). To assess the design of an anti-bullying program we used the Intervention Mapping protocol by Bartholomew and colleagues (2006). This protocol specifically addresses the extent to which the content, method, implementation plan and evaluation plan of intervention programs are systematically anchored in theory and operationally form a coherent whole. Apart from theory, intervention program development may benefit from users and target groups' experiences with bullying in practice.

Table 2.1 presents seven general methodical conditions for effectiveness. These are based on steps 1 through 3 of Green and Kreuter's health promotion planning model (Green &

Kreuter, 2005) and on the Intervention Mapping Protocol designed by Bartholomew and colleagues (2006) (steps 4 through 7). The implementation and evaluation phases of Green and Kreuter's model fall outside the scope of this article because these are not really methodical conditions, but rather deal with the program's actual execution and results.

Table 2.1 *General methodical conditions for effectiveness*

Health Promotion Planning Model *Green and Kreuter (2005)*	Intervention Mapping Protocol *Bartholomew and colleagues (2006)*
1. Social and epidemiological analysis 2. Analysis of risk factors 3. Identifying behavioral determinants (Intervention design) →	4. Specific and operational goals 5. Method based in theory and practical experience 6. Implementation protocol 7. Evaluation plan
(Implementation) ← (Evaluation)	

1) Social and epidemiological analysis of bullying issues. Social and epidemiological analyses provide an empirical foundation for intervention because they make clear which bullying issues are most important for the program to address. To determine whether an intervention is necessary and to facilitate its development and implementation, it is best to start by drawing up a social analysis of the users (e.g., teachers and prevention workers) and the target group (e.g., children and parents). This is useful for defining the intervention's constraints and conditions and for tuning the intervention to the needs of users and target group. Cataloguing the experiences and opinions of those involved in bullying issues has the additional benefit that it motivates them to take part in the intervention and hence increases support for the intervention. An epidemiological analysis will bring to light the seriousness, nature, size and approach to the bullying problem in a specific target group.

2) Analysis of risk factors. Green and Kreuter (2005) argue that interventions are more likely to end up being counterproductive if the design does not match the causes (potential risk factors) of the undesirable behavior. In order to address bullying, it is necessary to know which risk factors maintain the bullying and to which extent. It only makes sense to start contemplating specific behavior control and change after an empirical link has been established between the risk factors for bullying and actual bullying behavior. The analysis is aimed at both the direct and indirect risk factors for bullying behavior, based on published empirical data on bullying and/or the intervention developers' own research. Roughly speaking, a distinction can be made between *personal factors* (e.g., the 'different' appearance of a bullying target; a handicap), *personal behavioral factors* (e.g., a tendency to cry during Physical Education) and *environmental factors* (e.g., insufficient surveillance during recess). In principle, it is also possible to base an intervention on protective factors. These diminish the chances of bullying and encourage constructive behavior.[1]

3) Identifying behavioral determinants. An analysis of behavioral determinants is based on sociopsychological behavioral analysis theories and models which postulate that an individual's (bullying) behavior is in part determined by their intent to express the bullying behavior. Ultimately, bullying behavior is not just dependent on behavioral determinants, but also on an individual's (social and communication) skills and on environmental factors which may trigger bullying behavior (see condition 2). In general, the literature (De Vries, 1993; Kok & Daimoiseaux, 1991; Schaalma, 1993) identifies three variables that inform behavioral intent (behavioral determinants), attitude (an individual's own perception of their behavior), social influence (the influence of what others think of the behavior) and self-efficacy (an individual's belief in his/her ability to show the behavior). It is important to find out why bullies behave the way they do and what intentions underlie their bullying behavior. If children are aware that bullying is not a game and that it can harm their victims, then why do they continue to bully? "Knowing" it is not a game does not automatically make them stop "wanting" to bully. Bullies may downplay the difference between teasing and bullying (attitude). Some children do not want to bully, but do it anyway because they are to some extent forced to do so (social influence). Children may also feel that they cannot resist the

[1] Although there are fewer preventive studies into protective factors, the well-known "Communities that Care" prevention program in the US has been used to systematically study both risk factors and protective factors in prevention programs. This program pays systematic attention to risk factors, and also features a development strategy that can identify protective factors and provide pointers on how to foster healthy behavior in children (Ince et al., 2004).

peer pressure to bully (self-efficacy). In order to adequately deal with bullying behavior, an anti-bullying program must be operationally attuned to the behavioral determinants, the children's skills and environmental conditions. It should be stressed that an analysis of determinants is not intended to explain bullying but rather to generate ideas on how to adequately influence and address this behavior.

4) Specific and operational intervention objectives. Steps 4 through 7 address the design of the actual intervention. Any intervention plan needs to start out by clearly describing and operationally formulating its objectives. For example, the (behavioral) objectives of the intervention must fit the specific target groups and any existing practical obstacles. If the intervention program is to be effective, its contents should be brought in line with the target group's knowledge, perceptions, needs, expectations and skills. In principle, the intervention objective must be directly linked to the specific behavioral intentions, skills and environmental conditions identified earlier (see condition 3). For example, if the intervention aims to teach the target group social skills to prevent bullying, it is not enough to simply formulate knowledge goals at the attitude level. Apart from formulating the objectives as clearly as possible in accordance with Koelen and Van den Ban's SMART principles (Specific, Measurable, Achievable, Relevant and Time-bound) (Koelen & Van den Ban, 2004), introducing performance indicators is the most explicit way to make clear in advance what is expected to change as a consequence of the intervention, and by when. A performance indicator can be thought of as a precise measuring tool for a crucial characteristic (or success factor) that serves to gauge the extent to which a goal is achieved. If an elementary school's anti-bullying program is aimed at reducing bullying at school, then a decrease in the number of bullying incidents over a certain period of time is a performance indicator. By formulating the objective as a norm, for example a 20% reduction of the number of bullying incidents in 12 months, the effectiveness of the intervention can be gauged very explicitly.

5) Operational methodology based on theory and practical experience. A methodology is taken to mean a process of change that is based chiefly on theory. Examples of general methodologies include modeling, information transfer, skills training, social support, reward and reinforcement (Schaalma et al., 2003). These methodologies must be translated into practical techniques. For example, the modeling methodology is translated into a video session (technique) showing how teachers deal with bullying behavior and role plays in which teachers can practice dealing with this behavior themselves. The approach taken in this example is derived from Bandura's social learning theory (Bandura, 1986), which in this

case is applied to improve teachers' self-efficacy and social skills. This example illustrates that an intervention program should be based on and supported by insights gained from scientific research, that the behavioral objectives of the intervention have to match the behavioral determinants and skills, and that the methods and techniques used form the right operationalization to achieve the goals of the intervention. Before the anti-bullying program can be implemented, the program's materials and techniques must be tested for comprehensibility and effectiveness on the specific target group and the users of the program. It is also important to include the perceptions and opinions of the people involved in bullying issues at the school where the program is to be implemented, to ensure that the methodology fits in with these.

6) Implementation protocol. The effectiveness of a program depends to a large extent on its implementation. A program can be well-thought in terms of content, but if the actual implementation has not been properly elaborated, success is unlikely. An implementation protocol clearly lists the procedure for executing the intervention (nature, order, frequency, duration, intensity) and specifies who is responsible for its execution. Because an intervention, which has broad support is more likely to succeed, program users and the target group should be involved in its design and implementation as much as possible. Ultimately, the intervention needs to match the interests and abilities of the target group, and to address and help them understand their behavior. Conducting a survey among the users and target group, asking them how they experience and perceive the intervention and including the results in. The implementation protocol may yield important information about the success or failure of an intervention. Interventions often draw on certain competencies of the users and this must be taken into account. Users may need to be trained in specific skills, for example in being able to apply the content and methods of the intervention flexibly in order to match the target group's abilities and motivate them (Van der Laan, 2000). Therefore, the protocol must deal with the actual execution of the implementation procedure. It is best to involve the user in drawing up the protocol; his/her competencies and skills must be taken into account.

7) Evaluation plan. The evaluation plan returns to the specific program objectives that account for which parameters are measured, when they are measured, and how. Step 4 underscores the importance of deciding in advance what the effect of an intervention should be in order to be rated as successful (success analysis). This forces the program designer to formulate the intervention objectives as specific, quantifiable parameters. An impact study can then measure the intended results of an intervention. This might be a change at the level

of behavior (e.g., a decrease in bullying incidents at school), or at the level of the environment (e.g., a school's willingness to implement a bullying protocol). It might also be changes at the determinant level (e.g., children recognizing the serious consequences of bullying at the attitude level and becoming motivated to do something about bullying at school). A process evaluation serves to check to what extent the various phases of the intervention program were carried out as intended. This may provide an understanding of why an intervention succeeded or failed. In this type of evaluation it is not the 'hard' results of the intervention itself that are scrutinized, but rather the users' experiences with the intervention's implementation, progress and bottlenecks and the experiences and assessments of the intervention's target group. Monitoring and continuous evaluation of results and activities are essential because effectiveness does not last forever. A bullying prevention intervention is never a one-off activity, as conditions and the composition of the groups of children and teaching staff are continually subject to change. There is no quick fix for bullying. By continuing to monitor, decisions can be made about possible adaptations to the program to increase effectiveness. No program is fully developed the first time it is implemented. Effective prevention programs are usually the result of long-term research into the underlying causes of bullying behavior, theory-based program design, try-outs and improved versions and repeated impact studies and process evaluations (Ince, Beumer, Jonkman, & Vergeer, 2004).

Potential effectiveness of anti-bullying programs

Selection criteria for programs

This section gives an overview of several programs intended for use in elementary schools, which are aimed at preventing and combating bullying, anti-social behavior and aggressiveness. Up-to-date and concrete anti-bullying programs are few and far between. A systematic overview of Dutch anti-bullying programs does not exist. Nearly ten years ago, Adema and Kalverboer (1997) compared a number of anti-bullying programs for effectiveness. Their effectiveness turned out to be disappointing. Most of them no longer exist and many have been replaced by new programs. The authors looked for programs on the internet, in Dutch academic journals and professional magazines, books, reports and academic theses. It is possible that a few existing interventions fell through the cracks and were not included in the overview.

Our selection of programs is based on the inventory of social competence programs of Van Overveld and Louwe (2005), the Database of Effective Youth Interventions (*Databank*

effectieve jeugdinterventies) run by the Dutch Institute for Care and Welfare (*Nederlands Instituut voor Zorg en Welzijn*; NIZW, 2006), the Primary Education website (*Primair onderwijs*) of the Dutch Organization for Curriculum Development (*Stichting Leerplan Ontwikkeling*; SLO, 2006) and the library at the Seminary for Orthopedagogy (Seminarium voor Orthopedagogiek, 2006). The selection of programs included in this article was based on the following criteria:

- *Recent.* The program must have been either developed or updated in the past 10 years. It is presumed that recent epidemiological data and new insights from research into bullying will help make interventions increasingly evidence-based and better matched with the current state of affairs regarding bullying behavior and target groups. For this reason, older anti-bullying programs such as "How to deal with bullying problems" (*De aanpak van pestproblemen*; Dekkers, 1993) have not been taken into consideration.

- *Target group.* The program must primarily target children in regular Dutch elementary schools, but it can also be used to target younger children in Dutch secondary schools (12-14 year olds).[2] Programs excluded from this overview included those used in elementary schools for special needs children and individual help to children, as well as general, government-run information campaigns on bullying. Programs for use at home and in out-patient and clinical settings were also left out of consideration. For example, Self Control (*Zelfcontrole*, Van Manen, 2001) was not analyzed because this program is intended for children with oppositional defiant disorder or antisocial personality disorder who are in group therapy in a clinical setting.

- *Use in schools.* The program must mainly be used in a school setting. The intervention must be suitable for execution in a group either by the teaching staff themselves or by other professionals, at school and under the school's responsibility. For this reason, a program such as Enjoying school (*Plezier op school*; Faber, Verkerk, Van Aken, Lissenburg, & Geerlings, 2006) was excluded. This is a summer course for 7th graders that is taught to socially weak children and 6th grade victims of bullying. The week

[2] Half of the anti-bullying programs analyzed not only target 'regular' elementary school children but also 7th and 8th graders. Studies show that the transition from elementary school to secondary school is accompanied by a temporary increase in bullying in 7th grade. Children have to integrate into a new group where there position is not yet fixed. It is thought that bullying is a way to gain social status and a position of power in the new peer group (Pellegrini, 2004; Pellegrini & Long, 2002).

before school starts, groups of these children are trained, usually in a health care institution or at the new (secondary) school.

- *Dutch-language.* The program must be in Dutch. Foreign programs that have not been translated into Dutch and adapted to the Dutch context were not included in this overview for reasons of validity.

- *Objective.* The intervention must be primarily aimed at perpetrators' bullying, anti-social and aggressive behavior, but may also be aimed at victims' behavior. Most elementary school programs are social competence programs aimed at developing children's social skills to help them avoid violence and unsafe situations in general. This article does not include curative interventions, general social competence programs and training programs intended to raise children's general perception of competence by teaching them social skills. In 2005, Van Overveld and Louwe reviewed the effects of a large number of social competence programs. These programs were excluded because they are not substantially and explicitly aimed at addressing the bullying behavior of perpetrators and/or victims.[3]

- *Program description.* The intervention must be documented in a program description in order to be analyzable. An anti-bullying program can be described as an intervention with a clear theoretical basis, objectives and methods that offer professional guidelines for concrete action to reduce and prevent bullying (cf. Raadsen & Knorth, 2000). For example, the CD-ROM Stop the Bully (*Stop de pestkop*, Verkerk, 2003) takes a very hands-on approach and lacks sufficient explanation and theoretical foundation to be considered adequately described. However, programs that provide additional information and updates on their website were considered analyzable and were therefore included in the comparison.

Potential effectiveness assessment

Based on an evaluation form with specific assessment criteria, the first author of this article assessed the selected programs for each general methodological condition. Each analysis was

[3] One exception to this is the *Marietje Kessels Project* (Van Helvoort, Brands, & Van der Graaf, n.d.; Van Helvoort, & Clarijs, 2005) because this program explicitly addresses the bullying phenomenon. The NIZW database (NIZW, 2006) also contains a number of general competency programs that were assessed for their effectiveness. These programs were excluded from this analysis for the same reason; they do not specifically target bullying behavior.

subsequently reviewed by the second author. Whenever there was a difference in opinion about the assessment of certain criteria, the authors discussed the matter until they reached a consensus (cf. Lincoln & Guba, 1985).

Table 2.2 *Overview of general methodical conditions for effectiveness and potential effectiveness of anti-bullying programs for Dutch elementary schools*

Program and authors	*1*	*2*	*3*	*4*	*5*	*6*	*7*
1 C&SCO (Conflicthantering en sociale Competentie in het onderwijs) [C&SCE: Conflicts and Social Competence in Education] (Van der Bolt, Kooiman, Melisse, & Bongers, 2004)	-	-	+/-	+/-	++	++	-
2 De No Blame Methode [The No Blame Method] (Borstlap & Overzee, 2002, 2004a/b)	- -	+/-	+/-	- -	-	-	- -
3 Kinderen en ingrijpende situaties: Pesten [Children and Distressing Situations: Bullying] (Baeten &Van Hest, 2002)	-	+	+/-	-	-	-	- -
4 Marietje Kesselsproject (MKP) [Marietje Kessels Project, MKP] (Van Helvoort & Clarijs, 2005) (Van Helvoort, Brands, &Van der Graaf, n.d.)	+/-	- -	+/-	+/-	+	+	+
5 Pesten is laf, leer het af [Bullying Is for Cowards, Kick the Habit] (Wierckx, Calama, & Zopfi, 1996) (Zopfi &Burggraaff-Huiskes, 1996)	-	-	-	-	+/-	+/-	-
6 Pesten op school [Bullying at School] Krotwatschek & Krotwatschek, 2005)	-	-	-	-	-	-	- -
7 Pesten op school, een actieprogramma [Bullying at School, an Action Program] (Stevens & Van Oost, 1995, 1998)	+	-	+	+/-	+/-	+/-	+/-

Program and authors	*1*	*2*	*3*	*4*	*5*	*6*	*7*
8 Rots en Water [Rock and Water] Ykema (2006a/b)	-	-	+/-	-	+/-	+/-	-
9 PRIMA Pakket [PRIMA Package] (Ruiter, Ter Beek, & De Ruiter, 2005) Ter Beek, Ruiter, & Couwenberg, 2005)	+	-	+/-	+/-	+	+	+
10 Ruzies…oplossen met KLOP [Solving Conflicts…with CORE] Lamain-van der Sluis (2001)	- -	- -	- -	+/-	+	+/-	-

General methodical conditions for effectiveness

(1) Social and epidemiological analysis

(2) Analysis of risk factors

(3) Identifying behavioral determinants

(4) Specific and operational objectives

(5) Methodology based on theory and experience in practice

(6) Implementation protocol

(7) Evaluation plan

Rating scale for general methodological conditions for effectiveness

-- *= absent, unknown*

- *= vague, fragmented, inconsistent*

+/- *= sketchily described and accounted for*

+ *= described and accounted for, but not entirely consistently*

++ *= explicitly operational and consistently described and accounted for*

Table 2.2 shows an assessment of every program's potential effectiveness for each separate condition. It is impossible to give an overall assessment of the program's potential effectiveness because of the problem of weighting the conditions. For example, an evaluation plan (condition 7) containing a description of an operational effect evaluation might outweigh a prior social and epidemiological analysis of bullying in the specific target group (condition 1).[4] Moreover, the conditions cannot always be completely separated, because in a cyclical model the conditions refer to each other and may overlap to some extent.

Social and epidemiological analysis of bullying issues (1). Few anti-bullying programs include a (full) preliminary social analysis of how users and the target group experience and perceive bullying issues in their specific school setting. *PRIMA Package* is the only program to systematically ask school principals to fill in a questionnaire containing the question why some schools do and others do not participate in the PRIMA project. This program also asks in what ways the school is already attempting to prevent bullying. *C&SCE* and *Bullying at School, an Action Program* both provide some sort of described social analysis. None of the programs conduct a social analysis to identify what children and parents consider to be the most urgent bullying issues. *Bullying at School, an Action Program* is the only program that is based on a large-scale prevalence study. A quantitative study was conducted among 10,000 children from 84 schools, using individual and focus group interviews about bullying and being bullied. Each participating school was given access to its own results, so that it could judge its own situation. *PRIMA Package* is still being developed and the Netherlands Organization for Applied Scientific Research (*Nederlandse Organisatie voor Toegepast Natuurwetenschappelijk Onderzoek*; TNO) is in the process of collecting a large amount of data using a bullying monitor and a sociogram method, which is likely going to be used for a social / epidemiological analysis to underpin the 2007/2008 edition of *PRIMA Package*.

Analysis of risk factors (2). Children and Distressing Situations to some extent systematically and consistently discusses the personal behavioral factors and environmental factors that can cause bullying in the specific target group. Other programs provide unclear references or lack references altogether, making it impossible to deduce whether the risk factors mentioned (if any) are based on empirical studies. Most programs limit themselves to listing risk factors without providing a systematic approach based directly on risk factors. *The*

[4] The same problem occurs within one condition. For example, when considering the implementation protocol (condition 6) it cannot be assumed that the presence of a concrete implementation plan is just as important as involving the user in the implementation design or as taking the user's competencies and skills into account.

No Blame Method deliberately refrains from discussing the risk factors for bullying, because this program does not consider risk factors relevant to addressing the problem. *The No Blame Method* is based on the assumption that it is useless to approach bullying from a causative perspective. In practice (when working with children), it is difficult to identify the causes because children tend to give socially desirable answers, express subjective views and have a limited ability to cognitively explain behavior.

Identifying behavioral determinants (3). Bullying appears to be a complicated phenomenon that can be approached from various behavioral analysis theories and models. A distinction can be made between preventive and curative methodologies. For example, the *Marietje Kessels Project* is primarily preventive: it tries to stop children from becoming victims/perpetrators of abuse of power and transgressive behavior. This program tries to reinforce children's assertiveness by training their mental and physical skills. Its emphasis is on strengthening protective factors. *Bullying at School, an Action Program* takes a more curative approach and is aimed at intervening in a manifest bullying problem at school. This is the only program whose method fairly consistently matches the determinants of bullying behavior and which uses attitude-behavior theories and models. This is the same approach that Green and Kreuter (2005) advocate in their planning model, in which they argue in favor of a systematic, determinants-based intervention. We conclude that none of the programs analyzed here apply this explicitly and consistently from an operational point of view.

Specific and operational objectives (4). None of the programs bases its objectives explicitly and operationally on the underlying determinants. None of them formulates its objectives fully according to SMART principles; often they lack a timeline. None of the methodologies employs performance indicators, which in effect makes it impossible to accurately gauge the extent to which the programs achieve their goals.

Operational methodology based on theory and practical experience (5). One troubling tendency is that most programs fail to present a (full) methodological foundation and fail to account for their choice of methodology based on clear theoretical insights or empirical studies. References to literature are usually incomplete. It is often unclear whether the sources referred to are merely supplementary or whether they play a role in the program's design and content. Insights and attractively presented activities in other programs tend to get adopted. *C&SCE* is the only program to systematically discuss its methodology and anchor it in a theoretical framework. It does this through its cyclical planning approach. This program's

methodology and techniques are also explicitly operational and consistently matched to the methodology's specific objectives. The latter is also true of the *Marietje Kessels Project*. The other programs – with the exception of *The No Blame Method* and *Children and Distressing Situations* – vary from matching their methodology and techniques somewhat to sufficiently with the methodology's specific objectives. However, in a majority of the programs the general operational matching of objectives, methodologies and techniques to a theoretical basis is fairly implicit or unclear. The *Marietje Kessels Project, Bullying at School, an Action Program* and, to a lesser extent, *Bullying Is for Cowards, Kick the Habit* include an adequate prior test of the material's comprehensibility and effect for the specific target group and the program users. Almost all the programs incorporate the users' and target group's experiences with, and perceptions of, the bullying issues in the specific school setting. *Bullying at School* is the only program to pay little attention to this.

Implementation protocol (6). Most programs provide a clearly described implementation protocol that fairly explicitly states what the procedure for execution is and who is responsible for executing it. *The No Blame Method, Bullying at School* and *Children and Distressing Situations* have less detailed implementation procedures. *C&SCE, PRIMA Package* and, to a lesser extent, *Solving Conflicts with CORE* really involve the user in the design of the implementation protocol. *The No Blame Method* and *Bullying at School* fail to provide information on this. *Rock and Water* and *Bullying Is for Cowards, Kick the Habit* do not involve the user in the setup of the implementation protocol. Here, the design and contents are mostly fixed. In *Children and Distressing Situations,* the activities are formulated rather loosely, leaving it to the user to choose from a range of optional activities, methodologies, techniques and tips offered by the program. The other programs – those not yet mentioned in this section – only sporadically involve the user.

Analysis shows that each program tries in its own way to take the user's competencies and skills into account. The *Marietje Kessels Project* is the only program to consciously choose not to use teaching staff to implement the program because of the specialized knowledge required for implementing this program. The program is always taught by independent, trained intervention workers. *C&SCE* offers implementation training for teaching staff and the option to call in a professional trained in C&SCE principles for closer guidance. *Bullying at School, an Action Program* also mentions using external professional consultants to help teaching staff initiate, implement and evaluate the project. However, this program neither discusses teachers' competencies and skills as users of the program, nor does

it make clear whether extra training for teaching staff is an option. It does, however, discuss the competencies and skills of the consultants. *PRIMA Package* calls on the Dutch Public Health Service (*Gemeentelijke or Gemeenschappelijke Gezondheidsdienst;* GGD and the Center for Educational Services (*Centrum voor Educatieve Dienstverlening*; CED) to assist teaching staff in implementing the program, but this applies mainly to general educational and organizational activities. Individual talks with the children and their parents are left to the teacher, who can call on the teacher leader for help. *Bullying Is for Cowards, Kick the Habit* is the only program to integrate a training course in its methodology, but the knowledge and skills that teachers acquire in this course are not well matched operationally with the subsequent series of lessons. *Rock and Water* mentions a training course and *The No Blame Method* mentions workshops and supervision but neither program makes clear what the training consists of and which competencies are trained. *Bullying at School, Solving Conflicts with CORE* and *Children and Distressing Situations* only provide practical pointers and tips. None of these three programs provide any information about supervision, external consultation or workshops.

Evaluation plan (7). The *Marietje Kessels Project* and *PRIMA Package* are the only two programs to provide a reasonably well-developed evaluation plan which specifies when and how results are measured. *Bullying at School, an Action Program* also provides an evaluation plan, but its set-up is less systematic. The other programs cannot be said to have a concrete evaluation plan. In the best scenarios, the programs give pointers about how to evaluate. Since none of the programs works with performance indicators it is hardly surprising that most of them lack any serious impact study and process evaluation based on specific program objectives. The *Marietje Kessels Project* is the only program to base its evaluation plan on specific program objectives. At the end of the project, the prevention worker uses evaluation forms filled in by teachers and children to write an evaluation report of the series of lessons. *PRIMA Package* is the only program to consistently and explicitly evaluate the program's effects at an operational level. Quantified results are digitally sent to TNO for monitoring and evaluation and the values measured at several different times are compared. An analysis of the results is made available to the teachers immediately. In addition, a process evaluation checks several times to what extent the program has been implemented according to plan and why it has succeeded or failed. The *Marietje Kessels Project* also includes a process evaluation in which children and teachers are asked to fill out an evaluation form about how they have experienced the intervention process.

Conclusions and discussion

In order to determine the potential effectiveness of the ten anti-bullying programs analyzed in this article, we have used general methodical conditions, based largely on Green and Kreuter's health promotion planning model (Green & Kreuter, 2005) and on the Intervention Mapping Protocol by Bartholomew and colleagues (2006).

It can be concluded that very few of the analyzed programs' designs are based on a sound (preliminary) study (general methodical conditions 1 through 3). Program development tends to be preceded by little or no study at all.

Remarkably, none of the anti-bullying programs makes use of performance indicators. Therefore, it is impossible to determine exactly the extent to which a program's objectives have been achieved. The effectiveness of the intervention remains anybody's guess and best practices, principles and programs cannot be identified.

Another conclusion is that none of the anti-bullying programs analyzed meets the general methodical conditions for effectiveness applied in this article. Every program has its own inconsistencies and shortcomings in terms of content and operation. This is least true of *PRIMA Package*. This program is still in an experimental phase and is being piloted in 24 schools in two regions. The 2007/2008 version of *PRIMA Package* will be adjusted on the basis of TNO's impact study and effect evaluation. Incidentally, *PRIMA Package* is largely based on Olweus' effective anti-bullying program (Olweus, 2004). Three other programs (*C&SCE, Bullying at School, an Action Program* and the *Marietje Kessels Project*) also meet the methodical conditions to some extent. *Bullying at School, an Action Program* even indicates that it is desirable to systematically study the intervention's impact on the frequency of bullying incidents and to incorporate the data collected from a process evaluation in the final version of the manual. However, this program was never published in a new edition. Not surprisingly, *PRIMA*'s design is in part derived from this earlier program. One of *C&SCE's* strong points is that the method is systematically and explicitly explained, based on clear theoretical principles. In addition, *C&SCE* provides a clear implementation plan. The *Marietje Kessels Project* lacks an analysis of risk factors for bullying and the methodological design does not explicitly use adequate, empirically-founded sociopsychological behavioral theories. This project does in some respects meet the other conditions for effectiveness. As for the programs not yet mentioned in this section, we believe they have little potential in terms of effectiveness. The methodical conditions for these programs are classified at best as

"sketchily described and accounted for". The only exceptions are the methodology in *Solving Conflicts with CORE* and the risk factors in *Children and Distressing Situations*, which are described and accounted for, but not entirely consistently.

One general remark should be made here about the target groups of anti-bullying programs. In practice, the programs tend to target 10-12 year olds, but most programs fail to provide any reasons for targeting this specific age group. The fact that questioning and discussion are pivotal to most anti-bullying programs might explain the programs' proclivity for older children. Older elementary school pupils are better able to reflect on their own and others' behavior and to form and express their own opinions. *Children and Distressing Situations* is the only program to include specific exercises for younger elementary school pupils (grades 1 through 3). This program and *Bullying at School* also provide specific exercises for ages 8 and older. The other programs are focused mainly on grades 4 through 6. This is remarkable because studies into bullying have revealed that the number of perpetrators and victims in elementary schools decreases as children get older (Pellegrini, 2004; Pellegrini & Long, 2002; Salmivalli, 2002; Smith, Madsen, & Moody, 1999). With an eye to prevention, it would be more logical for anti-bullying programs to target younger children: the earlier the better.

The results show a comparison of the various programs according to each individual general methodical condition and an assessment of the programs' potential effectiveness. However, the conclusions we drew above should be read in the context of the methodology. It is important to stress that we based ourselves solely on the written (hard copy and internet) information available on each program.[5] Sometimes the minimal amount of information available or the very succinct nature of the information made it difficult to judge the programs on their merit. Therefore, we refrained from passing harsh judgment on the overall quality of each of the programs under scrutiny and of the programs' relative merit. The ratings in table 2.2 refer exclusively to a descriptive assessment of each condition for each individual

[5] It is customary to show the analyses to the people who are responsible for implementing the intervention in practice. We believe this is useful only if the analysis can be based on a well-documented program. This turned out not to be the case for a number of programs we analyzed. For example, the NIZW uses certain quality criteria for description and substantiation that an intervention must meet in order to be considered for analysis (cf. NIZW assessment procedure, 2006). Some of the programs we included will probably not meet the NIZW selection criteria. However, we decided to include these more practice-based and less well-documented programs anyway because only a small number of bullying programs is available. After all, this article aims to provide an overview of the bullying prevention programs and to encourage intervention developers to develop more evidence-based and better thought-out programs.

program. Hence, the conclusions are no more than an estimation of the programs' potential effectiveness, whereby there is no empirical evidence that all the methodical conditions are actually (and equally) important to make a program effective. A program that meets these methodical conditions is not by definition a successful intervention. Further impact studies into the results of these anti-bullying programs are necessary in order to determine the real effectiveness of these interventions.

Chapter 3

Peer aggression and victimization in Dutch elementary schools and sports clubs: Prevalence and stability across contexts

This study examined prevalence and stability of peer aggression and victimization among Dutch elementary school children (fourth to sixth grade, mean age 11.25 years) in two different contexts. Self-reports from 1,534 elementary students who were either currently participating in a sports club or had recently quit a sports club were gathered with respect to their experiences at both the sports club and elementary school. Results showed the prevalence of peer aggression and victimization in sports clubs to be slightly higher than in school but a significant main effect of context was not found. Given the rather high stability of peer aggression and victimization roles across contexts, it is important to develop school-external prevention programs, community-based aggression prevention programs, and approaches in which aggressive and victimized children are monitored across contexts and treated accordingly.

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Introduction

Peer aggression and victimization among Dutch fourth- to sixth-grade elementary school children were examined in two different environments: the school and the sports club. Peer aggression and victimization in elementary school are widely considered to constitute a serious and pervasive problem that can persist into adolescence and beyond. Studies have shown the frequent use of aggression to predict both later delinquent and antisocial behavior (Dake, Price, & Telljohann, 2003). Conversely, the effects of victimization have been found to be associated with short- and long-term psychosocial maladjustment, including depression, anxiety, low self-esteem, suicidal ideation, loneliness, and feelings of unpopularity (Dake et al., 2003; Hawker & Boulton, 2000).

Studies over the past 10 years nevertheless show considerable variability in the extent of peer aggression (i.e., bullying) and victimization in schools due to differences within and across countries in the following: definitions, time frames, measures, cut-off points for classification, sample sizes, respondents, and school systems (e.g., Goossens, Olthof, & Dekker, 2006; Solberg, Olweus, & Endresen, 2007). Based on studies that have used different self-report questionnaires, in a conservative estimate, some 5 to 11% of 9- to 13 year-old-children has been victimized regularly in elementary school; 5 to 14% has regularly behaved aggressively; and 2 to 7% has been classified as both a perpetrator and victim of aggression (Glew, Fan, Katon, Rivara, & Kernic, 2005; Nansel et al., 2001; Scheithauer, Hayer, Petermann, & Jugert, 2006; Solberg et al., 2007; Yang, Kim, Kim, Shin, & Yoon, 2006).

The majority of the research conducted on peer aggression and victimization to date has been conducted in the school context, which means that other contexts, such as the sports club, have been largely ignored. In many countries, sport is an important leisure activity. In the Netherlands, 74% of children 6 to 11 years of age and 71% of children 12 to 19 years of age are members of a sports club (Breedveld & Tiessen-Raaphorst, 2006). Dutch sports clubs are organized separate from the school and typically community based with funding by members, local government, business, and private resources. Such as school, the sports club is socially and educationally a significant practice in which children takes part (Biesta et al., 2001; Coakley, 2009). Sports participation has not only a positive formative influence on young people's orientations, attitudes and behavior but also has more negative aspects such as antisocial and aggressive behavior (Endresen & Olweus, 2005; Rutten et al., 2008). Most studies that have examined aggressive behavior in sport (Coulomb-Cabagno & Rascale, 2006;

Cox, 2011; Mintah, Huddleston &, Doody, 1999) have their focus on two kinds of aggression related to the play or playfield itself: hostile aggression (i.e., aggression against another person for its own sake, accompanied by anger) and instrumental aggression (i.e., aggression against another person as a means to the competitive outcome, for example irregular tackling to stop an opponent going to score). However, these studies are restricted to aggressive acts during competition but neglect the broader context of the sports club outside the play or playfield situation, including cafeteria and locker rooms. Therefore, the focus of the present study is on peer aggression and victimization in the sports club environment.

Another reason for the present study is its potential contribution for development of prevention and intervention programs. Given the highly harmful consequences of peer aggression and victimization for a child's future, the development of effective prevention programs is critical. In the Netherlands, aggression prevention programs for sports clubs do not exist as yet. The effectiveness of school-based aggression prevention programs in different countries has been found to vary substantially and be only moderate in the short run, at best (Baar, Wubbels, & Vermande, 2007; Smith, Ananiadou, & Cowie, 2003; Swearer, Espelage, Vaillancourt, & Hymel, 2010). Effects of school-based prevention programs, if at all present, may be limited to the school context. Community-based aggression prevention interventions may thus be needed in addition to school-based interventions as the former will presumably take school-external environmental influences, circumstances, and peer relationships into account. Comparison of children's experiences with peer aggression and victimization within the context of the school and the sports club can provide insight into pervasiveness and constancy of patterns of peer aggression and victimization. Insight in these patterns is important for developing adequate community-based aggression prevention programs.

For the reasons mentioned above, the prevalence and stability of peer aggression and victimization within both contexts were examined in the present study. This was done using a variable-oriented approach in which the mean scores and standard deviations for students on two aggression and victimization scales were calculated for comparison purposes and a person-oriented approach in which students were classified according their level of aggression and victimization for comparison purposes.

The first goal of this research was to investigate the prevalence of peer aggression and victimization in elementary schools and sports clubs. To prevent gender bias, several forms of

aggression and victimization (Card, Stucky, Salawana, & Little, 2008) were examined: physical (e.g., hitting, pushing), verbal (e.g., threats of beating up, name calling), and relational (e.g., harming others through manipulation of peer relationships, which may include the spreading of rumors, ignoring peers, and the threat of group exclusion to control others).

Within the context of the group, children can experiment with different roles and forms of group interaction. However, a possible difference between the school and the sports context is that children must re-establish their social positions relative to their peers on an almost annual basis in the sports context. From a social dominance point of view, peer aggression can be viewed as a strategy to gain and maintain social status and dominance in relationships. A social dominance hypothesis also predicts a temporary increase of aggression and victimization in the transition from elementary school to high school as this requires the re-establishment of social positions in new classrooms with new students (Hawley, 1999; Pellegrini, 2004, Pellegrini & Long, 2002). Several studies also strongly suggest that the sport socialization process and particularly contact and power sports may legitimize aggressive acts. Organized sports programs are often competitive and masculine orientated, which may reinforce aggressive behavior on the part of participants (Coakley, 2009; Endresen & Olweus, 2005; Knoppers, 2006). In light of the above, then, the extent of peer aggression and victimization in sports clubs can be expected to be less stable and relatively higher than that in the elementary school context. From a person-oriented perspective, it can be further hypothesized that the prevalence of both perpetrators and victims of aggression within sports clubs would be higher than in the school context. In line with the results of other studies boys can be expected to be more frequently the perpetrators of aggression and aggressive victims than girls in both contexts (for reviews, see Salmivalli & Peets, 2009; Schwartz, Proctor, & Chien, 2001). We had no expectation regarding gender differences in victim roles, since gender differences in victimization are less clear (Salmivalli & Peets, 2009; Schwartz et al., 2001).

The second goal of the present research was to investigate the stability of the patterns of peer aggression and victimization found in two different contexts. This was done via comparison of the correlations between the aggression and victimization scores for school and sports club contexts (i.e., a variable-oriented approach) and via inspection of the consistency of the aggressive behavior roles across the two contexts (i.e., a person-oriented approach). Children were classified as perpetrators of aggression, victims of aggression, or so-called aggressive victims (i.e., those who were both victim and perpetrator of aggression) in order to

compare the consistency of these roles across different contexts. It is above all important that aggressive victims be considered independent of perpetrators of aggression and victims of aggression as aggressive victims have been found to demonstrate high levels of not only physical but also verbal aggression (Craig, 1998) in addition to relatively higher levels of depressive symptoms (Kumpulainen et al., 1998) and lower scores for self-control, social competence, and school functioning (Haynie et al., 2001; Schwartz et al., 2001) relative to other children.

To our knowledge, no other study has investigated the extent to which children who are aggressive and/or victimized at school are also aggressive and/or victimized within the context of the sports club. Studies that have examined the stability of aggression and victimization roles across elementary school and other contexts are generally rare. Hörmann and Schäfer (2009) recently examined German elementary school children, however, they found the perpetrator of aggression and victim roles to be quite stable across the contexts of the school and a child care facility. When Craig, Pepler, and Atlas (2000) examined the stability of aggressive behavior in the classroom and playground groups, in contrasts, they found individual child characteristics to interact with contextual variables in that the perpetrators of aggression were more likely to be aggressive in the classroom while nonaggressive children showed more aggressive acts on the playground.

In other research, Olweus (1993) and Salmivalli, Lappalainen, and Lagerspetz (1998) have argued that the purpose of aggressive behavior for boys is to dominate others and that such behavior is connected with anti-social personality patterns. Consistency of being the perpetrator of aggression or being an aggressive victim can thus be expected for boys across different contexts. Aggressive behavior on the part of girls may be more situation dependent and thus related to the social network and coping with the social demands of peers. In the case of girls, thus, a switch of social environment, such as the joining or quitting of a sports club, may therefore elicit a change of aggressive behavior pattern. Because aggression is connected with anti-social personality patterns in boys, we hypothesized that the perpetrator role and aggressive victim role in the two contexts would be more stable for boys than for girls and, furthermore, the victim role can be expected to be less stable than the roles of perpetrator of aggressive victim across different contexts. We had no expectation regarding gender differences in victim roles (see above). Finally, we expected that the aggression scores on the school and sports club for boys would be more strongly correlated than the victimization scores.

The third goal of this research was to compare the prevalence and stability of peer aggression and victimization across the two contexts for children who participate in organized sports versus children who dropped-out of organized sports in the past year. Children between the ages of 9 and 13 years were of particular interest because children begin to drop out of organized sports around this time (Baar, 2003). The stage of preadolescence may also relate to peer aggression and victimization in sports clubs in particular as rapid physical and hormonal changes may cause temporary clumsiness and feelings of uncertainty among both girls and boys. Research (Baar, 2003) has shown the vast majority of those dropping out of sports still find that sports was challenging. The personal attractiveness of sports was an almost negligible factor in the children's decision to discontinue a particular sport. Such decisions were prompted by other personal considerations and particularly by factors relating to the sports club in question. A competitive emphasis by coaches or negative experiences with teammates played a role, for example. Organized sports programs are often highly competitive and masculine oriented. As said before, this can possibly reinforce aggressive behavior among athletes (Coakley, 2009; Endresen & Olweus, 2005; Knoppers, 2006) and, indeed, past research indicates that sports participation may teach that physical and verbal aggression is an acceptable means to achieve a game outcome and that aggressive behavior on the field may generalize to other contexts (i.e., interpersonal relationships) (Mintah et al., 1999; Rowe, 1998). For this reason, it was hypothesized that sports participants would be more aggressive than sports dropouts in both contexts (variable-oriented approach). To the best of our knowledge, no other study has investigated victimization of sports club dropouts in different contexts. From studies on Anglo-Saxon secondary schools it is known that less athletic boys are often victimized by boys with high athletic abilities (Knoppers, 2006). It is also plausible that less competitive oriented children are more likely to be victimized in the competitive and masculine area of the sports club and quit their sport (Baar, 2003; Coakley, 2009; Knoppers, 2006; Smoll & Smith, 1997).

Based on these considerations, we expected that the extent of victimization in the two contexts would be higher for dropouts than for sports participants. In addition, we expected sports participants to occupy the role of perpetrator and aggressive victim relatively more often than dropouts in both contexts, while the dropouts would occupy the role of victim relatively more often in both contexts than sports participants (person-oriented approach). Furthermore, we expected the roles of perpetrator and aggressive victim to be more stable for sports participants and the roles of victim to be more stable for dropouts across different

contexts. Finally, we expected the aggression scores for the school and sports club contexts to correlate more strongly for the sports participants and the victimization scores to correlate more strongly for the dropouts. We did not formulate explicit hypotheses about gender but we nevertheless explored the possibility of gender differences in the prevalence and stability of peer aggression and victimization among the sports participants and dropouts in both contexts.

Method

Participants

A total of 1534 fourth-, fifth-, and sixth–grade students (756 boys and 778 girls, mean age 11.25 years) from 26 elementary schools in 21 towns throughout the Netherlands participated in the present study. Five percent (4.8%) of the relevant students were not included in the present study for the following reasons: their parents did not provide permission for participation, they themselves did not want to participate, they were ill, or they had just moved. Only 24 students were subsequently excluded from the sample because they did not complete all of the questionnaires. Most of the students (82.8%) were Dutch. The remainder of the sample was of the following origins: Turkish (2.3%), Moroccan (3.8%), Antilleans and Arubans (0.7%), Surinamese (1.2%), or other ethnic origin (9.2%). With respect to sports participation, two groups were distinguished: sports participants and sports dropouts. A child was classified as a sports participant when he or she was a member of a sports club at the time of the assessment (717 boys and 708 girls). A child who had quit a sports club during the 12 months prior to assessment was classified as a dropout (39 boys and 70 girls). Students who had never participated in a sports club or students who had quit their membership longer than 12 months prior to assessment obviously could not complete a questionnaire about their sports participation in such and therefore could not be included in the present study for comparison purposes.

Measures

In the classroom, self-reports were used to assess the children's subjective experiences with peer aggression and victimization at both school and the sports club. Peer reports or so-called peer nominations are also often used in classroom settings to assess peer aggression and victimization as elementary school students generally know each other well enough to report on daily interactions and the composition of the classes does not change significantly over the years. For individual sport groups (i.e., solo sport groups), however, the group size is often

too small for application of such a peer nomination technique and/or the group setting is too unclear (e.g., the children do not know each other that well). In addition, earlier experiences of dropouts at the sports club could not be studied using peer reports. Only self-reports were thus gathered with regard to both the school and sports club context.

More specifically, the children's subjective experiences with peer aggression and victimization were assessed using a Dutch translation of the Social Experience Questionnaire – Self Report (SEQ-S) as originally formulated by Crick and Grotpeter (1996). One version of the self-report measure was developed for the sports club context and one for the school context.

Aggression. The Aggression Scale consisted of 10 items: three physical items (e.g., "How often do you hit, kick, or punch others"?), three verbal items (e.g., "How often do you say mean things to others, insult others, or put others down"?), and four relational items (e.g., "How often do you say unfavorable things about someone to others"?).

Victimization. The Victimization Scale similarly consisted of 10 items: three physical items (e.g., "How often do you get hit, kicked, or punched by another kid?"), three verbal items (e.g., "How often do others say mean things to you, insult you, or put you down?"), and four relational items (e.g., "How often does another kid say unfavorable things about you to make others not like you anymore?").

Each questionnaire item was rated individually by the children along a five-point Likert scale that ranged from 1 (= never) to 5 (= all the time). For the sports club context, Cronbach's alpha was .84 for the Aggression Scale and .85 for the Victimization Scale. For the school context, Cronbach's alpha was .84 for the Aggression Scale and .87 for the Victimization Scale.

Procedure

The children were approached in their classrooms. Sports club dropouts are easier to trace in the school setting than in the sports club setting and the conditions at school are better suited for the collection of data using questionnaires. Both parents and children were asked permission to participate. Information about the study was provided in a letter without revealing the specific aims of the study in order not to influence the children's responding to the questionnaire items. The questionnaires, part of a larger project, were conducted in two 60-minute standardized classroom sessions on the same day by trained undergraduate

students. In the first session, the children completed some items regarding demographics, their sports participation, and the SEQ-S for the sports club context. During the second session, the children completed the SEQ-S measure for the school context.

Statistical approach

Three sets of analyses were conducted. The first set sought to establish the prevalence of peer aggression and victimization for boys and girls in both the school and sports club contexts. In the second set, the stability of the children's scores for peer aggression and victimization in the two different contexts was investigated. Finally in the third set, similar analyses were performed as in the first two to compare the prevalence and stability of peer aggression and victimization for the sports participants versus dropouts across the two contexts. For all three sets of analyses, both a variable-oriented approach (i.e., the degree of peer aggression and victimization measured in continuous scores) and a person-oriented approach (i.e., classification of children as perpetrator or victim of aggression, as aggressive victim, or not involved in aggression/victimization) were used. Combination of variable-oriented and person-oriented approaches will give us more complete and specific information about peer aggression and victimization. For example, peer ratings of Salmivalli and Kaukiainen (2004) showed that the mean scores of boys on physical and verbal (i.e., overt aggression) and indirect aggression (i.e., relational aggression) were higher, but the person-oriented approach, however, revealed a nonaggressive group and a relational aggressive group in which girls were overrepresented.

The SPSS package was applied for the analyses. To assess the prevalence of peer aggression and victimization in the two contexts, a repeated measures multivariate analysis of variance (MANOVA) and subsequent univariate tests (ANOVA) were conducted. A classification procedure (Crick, 1997, Crick & Bigbee, 1998; Crick & Grotpeter, 1996) was used to categorize the children with regard to discrete aggression and victimization roles across the two contexts. Pearson's correlation coefficients were computed to examine the stability between the aggression and victimization (continuous) scores of the children across the two contexts. Cross-tabular analyses (Chi-square tests) were used to investigate the stability between children's classification as the perpetrators and/or victims of aggression across the two contexts.

Results

Prevalence of peer aggression and victimization in the two contexts

To examine potential differences in the prevalence of peer aggression and victimization in the two contexts, a 2 (context: school vs. sports club) x 2 (participation: participant vs. dropout) x 2 (gender: boy vs. girl) repeated measures multivariate analysis of variance (MANOVA) was conducted with the children's aggression and victimization scores in the two different contexts serving as the dependent variables (see Table 3.1 for means and standard deviations). Contrary to what we expected, no significant main effect of context was found. In addition, a significant interaction between gender and sports participation was also not found. Therefore, the remaining analyses were conducted without interaction calculations to increase the power. Further analyses yielded a significant multivariate main effect for gender ($F(2,1530) = 77.6$, $p < .001$, $P\eta^2 = .09$) and sports participation ($F(2,1530) = 11.8$, $p < .001$, $P\eta^2 = .02$) although the effect sizes were small (Cohen, 1988).

Table 3.1 *Mean self-reported aggression and victimization scores according to context, sports participation, and gender (standard deviations in parentheses)*

	Boys (n = 756)	Girls (n = 778)	Sports participants (n = 1425)		Dropouts (n = 109)	
			Boys (n = 717)	Girls (n = 708)	Boys (n = 39)	Girls (n = 70)
Aggression school	1.83 (0.53)	1.55 (0.45)	1.82 (0.52)	1.53 (0.43)	1.94 (0.68)	1.76 (0.54)
Aggression sports club	1.86 (0.54)	1.58 (0.45)	1.85 (0.53)	1.56 (0.44)	1.97 (0.70)	1.78 (0.53)
Victimization school	1.91 (0.61)	1.70 (0.55)	1.90 (0.60)	1.68 (0.53)	2.19 (0.72)	1.88 (0.71)
Victimization sports club	1.94 (0.59)	1.72 (0.56)	1.93 (0.59)	1.70 (0.55)	2.13 (0.69)	1.94 (0.66)

Gender differences in prevalence of peer aggression and victimization. Subsequent univariate tests showed the boys to report not only significantly more aggression ($F(1,1530) = 153.3$, $p < .001$, $P\eta^2 = .09$) but also victimization ($F(1,1530) = 67.7$, $p < .001$, $P\eta^2 = .04$) in both contexts when compared to the girls, although the effect sizes were small.

Prevalence of perpetrator and victim roles. The scores on the SEQ-S subscales were used to classify the children with regard to eight discrete aggression and victimization roles: four roles for the school context and the same four roles for the sports club context (see Table 3.2).

Table 3.2 *Prevalence of aggression and victimization roles in different contexts according to gender and Sports participation*

	Boys (%) (n = 756)	Girls (%) (n = 778)	Participants (%) (n = 1425)		Dropouts (%) (n = 109)	
			Boys (n = 717)	Girls (n = 708)	Boys (n = 39)	Girls (n = 70)
School						
Perpetrator	12.2	4.5	11.9	4.4	17.9	5.7
Victim	9.7	7.6	9.1	7.5	20.5	8.6
Aggressive victim	11.1	4.1	11.0	3.1	12.8	14.3
Not involved	67.1	83.8	68.1	85.0	48.7	71.4
Sports club						
Perpetrator	14.6	6.3	14.4	5.5	17.9	14.3
Victim	10.3	9.3	10.2	8.3	12.8	18.6
Aggressive victim	11.1	3.6	11.0	3.5	12.8	4.3
Not involved	64.0	80.8	64.4	82.6	56.4	62.9

The criteria of Crick and colleagues (Crick, 1997; Crick & Bigbee, 1998; Crick & Grotpeter, 1996) were used to categorize the children. When a child's score within the school context was more than 1SD above the sample mean for the Aggression Scale and below this criterion for the Victimization Scale, the child was classified as a "perpetrator" of aggression in that

context. A child was classified as “not involved” in peer aggression or victimization when both the child’s aggression and victimization scores fell below the sample mean plus 1SD criterion. A comparable procedure was used to classify a child as being a “victim” of aggression or both a perpetrator and a victim of aggression (i.e., a so-called “aggressive victim"). The same cut-off points from the school context were also used for the sports club context to allow for comparison. The prevalence rates for the different roles across the different contexts are nevertheless relative because they are based upon set cut-off points and variables that have been standardized with respect to the classroom or the sample mean (Salmivalli & Peets, 2009).

The results showed the majority of the children and the girls in particular to not be involved in aggression and/or victimization in both contexts (see Table 3.2). As expected, boys were classified almost three times more often than girls as either a perpetrator of aggression or an aggressive victim in both contexts. The prevalence of being a victim of aggression in the two contexts did not differ much for the boys versus girls. In line with our hypotheses, moreover, the prevalence of perpetrators and victims in sports clubs was higher than the prevalence in the school context although the differences were small.

Stability of peer aggression and victimization across contexts

Correlations between aggression and victimization scores by gender. Pearson’s correlation coefficients were computed to examine the associations between the aggression and victimization scores of the children across the two contexts. The associations were all found to be significant ($p < .001$). We expected the association between the aggression scores for the school and sports club contexts to be stronger correlated for boys than for girls. This was not found to be the case because the differences between the correlations were very small. The aggression scores in the two contexts correlated highly positively for both genders, $r = .70$ for boys and $r = .67$ for girls. For victimization, we had no specific expectations with regard to gender. The scores in the school and sports club contexts correlated positively for both genders, $r = .63$ for boys and $r = .69$ for girls.

Stability of perpetrator and victim roles across contexts. The next step in the second set of analysis was to investigate the stability of the children’s classification as the perpetrators and/or victims of aggression across the two contexts (see Table 3.3).

Table 3.3 *Stability of aggression and victimization roles for two contexts according to gender*

	Roles in sports club				
Roles in school	Perpetrator	Victim	Aggressive victim	Not involved	Total school
		Boys (n = 756)			
Perpetrator	42 (9.0)***	5 (-1.6)	11 (.3)	34 (-5.8)***	92
Victim	4 (-2.3)*	35 (11.1)***	9 (.3)	25 (-5.6)***	73
Aggressive victim	11 (-.4)	5 (-1.4)	53 (16.1)***	15 (-9.4)***	84
Not involved	53 (-4.6)***	33 (-4.9)***	11 (-11.2)***	410 (13.8)***	507
Total sports club	110	78	84	484	756
		Girls (n = 778)			
Perpetrator	15 (9.1)***	0 (-1.9)	4 (2.5)***	16 (-5.4)***	35
Victim	4 (.2)	33 (12.9)***	3 (.6)	19 (-9.9)***	59
Aggressive victim	4 (1.5)	5 (1.3)	15 (13.4)***	8 (-8.2)***	32
Not involved	26 (-6.0)***	34 (-8.8)***	6 (-9.1)***	586 (14.6)***	652
Total sports club	49	72	28	629	778

Note. Values are numbers of participants. Adjusted standardized residuals are presented in parentheses:

*$p < .05$. ** $p < .01$. *** $p < .001$.

As expected, cross-tabular analyses showed an association between the classifications at school and the sports club for both boys ($\chi^2 = 4943$; $df = 9$; $p < 0.001$) and girls ($\chi^2 = 4642$; $df = 9$; $p < 0.001$). In line with our expectation, the perpetrator (n = 42; 5.6%) and aggressive victim (n = 53; 7.0%) roles of the boys were somewhat more stable across contexts than the perpetrator (n = 15; 1.9%) and aggressive victim (n = 15; 1.9%) roles of the girls. In the case of boys alone the victim roles (n = 35; 4.6%) were found to be less stable than the perpetrator and aggressive victim roles across different contexts. In the case of the girls, the victim roles (n = 33; 4.2%) were somewhat more stable across contexts than the other roles.

Adjusted standardized residuals provided information on the differences between the observed and expected frequencies for each cell (i.e., role per context). Positive residuals indicate higher frequencies for a particular cell than might be expected by chance, negative residuals indicate lower frequencies than might be expected. When the absolute value of the adjusted standardized residual is larger than 1.96 or smaller than -1.96, the particular cell is over- or under-represented, respectively ($p < 0.05$). Table 3.3 shows that both boys and girls were more likely than expected by chance to have the same roles in school as they had in the sports club context. Only female aggressive victims at the sports club switched to the role of perpetrator of aggression at school more often than might be expected by chance. In the case of the boys alone, the perpetrators of aggression at the sports club were less likely than expected by chance to be a victim of aggression at school. Further, perpetrators of aggression, victims of aggression, and aggressive victims in the sports club setting appeared to be less than expected by chance to be not involved in school. Finally, the boys and girls not involved in peer aggression and/or victimization at the sports club were less likely than expected by chance to be perpetrators of aggression, victims of aggression, or aggressive victims at school. All other relations were nonsignificant as testified by the small adjusted standardized residuals.

Prevalence and stability of peer aggression and victimization for sports participants versus dropouts across two contexts

Differences in peer aggression and victimization according to sports participation and context. Contrary to what we expected, subsequent univariate tests showed the dropouts from sports clubs to report significantly higher levels of peer aggression than the sports participants in both the school and sports club contexts ($F(1,1530) = 17.2$, $p < .01$, $P\eta^2 = .01$). This main effect was not qualified by an interaction with gender. In line with our expectation, the dropouts also reported significantly higher levels of victimization than the participants in the two contexts although the effect sizes were small ($F(1,1530) = 19.8$, $p < .01$, $P\eta^2 = .01$). (see Table 3.1 for means and standard deviations)

Prevalence of perpetrator and victim roles according to sports participation. The children's scores on the SEQ-S scales were again used to classify the sports participants and dropouts into eight discrete aggression and victimization groups: four groups for the school context and four groups for the sports club context (see Table 3.2). The results of these analyses, with one exception, showed the majority of the children and the female sports

participants in particular to not be involved in peer aggression and/or victimization in both contexts. In the school context, however, male dropouts who were not involved in peer aggression and/or victimization constituted a minority. In keeping with our expectations, dropouts frequently belonged to the victim group in both contexts. Interestingly and contrary to our expectations, the dropouts were also found to be both perpetrators of aggression and aggressive victims relatively often in the two contexts: female dropouts were found to be a perpetrator in the sports club context almost three times more than female sports participants and female dropouts were found to be aggressive victims in the school context almost five times more than female sports participants.

Correlations between aggression and victimization scores according to sports participation. The associations between the aggression and victimization scores were all found to be significant ($p < .001$). Contrary to our expectations, however, the aggression scores at school and the sports club did not correlate higher for the participants ($r = .71$) than for the dropouts ($r = .70$). The correlations between the victimization scores at school and the sports club only differed slightly for the dropouts ($r = .70$) and sports participants ($r = .66$).

Although we did not formulate specific hypotheses about possible gender differences in relation to sports participation and the occurrence of peer aggression and/or victimization, we encountered a major difference in the correlations between the aggression scores for the male dropouts ($r = .78$) and the female dropouts ($r = .60$). The aggression scores were considerably more consistent across the two contexts for the male dropouts than for the female dropouts. The remaining findings with regard to gender differences and sports participation were in line with the earlier mentioned correlation coefficients regarding gender and sport participation separately; the differences between the remaining correlations were small. The only unexpected relatively high correlation we found was between the aggression scores school and victimization scores at the sports club for male dropouts ($r = .60$).

Stability of perpetrator and victim roles for sports participants versus dropouts across contexts. As expected, cross-tabular analyses showed stability in the roles that the children occupied at school and at the sports club for both the sports participants ($\chi^2 = 9470$; $df = 9$; $p < 0.001$), and the dropouts ($\chi^2 = 77.8$; $df = 9$; $p < 0.001$). In line with our expectation (see Table 3.4) the victim roles were relatively more stable for the dropouts (n = 9; 8.3%) across contexts than for the sports participants (n = 59; 4.1%). Contrary to our expectations, the dropout perpetrator roles (n = 7; 6.4%) and the dropout aggressive victim roles (n = 6; 5.5%) were

also found to be somewhat more stable than the perpetrator (n = 50; 3.5%) and aggressive victim roles (n = 62; 4.4%) of the sports participants across contexts, although the differences were small.

Table 3.4 shows that both sports participants and dropouts in the sports club context were more likely than expected by chance to have the same role as in the school context and less likely, in general thus, to switch roles.

Table 3.4 *Stability of aggression and victimization roles for two contexts according to sports participation*

	Roles in sports club				
Roles in school	Perpetrator	Victim	Aggressive victim	Not involved	Total school
	Sports participants (n = 1425)				
Perpetrator	50 (12.4)***	5 (-1.9)	14 (2.1)*	47 (-8.4)***	116
Victim	8 (-1.2)	59 (15.9)***	12 (1.3)	39 (-10.4)***	118
Aggressive victim	14 (1.4)	7 (-.8)	62 (21.7)***	18 (-13.1)***	101
Not involved	70 (-8.1)***	61 (-8.6)***	16 (-15.3)***	943 (20.1)***	1090
Total sports club	142	132	104	1047	1425
	Dropouts (n = 109)				
Perpetrator	7 (4.6)***	0 (-1.6)	1 (.2)	3 (-2.4)*	11
Victim	0 (-1.7)	9 (5.2)***	0 (-1.1)	5 (-2.0)*	14
Aggressive victim	1 (-1.0)	3 (.4)	6 (5.2)***	5 (-2.3)*	15
Not involved	9 (-1.0)	6 (-2.9)**	1 (-3.1)**	53 (4.6)***	69
Total sports club	17	18	8	66	109

Note. Values are numbers of participants. Adjusted standardized residuals are presented in parentheses:

*$p < .05$. ** $p < .01$. *** $p < .001$.

An exception was sports participants who were aggressive victims at the sports club and found to be more often perpetrators of aggression at school than might be expected by chance. Further, those sports participants and dropouts who were not involved in peer aggression and victimization at the sports club were more likely than expected by chance to not be involved in such at school and less likely than expected by chance to be aggressive victims or victims of aggression at school or – for only the sports participants - the perpetrators of aggression at school. The other relations were nonsignificant as testified by the small adjusted standardized residuals. Finally, the adjusted standardized residuals (see Table 3.4) for the dropout roles were generally much smaller than those for the sports participants.

Discussion

This study examined the prevalence and stability of peer aggression and victimization in Dutch elementary schools and sports clubs. In the following, the main findings will be discussed: (1) the prevalence of peer aggression and victimization in the two contexts according to gender and sports participation using a variable-oriented approach, (2) the same using a person-oriented approach, (3) the stability of peer aggression and victimization across the two contexts using a variable-oriented approach and (4) the same using a person-oriented approach.

To start with, the boys reported more peer aggression and victimization than the girls in both contexts, as expected. The degree of victimization in both contexts was also higher for dropouts than for participants. Contrary to what we expected, the dropouts showed more peer aggression than the participants in both contexts as well. On the basis of past studies (Baar, 2003; Coakley, 2009; Endresen & Olweus, 2005; Knoppers, 2006; Mintah et al., 1999; Rowe, 1998; Smoll & Smith, 1997), we had expected the participants in sports clubs to be more aggressive than dropouts in both the school and sport club settings and the extent of victimization in the two contexts to be higher for dropouts. The present findings did not provide support for the assumption that the competitive and masculine orientation of organized sports programs may reinforce or legitimize aggressive behavior among sports participants. One reason for this might be that such an effect depends upon the particular type of sport. Endresen and Olweus (2005), for example, found participation among boys in power sports to indeed lead to increased antisocial violent as well as non-violent antisocial behavior outside the sports arena. The finding that the sports participants reported less peer aggression and victimization than the dropouts in the two contexts studied in the present study may

alternatively be explained by catharsis. That is, sports participants may discharge energy via their participation in physical activities. However, only minimal empirical support for this hypothesis can be found in the literature to date (Endresen & Olweus, 2005). Further research is thus needed to examine the relations between the type of sport, the reinforcement of aggressive behavior on the part of participants in particularly contact and power sports, and interpersonal aggression within the sports club context and other contexts such as the school.

In keeping with a social dominance hypothesis (Hawley, 1999; Pellegrini, 2004), we expected it to be more difficult for children to gain and maintain a dominant social status in groups with a relatively unstable composition such as sport teams that are modified almost every year. Greater peer aggression and victimization were thus expected to occur among sports participants at the sports club than at school. However, contrary to our expectation, we found no significant main effect for context. A similar result (i.e., consistency of interpersonal roles across contexts) was previously found by Dodge, Coie, Pettit, and Price (1990) with respect to what was then referred to as sociometric status. That is, boys rejected in the classroom were also rejected in the playground groups. Dodge et al. suggested that the behavior of rejected boys may have certain characteristics that trigger negative responses from peers across contexts which is in line with the hypothesis that aggressive behavior on the part of boys is associated with personality patterns (Olweus, 1993; Salmivalli et al., 1998). However, this hypothesis does not explain the rather stable roles of female perpetrators of aggression in both contexts in our study. The alternative explanation for the stability of aggressive behavior roles across contexts, that children who are teammates in their sport are students in the same classrooms as well, is not plausible. The likelihood of such overlap will be minimal in light of the annual changes made in the composition of sports teams in the Netherlands.

The prevalence of peer aggression and victimization in both settings was next examined using a person-oriented approach. As mentioned in the Introduction, so-called aggressive victims are of special interest because such children are particularly at risk for later aggression and other psychosocial problems. In our study, the self-reported prevalence of aggressive victims was found to be 11.1% of the boys and about 4% of the girls in both contexts (see Table 3.2). The highest frequencies were reported by male dropouts (12.8%) in both contexts and by female dropouts (14.3%) in the school context. In sum, the frequencies were higher than the frequencies mentioned in the Introduction but they still fall into the range of 0.4% to 28.6% found in studies of self-reported aggressive victims within the school

context in a review by Schwartz et al. (2001). Schwartz et al. found boys to be both the perpetrators of aggression and aggressive victims more often than girls in the school context. This finding is confirmed by the results of our study and despite the fact that we included in our study four relational items in our study to prevent gender bias. This is still somewhat surprising because many studies included in the Schwartz et al. (2001) review did not include assessments of relational aggression and victimization, which often is reported to be more salient for girls (Crick, 1997; Crick & Bigbee, 1998; Crick & Grotpeter, 1995, 1996; Cullerton-Sen & Crick, 2005). With regard to being the victims of aggression, Salmivalli and Peets (2009) and Schwartz et al. (2001) found no clear gender differences and we had no clear expectations with regard to this. Our findings revealed a relatively higher prevalence of victims among the boys in both contexts; an exception to this was a relatively higher incidence of female than male dropouts reporting being the victim in the sports club context. In keeping with our hypothesis, the classification showed sports dropouts in both contexts to be the victims of aggression more often than sports participants. Surprisingly and contrary to our hypothesis, however, sports dropouts were also found to be the aggressive victims and the perpetrators of aggression relatively more often as well. As predicted, within all subgroups the prevalence of perpetrators, aggressive victims, and victims was the same or higher in sports clubs than in the school context with the exception of male dropouts who were more likely to be the victims of aggression in the school context than in the sports club context and female dropouts who were more likely to be aggressive victims in the school context than in the sports club context. These findings show dropouts from the sports clubs to thus be at risk for becoming, in the case of boys, both the perpetrators and victims of aggression at school and, in the case of girls, an aggressive victim at school.

Next the stability of the peer aggression and victimization reported to occur in the two contexts was examined using a variable-oriented approach (i.e., in terms of correlation coefficients). Hörmann and Schäfer (2009) found fairly high associations for German children in elementary school classes and after school child-care groups although the children were classified in peer aggression and victimization roles for purposes of analyses and gender was not considered. We expected the aggression scores to correlate more strongly for boys than for girls as aggressive behavior on the part of boys is associated with particular personality characteristics (see above), but this hypothesis was not confirmed. In our study, the results revealed strong positive correlations for both the aggression and victimization scores in the school and sports club contexts but, contrary to our expectations, the differences in the

correlations for the boys versus girls and for sports participants versus dropouts were small. Interestingly, the aggression scores for the male dropouts highly correlated across contexts (r = .78), which is in keeping with previous research results and suggests that a sports club dropout status for boys may be a risk factor for aggressive behavior at school. Remarkable was the fairly high association between the aggression scores for male dropouts at school and their victimization scores at the sports club (r = .60). From a social dominance point of view (Hawley, 1999), this finding can be interpreted that boys dropped out from their sports club because they were not able to be aggressive anymore in the sports club setting. Further research is needed, however, to verify this new hypothesis.

Finally, stability of the children's classifications as perpetrators and/or victims of aggression were analyzed across the two contexts using a person-oriented approach. The results showed the children in the sports club contexts to be more likely than expected by chance to occupy the same role in the school context and generally less likely to switch roles, thus. This finding provides the first evidence that children - despite the aggression prevention policy at schools as required by Dutch Government - were likely to occupy similar roles at the sports club. Girls and sports participants who were the perpetrators of aggression in the sports club context constituted an exception to this pattern of stability: these children were more likely than expected by chance to become aggressive victims in the school context. Additional cross-tabular analyses for the female sports participants in particular, the results of which are not shown in a table in this article, showed those female sports participants who were the perpetrators of aggression at school to not only be more likely than expected by chance to be the perpetrators of aggression at the sports club as well but also an aggressive victim at the sports club as well (adjusted standardized residual $p < 0.01$). We also found that the aggression/victimization roles of the boys were to be more stable across contexts than the aggression/victimization roles of the girls (see Table 3.3). This pattern of findings supports the hypothesis that aggressive behavior among girls tends to be more situation dependent than aggressive behavior among boys and that girls switch between roles of perpetrator and victim more easily than boys in different contexts (Olweus, 1993; Salmivalli et al., 1998).

Future Research and Implications

The present study has some limitations to be considered in the interpretation of the results. The findings are based upon a single assessment occasion. The cross-sectional nature of the study further prevents the drawing of conclusions regarding the stability of peer aggression

roles over time. Another possible limitation is that the associations between peer aggression and victimization may be partly due to shared method variance. As already mentioned (see Method), self-report measures were used to assess peer aggression and victimization in the different contexts as peer nomination procedures could not be used in the sports club context in particular. That is, the earlier experiences of dropouts at the sports club could only be studied using self-reports. Nevertheless, the findings revealed very stable peer aggression and victimization roles but not all roles correlated equally strongly across the two contexts. In other words, the shared method variance may not be as strong as suspected (Juvonen, Nishina, & Graham, 2001).

Further research is needed to examine, more specific, the stability of overt and relational forms of peer aggression and victimization across different contexts. Prior research indicates that overtly aggressive children and overtly victimized children are different children. More specifically, overt forms of aggression and victimization do not appear to overlap much while relational forms of aggression and victimization show considerable overlap. Relational aggression does not rely on physical characteristics and can also used in more structured settings such as the classroom (Crick & Bigbee, 1998; Perry, Kusel, & Perry, 1988).

The world of sport is a context in which peer aggression, and victimization in particular, should be the focus of future research attention. The results of this study showed that peer aggression and victimization occur in both the school and the sports club and that there is considerable stability across the two contexts. Greater knowledge of the prevalence and stability of peer aggression and victimization across contexts may equip teachers and counselors better for intervention when needed (e.g., when a particular child is known to be victimized by the same perpetrators in different contexts). The importance of community-based aggression prevention is thus highlighted; approaches in which aggressive and victimized children are monitored across contexts and treated accordingly (i.e., using both group and individual interventions). Further research is nevertheless required to examine the stability of the interpersonal relationships between children across different contexts in general, the overlap between the compositions of sports groups and classroom/school groups, and the stability of sports groups over time.

Chapter 4

Machiavellianism in children in Dutch elementary schools and sports clubs: Prevalence and stability according to context, sport type, and gender

The majority of research on children's peer aggression has focused exclusively on the school context. Very few studies have investigated peer aggression in sports clubs. The prevalence and stability of peer aggression, prosocial behavior, and resource control strategies for children participating in three types of sports (martial arts, contact, and noncontact sports) were examined in two contexts: the sports club and the elementary school. We distinguished aggressive children with (i.e., Machiavellians) and without prosocial tendencies (i.e., coercive-aggressive children). Self-reports about experiences in the two contexts where gathered from 1,425 Dutch elementary school students (717 boys and 708 girls, fourth to sixth grade, mean age 11.25 years) who were participating in a sports club. We found roles for resource control strategies to be rather stable across contexts. The findings did not provide support for the "enhancement" assumption in these contexts with regard to martial arts participants.

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Introduction

This study examines self-reported peer aggression in different environmental and social contexts to better understand this complex phenomenon. In particular, this study analyzes the prevalence and stability of peer aggression, and the use of resource control strategies among children participating in three types of sports (martial arts, contact and noncontact sports) in two different contexts (sports club and elementary school). The majority of previous research on peer aggression had focused almost exclusively on the school context. However, peer aggression can also occur within a variety of other social settings, such as homes, residential care, and prisons (Monks et al., 2009). The effectiveness of school-based aggression prevention programs has been found to vary substantially in different countries, with only moderate effectiveness in the short run, at best (Baar, Wubbels, & Vermande, 2007; Smith, Ananiadou, & Cowie, 2003). We argue that knowledge of when, where and by whom peer aggression occurs in different contexts is useful for understanding and dealing more adequately with peer aggression across contexts. This may contribute to the creation of community-based prevention programs.

Sports and aggression

In many countries, sports are an important leisure activity. Children spend a substantial amount of time at sports clubs with their peers. Although the percentage of youth memberships in the Netherlands has slightly declined in recent years, more than 60% of children and adolescents aged 6 to19 years are members of a sports club (Breedveld, Kamphuis, & Tiessen-Raaphorst, 2008). In the Netherlands, unlike some Anglo-Saxon countries, youth sports are not embedded in the educational system. Dutch sports clubs are voluntary organizations and almost exclusively organized separately from school and community-based organizations, with funding by members, local government, business, and private resources. Until now, very few studies have investigated peer aggression at sports clubs (e.g., Endresen & Olweus, 2005; Baar, Vermande, & Wubbels, 2011). To the best of our knowledge, no other study has investigated peer aggression in the context of both sports clubs and schools. The sports club, as the school, can be considered a “social anchor” for children in the same neighbourhood, in which children can experiment with different roles and group interaction (Nucci & Young-Shim, 2005). Several studies have strongly suggested that the socialization process of sports may legitimize aggressive acts. In contrast with learning activities in school, sports activities generally emphasize physical characteristics. Children

learn to be better, faster, and stronger through their participation in organized sports programs (Knoppers, 2006). Organized sports programs are often highly competitive, and a "win-at-all-costs" orientation (Smoll & Smith, 1997) may reinforce aggressive behavior among youth (Coakley, 2009; Endresen & Olweus, 2005; Nucci & Young-Shim, 2005). The impact of sports in children's lives is usually assumed by local and national governments to be positive (e.g., the Dutch Ministry of Health, Welfare and Sport, 2005). However, research should also focus on the potentially negative sides of organized youth sports participation, such as peer aggression. The International Society of Sport Psychology has recognized that aggression on and off the playing field has become a social problem, and has made recommendations to reduce the incidence of aggression in the athletic domain (Tenenbaum, Stewart, Singer, & Duda, 1997).

In this study, we examined the prevalence and stability of self-reported aggressive behavior among different types of sports participants, classified by different physical grades of player-to-player contact: martial arts participants, participants in contact sports, and participants in noncontact sports. The rules of martial arts allow (high) body contact with opposing players, whereas in contact sports, limited physical contact between opposing players is allowed as part of the normal game (e.g., basketball, handball, hockey, soccer). In noncontact sports, there is no physical contact between opposing players (e.g., badminton, horseback riding, tennis, volleyball). Comparison of children's peer aggression experiences within the different types of sports and within the contexts of sports clubs and schools can provide us insight into the constancy of peer aggression patterns, which is important for developing adequate sports-specific and community-based aggression prevention programs.

Resource control strategies

The present research investigates self-reported peer aggression and considers children's self-reported prosocial behavior in the contexts of schools and sports clubs. Therefore, we distinguished aggressive children with and without prosocial tendencies. From an evolutionary perspective on social dominance relations, Hawley explains that children use two different strategies to control resources in social group contexts: coercive strategies (i.e., purely aggressive children) and prosocial strategies (i.e., purely prosocial children; Hawley, 1999, 2003; Hawley, Little, & Card, 2007; Hawley, Little, & Pasupathi, 2002). A third group, Machiavellians, are bistrategic controllers who are capable of using both coercive strategies (e.g., making demands and threats) and prosocial strategies (i.e., being reciprocal,

cooperative, and helpful) to access and compete for the resources of the group, such as goods, social status, and friendships. In other words, for some children peer aggression and prosocial behavior may occur side by side, from an evolutionary point of view, these behaviors are not opposite ends of social behavior (Hawley et al., 2002). Machiavellianism can be a successful or adaptive way to gain resource control or social dominance. It is important to distinguish purely aggressive and coercive children from prosocial and Machiavellian children. Studies (e.g., Bierman, Smoot, & Aumiller, 1993; Crick, 1996) show that aggressive children who lack prosocial skills may be particularly problematic and at risk for peer rejection and future social maladjustment. Prior research in elementary schools further indicates that the friendships of Machiavellians are satisfying and resemble those of prosocial children. Machiavellian children show better social relations and a better adaption over time than coercive children or control groups (Palmen, 2009). Despite their aggression, Machiavellians are socially active and well liked by peers (Hawley et al., 2007) because of their prosocial skills, which may partly camouflage their aggressive behavior to adult observers. Therefore, Machiavellians are difficult for teachers and counselors to trace and monitor (Hawley, 2003; Hawley et al., 2007). If teachers and sports coaches do not adequately recognize peer aggression, they may not deal effectively with situations in which peer aggression occurs.

Goals and expectations

The first goal of this research was to compare the prevalence of self-reported peer aggression and prosocial behavior according to the type of sports participation in sports clubs and elementary schools. From a social dominance point of view, peer aggression can be viewed as a strategy of individuals to gain and maintain social status and dominance in relationships (Hawley, 1999; Pellegrini, 2004, 2008; Pellegrini & Long, 2002). We argue that use of aggressive and prosocial strategies not only depends on children's personal characteristics (i.e., we follow an evolutionary perspective on social dominance relations) but, additionally also on context characteristics. Features of the context will also influence the use of these strategies. Therefore, from a behavioral ecological point of view (Pellegrini, 2008), aggressive and prosocial behavior were examined for contextual variation. We suggest that in comparison with the relative social stability over time of the classroom, the sports club offers a less structured setting in which it is more difficult for children to get and to keep social status. Vaillancourt and colleagues (2010) demonstrated that peer aggression mostly occurs in unstructured school settings with less supervision, such as playgrounds, hallways, and lunchrooms. Craig, Pepler, and Atlas (2000) found that the frequency of aggressive acts was

higher on the playground than in the classroom. Therefore, we expected a higher prevalence of self-reported peer aggression in the sports club for two reasons: first, children have to re-establish their social positions with their peers in relatively unstable sports groups that are modified almost every year; and second, the sports club is a less structured setting, with less supervision than the school. In addition, several studies have found that sports programs are often highly competitive, which reinforces aggressive behavior among athletes (e.g., Coakley, 2009; Nucci & Young-Shim, 2005; Smoll & Smith, 1997) and unconsciously teaches that aggression is an acceptable way to achieve desired outcomes (e.g., Mintah, Huddelston, & Doody, 1999; Rowe, 1998). These findings are in line with the "enhancement hypothesis" formulated by Endresen and Olweus (2005), which states that participation in power sports over time enhances antisocial tendencies. Their findings showed higher levels of violent behavior within the sports clubs and non-violent antisocial behavior outside the sports club among boys who participated in power sports (i.e., fighting and strength sports) than among who did not. Boys who engaged in power sports were not characterized by elevated levels of antisocial involvement (i.e., there was no selection effect). Endresen and Olweus have focused on the appearance of antisocial and violent behavior among male power sports participants both in and outside sports. The present study explores the prevalence of self-reported peer aggression and prosocial behavior across contexts and by gender and types of sport. In contrast to Endresen and Olweus' study, we did not use the term "power sports" because none of the children in our research sample participated in strength sports. With regard to fighting sports, almost all of the children participated in martial arts (e.g., jiu-jitsu, judo, karate, kung-fu, taekwondo). Therefore, in the present study we used the term "martial arts". Furthermore, we hypothesized that the prevalence of self-reported aggressive behavior among sports participants depends upon the particular type of sport. Based on Endresen and Olweus' (2005) "enhancement" considerations (i.e., a positive attitude toward aggression or violence can be expected to lead to aggression in the sports club or in other contexts, such as school) we expected peer aggression to be more prevalent among participants of martial arts and contact sports than among participants of noncontact sports in both contexts. This expectation is also in line with past research findings (Bredemeier, Weiss, Shields, & Cooper; 1987; Conroy et al., 2001) which revealed that high-contact sports participation was associated with a greater perception of legitimacy for aggressive sport behavior than medium-contact and noncontact sports participation. Furthermore, we expected the degree of self-reported prosocial behavior among contact sports participants in the sport club context to be higher than that of noncontact sports participants, followed by participants in martial arts. The

contact sports participants in our study were practicing team sports, which require them to be prosocial to be accepted by teammates and to be a good team member. Because martial arts participants practice individual sports, they may be less prosocial because they have less need to consider other participants than contact (team) sports participants do. For non-contact sports participants, we had no specific expectations with respect to the degree of prosocial behavior because many non-contact sports can be practiced individually (e.g., fitness), as a team (e.g., volleyball), or both individually and/or as a team (e.g., tennis). Finally, we expected boys to report more peer aggression than girls (e.g., Salmivalli & Peets, 2009; Schwartz, Proctor, & Chien, 2001) and girls to report more prosocial behavior (e.g., Closson, 2009; Zimmer-Gembeck, Geiger, & Crick, 2005) than boys within the three different types of sports in both contexts.

The second goal of the present study was to compare the prevalence of roles for resource control strategy (i.e., coercive-aggressive, purely prosocial, and Machiavellian) in sports clubs and schools among children participating in different types of sports. The children were classified according to their level of self-reported peer aggression and prosocial behavior to compare resource control strategies roles in both contexts. Based on Hawley's Resource Control Theory (Hawley, 1999, 2003; Hawley, Little, & Card, 2007; Hawley, Little, & Pasupathi, 2002), we expected contact sports participants to be Machiavellians more often than martial artists and noncontact sports participants, particularly in the sports club context. The contact sports participants in our study were all team sports players who needed to be part of a team and to be accepted by teammates. Contact sports participants must cooperate to be good team members and must be good competitors within their own sports team. In other words, they should be able to balance "getting along" with and "getting ahead" of their peers. Both strategies can be effective in resource control (Hawley, 2003). Martial arts are not team sports, so their participants may be less cooperative because they have less need to consider other participants. Noncontact sports participants may be less coercive-aggressive in the sports club context because of the absence of direct physical player-to-player contact. Furthermore, the sports club setting, with winners and losers, is a less structured and more competitive setting than a school. Thus, it may be probably more difficult for children to get and to keep social status within their peer group in the sports club context. In light of the behavioral ecological theory, the contest may determine the use of aggressive and affiliative strategies to access resources (Pellegrini, 2008). We expected martial arts participants to be coercive-aggressive more often and to be Machiavellian and prosocial less often in both

contexts. Noncontact sports participants can participate in both team sports and in individual sports. Therefore, with regard to noncontact sports participants, we had no specific expectations about prosocial behavior. In line with the results of other studies (e.g., Hawley, 1999, 2003), we assumed that boys would be coercive-aggressive more frequently and that girls would more frequently occupy the prosocial role. We had no a priori reason to expect gender differences with regard to the Machiavellian role because girls tend to be more prosocial, and boys tend to be more aggressive. Therefore, we expected that boys and girls were equally likely to be Machiavellian in both contexts.

The third goal of this research was to investigate the stability of roles for resource control strategies for the three types of sports participants in the contexts of the sports club and the elementary school. As stated previously, there is a lack of research on the extent to which aggressive children in school are also aggressive on sports clubs. A few studies (Baar et al., 2011; Craig, Pepler, & Atlas, 2000; Hörmann & Schäfer, 2009) have shown that peer aggression is stable across different contexts, but the results of these studies did not focus on specific types of sports. If we make a distinction between types of sports and types of aggressive children (i.e., coercive and Machiavellian), we may find context differences in peer aggression. It could be that peer aggression is considered more "acceptable" among contact sports (and martial arts in particular), in which physical contact and physical characteristics are emphasized. The masculine orientation could create a positive attitude towards the use of aggression in the sports club and in other contexts, such as school (Coakley, 2009; Endresen & Olweus, 2005; Knoppers, 2006; Nucci & Young-Shim, 2005). In line with the theoretical assumptions mentioned in the second goal of this study and adopting a person-oriented approach, we expected martial arts participants to occupy the coercive-aggressive role more often than participants in contact and noncontact sports in both contexts. We also expected that the contact sports participants would occupy the Machiavellian role more often in both contexts than martial artists and noncontact sports participants. We explored the possibility of differences across contexts, but we had no hypothesis regarding the stability of the prosocial roles for the three types of sports.

The fourth and final goal of this study was to investigate the stability of resource control strategies for sports club and elementary school contexts by gender. We expected boys to occupy coercive-aggressive and Machiavellian roles more often than girls in both contexts. This expectation was based on the theoretical insight that peer aggression in boys is connected with anti social personality patterns (Olweus, 1993; Salmivalli, Lappalainen, & Lagerpetz,

1998) and therefore would be more stable for boys across contexts. Peer aggression among girls seems to be more situation dependent and related to the social network and social demands of peers (Olweus, 1993; Salmivalli et al., 1998). Thus, girls may more easily adopt aggressive behavior patterns when they switch social environments. We had no expectation regarding gender differences for prosocial behavior roles, but we nevertheless explored the possibility of gender differences across contexts.

Method

Participants

A total of 1425 fourth-, fifth- , and sixth–grade students (717 boys and 708 girls, mean age 11.25 years) from 26 elementary schools in 21 towns throughout the Netherlands participated in the present study. Most of the students (83.8 %) were Dutch. A student was considered to have a non-Dutch ethnic origin if the child or at least one of its parents had been born in a country other than the Netherlands. The remainder of the sample was of the following origins: Turkish (2.1%), Moroccan (3.0%), Antilleans (0.7%), Surinamese (1.2%), or other ethnic origin (9.3%). The percentages students with other than Dutch origins (16.2%) approximates the wider Dutch 10-12-year-old population (i.e., 22.2%; CBS, 2010). Based on the children's sport club participation (i.e., sport club membership with regard to their most practiced type of sport), three types of sports participation groups were distinguished: martial artists (55 boys and 49 girls), contact sports participants (462 boys and 140 girls), and noncontact sports participants (200 boys and 519 girls).

Measures

Self-reports were used to assess the children's subjective experiences with peer aggression and prosocial behavior towards others in both school and sports club contexts. Peer reports are often used in classroom settings to assess peer aggression. For sports, however, the group size is often too small or the group setting is too ambiguous to apply the peer-reporting technique. Thus, in this study only self-reports were gathered for both contexts.

The children's subjective experiences with peer aggression and prosocial behavior were assessed using a Dutch translation of the Social Experience Questionnaire-Self Report (SEQ-S), as originally formulated by Crick and colleagues (Crick, 1997; Crick & Grotpeter, 1995; Grotpeter & Crick, 1996). One version of the self-reporting measure was developed for the sports club context and one version was developed for the school context.

Peer aggression. The Peer Aggression Scale consisted of 11 items: three physical items (e.g., "How often do you hit, kick, or punch others?"), three verbal items (e.g., "How often do you say mean things to others, insult others, or put others down?"), and five relational items (e.g., How often do you say unfavorable things about someone to others?").

Prosocial behavior. The Prosocial Behavior Scale consisted of six items (e.g., "How often do you cheer up other kids who feel upset or sad?").

Each questionnaire item was rated individually by the children on a five-point Likert scale that ranged from 1 (= never) to 5 (= all the time). For the sports club context, Cronbach's alpha was .84 for the Peer Aggression Scale and .74 for the Prosocial Behavior Scale. For the school context, Cronbach's alpha was .84 for the Peer Aggression Scale and .81 for the Prosocial Behavior Scale.

Procedure

Both parents and children were informed about the study by a letter, which did not reveal the specific aims of the study to avoid influencing the children's responses to the questionnaire. The anonymity of the survey responses was assured, and participation was voluntary. The researchers met the children in their classrooms. The questionnaires, part of a larger project, were conducted in two 60-minute standardized classroom sessions on the same day by trained undergraduate students. In the first session, the children responded to questions completed regarding demographics, sports participation, and the SEQ-S relating to the sports club. During the second session, the children completed the SEQ-S questionnaire relating to their school.

Statistical approach

The SPSS package was use to run the analyses. To assess the prevalence of peer aggression and prosocial behavior according to the type of sports participants in sports clubs and elementary schools (first goal), a repeated measures multivariate analysis of variance (MANOVA) and subsequent univariate tests (ANOVA) were conducted. A classification procedure (Crick, 1997; Crick & Bigbee, 1998; Crick & Grotpeter, 1996) was used to assess children's use of the different strategies for resource control in both contexts (second goal). Cross-tabular analyses (chi-square tests) were used to investigate the stability of resource control strategies for three types of sports participants (third goal) and gender (fourth goal) within the contexts.

Results

Prevalence of peer aggression and prosocial behavior in the two contexts and for different types of sports

To examine potential differences between the school and the sports club for levels of self-reported peer aggression and prosocial behavior, repeated measures of multivariate analysis of variance (MANOVA) were conducted: 2 (context: school vs. sports club) x 3 (types of sports participation: martial arts participant vs. participant in contact sports vs. participant in noncontact sports) x 2 (gender: boy vs. girl). Children's peer aggression and prosocial behavior scores in the two contexts served as the dependent variables (see Table 4.1 for means and standard deviations).

Table 4.1 *Mean self-reported peer aggression and prosocial behavior scores according to context, sport type, and gender (standard deviations in parentheses)*

	Martial arts (n = 104)		Contact sports (n = 602)		Noncontact sports (n = 719)	
Context and variable	Boys (n = 55)	Girls (n = 49)	Boys (n = 462)	Girls (n = 140)	Boys (n = 200)	Girls (n = 519)
Sports club						
Peer aggression	1.85 (0.61)	1.53 (0.36)	1.84 (0.49)	1.54 (0.43)	1.66 (0.45)	1.51 (0.41)
Prosocial behavior	3.69 (0.65)	4.14 (0.48)	3.68 (0.56)	4.08 (0.50)	3.73 (0.52)	4.06 (0.53)
School						
Peer aggression	1.78 (0.59)	1.47 (0.38)	1.78 (0.47)	1.50 (0.38)	1.73 (0.51)	1.49 (0.41)
Prosocial behavior	3.59 (0.67)	4.01 (0.64)	3.62 (0.63)	4.05 (0.59)	3.63 (0.62)	4.01 (0.58)

Supporting our hypothesis, a significant multivariate main effect for context was found ($F(2,1420) = 15.62$, $p = .000$, $P\eta^2 = .02$). Follow-up univariate tests with regard to context revealed a significant effect for peer aggression ($F(1,1421) = 9.92$, $p = .002$, $P\eta^2 = .01$) and also yielded a significant effect for prosocial behavior ($F(1,1421) = 16.01$, $p = .000$, $P\eta^2 = .01$). Further analyses yielded a significant multivariate main effect for gender ($F(2,1420) =$

90.46, p = .000, $P\eta^2$ = .11). However, no significant main effect for sport type was found. The interaction effect of context x types of sport participation (F(4,2842) = 4.54, p = .001, $P\eta^2$ = .01) and of context x gender (F(2,1420) = 3.22, p = .040, $P\eta^2$ = .01) appeared significant. However, all the effect sizes were small (Cohen, 1988).

Based on subsequent univariate tests, we observed a significant difference in self-reported peer aggression in both contexts between martial arts, contact sports, and noncontact sports participants (F(2,1421) = 3.69, p = .025, $P\eta^2$ = .01). On average and as predicted, post-hoc comparison in accordance with the Games-Howell method indicated that contact sports participants were reporting significantly (p = .000) more peer aggression in both contexts than noncontact sports participants. Contrary to our expectations, there were no significant differences between the other types of sports with regard to the two contexts. Furthermore, subsequent univariate tests showed that boys reported significantly more peer aggression (F(1,1421) = 93.89, p = .000, $P\eta^2$ = .06) in both contexts. Girls reported significantly more prosocial behavior (F(1,1421) = 146.56, p = .000, $P\eta^2$ = .09) in both contexts than the boys. Again, all the effect sizes were small.

Prevalence of resource control strategy roles in the two contexts for different types of sports

The scores on the SEQ-S subscales were used to classify the children into four discrete resource control strategy groups for each context (see Table 4.2). The criteria of Crick and colleagues (Crick, 1997; Crick & Bigbee, 1998; Crick & Grotpeter, 1996) were used to categorize the children. When a child's score within a context was more than 1 SD above the sample mean for the Aggression Scale and below this criterion for the Prosocial Behavior Scale, the child was classified as "coercive-aggressive" in that context. A child was classified as "Machiavellian" when the child's aggression and prosocial behavior scores were above the criterion of the sample mean plus 1 SD. A comparable procedure was used to classify a child as being purely "prosocial" or a "control" child. The same cut-off points were used in the school context and the sports club context to allow for comparison.

In accordance with our hypothesis, the results in both contexts showed that contact sports participants tended to be relatively more Machiavellian than martial arts and noncontact sports participants (see Table 4.2).

Table 4.2 *Prevalence of coercive, prosocial, Machiavellian, and control strategy roles in different contexts according to sport type and gender*

Context and resource control strategies roles	Martial arts (%) (n = 104)		Contact sports (%) (n = 602)		Noncontact sports (%) (n = 719)	
	Boys (n = 55)	Girls (n = 49)	Boys (n = 462)	Girls (n = 140)	Boys (n = 200)	Girls (n = 519)
Sports club						
Coercive	45.5	10.2	45.9	22.9	38.5	18.7
Prosocial	14.5	42.9	11.3	39.3	17.5	40.7
Machiavellian	12.7	16.3	13.2	12.1	5.5	10.0
Control	27.3	30.6	29.7	25.7	38.5	30.6
School						
Coercive	43.6	20.4	46.5	15.7	42.0	19.3
Prosocial	16.4	44.9	15.6	35.7	15.0	40.3
Machiavellian	3.6	4.1	8.2	10.0	4.5	6.7
Control	36.4	30.6	29.7	38.6	38.5	33.7

However, female contact sports participants were less Machiavellian than female martial arts participants in the sports club. All types of sports participants, particularly martial arts participants, were more often Machiavellian in the sports club than in the school. Our hypothesis also predicted that the martial arts participants would be more coercive-aggressive in both contexts, but the results generally showed that contact sports participants were the most coercive-aggressive in both contexts. However, in the school context, female martial arts participants were more coercive-aggressive than female contact and noncontact sports participants. Surprisingly, martial arts participants were more prosocial than the other types of sports participants in both contexts. The only exceptions to this were male noncontact sports participants in the sports club context. Finally, in accordance with our assumptions about gender differences, boys tended to be more frequently coercive-aggressive than girls were in

both contexts, particularly male martial arts participants in the sports club context. Girls tended to be more prosocial than boys in both contexts. Girls were somewhat more likely than boys to be Machiavellian in both contexts. The only exceptions to this were male contact sports participants in the sports club.

Stability of resource control strategy roles across contexts according to sport type

The third goal of this research was to investigate the stability of resource control strategy roles for the three types of sports participants in both contexts (see Table 4.3). Adjusted standardized residuals provided information on the differences between the observed and expected frequencies for each cell (i.e., role per context). Positive residuals indicate higher frequencies for a particular cell than might be expected by chance, and negative residuals indicate lower frequencies than might be expected. When the absolute value of the adjusted standardized residual is larger than 1.96 or smaller than -1.96, the particular cell is over- or under-represented, respectively ($p < 0.05$).

As predicted, all three types of sports participants likelihood than expected from chance of having the same roles in school as they had in the sports club context. Cross-tabular analyses showed consistency in the roles that the children occupied at school and at the sports club for participants in martial arts ($\chi^2 = 72.0$; $df = 9$; $p < 0.001$), contact sports ($\chi^2 = 3995$; $df = 9$; $p < 0.001$), and noncontact sports ($\chi^2 = 4944$; $df = 9$; $p < 0.001$). Other role associations for resource control strategies across contexts according to sports type were negatively associated or were non-significant, as shown by the small size of the adjusted standardized residuals.

Contrary to our expectations, the coercive-aggression roles were not more stable across both contexts for the martial arts participants (n=20; 19.2%) than the contact sports participants (n=167; 27.7%). As expected, the coercive-aggressive roles were more stable across the contexts for the martial arts participants than for the noncontact sports participants (n = 121; 16.8%). In line with our expectations, the Machiavellian roles were more stable across the contexts for the contact sports participants (n = 31; 5.1%) than for the martial arts (n = 3; 2.9%) and noncontact sports participants (n = 18; 2.5%), although the differences were small. We had no predictions regarding the stability of the prosocial roles across the contexts. Nevertheless, it is worth mentioning that the prosocial roles were less stable across the contexts for participants in contact sports (n = 71; 11.8%) than for the martial arts (n = 22; 21.2%) and the noncontact sports (n = 167; 23.2%).

Table 4.3 *Stability of resource control strategy roles for two contexts according to sport type*

	Roles in sports club				
Roles in school	1.	2.	3.	4.	Total school
	Martial arts (n = 104)				
1. Coercive	20 (4.7)***	2 (-3.5)**	6 (0.7)	6(-1.8)	34
2. Prosocial	1 (-3.8)**	22 (6.4)***	3 (-0.9)	5 (-1.9)	31
3. Machiavellian	1 (-0.2)	0 (-1.3)	3 (3.5)**	0 (-1.3)	4
4. Control	8 (-1.0)	5 (-2.2)*	3 (-1.2)	19 (4.1)***	35
Total sports club	30	29	15	30	104
	Contact sports (n = 602)				
1. Coercive	167 (12.1)***	5 (-8.1)***	24 (-1.7)	41 (-5.0)***	237
2. Prosocial	8 (-8.6)***	71 (13.1)***	14 (-0.5)	29 (-1.4)	122
3. Machiavellian	12 (-2.7)**	5 (-1.6)	31 (10.5)***	4 (-3.5)**	52
4. Control	57 (-3.6)**	26 (-1.8)	9 (-4.1)**	99 (8.5)***	191
Total sports club	244	107	78	173	602
	Noncontact sports (n = 719)				
1. Coercive	121 (15.3)***	14 (-8.8)***	16 (0.0)	33 (-5.0)***	184
2. Prosocial	13 (-8.3)***	167 (14.2)***	19 (-0.5)	40 (-6.5)***	239
3. Machiavellian	7 (-1.3)	16 (0.3)	18 (7.8)***	3 (-3.8)**	44
4. Control	33 (-5.1)***	49 (-6.1)***	10 (-3.3)**	160 (12.9)***	252
Total sports club	174	246	63	236	719

Note. Values are numbers of participants. Adjusted standardized residuals are presented in parentheses:

*$p < .05$. ** $p < .01$. *** $p < .001$.

Stability of resource control strategy roles across contexts according to gender

The fourth goal of this research was to investigate the stability of the children's classification within resource control strategy groups across contexts for gender (see Table 4.4). As expected, adjusted standardized residuals show that both boys and girls in the sports club were more likely than expected from chance to have the same role in the school and less likely to switch roles. Cross-tabular analyses showed an association between the classifications at school and the sports club for both boys ($\chi^2 = 5044$; $df = 9$; $p < 0.001$) and girls ($\chi^2 = 3905$; $df = 9$; $p < 0.001$).The other relations were negatively associated or were non-significant, as indicated by the small adjusted standardized residuals.

Table 4.4 *Stability of resource control strategy roles for two contexts according to gender*

	Roles in sports club				
Roles in school	1.	2.	3.	4.	Total school
	Boys (n = 717)				
1. Coercive	234 (14.0)***	8 (-7.7)***	28 (-1.8)	53 (-8.1)***	323
2. Prosocial	9 (-8.2)***	61 (14.1)***	13 (0.3)	28 (-1.7)	111
3. Machiavellian	11 (-3.1)**	4 (-1.1)	29 (11.2)***	5 (-3.4)**	49
4. Control	60 (-6.8)***	22 (-2.1)*	9 (-4.3)***	143 (11.7)***	234
Total sports club	314	95	79	229	717
	Girls (n = 708)				
1. Coercive	74 (12.1)***	13 (-8.0)***	18 (1.1)	27 (-2.6)**	132
2. Prosocial	13 (-7.9)***	199 (13.3)***	23 (-1.9)	46 (-6.3)***	281
3. Machiavellian	9 (-0.2)	17 (-1.1)	23 (8.1)***	2 (-4.2)***	51
4. Control	38 (-1.7)	58 (-6.6)***	13 (-3.4)**	135 (10.8)***	244
Total sports club	134	287	77	210	708

Note. Values are numbers of participants. Adjusted standardized residuals are presented in parentheses:

*$p < .05$. ** $p < .01$. *** $p < .001$.

In line with our hypothesis, the coercive-aggressive roles of the boys (n = 243; 32.6%) were more stable across contexts than the coercive-aggressive roles of the girls (n = 74; 10.5%). The Machiavellian roles of the boys (n = 29; 4.0%) were also more stable across contexts than the Machiavellian roles of the girls (n = 23; 3.2%), although the difference was small. We explored the possibility of gender differences in prosocial behavior roles across contexts. The prosocial roles were less stable for the boys (n = 61; 8.5%) across contexts than for the girls (n = 199; 28.1%).

Discussion

With respect to the first goal, we examined the prevalence of self-reported peer aggression and prosocial behavior for participants in different types of sports and by gender in school and sports contexts using a variable-oriented approach. As expected, from a social dominance point of view (Hawley, 1999; 2003, Hawley et al., 2007; Hawley et al., 2002; Pellegrini, 2004) significantly higher degrees of self-reported peer aggression and prosocial behavior were found among children at the sports club than at the school. This finding provides support for the assumption that it is more difficult for a child to gain and maintain dominant social status in the relatively less structured and less stable sports context. It also supports the assumption that organized sports programs may reinforce aggressive behavior among children (Coakley, 2009; Endresen & Olweus, 2005; Knoppers, 2006; Mintah et al., 1999; Rowe, 1998; Smoll & Smith, 1997).

With regard to gender, boys reported significantly more peer aggression in both contexts than girls. Past research on sex differences in children's competitiveness within and outside the sports context have consistently documented that boys are more competitive and participate more frequently in directly competitive activities than girls (e.g., Benenson et al., 2002; Gill & Dzewaltowski, 1988; White, Duda, & Keller, 1998). Competition and masculine-oriented settings may enhance aggressive behavior on the part of children, particularly for boys participating in competitive activities (i.e., with winners and losers). Further research is needed, however, to verify this assumption. According to previous studies (e.g., Closson, 2009; Zimmer-Gembeck et al., 2005), girls reported significantly more prosocial behavior in both contexts than boys. Meta-analysis shows that differences in prosocial behavior increased with age, particularly for girls in early adolescence (Fabes, Carlo, Kupanoff, & Laible, 1999). The fact that prosocial behavior is expected from girls by peers could be an explanation for this. Peer status seems to be more important for girls than

for boys, which is consistent with gender stereotypes (Crick, 1996; Zimmer-Gembeck et al., 2005).

The present findings, although cross-sectional, did not provide support for the "enhancement" considerations of Endresen and Olweus (2005) with regard to martial arts. One reason for this might be that the contact sports participants in our study were all practicing team sports. Consequently, from a social dominance point of view, they may need to be more aggressive and competitive within their own sports team to gain resource control or social dominance (Hawley, 1999, 2003; Hawley et al., 2007; Hawley et al., 2002). In addition, training and practicing fighting skills in competition are not the only important motives for children to become involved in martial arts. Children also practice martial arts to learn self-defense (Theeboom 2001a, 2001b). Self-defense-oriented martial arts participants may be less interested in martial arts competitions and may have a less violent attitude with regard to conflict situations. Furthermore, the present findings did not support the assumption that martial arts participants reported less prosocial behavior because they are not required to account the needs of their fellow participants than team sports participants. Results of another study (Elling & Wisse, 2010) also showed that martial arts participants reported relatively more prosocial behavior than participants of other sports. We do not have a specific explanation for this, but we assume that the social context of martial arts, the existence of specific codes (e.g., discipline, increased responsibility, respect for the teacher and opponent), and different types of guidance and approaches to martial arts practice (Theeboom 2001a, 2001b) are associated with the prevalence of prosocial behavior. Research on prosocial behavior among martial arts participants is scarce. Further research is needed to examine these associations.

The second goal of the present study was to use a person-oriented approach to compare the prevalence of roles for resource control strategy (i.e., coercive-aggressive, purely prosocial, and Machiavellian) in sports clubs and schools among children participating in different types of sports. Contrary to our expectations, and in line with the variable approach findings, our data show that contact sports participants (boys and girls) were generally more often coercive-aggressive than participants in other sports. These findings do not support the "enhancement" considerations from Endresen and Olweus (2005) with regard to martial arts participants. Female martial arts participants were the most coercive-aggressive in the school context, but they also were the lowest coercive-aggressive in the sports club context. However, several issues can be raised in interpreting the dissimilar results of Endresen and

Olweus' study and our study. For example, Endresen and Olweus examined a sample of boys. We assume that girls' motives for martial arts participation are different from boys' motives and that they are more or less associated with different approaches to martial arts practice. The ability to defend one self and to deal with peer aggression at school are important motives for children practicing martial arts (Theeboom, 2001a). Girls tend to be more likely to participate in martial arts to learn self-defense (e.g., for building self-confidence on the street). Conversely, boys tend to have more sporting motives, such as practicing fighting skills with an emphasis on competition (Elling & Wisse, 2010). A competitive orientation reinforces aggressive behavior among martial arts participants (Coakley, 2009; Nucci & Young-Shim, 2005; Smoll & Smith, 1997), and fighting skills can be used outside the sports context for aggressive purposes. These two aspects of competitive martial arts are plausible explanations for aggressiveness among boys in particular. In the present study, male martial arts participants were classified as coercive-aggressive four times more often in sports clubs than female martial arts participants. Past studies have generally found that (male) students, trained in competitive martial arts showed a greater tendency towards an increase in aggressiveness (Nosanchuk & Macneil, 1989; Trulston, 1986; Twemlow et al., 2008; Zivin, 2001). Further research is needed to examine the associations between different approaches to martial arts practice, children's motives for martial arts participation, and the prevalence in peer aggression.

With regard to prosocial roles, girls belonged three times more frequently to the prosocial group in both contexts than boys. This finding is in keeping with our expectation and in line with previous research (Hawley, 2003; Hawley et al., 2007; Hawley et al., 2002). Contrary to our expectations, martial arts participants (boys and girls) in both contexts were more often prosocial than participants in contact and noncontact sports. This unexpected result is in line with findings of the first goal and was previously discussed.

Contact sports participants were more likely than martial arts and noncontact sports participants to be Machiavellians in both contexts. This finding provides support for Hawley's Resource Control Theory (Hawley, 1999, 2003; Hawley et al., 2007; Hawley et al., 2002) and the assumption that contact sports participants (in our study all team sport players) more frequently use both coercive and prosocial strategies for resource control than do martial arts and noncontact sports participants. Contact sports participants need to cooperate and to be accepted by their teammates ("getting along"), and they also need to be good competitors within their own sports team ("getting ahead") for resource control. Furthermore, the three

different types of sports participants showed more Machiavellian behaviors in the sports club than in school. This was particularly true for martial arts participants. This result provides support for a behavioral ecological theory (Pellegrini, 2008), which suggests that contest and competition may determine the use of aggressive and affiliative strategies to access resources. The sports club setting is less structured and more competitive than the school setting, in which it is probably less difficult for children to get and keep status within their peer group. We should, however, recognize that other environmental and personal characteristics of children also can be associated with the use of aggressive and affiliative strategies to access resources in sports clubs and schools. Examples of such features are supervision and disciplinary strategies of coaches and school teachers, the social climate in sports club and school, peer relationships in the two contexts. Different peer status can also play an important role when using aggressive of affiliative strategies in one specific context. For example, for children who are strong in academic subjects but weak in sports it could be more easy to establish and keep status in the school context than in the sports context. On these points, further research is needed.

The third goal of our study was to investigate the stability of resource control strategy roles in both contexts for three types of sports participants using a person-oriented approach. As expected, consistency was shown in children's classifications as coercive-aggressive, prosocial, and Machiavellian in both contexts for all three types of sports participants. According to previous studies (Baar et al., 2011; Craig et al., 2000; Hörmann & Schäfer, 2009), the peer aggression roles were stable across different contexts. Further research is required to examine the stability of resource control strategies across these contexts.

We expected martial arts participants to occupy the coercive-aggressive role more often than participants in contact sports and noncontact sports in both sports club and school contexts. We considered peer aggression to be more "acceptable" among participants in martial arts, in which (high) physical contact is allowed and physical characteristics are emphasized (e.g., Bredemeier et al., 1987; Conroy et al., 2001). The "enhancement" assumption, which suggests that competition and a masculine orientation increase aggression in sports clubs and may generalize to interpersonal relationships in other contexts such as schools (Coakley, 2009; Endresen & Olweus, 2005; Knoppers, 2006; Nucci & Young-Shim, 2005), was partly supported by the findings in our study. The coercive-aggressive roles were less stable across contexts for the noncontact sports than for contact sports participants. However, contrary to our expectations, the coercive-aggressive roles were more stable across

contexts for contact sports than for martial arts. Defending oneself and regulating aggressive behavior are important motives for children in martial arts, and these children may be less interested in practicing fighting skills and competition. On this point, further research is required.

In line with Hawley's Resource Control Theory (Hawley, 1999, 2003; Hawley et al., 2007; Hawley et al., 2002), the Machiavellian roles were more stable across contexts for contact sports participants than for martial arts and noncontact sports participants. The prosocial roles were less stable across contexts for contact sports than for martial arts and noncontact sports participants. This finding is not in line with the former results, but we assume that the specific approach of martial arts practice and the existence of specific martial arts codes (Theeboom 2001a, 2001b) may play a role.

Finally, we found that the resource control strategy roles of both girls and boys were stable across contexts. As expected, the coercive-aggressive and Machiavellian roles of the boys were more stable in both contexts than the roles of the girls. In addition, we found less stable prosocial roles in both contexts for boys than for girls. These findings support the hypothesis that aggressive behavior among boys is related with anti social personality patterns. Aggressive behavior among girls tends to be more situation-dependent; thus, girls switch more easily between roles across contexts (Olweus, 1993; Salimalli et al., 1998).

Limitations and implications

Some limitations must be considered in the interpretation of the results. We must take into account that the current study is cross-sectional. Longitudinal research is required to examine causality and the aggression enhancement effect of martial arts participation over time. For example, the fact that contact sport participants scored higher on peer aggression than noncontact sports participants does not mean that this difference is caused by participation in contact sports. We could not control for already elevated levels of aggressive behavior in boys and girls who engaged in this sport. Moreover, whether martial arts and contact sports have an enhancing or declining effect over time (the so-called "cathartic effect") on antisocial and aggressive behavior inside and/or outside the context of the sports club, may depend upon the personal characteristics of the child, the quality of the relationships between coaches and athletes, different sporting approaches, and the children's repeated contact with "macho" attitudes, norms and ideals in the sports club (Biesta et al., 2001; Endresen & Olweus, 2005; Rutten et al., 2007, 2008; Theeboom, 2001a). On these points, further research is required.

In this study, we used self-reports to measure involvement in peer aggression. As mentioned in the Method section, for the sports club context we could not use the peer-reporting technique. Prior research has suggested a disadvantage to self-report measures, namely, the underreport of the extent of peer aggression (e.g., Goossens, Olthof, & Dekker, 2006). Children possibly are more likely to depict themselves in a favorable light when asked about their involvement in aggressive behavior. It cannot be ruled out that such an effect has occurred in this study, but we tried to prevent underreporting by not revealing the specific aims of the study, by assuring anonymity of the survey response, and by making students' participation voluntary. Furthermore, it is important that from self-report data we can understand the private and subjective self-views of children regarding peer aggression. Peer-report data, in contrast, represent the peer social reputation of children and therefore probably is a complementary construct which is not verifiable by self-reports (Juvonen, Nishina, & Graham, 2001). Finally, we consider the prevalence rates as relatively estimates (Goossens et al., 2006; Schwartz et al., 2001; Solberg & Olweus, 2003).

Within the sports context, a distinction between on- and off-field aggressive behaviors of athletes has been made (e.g. Rutten et al., 2008). Most studies that have examined aggressive behavior in sports (e.g., Coulomb-Cabagno & Rascale, 2006; Mintah et al., 1999) have focused on aggressive acts on the playing field (during the match) itself and, more specifically, on two sports-related types of aggression: hostile aggression (i.e., aggression against another person for its own sake, accompanied by anger) and instrumental aggression (i.e., aggression against another person as a means to a competitive outcome, for example, irregular tackling to prevent an opponent from scoring). In contrast, the focus of the present study was (1) on peer aggression, which is usually regarded as another subcategory of aggressive behavior, and (2) on the broader context of the sports club environment (i.e., off-field aggressive behavior in cafeterias, dressing rooms, bicycle sheds, etc.). For this two reasons, further research and conceptualization is needed with regard to sports-competition and game-related aggressive behavior in light of research findings on peer aggression in the sports club and other contexts.

Although a school-based prevention program or policy can be successful in a particular school or context, this is no guarantee of success in another context (Swearer, Espelage, Vaillancourt, & Hymel, 2010). Results of a meta-analysis show that school-based aggression prevention programs were found to be more effective in reducing peer aggression than were classroom curriculum programs (Vreeman & Caroll, 2007). In line with this insight,

school-based aggression prevention programs can presumably improve their effectiveness by considering external environmental influences, circumstances, and peer relationships. Origins, reasons, manifestations and consequences of peer aggression are not always restricted to one specific context. Insight into the pervasiveness and constancy of patterns of peer aggression and resource control strategy roles across contexts is important for developing more adequate and more comprehensive or community-based aggression prevention programs in general, and for developing specific peer aggression prevention programs for athletes in particular (which do not exist yet in the Netherlands).

The results of this study showed that peer aggression is very consistent across contexts and is experienced by children in Dutch sports clubs. We think that this finding should be a cause for concern of coaches in sports clubs. The results point to the need of extension of the attention for peer aggression in Dutch elementary schools to sports clubs. Adequate and early social-emotional environmental support for perpetrators and victims is essential for preventing and reducing peer aggression. For Dutch elementary schools, peer aggression has become an official school priority leading to explicit attention of teachers for aggressive pupil behaviors and the use of prevention programs. It is plausible that sports coaches, however, are mainly focuses on physical and sporty aspects of children and have less attention than teachers for the peer relations of children. Generally, the impact of sports in children's lives is regarded as positive (e.g., Dutch Ministery of Health, Welfare and Sport, 2005) and the more negative aspects of sports participation, such as peer aggression, are less often considered. This may lead to trivializing peer aggression and insufficient noticing and preventing of peer aggression by coaches. Most of the Dutch youth sport coaches are volunteers and have not been educated pedagogically. Although a substantial minority of the youth coaches have followed a coach training program, most of these programs are limited to technical and tactical aspects of coaching in the type of sport. Elementary school teachers, however, are professionally educated in their teacher training program and have more knowledge about and insight in the psychosocial and emotional development of children and in the potential risk factors for developmental problems. Further, teachers might be more sensitive to deviant group processes because they see the children almost every day. To the best of our knowledge, in the curricula of coach training programs, peer aggression is largely neglected. The results of this study urge to include in the curricula of such training elements, in which (prospective) coaches are made some more conscious of manifestations and forms of peer

aggression in sports clubs and are trained in pedagogical/psychological skills and approaches to prevent and tackle peer aggression.

Chapter 5

Peer aggression and victimization:

Dutch sports coaches' views and practices

Internationally, very little research has been done into peer aggression and victimization in sports clubs. For this exploratory study, 98 coaches from various sports were interviewed in depth about their views on peer aggression and victimization and their ways of handling these issues. These views and practices were contrasted with those of a reference group of 96 elementary school teachers and analyzed qualitatively. Based on the results, we conclude that sports coaches need to become more aware of potential peer aggression and victimization at their clubs. They are currently unable to estimate the actual extent of the problem and are likely to overestimate their own effectiveness in handling the issue. Coaches need to develop their skills in recognizing and handling peer aggression and victimization. This study underlines the need to develop sports club-specific observation instruments and peer aggression programs.

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Introduction

Peer aggression among children is a common occurrence and is usually considered detrimental to the physical, psychological and social development of both perpetrators and victims (Dake, Price, & Telljohann, 2003; Gini & Pozzoli, 2010; Hawker & Boulton, 2000; Rigby, 2003). Peer aggression is prevalent in small and relative stable groups in which the peers are together for a longer period of time. Much research has been done in school contexts; teachers can choose from a growing number of programs that can help them identify and tackle peer aggression and victimization. Despite these efforts and the variety of tools available, the way in which the problem is being handled still leaves much to be desired. After all, most peer aggression programs achieve very modest and inconsistent results, often limited to the short term (Merell, Gueldner, Ross, & Isava, 2008; Smith, Ananiadou, & Cowie, 2003; Smith, Schneider, Smith, & Ananiadou, 2004; Swearer, Espelage, Vaillancourt, & Hymel, 2010; Vreeman & Carroll, 2007).

A scant amount of research has been done on peer aggression and victimization in social contexts other than school. In the Netherlands, organized sports are a non-school social context where many children regularly encounter each other and get to practice social roles and interactions in group settings. Youth sports are thought to have educational and child-rearing value and to help teach children discipline, solidarity, cooperation, tolerance and fair play (Biesta et al., 2001; Buisman, 2004; Rutten et al., 2004). The Dutch government (Ministry of Health, Welfare and Sport, 2005) employs youth sports specifically as a means of achieving a wide range of educational goals (i.e., "education through sport"). There are some widely-held assumptions about sports, namely that they have a positive influence and that children voluntarily engage in sports for their own enjoyment. This is probably the reason why there is a lack of policy and research dealing with the more negative or problematic group and socialization processes in youth sports, such as peer aggression, victimization and anti-social behavior. So far, there have been only a handful of studies into peer aggression in sports clubs. A longitudinal study (Endresen & Olweus, 2005) among 477 boys showed that taking part in power sports led to an increase in anti-social behavior both within and outside sports clubs. We can surmise from this that peer aggression and victimization are likely to occur in a sports club context. To test this assumption, we conducted a comparative study (Baar, Vermande, & Wubbels, 2011) among 1,534 children, asking them about peer aggression and victimization at school and in the sports clubs they belonged to. The results

showed that children did indeed self-report peer aggression and victimization in sports clubs and that the prevalence of these phenomena was even slightly higher than at school.

The results described above indicate that peer aggression and victimization are probably at least as prevalent in Dutch sports clubs as they are in elementary schools and that there is not enough policy regarding these phenomena in the sport context. This is remarkable considering the fact that a majority of Dutch children belong to a sports club (Breedveld, Kamphuis, & Thiessen-Raaphorst, 2008). Elementary schools tend to pay a great deal of attention to peer aggression. The Dutch Ministry of Education has obliged elementary schools to draw up a safety plan which usually also addresses peer aggression (Rijksoverheid, 2011). Teachers are expected to be well-informed about peer aggression and victimization and to know how to deal with it. There are plenty of programs specifically aimed at training teachers to identify and tackle peer aggression (Baar, Wubbels, & Vermande, 2007; Smith et al., 2003; Vreeman & Carroll, 2007), but this is not the case for coaches in (Dutch) sports clubs. Coaches play an important role in fostering a pro-social ethics and atmosphere in contexts where peers have a great socializing influence (Rutten et al., 2007; 2008). Coaches are primarily responsible for preventing and intervening in peer aggression and victimization in sports clubs.

This current exploratory study was broadly aimed at gaining insight into coaches' views on peer aggression and victimization among 10 to 13-year olds in sports clubs, and into coaches' practices in dealing with these issues. The goal was to be able to formulate more sports club-specific priorities in terms of policy, intervention and further research. Apart from coaches, we also interviewed a reference group of elementary school teachers to be able to put the coaches' views in perspective. This study is unique; as far as we know from international academic literature, there has been no previous study into coaches' views on peer aggression and victimization in sports clubs.

Views

The first goal of this research was to closely examine coaches' general views on peer aggression and victimization in sports clubs. With regard to these general views, we examined: (1) Coaches' descriptions of peer aggression; (2) Whether and how they observed the prevalence, forms, and locations of peer aggression and victimization; (3) Coaches' attributions (i.e., explanation for causes of behavior or events) and outcome expectations for

peer aggression and victimization (i.e., assessment of the impact of peer aggression on perpetrators and victims).

Before coaches can prevent or reduce peer aggression and victimization in their sports club, they must be able to recognize these behaviors. Coaches may not always adequately recognize situations in which peer aggression occurs because of differences in their interpretation and definition of peer aggression. In our study, we considered a few essential criteria in defining peer aggression: (a) It involves an *intention* to *hurt or discomfort* another person; (b) It is a form of aggressive behavior that occurs *repeatedly* and *over time*; (c) There is an imbalance in strength or an *asymmetric power relationship* between perpetrator and victim. This construct of peer aggression is closely linked to bullying definitions (Olweus, 1993, 2003, n.d.; Salmivalli & Peets, 2009; Solberg, Olweus, & Endresen, 2007). The construct of bullying, as compared with the construct of peer aggression, emphasizes the power differential between the perpetrator(s) and a weaker victim (criterion c). In this article, peer aggression (also) refers to individuals in conflicts who are more or less equal in terms of physical, verbal, or psychological strength. If sports coaches' description of peer aggression refers to power differential criteria, our translation of peer aggression may refer more to bullying. Our study explored to what extent coaches use the just mentioned criteria in their definitions of peer aggression. Just like elementary school teachers (Bauman & Del Rio, 2005; Hazler & Miller, 2001; Swain, 1998; Vaillancourt et al., 2008), coaches in sports clubs were expected to have difficulty coming up with an unambiguous definition of peer aggression. In addition, children in sports clubs are exposed to "macho" attitudes, norms and ideals (Coakley, 2009; Endresen & Olweus, 2005; Knoppers, 2006; Nucci & Young-Shim, 2005) and a certain degree of aggression in competitive games is usually considered legitimate (Coakley, 2009; Endresen & Olweus, 2005; Loughead & Leith, 2001; Keeler, 2007; Smoll & Smith, 1997). It seems likely that athletes would display more physical and verbal aggression in sports clubs (e.g., Endresen & Olweus, 2005) and that coaches, due to a masculine and competitive style of coaching children in sports, would not define or identify such openly aggressive behavior as peer aggression but rather as socially acceptable or assertive behavior. It should be stressed that peer aggression in this study refers only to off-field aggressive behaviors by athletes in the wider context of the sports club environment (i.e. including cafeterias, locker rooms and bicycle sheds) and excludes on-field aggressive behaviors by athletes, which have been widely discussed in sports literature. On-field aggressive behavior, such as hostile and instrumental aggression, are sports competition and

game-related and do not meet all the criteria for peer aggression (Coulomb-Cabagno & Rascale, 2006; Cox, 2011; Keeler, 2007; Kerr, 2002; Loughead & Leith, 2001; Mintah, Huddleston, & Doody, 1999, Rowe, 1998; Tenenbaum, Sacks, Miller, Golden, & Doolin, 2000).

In the Netherlands, youth sports coaches are normally volunteers and not certified. Coaches were therefore expected to have little knowledge of children's social and emotional development, possible abnormalities in this development and deviant group processes that would allow them to adequately identify peer aggression and victimization. Moreover, coaches and children spend less time together and meet less frequently than elementary school teachers and their pupils. They are usually together only a few hours per week, unlike teachers whose job is to interact with children all day long and who have been trained in pedagogy for this very purpose. But there are more reasons, besides those suggested by the sports studies referred to in the previous paragraph, why coaches might have trouble recognizing peer aggression and victimization. These phenomena usually occur out of sight of authority figures. At school, they tend to manifest themselves in less structured settings when children are less closely supervised, e.g., in school yards, cafeterias, hallways and locker rooms (Cunningham, Cunningham, Ratcliffe, & Vaillancourt, 2010; Craig, Pepler, & Atlas, 2000; Leff, Power, Costigan, & Manz, 2003; Vaillancourt et al., 2010; Vreeman & Caroll, 2007). Off school grounds, peer aggression tends to take place when children are on the way to and from school (Boulton, 1997). Furthermore, teachers do not always recognize or identify subtle relational peer aggression (such as exclusion and gossiping) as a form of peer aggression, or they may regard this as a less serious form (Boulton, 1997; Craig, Henderson, & Murphy, 2000; Ellis & Shute, 2007; Hazler & Miller, 2001; Maunder, Harrop, & Tattersall, 2010; Naylor, Cowie, Cossin, Bettencourt, & Lemme, 2006; Yoon & Kerber, 2003). Finally, a great number of victims of peer aggression simply do not report it to their teacher (Bradshaw, Sawyer, & O'Brennan, 2007; Fekkes, Pijpers, & Verloove-Vanhorick, 2005; Hunter, Boyle, & Warden, 2004; Van Hattum, 1997).

Teachers and coaches' handling of peer aggression and victimization is also likely to be influenced by their own attributions and outcome expectations. For coaches, we looked at what constitutes peer aggression and victimization and to what extent coaches attribute its causes to child-related factors such as obesity or clumsiness, and to situational factors such as group dynamics and safety in the sports club (which the coach is part of and therefore a contributing factor in) and the child's home life (Card & Hodges, 2008; Mavropoulou &

Padeliadu, 2002; Van Hattum, 1997). If the causes of peer aggression and victimization are perceived as largely child-related, this may point to a denial of the issue. Studies conducted in a school setting have shown that teachers who have this perception are less sensitive and feel less responsible for putting a stop to peer aggression (Bradshaw et al., 2007; Mavropoulou & Palediadu, 2002; Novick & Isaacs, 2010; Van Hattum, 1997). In our study, we also asked coaches about their outcome expectations for peer aggression and victimization in sports clubs. We looked at the relationship between coaches' assessment of the gravity of peer aggression and the perceived consequences for both perpetrators and victims. We expected coaches to be less skilled than teachers at assessing the severity of the impact of peer aggression on perpetrators and victims and to regard it as less serious (Boulton, 1997; Naylor et al., 2006; Yoon & Kerber, 2003). Because coaches lack specific pedagogical training and only deal with children infrequently and for short periods at a time, coaches may not know and understand children as well as teachers. They therefore may have a poorer understanding of the causes of peer aggression and of its effects on victims and perpetrators. Taking a masculine and competitive approach to dealing with children in an organized sports setting can also be one of the factors that lead coaches to take peer aggression less seriously and play down its impact on perpetrators and victims (Coakley, 2009; Endresen & Olweus, 2005; Knoppers, 2006; Nucci & Young-Shim, 2005).

Based on the arguments listed above, we expected coaches to be less capable than teachers to define and identify peer aggression and to be less aware of the prevalence of peer aggression and victimization. We also expected coaches to be less able than teachers to assess the causes of peer aggression and its effects on perpetrators and victims, and in the end, to be less alert to peer aggression and victimization and less committed to tackling these problems.

Practices

The second goal of this study was to investigate: (1) coaches' practices in approaching peer aggression and victimization in sports clubs; (2) their perceived ability to deal with these behaviors among athletes; (3) how coaches' approach to peer victimization in sports clubs relates to their personal beliefs about peer aggression and victimization.

The study first looked at the preventive measures coaches take with regard to peer aggression and victimization (e.g., discussing and enforcing rules of conduct, close supervision of athletes). The study also looked at corrective measures: the types of interventions, communication and discussions with those involved in incidents and punitive measures taken (Kochenderfer-Ladd & Pelletier, 2008; Olweus, 1993; Van Hattum, 1997;

Yoon & Kerber, 2003). We then explored whether coaches took a rule-sanction approach or a problem-solving approach in their corrective measures. In the former, the emphasis is on setting rules and putting a penalty on breaking them. The latter is more of a joint attempt to find solutions and make perpetrators aware of their victims' feelings (Ellis & Shute, 2007; Rigby, Smith, & Pepler, 2004). It seemed likely that most coaches would take a rule-sanction approach, as they would be more focused on teaching the children sports in the short time allotted than on smoothing out disruptions in social group processes. A rule-sanction approach takes up less time and enables coaches to resume sports activities fairly quickly. The study also explored whether coaches were familiar with school-based peer aggression programs and protocols and whether sports clubs put these into practice. We are not aware of the existence of any specific sports club-oriented peer aggression programs.

The study also asked questions about coaches' beliefs regarding their ability to deal with peer aggression and victimization among athletes. Some studies (Boulton, 1997; Van Hattum, 1997) have shown that teachers have little faith in their ability to keep peer aggression and victimization at school in check, while other studies have revealed that teachers generally overestimate their own ability to influence peer aggression and victimization (Bauman & Del Rio, 2005; Bradshaw et al., 2007; Yoon & Kerber, 2003). Teachers try to put a stop to peer aggression, but in many cases the behavior continues or even worsens (Bradshaw et al., 2007; Fekkes et al., 2005). Based on these findings, coaches who were aware of the nature and severity of peer aggression and victimization at their sports clubs were expected to be generally dissatisfied with the effectiveness of their approach.

The final issue we studied was which beliefs can be extrapolated from the approach coaches take towards victims. Roughly speaking, the literature distinguishes three views with regard to teachers' approaches to peer victimization (Kochenderfer-Ladd & Pelletier, 2008). These views can be translated to coaches' approaches in a sports club setting. If a coach puts emphasis on victims learning to stand up for themselves and to defend themselves, this is akin to an "assertive beliefs" view of peer victimization. Coaches with "assertive beliefs" think that a child should stand up for him or herself and should be able to defend oneself against peer aggression. Such coaches will often try to let children sort their problems out among themselves. In comparison to coaches with "assertive beliefs", coaches with "normative beliefs" are more passive and less willing to intervene or put sanctions on peer victimization. They see such behavior as less serious and more as way to learn social norms. They are also less inclined to alert parents. If a coach supports the victims of peer aggression by preventing the formation of cliques and applying pedagogical methods during the sports activities, this

points to “avoidant beliefs”. Coaches with such beliefs help victims to avoid perpetrators and have them socialize with other children. These coaches are therefore inclined to intervene immediately and to separate children. All in all, we expected coaches to hold either normative or assertive beliefs, due in part to their suspected masculine and physical approach to teaching children sports (Coakley, 2009; Endresen & Olweus, 2005; Knoppers, 2006; Nucci & Young-Shim, 2005).

Method

Participants

A total of 98 coaches from 77 sports clubs took part in the present study. They coached children in 17 different kinds of sports in 49 towns throughout the Netherlands. In addition, 96 elementary school teachers from 62 Dutch schools (teaching pupils in 4th - 6th grade) in 49 towns participated. The focus in this research was on children aged 10 to 13 years. The teachers and sports coaches were selected by a convenience sample and were approached by trained undergraduate students.

In-depth interviews

Qualitative research is an appropriate method for obtaining rich and detailed description and interpretation of contexts, events, situations, and social interactions (Boeije, 2010). Therefore, we explored coaches' experiences and sense making processes with regard to the nature and characteristics of peer aggression and victimization in the sports club context. In-depth interviewing is a qualitative research technique to explore relatively new and complex issues and phenomena (Boeije, 2010). In-depth interviews were used to assess coaches’ subjective experiences with peer aggression and victimization in the sports club context. The goals of this research were made operational by corresponding topics in a topic scheme. The topics consisted of several initially open-ended questions. By using interview probes, the interviewer could ask additional questions to get elaborated and more detailed information or could ask for clarification when the respondent was not clear in his or her answers. In the introduction, the research objectives, procedure, structure, and content of the interview were explained to the respondent. Anonymity was ensured, which contributes to the validity and reliability of the interview data. The interview consisted of 5 topics: (1) Respondents’ general views on peer aggression and victimization (e.g., their description of peer aggression, characteristics of peer aggression and victimization by type, location, and amount); (2) Respondents’

attributions of causes of peer aggression and victimization and their outcome expectations for peer aggression and victimization (e.g., seriousness, causes, and consequences); (3) Respondents' personal actions to prevent and reduce peer aggression and victimization and respondents' opinion on the effectiveness of his/her approach; (4) Peer aggression protocols and methods used by the respondents' sports club and their effectiveness; (5) The need for information about peer aggression and victimization and the way in which the respondents would like to receive information (e.g., courses, training, workshops, internet information, specific literature).

Procedure

The interviews were held with individual respondents. Coaches and teachers were approached in their sports clubs and schools. The interviews were conducted (and recorded) in sessions averaging 34 minutes in length by trained undergraduate students. The verbatim transcripts were subsequently analyzed according to the qualitative analyzing methods of Baarda (2010) and Boeije (2010). Explorative categories were generated with regard to the different goals of the study by using inductive coding techniques (i.e., based on constant comparison of interview statements via open labeling and encrypting). To contribute to the reliability and construct validity of the qualitative analyses: (a) the analyzers collaborated through consultation and agreement. Whenever there was a difference in opinion about the analyses of certain categories, the analyzers discussed the matter with the first author of this article so a consensus could be reached (Lincoln & Guba, 1985); (b) the labels (i.e., key words to indicate the essence of a text passage) were coded at each phase of the analyses so that the provenance and content of each label could be controlled on the original text passage by another analyzer; (c) the labels were conceptually kept as close to the original quotations of the respondents as possible.

Results

In this results section, we discuss the main findings per goal, using the categories developed during the analysis of the results. These categories have been italicized and are supplemented with quotations from the interviews. This study is qualitative in nature and aimed first and foremost at describing the nature and characteristics of the categories. In light of the number of respondents interviewed, we have also looked at the prevalence of certain aspects the respondents mentioned. For any category or subcategory where the findings represent 20% or more of the total number of coaches, or where the difference in percentage between coaches

(C) and teachers (T) is clear (20 percent points or more), this is explicitly stated. We would like to emphasize that these percentages should not be seen as "hard data" but rather as an indication of how much support there is for, or how important coaches find, a particular category, or as an indication that coaches and teachers clearly differ.

Views

If the victim has a problem with it. The results were analyzed to measure the extent to which coaches' descriptions of peer aggression matched the criteria for peer aggression outlined earlier. The criterion mentioned most often is *to do someone harm or hurt their feelings* (C78%), followed by *systematic* (C34%), *intentional acts deliberately targeting a person* (C33%), and *asymmetrical* (C24%). For an *extended period of time* (C7%) was not mentioned often. In addition, a third of the coaches interviewed said that peer aggression is at play when *the victim has a problem with the behavior* (C33%). This interpretation is absent from the definition of peer aggression in the literature (see Introduction). Clearly, the coaches feel that peer aggression is linked to the perceptions and assertiveness of the victims. Behavior that some children perceive as a joke or as teasing might strike other children as peer aggression. As we expected, most coaches do not have a definition of peer aggression at the ready. Of the coaches interviewed, 35% initially described peer aggression with no reference to the established criteria or referred only to the victim's perception, 34% mentioned one criterion, 28% named two criteria and 3% gave three criteria. Initially, none of the coaches came up with all the criteria for peer aggression. Only when the interviewers asked more questions about the difference between teasing and peer aggression did coaches mention more criteria. When asked what constitutes peer aggression, coaches usually give examples rather than a definition. Of the coaches we interviewed, 81% mentioned examples of *verbal* peer aggression, defined mainly as making mean or hurtful remarks (C50%). Teachers mention cyberbullying or digital peer aggression (C3%-T30%) more frequently. Coaches more often mentioned commenting on or laughing about someone's mistakes or performance (C22%). *Physical forms* of peer aggression, such as hitting, kicking and shoving are mentioned slightly less often by coaches than by teachers (C67%-T84%). Another overt form of peer aggression, *material* peer aggression, e.g., breaking or stealing other children's possessions, is mentioned infrequently (C9%). *Relational* forms of peer aggression are identified by 71% of the coaches. These forms include ostracization, ignoring and exclusion (C42%) and gossiping, especially among girls (C36%). A striking difference between coaches and teachers is that teachers (C0%-T42%) immediately come up with examples of covert and

furtive peer aggression. This type of peer aggression may be more typical of a classroom context.

In locker rooms. Peer aggression and victimization tend to take place in situations with *little or no supervision* and *during free playtime,* especially in *locker rooms* (C59%-T23%):

> When the kids are changing classrooms, it is very noisy. One group is leaving while another is arriving. That's a time when peer aggression can occur, because that's when they play around amongst themselves for a while. But I never see it. That's also because I don't pay attention to the group then. I'm usually busy talking to parents or whatever. [dance class]

Coaches also recognize peer aggression *during class, training and games* (C34%). In principle, peer aggression is *not context-bound* (C31%):

> If there's peer aggression, then the locker room is not the only place where it happens. It also takes place in the cafeteria, during training, at school and in the neighborhood. It's everywhere. That's why it's important that people watch out for peer aggression in several places at the same time. [handball]

Seldom or never seen signs. No less than 93% of the coaches we interviewed (T73%) reported *seldom or never* spotting peer aggression in their group or sports club. Those coaches who said they *regularly to frequently* see peer aggression (C7%) added that the incidents are *relatively minor.* This result is contextualized by the finding that 44% of the coaches (T77%) *found it difficult to determine* the extent and gravity of peer aggression and victimization in their sports club. Only 16% of the coaches reported *personally spotting* peer aggression and victimization. Peer aggression tends to happen *behind the coach's back* and coaches simply do *not hear and see everything*. Teachers say they are *not always around* and may simply be dealing with more *unsupervised moments* than coaches (C0%-T34%). In comparison with teachers, coaches are less often notified *by parents* (C13%-T36%), the *victim,* or *other children* (C16%-T48%) of peer aggression and victimization. Unlike schools, sports clubs do not use sociograms or questionnaires to identify peer aggression and victimization.

Perpetratorship is group and situation-dependent. The explanations coaches provided for peer aggression usually attribute the phenomenon to group dynamics and situational factors. Coaches attributed peer aggression to *insecurity* (C29%). Peer aggression is used by

perpetrators to *make themselves feel better* at others' expense (C30%) and to *stake out their own position* in the group and to feel like they *belong* (C30%):

> [Those] who want to be the boss. The ones who may feel insecure, so they act like they think they're 'bad'. And then they create a little gang, with the wannabes. The types who want to be part of the gang because they feel sort of inferior too. [volleyball].

Other explanations offered for perpetratorship are *behavior learned at home* (C24%) and *competition* (C23%). Compared to coaches, teachers far more often cite *social and emotional incompetence, disorders* (C4%-T30%) as a possible cause of perpetratorship. Apparently, they are regularly confronted with vulnerable children at school and are better able to recognize disorders. One area of concern is coaches' lack of reflection on the role they themselves might play in peer aggression. A coach's attitude may well fuel peer aggression:

> You have to be careful not to play along with it. Suppose someone says to you: "Wow he really stunk again! Even if you agree with that opinion from a coach's point of view, you must not say that out loud. It's dangerous to do that when you're dealing with kids. Before you know it, it can trigger negative behavior or be wrongly interpreted. [korfball].
>
> Take care not to favor or exclude certain people. You might not see this as peer aggression, it's more like it happens by accident. You have to watch out for this. [volleyball].

Victimization is child-related. Coaches primarily ascribed victimization to characteristics of the child targeted. Victims are *less able athletes, clumsy, awkward children* (C44%-T10%) who usually cannot keep up with the rest of the children on their team, coaches said. Another explanation coaches offered was *defenselessness* (C31%-T51%); victims were said to allow themselves to be victimized and to fail to ask for help. Some coaches ventured that peer victimization is provoked by *children's non-conformist responses* (C17%-T45%) and by *socially vulnerable children and children with disorders*. A small number of coaches explained the phenomenon as a result of environmental factors such as a *protective upbringing,* and *problems at home.*

> To put it very black and white, it's always the sissies. Some of those little kids almost provoke it. They act differently and weirdly. They try to draw attention to themselves,

which invites more aggression … Usually those boys can't really help it. It's mainly boys who are raised in a very protective environment by their parents. [soccer].

Peer aggression seriously affects victims. Almost two-thirds (C65%) of the coaches said peer aggression *is serious* and has far-reaching *detrimental consequences* for victims in later life. This opinion seems to reflect a general idea rather than the actual situation in sports clubs. Not all coaches see peer aggression as a problem. Peer aggression is also seen as an event that can *make children stronger*:

> For all children around that age, peer aggression and teasing is part of the game. Sounds pretty harsh, but it's true. It happens all the time and it's just a phase, at some point it passes. [gymnastics].
>
> I think peer aggression is necessary. It's part and parcel of looking for each other's limits. [soccer].

Very few coaches have any idea what the consequences of peer aggression can be for perpetrators. The consequences most mentioned are *a sense of guilt and an awareness of the harmfulness of bullying*, *validation of perpetrators and their aggression*, and *no* real *consequences* for perpetrators. Coaches do have an eye for the possible consequences for victims, such as: *losing motivation to participate in sports, quitting sports and skipping practice* (C44%), *insecurity, fear and loss of self-confidence* (C43%), *social isolation, social and emotional problems* (C42%), *feelings of unhappiness, depression, frustration* (C33%) and *lower self-image, inferiority complexes* (C20%):

> Some kids are too soft and take it lying down. That just makes it worse, in my opinion. Those kids end up with all kinds of complexes I think. To begin with, a gigantic inferiority complex. You're victimized, kids don't want to play with you anymore because they're scared they're gonna be the next ones to get victimized. So then you have even fewer friends, you're more isolated, your parents start getting worried. Well that makes things even more complicated, at home too.… You descend into a spiral and then it's hard to get out. Then you need a place where you're appreciated. If you can't find that, you end up alone in your room with the weirdest ideas and the weirdest plans . . . Then it can have far-reaching consequences. [soccer].

Practices

A positive climate and paying close attention. Coaches say they take measures to prevent peer aggression and victimization. A *positive climate has a preventive effect* (C49%). A good climate is characterized by social cohesion on the team, an open and inclusive climate in the sports club, no overemphasis on performance, an eye for safety and open communication. More than a quarter of the coaches (28%) indicated that *directive organization and pedagogics* can help prevent peer aggression and victimization, e.g., having the coach and not children choosing their peers when dividing children into teams, creating homogenous groups in terms of age and ability. Another preventive measure is setting a *clear code of conduct and providing structure* (C24%-T49%). Remarkably, only one coach among the respondents makes it a habit to try to find out *why children leave his sports club*. More than a fifth of the coaches (C22%-T50%) indicated that *paying close attention, early identification and alertness to deviant behavior* are important for preventing peer aggression:

> You see it when you know a group. You work with them for an entire season, sometimes longer. So you get to know the dynamics within that group. As soon as these change, become different, you start to take notice. [handball].

Compared to teachers, coaches tell children less often (C9%-T30%) to report peer aggression:

> If something's wrong, tell me. And if you don't dare say anything in front of the whole group, come and find me after practice. Call me, tell me. Most kids go home and tell their parents. And then those parents get upset and call me. But at that point, there's little I can do. [handball].

Immediate intervention and communication. Many coaches (53%) say they *immediately intervene* when confronted with manifest peer aggression and victimization in order to *stamp out this behavior*:

> A lesson lasts only fifty minutes to an hour. If I have to spend ten, fifteen minutes dealing with an incident, I'm actually short-changing the rest. But what can you do? You have to deal with it right away. You can't say "I'll deal with that later". [tennis].

Just over a fifth of the coaches (21%) reported *separating the children* immediately, mostly by *isolating the perpetrator.* Their next step is to (*immediately) make explicit and*

discuss peer aggression (C40%). More than half the coaches (55%) said they talk with *victims and perpetrators separately*; 34% talk to *perpetrators* (first) and 11% to *victims* (first). A fifth of the coaches (20%) reported discussing the problem *with perpetrators and victims at the same time.* Teachers (C16%-T44%) more often *discuss* peer aggression *with the whole group*. Of the coaches, 64% said they explicitly inform the perpetrators' and victims' parents about peer aggression and try to agree on a joint approach with the parents, while 42% of the coaches said they *discuss the issue with colleagues*, usually by bringing the issue to the attention of *the club (youth league) management*.

Confronting perpetrators. Coaches are relatively reticent about what they discuss with perpetrators and victims. This may be because they perceive peer aggression and victimization to be infrequent or even non-existent in their sports club. Topics discussed include *trying to obtain an objective account* of the peer aggression incident, using a *positive approach*. In terms of content, the discussions are mostly addressed to the perpetrators. Coaches make clear that peer aggression *will not be tolerated* and focus on raising perpetrators' *awareness of the harmfulness* of peer aggression. Coaches *confront* perpetrators with their behavior and issue a *warning*. Only 4% of coaches reported trying to uncover the *causes* of peer aggression and 23% (T48%) said they aim to *increase* victims' *assertiveness*:

> I hope the victim feels supported by the knowledge that the master is aware of what's going on and will step in if necessary. I hope this makes victims more willing to stand up for themselves. [judo].
>
> It's probably not right to say this, but if you just hit back a few times, they'll leave you alone. [soccer].

Teachers appeared to be more experienced in discussing incidents and referred more often to consciousness-raising strategies such as *role-taking* (C3%-T21%), discussions with the children about *what to improve and how* and encouraging them to *resolve conflicts themselves* (C6%-T26%).

Approach based on practical experience. Coaches clearly do not take a uniform approach to peer aggression and victimization. *Every coach has their own approach,* depending on the child, the situation and the nature of the aggressive behavior. Aside from preventive measures and talking with perpetrators, victims and others, sanctions are the only obvious measure for dealing with peer aggression and victimization. The most commonly

mentioned punishment was *benching i.e., being (temporarily) excluded from the practice or game* (C24%):

> I want them physically in a place where they can't touch each other. I literally pull them apart and bench them for at least ten to fifteen minutes. Then I go talk to them, and say okay, now get back to playing baseball and no more funny stuff. [baseball].

Other punishments were not mentioned very often. Perpetrators are seldom *denied membership* in the sports club. Some coaches said they do not *want to impose sanctions.* They *do not go for the strict approach* and think *rewards work better*. We expected teachers to refer to their education and pedagogical training, but they did not. Both teachers and coaches base their approach mainly on *work experience and practical experience* and on *gut feeling*.

Impact of approach hard to assess. Coaches seemed reasonably satisfied with their approach to peer aggression and victimization. More than half (52%) explicitly stated that their *approach* more or less *works* and in the short-term results in (some) *noticeable improvement*. A small percentage of coaches indicated that their *approach does not always work or works only temporarily* and that they *cannot get a handle on everything*. Examples include difficult parents, perpetrators who refuse to engage, digital peer aggression and other causes outside the sports club:

> I find it difficult [to judge] to what extent we are responsible for that one hour per week. If there's real, severe peer aggression, the cause is already there, at school or in the neighborhood. I don't know to what extent we can have an effect on that during the one hour of practice in which we need to do loads of other things as well! [gymnastics].

As mentioned earlier in this section, a substantial number of the coaches said they find it difficult to judge the frequency and gravity of peer aggression. Some behavior takes place out of sight or is somehow missed:

> Guesswork. In my perception, those measures are effective. But they're not comprehensive. I'm not always there. I don't have eyes in the back of my head… If they're standing around waiting, they say and do things I don't catch. It's not effective. It's based on what I happen to see and hear and how I happen to think about it. Subjectively effective I guess. [handball].

Low on sports clubs' agenda. Only 6% of coaches (T28%) said their sports club puts peer aggression *high on the agenda*; 28% said it was *sufficiently high on the agenda*. Another 23% (T0%) said their club puts peer aggression *low on the agenda*. The latter is not called into question either, because these coaches report there is little or no peer aggression in their sports club. Some 19% of coaches said their sports club puts peer aggression *not high enough on the agenda* and that it should be given higher priority. There is no fixed protocol for dealing with peer aggression in sports clubs. Some clubs have peer aggression rules or a code of conduct to refer to when faced with an incident and some occasionally organize an information meeting or a workshop, but these are exceptions.

No peer aggression programs. Remarkably, *none* of the coaches or sports clubs uses a *program* to prevent or deal with peer aggression and victimization. Programs are considered superfluous because coaches are generally satisfied with their own way of dealing with the issue. Teachers are evidently more familiar (97%) with peer aggression (prevention) programs. Together, they mentioned no less than 35 different programs used in elementary schools.

Few peer aggression protocols. Only 7% (T78%) of coaches indicated that their club has a peer aggression *protocol* and 19% explicitly said a protocol is *not necessary*. The latter group justified this with the assertion that there is little or no peer aggression in their club. Coaches believe they are capable of dealing with peer aggression well enough:

> Every adult sort of knows how to deal with peer aggression. Often you just need to call them to order, reassure the victim, have them apologize. [horseback riding].

Coaches are not particularly keen to have a protocol, as is also apparent from the low number (12%) of coaches who explicitly said they might *need a peer aggression protocol*, but only if bullying were to become a real problem. Our impression is that coaches view a protocol as something that "might come in handy," rather than as a necessity.

Little need for information. A third of the coaches (34%) explicitly said they personally did *not need information* about peer aggression and victimization. Extra information is seen as *a bonus*. Coaches (21%) do *not* want to put *too much time* into reading all sorts of information on peer aggression. *Brief* -- preferably *digital* -- *information* such as a leaflet or a flyer, especially for younger coaches, would suffice:

> Younger coaches purely oriented towards the physical side. They focus only on whether kids are able to throw the ball, or to do this or that. When you're older, you also see other things that are more valuable of course. [field hockey].

In short, information on peer aggression and victimization holds no great appeal for coaches. Coaches are mainly interested in *how to prevent and deal with* peer aggression (C26%) and *how to recognize* it. More than a third of the coaches (36%) would like to attend a one-off educational session led by an expert in peer aggression who can also provide examples from real-life situations.

Discussion

The purpose of this study was twofold. The first aim was to explore coaches' general views on peer aggression and victimization in sports clubs. The second goal was to examine how coaches' deal with peer aggression and victimization in practice, to study their perceptions of their own ability to cope with these behaviors among athletes, and how coaches' approach to peer victimization in sports clubs relates to their personal beliefs about peer aggression and victimization.

Views

Few coaches are able to provide a clear definition of peer aggression. They often initially define peer aggression based on one criterion only, or do not define it so much as illustrate it with examples of different forms of peer aggression. According to the characterization we provided in the introduction to this article (Olweus, 1993, 2003, n.d.; Salmivalli & Peets, 2009; Solberg et al., 2007), peer aggression has to meet several criteria. Less severe forms of aggression, such as making a nasty remark, do not meet the criterion of "repeated" occurrence. Hence, it is questionable whether some of the incidents coaches label as peer aggression deserve that qualification. Furthermore, coaches base their definition of peer aggression not only on the perpetrator's intentions but also on the victim's perception and vulnerability. For this reason, it can be hard for coaches and children other than perpetrators and victims to judge the severity and frequency of peer aggression.

Compared to teachers, coaches were expected to more frequently overlook or fail to recognize subtle forms of relational aggression and physical aggression due to their masculine and competitive attitude towards children in a sports club setting (Coakley, 2009; Endresen &

Olweus, 2005; Knoppers, 2006; Nucci & Young-Shim, 2005). This expectation was proven wrong. Although slightly less so than teachers, coaches also mentioned many examples and forms of physical and relational peer aggression. Teachers more readily identified sneaky 'behind their back' aspects of peer aggression. This could have to do with the specific, structured classroom setting where children are under fairly constant supervision from a teacher; in these circumstances peer aggression necessarily happens more covertly and when the teacher's back is turned (Cunningham et al., 2010; Craig et al., 2000; Leff et al., 2003; Vaillancourt et al., 2010; Vreeman & Caroll, 2007).

Assuming that the prevalence of peer aggression and victimization in sports clubs is at least equal to that in elementary schools (Baar et al., 2011; Baar & Wubbels, 2011), we have the impression that coaches misread the actual prevalence of peer aggression and victimization in their sports clubs. Almost all the coaches indicated that they were never or seldom confronted with peer aggression. They also indicated less often than teachers that they had trouble recognizing incidents. This could point to an underestimation of the frequency and gravity of peer aggression and victimization. Research in schools has shown there is often a gap between teachers' perceptions and estimates of prevalence and those of the children themselves (Espelage & Swearer, 2003; Leff, Kupersmidt, Patterson, & Power, 1999; Stockdale, Hangaduambo, Duys, Larson, & Sarvela, 2002). Moreover, coaches confirm our expectation that most peer aggression and victimization takes place in and around locker rooms, i.e., out of coaches' sight (e.g., Boulton, 1997; Craig et al., 2000; Cunningham et al., 2010; Leff et al., 2003; Vaillancourt et al., 2010; Vreeman & Caroll, 2007). Therefore, the coaches' prevalence estimates should be seen as subjective rather than factual and probably an underestimation from the perception of children. Teachers simply recognize peer aggression and victimization more often because they can reveal these behaviors preventively and systematically with the help of the children and the methods and sociograms used in schools. Parents also report peer aggression to teachers more often than to coaches.

In general, perpetratorship is linked to group dynamics and environmental factors, while victimhood is associated more closely to child-related factors. When discussing victimhood, coaches attribute the causes for aggression to the victim rather than the perpetrator. This could point to denial of the relational aspect of the problem. Coaches may feel or consider themselves unable to have an influence on peer aggression and victimization (Bradshaw et al., 2007; Mavropoulou & Palediadu, 2002; Novick & Isaacs, 2010; Van Hattum, 1997). Generally speaking, coaches appear to be less clued in to peer aggression and victimization than teachers. This does not mean they feel less responsible for or committed to

the children's well-being. Contrary to what we expected, coaches are reasonably capable of assessing the severity of the consequences of peer aggression for victims in particular. Coaches take these consequences seriously and do not play them down out of a sense of masculinity or competitiveness (Coakley, 2009; Endresen & Olweus, 2005; Knoppers, 2006; Nucci & Young-Shim, 2005). The coaches mentioned several causes and consequences of peer aggression for perpetrators and victims, but it is doubtful whether these are based on the actual circumstances of children in their sports club; rather they seem to spring from general ideas that have been popularized by increased media attention. After all, the sports clubs themselves do little or nothing to draw attention to the phenomenon, as the coaches reported.

Practices

Elementary school teachers say they take more preventive measures than coaches say when dealing with peer aggression and victimization. Teachers have a large arsenal of methods and tools at their disposal, which increases their awareness of potentially problematic behaviors and enables them to intervene earlier. They also have a good support system; they can direct their questions to professionals within the school (e.g., internal support teacher or care team) and elsewhere (e.g., contacts with other institutions). Coaches, on the other hand, have to manage on their own. They have to pave the way in preventing, recognizing and putting a stop to peer aggression and victimization in sports clubs. They have to do so without professional help or peer aggression protocols and methods.

Our expectation that coaches would take a "normative" or "assertive" approach to peer aggression and victimization was not supported by the data. Instead, the most frequently advocated curative measures were immediate intervention and discussing the unacceptable behavior with the children involved (cf., Kochenderfer-Ladd & Pelletier, 2008; Olweus, 1993; Van Hattum, 1997; Yoon & Kerber, 2003). Benching the perpetrator takes the least time and allows the coach to quickly resume practice or the game. Apparently, the time coaches and children spend together is too short for coaches to opt for a problem-solving approach. Coaches tend to focus more on the perpetrator and usually confine themselves to discussing the seriousness of the situation and issuing a warning. Because coaches also actively involve parents in their approach, theirs can be characterized as a mainly "avoidant" approach (Kochenderfer-Ladd & Pelletier, 2008). By contrast, teachers tend to handle peer aggression from a combined "assertive" and "avoidant" approach. Teachers are slightly less inclined to intervene immediately than coaches. In discussing the issue, they focus more on the victim and on increasing the victims' assertiveness. They put more emphasis on finding solutions

and on heightening perpetrators' awareness through role-taking (cf., Ellis & Shute, 2007; Rigby et al., 2004).

Coaches hold the view that their approach suffices to influence peer aggression. They do not see the need for or benefits of following a peer aggression protocol or method. We believe that coaches overestimate their own impact, control, and effectiveness with regard to peer aggression and victimization (Bauman & Del Rio, 2005; Bradshaw et al., 2007; Ellis & Shute, 2007; Yoon & Kerber, 2003). As we concluded before, sports coaches are unable to spot all incidents of peer aggression and victimization that occur in their clubs. This calls into question how accurately coaches can estimate the effectiveness of their own approach. Alternatively, coaches may only appear to have such confidence in their effectiveness because teachers, by comparison, have lost faith in their own ability to combat peer aggression. Despite the use of methods and structural measures at school, teachers are confronted with recurring peer aggression and victimization. Teachers might feel they are less able to exert any real influence on such behaviors (Boulton, 1997; Van Hattum, 1997). More research is needed to confirm or deny these possible explanations.

Implications

Sports clubs have not made a priority of dealing with peer aggression and victimization. Awareness is the first step in a process of change (Kloek, Van Lenthe, Van Nierop, Schrijvers, & Mackenbach, 2006) aimed at more actively dealing with and preventing peer aggression and victimization. Teachers have a head start on coaches in this awareness process. Some coaches who participated in this study said the interviews opened their eyes to the necessity of being on the lookout for peer aggression. It is our conviction that preventing peer aggression should be as self-evident as first aid. Coaches need to develop their skills in recognizing and handling peer aggression and victimization. This should be provided as part of initial coaching preparation (e.g., Allen, 2010; Boulton, 1997; Dake et al., 2003).

We recommend raising sports coaches' awareness of the actual frequency and severity of peer aggression and victimization in their clubs by annually polling their youth members about their personal perceptions and suggestions. A complaint box is a simple tool for uncovering potential peer aggression at the club. Youth members who terminate their membership in the club should be invited to do an exit interview so they can be asked why they are leaving. The aim of this is among others to spot peer aggression and victimization among active youth members.

This study is a qualitative investigation into the frequency and severity of peer aggression and victimization; the results provide a first impression of how aware coaches are of such behaviors and how they deal with them. The actual frequency and gravity of peer aggression and victimization in sports clubs remains uncertain. Coaches' prevalence estimates are widely divergent. We recommend surveying coaches again, using a more standardized questionnaire asking them to specify, for example, the number of children who fell victim to peer aggression (compared to the club's total number of youth members); duration of aggression (right now, this year or season, last year); location (within the team, in other teams, in the club). Interviewing children systematically and observing them regularly will provide a more accurate picture of the actual frequency and severity of peer aggression and victimization and of the actual effectiveness of coaches' interventions. Studies in schools have shown that children are less satisfied with the effectiveness of the school's attempts to deal with peer aggression and victimization than teachers (Bradshaw et al., 2007; Ellis & Shute, 2007). The coaches' responses to being asked about the success of their approach might well reflect their aspirations and intentions to eradicate peer aggression and victimization rather than their actual effectiveness (e.g., Lee, Buckthrope, Craighead, & McCormack, 2008). Incidentally, peer aggression programs mainly target knowledge, attitude and self-perceptions rather than actual aggressive behavior towards peers (Merrell et al., 2008).

Sports coaches generally opt for an "avoidant" approach when dealing with peer aggression and victimization. Compared to the two other approaches applied in school settings, this approach has proven to be the most effective (Kochenderfer-Ladd & Pelletier, 2008). However, it should be noted that this approach puts control firmly in the coach's hands and not in the children's. The same is true of the content of peer aggression programs. Most of them are aimed at raising awareness and instilling norms and mechanisms under the aegis of adults, while it is crucial that children acquire cognitive, social and emotional skills on their own, because only this can ensure that peer aggression does not take place when no adults are present (Chaux, Molano, & Podlesky, 2009). The results of this study suggest that coaches, staff members and parents should all be educated about peer aggression and victimization and should be more alert to these phenomena in situations with less supervision. A more integral, community-oriented approach is called for (Bowes et al., 2009, Espelage & Swearer, 2003, Swearer et al., 2010), because peer aggression and victimization should not only be monitoring during sports practice and games, but also before and after games and beyond the walls or fields of the sports club. In this context, a peer aggression protocol or method is an indispensible tool. Clearly, the tasks awaiting us are to convince coaches of the usefulness and

necessity of protocols on the one hand, and to develop and implement club-specific programs as quickly as possible on the other.

Chapter 6

Epilogue

In this final chapter, we summarize the main findings of this dissertation, consider their relevance and discuss their implications for future research, policy, and practice. The general aim of this dissertation was to contribute to the knowledge on peer aggression and victimization in different contexts and on the way elementary schools and sports clubs can help prevent and combat aggressive behavior. To this end, we evaluated the potential effectiveness of anti-bullying programs in Dutch elementary schools (Chapter 2), we took inventory the prevalence and stability of peer aggression and victimization among Dutch elementary school students across both the school and sports club context (Chapter 3 and 4), and gathered data on Dutch sports coaches' views and practices regarding prevention and reduction of these aggressive behaviors in their sports clubs, with elementary school teachers as a reference group (Chapter 5).

Worldwide, most school peer aggression programs and interventions achieve inconsistent and very modest results which are often temporary at best (Adema & Kalverboer, 1997; Merell, Gueldner, Ross, & Isava, 2008; Smith, 2011; Smith, Ananiadou, & Cowie, 2003; Smith, Schneider, Smith, & Ananiadou, 2004; Swearer, Espelage, Vaillancourt, & Hymel, 2010; Vreeman & Carroll, 2007). In this dissertation, we assumed that many of these peer aggression programs were not evidence-based in their development and were not properly put into practice by teachers (Kratochwill & Shernoff, 2004; Olweus, 2003; Smith et al., 2004). We assumed furthermore, from a behavioral ecological point of view (Pellegrini, 2008), aggressive behavior not only depends on individual child characteristics but on specific context characteristics as well. Peer aggression not only happens in schools, but also takes place on the way to and from school and in the neighborhoods where children live. School-based peer aggression programs can presumably improve their effectiveness by considering influences, circumstances, and peer relationships from social contexts other than school (Bowes et al., 2009; Espelage & Swearer, 2003; Monks et al., 2009; Swearer et al., 2010). One of these non-school contexts is the sports club that, however, has received scant attention with respect to peer aggression and victimization. This is remarkable considering the fact that many children in the Netherlands belong to a sports club, a setting which allows them to practice social roles and group interactions (Nucci & Young-Shim, 2005). We assumed that in sports clubs, just as in schools, children are exposed to problematic or negative social processes such as peer aggression and antisocial behavior (Endresen & Olweus, 2005; Rutten et al., 2008) and perhaps even more than in school. As far as we know from international literature, no other academic study has investigated peer aggression in the context of both

sports clubs and elementary schools. To test these overarching assumptions, we conducted a partially comparative study. Insight into the pervasiveness and constancy of patterns of aggressive behavior in different contexts is key to the development of adequate community-oriented school peer aggression interventions and sports club-specific peer aggression prevention programs.

Summary of the main findings

Potential effectiveness of anti-bullying programs

The first step of this dissertation was to take stock of anti-bullying programs[6] currently used in both Dutch elementary schools and sports clubs (Chapter 2). The purpose of this was to examine the potential effectiveness of these programs. During the orientation phase of this study, however, we discovered that there were no specific anti-bullying programs in sports clubs in the Netherlands. Therefore, this study is limited to ten Dutch anti-bullying programs developed for or implemented in regular elementary schools. Gaining insight into the potential effectiveness of intervention programs is crucial to the development of evidence-based anti-bullying programs. Anti-bullying programs in Dutch elementary schools had not been made sufficiently explicit in practice to be subjected to a proper impact study. Therefore, we created an inventory of specific theoretical and methodological assessment criteria, based largely on Green and Kreuter's Health Promotion Planning Model (Green & Kreuter, 2005) and on the Intervention Mapping Protocol proposed by Bartholomew, Parcel, Kok, and Gottlieb (2006), to access and evaluate the potential effectiveness of these programs. Theoretical and methodical conditions for effectiveness can be regarded as a priori directional principles that create the context in which anti-bullying programs and interventions can succeed.

The content analysis showed that none of the anti-bullying programs analyzed met the general theoretical and methodical conditions for effectiveness. Very few programs were

[6] In this dissertation, we used the following demarcation criteria to define peer aggression: (a) It involves an intention to hurt or discomfort another person; (b) It is a form of aggressive behavior that occurs repeatedly and over time; (c) When defining bullying, as opposed to peer aggression, many studies (cf., Olweus, 2003, n.d.; Salmivalli & Peets, 2009; Solberg, Olweus, & Endresen, 2007) emphasize the power differential (criterion c) between the perpetrator(s) and a weaker or defenceless victim.Many peer aggression definitions, however, refer to individuals in conflicts who are more or less equal in terms of physical, verbal, or psychological strength. In this dissertation, the terms peer aggression and bullying were used more or less interchangeably. Our construct of peer aggression can refer to behavior in both equal *and* asymmetric power relationships between perpetrator and victim. In Dutch, there is no direct equivalent for "peer aggression" and generally the word "bullying" (i.e., "pesten" in Dutch) is used. Therefore, we spoke of "bullying" and "anti-bullying programs" in Chapter 2. The reason we consistently used the term "peer aggression" in the remaining chapters of this dissertation is that we assessed children's subjective experiences with peer aggression using a Dutch translation of the Social Experience Questionnaire-Self Report (SEQ-S) as originally formulated by Crick and colleagues (Crick, 1997; Crick & Grotpeter, 1995,1996; Grotpeter & Crick, 1996). The SEQ-S measures peer aggression and victimization without referring to the power differential between perpetrator and victim. In Chapter 5, which deals with our

developed or based upon a sound (preliminary) study. Because none of the anti-bullying programs used performance indicators, the effectiveness of these interventions remains anyone's guess. Every program has its own inconsistencies and shortcomings in terms of content and operation. We concluded that most of the programs showed little potential in terms of effectiveness.

Peer aggression and victimization: Prevalence and stability across contexts

The study presented in Chapter 3, investigated the pervasiveness from and constancy of patterns of peer aggression and victimization among 1,534 Dutch elementary school students (fourth to sixth grade) in two different contexts (i.e., elementary schools and sports clubs) according to sports participation (i.e., athletes versus dropouts), aggressive behavior roles (i.e., perpetrator, victim, aggressive victim, not involved), and gender. From an evolutionary perspective on social dominance relations (Hawley, 1999; Pellegrini, 2004), we expected children to be aggressive in order to gain and maintain social status in groups. In a relatively unstable composition such as sport teams, compared with classrooms, it is more difficult for children to establish social status and dominance in relationships because such teams change composition practically every year. A switch of social network or context may elicit a change in aggressive behavior. This pattern is in line with the temporary increase of peer aggression during the transition from elementary school to high school (Hawley, 1999, Pellegrini, 2004; Pellegrini & Long, 2002). Moreover, from "enhancement" considerations, we suggested that a competitive and masculine orientated sport socialization process might reinforce aggressive behavior by participants (Coakley, 2009; Endresen & Olweus, 2005; Knoppers, 2006) and that aggressive behavior in one context might generalize to interpersonal relationships in other contexts (Endresen & Olweus, 2005; Mintah, Huddleston, & Doody, 1999; Rowe, 1998). In addition, we presumed less athletic and competitive oriented children would be more likely to be victimized and that these victimized children would be associated with the dropout status (Baar, 2003, Coakley, 2009; Knoppers, 2006; Smoll & Smith, 1997). Finally, with regard to gender, we suggested that aggressive behaviors would be associated with antisocial personality patterns in boys. Thus, consistency of self-reported aggressive behavior was expected for boys across contexts (Olweus, 1993; Salmivalli, Lappalainen, & Lagerpetz, 1998). In order to test these assumptions, self-reports by elementary students (i.e., 1,425 sports participants and 109 dropouts) were compared with respect to their subjective peer

qualitative study on coaches' views and practices, we also used the term peer aggression consistently, even in cases where coaches' descriptions of peer aggression refer to power differential criteria and in the orginal Dutch interviews we referred to as "pesten" (bullying).

aggression and victimization experiences in both contexts, using the "Dealing With Other Kids Questionnaire", our Dutch translation of the Social Experience Questionnaire-Self Report (SEQ-S), originally developed by Crick and Grotpeter (1996).

The results of this study showed the self-reported prevalence of peer aggression and victimization in the sports club context to be slightly higher than in the elementary school context, but a significant main effect of context was not found. Therefore, this finding did not provide evidence for both our "enhancement" expectation (i.e., that competitive and masculine-orientated organized sports programs would reinforce peer aggression among sports participants) and for our "social dominance" expectation (i.e., that the relatively unstable composition of sports teams would reinforce peer aggression among sports participants). In line with our expectation regarding gender, boys reported significantly more peer aggression and victimization. Almost three times more frequently than girls, boys were found to be either the perpetrator of aggression or an aggressive victim in both contexts. Contrary to our expectation regarding context, the total pattern of results of this study suggested considerable stability across contexts of the association between both aggression and victimization scores and aggressive behavior roles. This was particularly the case for male dropouts. Highly correlated aggression scores for the male dropouts across contexts suggest that a sports club dropout status for boys may be a risk factor for aggressive behavior at school.

Machiavellianism in children across contexts

Some children display both peer aggression and prosocial behavior. Such children can be called Machiavellians. They are "bistrategic controllers", in other words, socially dominant individuals who are competent and flexible in using both coercive strategies (e.g., making demands and threats) and prosocial strategies (e.g., being reciprocal, cooperative, and helpful) to achieve and control the resources of a group, such as goods, social status, and friendships (Hawley, Little, & Pasupathi, 2002). The study presented in Chapter 4, examined the prevalence and stability of peer aggression, prosocial behavior, and resource control strategies roles (i.e., coercive-aggressive, purely prosocial, and Machiavellian) for 1,425 Dutch elementary school students (fourth to sixth grade) across contexts. These behaviors and roles were examined by types of sports (i.e., martial arts, contact, and noncontact sports), contextual variation (i.e., sports club and elementary school), and gender. Because of their adaptive ability to use prosocial skills on specific occasions and their social attractiveness

among peers, Machiavellians are difficult for adults to trace and monitor as perpetrators of peer aggression (Hawley, 2003; Hawley, Little, & Card, 2007). From "social dominance" considerations (Hawley, 1999, 2003; Hawley et al., 2007; Hawley et al., 2002; Pellegrini, 2004) and "enhancement" considerations (Bredemeier, Weiss, Shields, & Cooper, 1987; Conroy, Silva, Newcomer, Walker, & Johnson, 2001; Endresen & Olweus, 2005), we expected higher peer aggression scores and more prevalent coercive-aggressive roles among martial arts participants in both contexts than the other types of sports participants. We expected this all the more so because of a high degree of physical player-to-player contact in martial arts. The contact sports participants in our study were practicing team sports. Team sports participants need to cooperate and to be accepted by their teammates ("getting along"), and they also need to be good competitors within their own sports team ("getting ahead") for resource control. Therefore, we expected a higher degree of self-reported prosocial behavior and a higher prevalence of the Machiavellian and the purely prosocial behavior roles among contact sports participants in the sports club context. In line with the results of other studies (Hawley, 1999; 2003) and with the theoretical assumption that peer aggression in boys is associated with antisocial personality patterns (Olweus, 1993; Salmivalli et al., 1998), we expected boys to report peer aggression more often and to occupy the coercive-aggressive and Machiavellian role more often than girls (Salmivalli & Peets, 2009; Schwartz, Proctor, & Chien, 2001). Finally, with regard to gender, we expected girls to report more prosocial behavior and to occupy the prosocial role more often (Closson, 2009; Zimmer-Gembeck, Geiger, & Crick, 2005) than boys within the three different types of sports in both contexts. Self-reports, which were gathered using our Dutch translation based on the SEQ-S (Crick, 1997; Crick & Grotpeter, 1995; Grotpeter & Crick, 1996), were used to assess elementary school children's subjective experiences of peer aggression and prosocial behavior towards others in the school and sports club context.

In line with our hypothesis, and in contrast with our previous study, a significant main effect for context was found. Results showed significantly higher degrees of self-reported peer aggression and prosocial behavior among students at the sports club than at the school. However, the effect sizes were small. The contact sports participants (boys and girls) reported significantly more peer aggression in both contexts than participants in other sports. As expected, boys reported significantly more peer aggression than girls and girls reported significantly more prosocial behavior than boys in both contexts. The results in both contexts showed that contact sports participants tended to be relatively more Machiavellian than

martial arts and noncontact sports participants, which supports Hawley's Resource Control Theory. Contrary to our hypothesis, surprisingly, the contact sports participants were generally the most coercive-aggressive and martial arts participants reported to be more purely prosocial than the other types of sports participants in both contexts. In accordance with our assumptions about gender differences, boys tended to be more frequently coercive-aggressive than girls in both contexts. This was particularly true of male martial arts participants in the sports club context, who were coercive-aggressive four times more often than female martial arts participants. Girls reported to be more purely prosocial (three times more often) than boys in both contexts. With regard to type of sports participant and gender, we found the roles for resource control strategies to be rather stable across contexts. The present findings did not provide support for our "enhancement" considerations in these contexts with regard to martial arts, but we must consider the limitations of the study in this respect due to its cross-sectional design. As expected, the Machiavellian roles were more stable across contexts for the contact sports participants than for the martial arts and noncontact sports participants. Surprisingly, the prosocial roles rather than the coercive-aggressive roles were more stable for the martial arts participants than for the contact sports participants across both contexts. The gender differences we observed were in line with our expectations: the boys' coercive-aggressive and Machiavellian roles were more stable across contexts than the girls', while the girls' prosocial roles were more stable across contexts than the boys'. These findings support the assumption that aggressive behavior among boys is linked to anti social personality patterns.

Coaches' views and practices

The study presented in Chapter 5, explored sports' coaches general views on and practices with regard to peer aggression and victimization in the sports club context, with the focus on children aged 10 to 13 years. Peer aggression and victimization in elementary schools is the subject of a great deal of research. Many interventions and policies have been introduced, so teachers can choose from a growing number of programs aimed at helping them identify and combat these behaviors (Smith et al., 2003; Vreeman & Caroll, 2007). As far as we know from the international literature, there has been no previous study into sports coaches' views and practices regarding peer aggression and victimization. With respect to sports coaches'views, we studied:

- their descriptions of peer aggression;

- whether and how they observe the prevalence, forms, and locations of peer aggression and victimization, and;
- child-related and situational factor attributions for causes of peer aggression (cf., Card & Hodges, 2008; Mavropoulou & Padeliadu, 2002; Van Hattum, 1997) and expectations about the effects of peer aggression on perpetrators and victims (cf., Boulton, 1997; Naylor et al., 2006; Yoon & Kerber, 2006).

In terms of practices and approaches aimed at addressing peer aggression and victimization (cf., Kochenderfer-Ladd & Pelletier, 2008; Olweus, 1993; Van Hattum, 1997; Yoon & Kerber), we examined:

- coaches' preventive and curative measures;
- the peer aggression programs and protocols at their disposal;
- whether coaches took a rule-sanction approach or a problem-solving approach in their corrective measures (Ellis & Shute, 2007; Rigby, Smith, & Pepler, 2004);
- coaches' perceptions and level of satisfaction regarding their ability to deal with peer aggression and victimization (cf., Bauman & Del Rio, 2005,; Bradshaw et al., 2007; Boulton, 1997; Fekkes et al., 2005; Van Hattum, 1997; Yoon & Kerber, 2003), and;
- which beliefs of coaches (i.e., assertive, normative, or avoidance) could be extrapolated from the approach coaches profess to take towards victims (Kochenderfer-Ladd & Pelletier, 2008).

For this explorative study, 98 coaches from a variety of sports were interviewed in-depth, using a topic scheme. In addition, 96 elementary school teachers were interviewed to serve as a reference group. The data from these interviews were analyzed in a qualitatively (Baarda, 2010; Boeije, 2010).

We concluded that sports coaches need to become more aware of the construct of peer aggression and of the potential for peer aggression and victimization at their clubs. They are currently unable to estimate the actual extent and gravity of the problem and are likely to overestimate their own effectiveness in handling the issue.

Discussion

The general aim of this dissertation was to contribute to the knowledge of peer aggression and victimization across contexts and of the way elementary schools and sports clubs can help prevent and combat aggressive behavior. Considering this aim, our content analysis demonstrated that none of the Dutch peer aggression programs meets the general methodical conditions for effectiveness applied in this study. Every program has its own inconsistencies and shortcomings in terms of content and operation. Two of our studies also (cross-sectionally) showed that the total pattern of self-reported results is considerably stable across elementary schools and sports clubs in terms of the association between children's peer aggression and victimization scores, aggressive behavior roles, and roles for resource control strategies. Finally, sports coaches in particular need to become more aware of potential peer aggression and victimization within their clubs. In-depth interviews demonstrated that they were currently unable to estimate the actual extent of the problem and were likely to overestimate their own effectiveness in handling the issue. In the remainder of this chapter, we discuss the overall findings, their limitations, and their implications for future research, intervention, policy, and practice.

Prevalence and stability of peer aggression and victimization across contexts

The results of this dissertation provide initial evidence for the assumption that children are not only exposed to peer aggression and victimization at school but also in sports clubs. The mean self-reported aggression and victimization scores in both contexts, demonstrated in Chapters 3 and 4, are not higher than 2.19 on a five-point Likert scale that ranged from 1 (= never) to 5 (= all the time). Does this mean that the prevalence or gravity of peer aggression and victimization in both contexts is low and not worth much attention? Or should we take these estimate rates more seriously considering the fact that peer aggression is a real and pervasive problem for each individual child that is involved, not only in one context but probably in other contexts as well? We have to be cautious in interpreting and in valuing the prevalence estimates, moreover, because the findings are based upon a one-off assessment. We stress the importance of future research into peer aggression and victimization in the world of sports.

The prevalence and stability of peer aggression and victimization in the two contexts was examined using both a variable-oriented approach and a person-oriented approach. Combination of these two approaches gave us more solid and specific information about peer aggression patterns across contexts. For example, the results in Chapter 3 revealed small

differences in the correlations (i.e., variable-oriented approach) for the boys versus girls for both the aggression and victimization scores at school and in sports clubs. In addition, the results of the person-oriented approach revealed that girls switch more easily between the roles of perpetrator and victim than boys in different contexts, which supports the hypothesis that aggressive behavior among girls tends to be more situation-dependent and that aggressive behavior among boys is related to antisocial personality patterns (Olweus, 1993; Salmivalli et al., 1998).

We expected more self-reported peer aggression and victimization to occur among sports participants in sports clubs than at school. However, the findings of this dissertation, although cross-sectional, did not provide clear support for our "enhancement" assumption that the competitive and masculine orientation of organized sports programs (Coakley, 2009; Endresen & Olweus, 2005; Knoppers, 2006; Mintah et al., 1999; Rowe, 1998; Smoll & Smith, 1997) reinforces aggressive behavior among sports participants. We also did not find clear support for the social dominance hypothesis (Hawley, 1999; Pellegrini, 2004) that the relatively unstable composition of sports teams reinforces aggressive behavior among athletes. We did not find a significant main effect of context in one study (Chapter 3) and while we did find a significant main effect in the other study (Chapter 4), the effect sizes were small. A possible explanation for the consistency of interpersonal peer aggression roles across contexts could be that perpetrators and victims may have certain characteristics that reinforce aggressive behavior or trigger negative responses from peers across contexts (cf., Dodge, Coie, Pettit, & Price, 1990). Such an explanation would be in line with the findings of our study in Chapter 5. In this study, the views and practices of sports coaches were contrasted with those of a reference group of elementary school teachers. Particularly teachers ventured that peer victimization is provoked by children's non-conformist responses and ascribed peer aggression to weak social and emotional characteristics of the child. This finding may be partially explained by emotional and behavioral disorders in children. To this point, further research is needed.

Sports dropouts and their involvement in peer aggression across contexts

In keeping with our hypothesis, the sports dropouts proved in both contexts to be the victims of aggression more often than sports participants. Contrary to what we expected, the dropouts reported more peer aggression and were classified as a perpetrator of aggression more often than the sports participants in both contexts. In other words, these findings show male

dropouts from the sports clubs to be at risk for becoming both perpetrators and victims of aggression at school and female dropouts for becoming aggressive victims at school. From a social dominance point of view (Hawley, 1999), this finding can be interpreted to mean that children drop out of their sports clubs because they are no longer able to be aggressive in the sports club setting. Alternatively, this finding could be explained by catharsis. That is, sports participants may discharge energy via their participation in physical activities. However, only minimal empirical support for this hypothesis can be found in the literature to date (Endresen & Olweus, 2005). A third alternative explanation could be that dropouts in particular are children with behavioral problems and disorders and that they experience difficulty in dealing with social group processes. Apparently, elementary school teachers are regularly confronted with vulnerable children at school and are better able to recognize disorders. By contrast, sports coaches may have more difficulty dealing with children with behavioral disorders at their sports clubs, and, as a consequence, these children drop out of sport more frequently. Only a small number of children with behavioral problems or disorders (e.g., ODD, ADHD, or ASD) register for Dutch sports clubs (Breedveld et al., 2010). Further research is needed, however, to verify these alternative hypotheses.

Machiavellianism and types of sports

The findings of the study in Chapter 3 did not provide support for the assumption that the competitive and masculine orientation of organized sports programs reinforces or legitimizes aggressive behavior among sports participants (Bredemeier et al., 1987; Conroy et al., 2001; Endresen & Olweus, 2005). Therefore, in the study of Chapter 4, we examined more specifically the associations between peer aggression, prosocial behavior, resource control strategies, and types of sports. We distinguished aggressive children with prosocial tendencies (i.e. Machiavellians), without prosocial tendencies (i.e. coercive-aggressive children), and purely prosocial children. The results showed that the three different types of sports participants (i.e., martial arts, contact sports, noncontact sports participants) tended to be more Machiavellian in the sports club than in school. This result provides support for a behavioral ecological theory (Pellegrini, 2008), which suggests that contest and competition may determine the use of aggressive and affiliative strategies to access resources. The sports club setting is less structured and more competitive than the school setting, in which it is probably less difficult for children to acquire and maintain social status within their peer group.

Furthermore, the findings did not provide support for the "enhancement" assumptions of Endresen and Olweus (2005) with regard to martial arts. One reason for this might be that the contact sports participants in our study were all practicing team sports. Consequently, from a social dominance point of view, they need to cooperate and be accepted by their teammates in order to "getting along", but at the same time they need to be good competitors within that sports team (in order to "getting ahead") for resource control or social dominance (Hawley, 1999, 2003; Hawley et al., 2007; Hawley et al., 2002). However, longitudinal research is required to study the causal relationships underlying the aggression enhancement effect of participating in martial arts over time. We should recognize that the question whether martial arts and contact sports have an enhancing or reduce effect over time on aggressive behavior inside and/or outside the context of the sports club, may depend upon the personal characteristics of the child, the quality of the relationships between coaches and athletes, and the children's exposure to "macho" attitudes, norms and ideals in the specific sports club (Biesta et al., 2001; Endresen & Olweus, 2005; Rutten et al., 2007, 2008; Theeboom, 2001a).

In this study, male martial arts participants were classified as coercive-aggressive four times more often in sports clubs than female martial arts participants. Gender and type of sporting approach to martial arts practice may explain this difference. Past studies have generally found that boys trained in competitive martial arts showed a greater tendency towards increased aggressiveness (Nosanchuk & Macneil, 1989; Trulston, 1986; Twemlow et al., 2008; Zivin, 2001).

Children, and girls in particular (Elling & Wisse, 2010), not only train and practice martial arts for competitive purposes, but also as a means of self-defense (Theeboom 2001a, 2001b). Self-defense oriented martial arts participants are probably less interested in martial arts competitions and may have a less violent attitude with regard to conflict situations. Further research is needed to examine the possible links between different approaches to martial arts practice, children's motives for martial arts participation, and the prevalence in peer aggression. Another surprising finding was that martial arts participants were (slightly) more often classified as purely prosocial than participants in contact and noncontact sports in both contexts. Also, male martial arts participants were three times more often classified as Machiavellian in the sports club context than in the school context, and female martial arts participants four times. Results of another study (Elling & Wisse, 2010) also showed that martial arts participants reported relatively more prosocial behavior than participants in other sports.

In this dissertation female martial arts participants were the most coercive-aggressive in the school context, but they were also the least coercive-aggressive in the sports club context. We assume that the specific approach of martial arts practice and the existence of specific martial arts codes (e.g., discipline, increased responsibility, respect for the teacher and opponent), and different types of guidance and approaches to martial arts practice (Theeboom 2001a, 2001b) may play a role in (enhancing) children's prosocial behavior and in regulating aggressive behavior. On these points, further research is required.

The importance of evidence-based practice peer aggression programs

In line with previous studies (Craig, Pepler, & Atlas, 2000; Hörmann & Schäfer, 2009), we found peer aggression roles to be fairly stable across different contexts. In any case, the findings of this dissertation showed that the prevalence of self-reported peer aggression and victimization in Dutch sports clubs is at least equal to that in Dutch elementary schools. From a pessimistic point of view, this could be taken to mean that prevention programs and protocols are not effective: despite all the efforts made, the school peer aggression prevention policy, the curricula, and the large number of prevention programs and protocols, the prevalence of (self-reported) peer aggression and victimization in elementary schools is only slightly lower than that in sports clubs. In the Netherlands, there are no official peer aggression programs and interventions for sports clubs, which is an unfortunate state of affairs given our findings on the prevalence of peer aggression and victimization in sports clubs. In general, we believe the existing peer aggression programs and interventions are insufficiently evidence-based and improperly put into practice by teachers (Kratochwill & Shernoff, 2004; Olweus, 2003; Smith et al., 2004). The content analysis (Chapter 2) showed that Dutch elementary school aggression prevention programs have little effectiveness potential and that program development is mainly practice-based and insufficiently documented.

For an update of the programs on their actual effectiveness, we took stock of the analyzed peer aggression programs listed in the Database of Effective Youth Interventions from the Netherlands Youth Institute (*Nederlands Jeugd Instituut,* NJI, 2011). In the five years since the first publication (Chapter 2), most of the ten programs analyzed in that study still have not been evaluated for their effectiveness. Some programs are not included in the NJI Database (e.g., *The No Blame Method*; *Children and Distressing Situations: Bullying*; *Bullying at School*; *Solving Conflicts… with CORE*). With regard to these programs, we were unable to find any up-to-date published evaluation studies on the Internet. Some programs

included in the NJI Database (e.g., *Rock and Water*; *Bullying Is for Cowards, Kick the Habit; Bullying at School, an Action Program*) have not yet been proven effective in Dutch elementary schools (NJI, 2011). This is least true of *PRIMA Package*, a program whose pilot has been completed. An initial impact study showed a significant decrease of peer aggression and victimization in the experimental group. However, this also occurred in the control group in which the *PRIMA Package* was not implemented. The effect sizes of the improvements were small. An adapted version of *PRIMA Package* has now been developed for national implementation (NJI, 2011; Van Dorst et al., 2008). The *C&SCE* program has ceased to exist as such. A few years ago, this program was converted into a new school-violence program, in combination with a translated and adapted version of a program developed in the USA called *Responding in Peaceful and Positive ways* (*Ripp*). The new combined program, now called *C&SCE-CAM* (in Dutch *C&SCO-CAM*) aims to improve students' conflict management skills of students (Mulder & Nagtegaal, 2011; NJI, 2011). The 3-year *C&SCE-CAM* pilot project, implemented in five secondary schools (including one special education school), was evaluated in 2012. The program was evaluated for workability (process evaluation) and effectiveness. At the time of the pilot, however, *C&SCE-CAM* was not sufficiently developed and could therefore not be implemented in such a way that a proper impact study could be done (Mulder & Nagtegaal, 2011). Unfortunately, this was also true of a study on the effectiveness of the old *C&SCE* program (Roede & Derriks, 2007) which we included in our content analysis (Chapter 2). Because of its weak experimental design (no control groups), inconsistent participation of schools, and discrepancies in the way trainers implemented the *C&SCE* program by trainers, the researchers could not draw clear conclusions about the effectiveness of the program. The impact of the *Marietje Kessels Project* was evaluated some time longer ago. Significant effects were found for knowledge and attitude towards assertiveness, for boys in particular, but not for skills and assertive behavior itself (NJI, 2011; Van Overveld & Louwe, 2005). This finding is in line with the assumption that school peer aggression programs are more likely to influence knowledge, attitudes, and self-perceptions rather than to modify aggressive behavior (Merell et al., 2008).

Based on teacher results discussed in Chapter 5 of this dissertation, our impression is that teachers see programs and protocols as a tool that "might come in handy" if peer aggression were to become a "real problem", instead of a (preventive) necessity. Teachers justified this with the assertion that there is no peer aggression in their schools (or less than there used to be) and that they are generally satisfied with their "own way" of dealing with the

issue. Despite the proliferation of prevention programs (98 teachers mentioned no less than 35 different programs in 62 Dutch elementary schools!) and peer aggression protocols used in elementary schools (78% of the teachers indicated that their school has one), their approach to preventing and tackling peer aggression and victimization seems to be mainly experience-based and not evidence-based.

A recent initiative to systematically counteract peer aggression is the *KiVa* program, which received the European Crime Prevention Award (ECPA) 2009. In the spring of 2012, a Dutch version of this nationwide Finnish peer aggression prevention program will be piloted in the Netherlands (Huitsing & Veenstra, 2012a, in press; 2012b, in press). *KiVa* is a standardized, school-wide intervention program, which includes both universal and indicated actions to reduce peer aggression. We could not analyze this program for its potential effectiveness, but it has been successfully implemented in 82% of Finnish elementary schools and has significantly reduced both self-reported and peer-reported peer aggression and victimization and increased students' feelings of safety (Kärnä et al., 2011; Salmivalli, Kärnä, & Poskiparta, 2011).

All things considered, and in accordance with earlier findings by Adema and Kalverboer (1997), we can still conclude that Dutch peer aggression prevention programs have their shortcomings in terms of (potential) effectiveness.

Coaches' and teachers' estimates of the extent and gravity of peer aggression and victimization

In view of the fact that the prevalence of peer aggression and victimization in Dutch sports clubs is at least equal to that in Dutch elementary schools, we have the impression that coaches in particular underestimate the actual extent and gravity of the problem. Almost all coaches interviewed indicated that they had seldom or never been confronted with peer aggression. Coaches also indicated less often (44%) than teachers (77%) that they had trouble recognizing incidents or were unable to spot all incidents of peer aggression and victimization that occur. This might be due to the fact that elementary school teachers know their pupils better because they have the opportunity to observe a wider range of behaviors day in, day out. Teachers are professionally educated and are expected to have more insight into the psychosocial and emotional development of children and in the potential risk factors for developmental problems. Therefore, they are likely to be more sensitive to deviant group processes. By contrast, sports coaches and their pupils are usually together for just a few

hours per week. A substantial minority of youth coaches has done a training program. However, most programs are limited to technical and tactical aspects of coaching in the specific sport. This may not be enough to raise coaches' awareness of peer aggression and victimization. Moreover, it is plausible that teachers are more aware of peer aggression and victimization because they have protocols, methods and sociograms at their disposal which can reveal these behaviors preventively and systematically. Coaches indicated less frequently than teachers that they had difficulty recognizing incidents, which is remarkable in light of the fact that coaches confirmed our assumption that most peer aggression and victimization takes place in and around locker rooms, i.e., out of coaches' sight (e.g., Boulton, 1997; Craig et al., 2000; Leff, Power, Costigan, & Manz,, 2003; Cunningham, Cunningham, Ratcliffe, & Vaillancourt, 2010; Vaillancourt et al., 2010; Vreeman & Caroll, 2007).

Research in schools has shown that teachers estimate a lower prevalence than the children themselves (Espelage & Swearer, 2003; Leff, Kupersmidt, Patterson, & Power, 1999; Stockdale, Hangaduambo, Duys, Larson, & Sarvela, 2002). We assume that such underestimation is even more pronounced in coaches, because sports clubs are a less structured setting, with less supervision, than schools (cf., Craig et al., 2000; Vaillancourt et al., 2010). Generally speaking, coaches appear to be less clued in to peer aggression and victimization than teachers. This does not mean they feel less responsible for children's well-being. Our results show that coaches take the consequences of peer aggression and victimization seriously and do not play them down out of a sense of masculinity or competitiveness (Coakley, 2009; Endresen & Olweus, 2005; Knoppers, 2006; Nucci & Young-Shim, 2005).

Before coaches can prevent or reduce peer aggression and victimization in their sports club, they must be able to recognize these behaviors. Both teachers and coaches base their definition of peer aggression not only on the perpetrator's intentions but also on the victim's perception and vulnerability, so it can be hard for both teachers and coaches to judge the severity and frequency of peer aggression. Coaches in particular struggle to provide a clear definition of peer aggression. In any case, teachers' and coaches' prevalence estimates should be seen as subjective rather than factual. For more valid and comparable teachers' and coaches' identified prevalence estimates, we recommend surveying respondents from the two groups using a standardized questionnaire, including a definition of peer aggression and asking the respondents to specify: the numbers of children who were actively involved in peer aggression (compared to the school's or club's total enrolment / membership); the duration of

aggression (right now, this year, last year), and location (within the classroom / team, in other classrooms / teams, in the school / club). However, interviewing and observing children systematically will provide a more accurate picture of the actual frequency and severity of peer aggression and victimization.

Coaches' and teachers' effectiveness in handling peer aggression and victimization

It is worth questioning how accurately teachers and coaches can estimate the effectiveness of their own approach. The majority of both teachers and coaches hold the view that their approach is good enough to deal with peer aggression and victimization. Coaches have to manage peer aggression and victimization on their own without professional help or peer aggression prevention tools. They generally do not see the need for, or benefits of, a peer aggression protocol or method. Teachers, on the other hand, have methods, protocols and often an internal teacher support or care team at their disposal, which enables them to intervene earlier and (hopefully) more adequately. They take more preventive measures against peer aggression and victimization and put more emphasis on finding solutions by increasing victims' assertiveness and heightening perpetrators' awareness through role-taking (c.f., Ellis & Shute, 2007; Rigby et al., 2004). By contrast, our study showed that sports coaches are more curative and perpetrator-oriented. They tend to focus more on immediate intervention by warning and benching the perpetrator. It may be that the time coaches and children spend together is too short for coaches to opt for a problem-solving approach. This "avoidant" approach has proven to be effective in school settings (Kochenderfer-Ladd & Pelletier, 2008). However, it should be noted that it puts control firmly in the coach's hands and not in the children's. It is crucial that children acquire cognitive, social and emotional skills on their own, because only this can ensure that peer aggression does not take place when no adults are present (Chaux, Molano, & Podlesky, 2009).

We have the impression that coaches, more so than teachers, are likely to overestimate their own impact, control, and effectiveness with regard to peer aggression and victimization (cf., Bauman & Del Rio, 2005; Bradshaw et al., 2007; Ellis & Shute, 2007; Yoon & Kerber, 2003). Studies in schools have shown that children are less satisfied than teachers with the effectiveness of the school's attempts to deal with peer aggression and victimization (Bradshaw et al., 2007; Ellis & Shute, 2007). The coaches' responses to being asked about the success of their approach might well reflect their aspirations and intentions to eradicate peer aggression and victimization rather than their actual effectiveness (cf., Lee, Buckthrope, Craighead, & McCormack, 2008). Alternatively, coaches may only appear to have such

confidence in their effectiveness because teachers, by comparison, might feel they are less able to exert any real influence on peer aggression and victimization (Boulton, 1997; Van Hattum, 1997). Despite the use of methods and structural measures at school, teachers are confronted with recurring peer aggression and victimization. On the other hand, they also spend many more hours per week with their pupils during which peer aggression and victimization actually can occur. More research is needed to confirm or deny these possible explanations. Observing teachers and coaches systematically and regularly would provide a more accurate picture of the real effectiveness of their interventions.

Limitations and further research

The limitations of the studies reported in this dissertation must be taken into account when interpreting the results and considering practical implications. These limitations naturally lead to ideas for further research on top of the ideas already mentioned in the previous sections. Firstly, the cross-sectional nature of the studies means no conclusions can be drawn regarding the stability of peer aggression prevalence and roles over time. Further longitudinal research is required to examine the stability of the interpersonal relationships between children across different contexts in general, the overlap between the compositions of sports groups and classroom/school groups, and the stability of sports groups over time. We could not control for already elevated levels of aggressive behavior in boys and girls who were engaged in different types of sports. Longitudinal research is required to examine causality of peer aggression-enhancing or reducing effects in children through (competitive) organized sports participation by type of sport and over time. The same goes for our construct and operationalization of Machiavellianism. In fact, we did not actually measure children's adaptive flexibility in resource control *strategy use* on different occasions and over time, but we classified a child as Machiavellian based upon a single *self-reported* aggressive and prosocial *behavior* assessment in each context.

Secondly, we must be cautious in interpreting and in valuing the prevalence estimates presented in Chapter 3 and 4 because we used self-reports. From self-report data we can gain a picture of the private and subjective perceptions of children regarding peer aggression and victimization. Therefore, the self-reported prevalence rates in one context can at best be regarded as relatively estimates (Goossens, Olthof, & Dekker, 2006; Schwartz et al, 2001; Solberg & Olweus, 2003) that can be compared with estimates in other contexts. Peer-report data, by contrast, represent the peer social reputation of children and are therefore probably a complementary construct which cannot be verified by self-reports (Juvonen, Nishia, &

Graham, 2001). Moreover, sports groups are often too small or the group setting is too ambiguous to apply a peer-reporting technique. Another limitation is that earlier experiences of dropouts at the sports club (Chapter 3) cannot be studied using peer reports.

Practical implications and further research

Evidence-based peer aggression programs

It is not fair to expect teachers and coaches to invest time and energy in programs whose effectiveness cannot be accurately predicted. We stress the importance of evidence-based practice development, standardization, explicit implementation, and sustainability of programs. An effective intervention is usually the result of long-term research, theory-based program design, try-outs and improved versions, and repeated impact studies and process evaluation (Ince, Beumer, Jonkman, & Vergeer, 2004). There is no quick fix for peer aggression and no program is fully developed the first time it is implemented. We encourage intervention designers to develop more evidence-based and better thought-out peer aggression prevention programs so that the real effectiveness of interventions can be measured. Such an approach is becoming even more imperative due to the quality demands being made on governmental organizations as a precondition for funding.

Fine-tuning of regular peer aggression programs to meet the competencies and needs of children with disorders

From August 2013, the Dutch government intends to offer inclusive education ("passend onderwijs") in regular elementary and secondary schools to as many children and teenagers with special needs as possible (Rijksoverheid, 2011). To meet this inclusion requirement ("zorgplicht"), teachers will be under more pressure than ever before to deal with differences between students. This will require even more knowledge, expertise, and competencies than they already have. Based on our research (Chapter 5) and others studies (Swearer et al., 2010), we would suggest that children with disabilities and emotional and behavioral disorders display more peer aggression and victimization than others. Childhood disorders could be an important reason for the stability of interpersonal peer aggression roles across contexts and, additionally, for shortcomings in terms of the (potential) effectiveness of the Dutch peer aggression programs we analyzed because they do not target children with individual special needs in regular elementary schools. Further research is needed on this topic. We suspect that the Dutch government's requirement that schools include special needs children in their curriculum will result in an increase of peer aggression and victimization in schools.

Therefore, we emphasize the importance of fine-tuning peer aggression programs for mainstream children to the competencies and needs of children with disorders as well. With an eye to prevention, it is important that Dutch peer aggression programs also target younger elementary school students (grades 1 through 3): the earlier the better.

Community-oriented approach

The results of this dissertation show that peer aggression and peer aggression roles are considerable stable across elementary school and sports club contexts. In order to gain a better understanding of patterns in children's aggressive behavior, insight is needed into the pervasiveness and constancy of peer aggression and victimization across contexts. We highlight the importance of developing adequate and more comprehensive community-oriented peer aggression programs, approaches, and social networks in which aggressive and victimized children are monitored and treated accordingly (Bowes et al., 2009; Espelage & Swearer, 2003; Swearer et al., 2010). In the sports club context, aggressive behavior should not only be monitored during sports practice and games, but also before and after games and beyond the walls or fields of the sports club. In this context, a club-specific peer aggression protocol or method is an indispensible tool. Moreover, greater knowledge of the stability of peer aggression and victimization across contexts may better equip teachers and counselors to make individual or group interventions when needed (e.g., when a particular child is known to be victimized by the same perpetrators in different contexts or when dropouts from a sports clubs are at risk of becoming a perpetrator at school). Origins, reasons, manifestations and consequences of peer aggression are not always restricted to one specific context. With community-oriented school programs we will probably be able to intervene more adequately in peer aggression and victimization in order to prevent and reduce the serious problems experienced by those involved, within and beyond the school context (Pepler & Craig, 2011). For example, additional school support for children involved in peer aggression in sports clubs or in rough neighborhoods may also help to reduce peer aggression and victimization in schools. Collaborative social networks linking school, family, community, sports clubs, and other local authorities are essential to monitor and tackle peer aggression and victimization across contexts. Teachers, sports coaches, and staff members may need additional training in specific skills, for example in being able to apply the content and methods of an intervention flexibly in order to match the target group's abilities and to motivate them (Van der Laan, 2000). Sometimes more specialized knowledge or support services are required for implementing a peer aggression intervention. Sport coaches, for example, could call on local

schools or professional organizations for help (e.g., Youth Care Organizations (*Bureau Jeugdzorg*), Public Health Service (*Gemeentelijke or Gemeenschappelijke Gezondheidsdienst*), the Center for Educational Services (*Centrum voor Educatieve Dienstverlening*), or a free-of-charge organization such as *MEE* to support handicapped people). In this way they can receive guidance from external intervention workers or consultants who help them initiate and implement peer aggression prevention activities or assist them with communication skills and individual talks with the children and their parents.

Education

Sports clubs have not made a priority of dealing with peer aggression and victimization. Raising the awareness of sports coaches and staff members is the first step in a process of change (Kloek, Van Lenthe, Van Nierop, Schrijvers, & Mackenbach, 2006) aimed at more actively recognizing and dealing with peer aggression and victimization. The second step is to convince coaches and staff members of the usefulness and necessity of protocols and programs and the importance of a proper implementation of these in practice (cf., Kratochwill & Shernoff, 2004; Olweus, 2003; Smith et al., 2004). The third step is to develop and implement sports club-specific programs for athletes as quickly as possible (as these do not yet exist in the Netherlands), and to train coaches and staff members to implement these programs in practice. We recommend that knowledge about peer aggression and skills to counteract peer aggression and victimization are provided not only as part of initial coaching training, but also as part of initial teacher training (e.g., Allen, 2010; Boulton, 1997; Dake, Price, & Telljohann, 2003). It is striking that issues such as peer aggression and sexual intimidation are largely neglected curriculum contents in pre-service preparation of elementary school teachers and in coaching programs for youth sports coaches in the Netherlands. We firmly believe that preventing peer aggression is as indispensable as first aid.

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Samenvatting

(Summary in Dutch)

Pesten wordt gezien als een maatschappelijk probleem en kan bij slachtoffers tot psychosomatische gezondheidsklachten, depressies en een lage zelfwaardering leiden. Bij daders is pesten een belangrijke voorspeller van crimineel en antisociaal gedrag. Voor het tegengaan van pesten en de gevolgen ervan, bestaat er in binnen- en buitenland een groeiend aantal interventieprogramma's. Vooral binnen de context van de school wordt veel onderzoek gedaan en worden veel programma's bedacht waarmee leraren pesten kunnen signaleren en aanpakken. Voor het onderzoek geldt dat metingen van effecten van deze programma's zich veelal beperken tot de korte termijn en dat de resultaten zeer bescheiden en inconsistent zijn. De overheid zal, vanuit de aandacht voor kwaliteit en (kosten)doelmatigheid van de gezondheidszorg, de jeugdzorg en het onderwijs, steeds meer evidence-based en effectief gebleken interventies als een voorwaarde gaan zien voor de financiering ervan. Kennis over de werkzaamheid van interventieprogramma's en het ontwikkelen van evidence-based antipestinterventies is derhalve onontbeerlijk.

Naast school is sport in verenigingsverband in Nederland een belangrijke georganiseerde praktijk waarin kinderen elkaar structureel ontmoeten en kunnen oefenen met sociale rollen en groepsinteracties. Positieve eigenschappen die door de Nederlandse overheid aan jeugdsportbeoefening worden toegeschreven en de veronderstelling dat kinderen toch voor hun plezier en op vrijwillige basis aan sport doen, verklaren wellicht de geringe beleids- en onderzoeksmatige aandacht voor meer problematische groeps- en socialisatieprocessen zoals pesten in de specifieke jeugdsport context. Dit is opmerkelijk omdat toch het merendeel van de Nederlandse kinderen lid is van een sportvereniging. Uit longitudinaal onderzoek blijkt dat "power sports" beoefening onder jongens tot een toename van antisociaal gedrag leidt binnen en buiten de sportvereniging en het is aannemelijk dat pesten ook op sportverenigingen voorkomt.

De algemene doelstelling van het onderzoek waarover in deze dissertatie gerapporteerd wordt was om bij te dragen aan de kennis over pestgedrag in verschillende contexten en de wijze waarop Nederlandse basisscholen en sportverenigingen pestgedrag kunnen voorkomen en tegengaan. Daarvoor zijn eerst actuele Nederlandstalige antipestprogramma's voor het reguliere basisonderwijs op hun effectiviteitspotentie geanalyseerd (hoofdstuk 2). Vervolgens zijn met gestructureerde vragenlijsten de prevalentie en stabiliteit van pestgedrag onderzocht bij kinderen in de bovenbouw van reguliere basisscholen in de context van hun basisschool en sportvereniging (hoofdstukken 3 en 4). Tenslotte zijn trainers van sportverenigingen (en ook leraren van reguliere basisscholen als

referentiegroep) kwalitatief bevraagd op hun visie op pesten en op hun handelen inzake pestgedrag in de twee verschillende contexten (hoofdstuk 5). Voor zover ons bekend uit internationale wetenschappelijke literatuur is nog niet eerder omvattend onderzoek gedaan naar pesten op sportverenigingen en ook geen vergelijkend pestonderzoek tussen de sportvereniging- en basisschoolcontext.

De studie in hoofdstuk 2 geeft een overzicht van Nederlandstalige antipestprogramma's, die in de afgelopen tien jaar voor het reguliere basisonderwijs zijn ontwikkeld en/of geactualiseerd. Omdat deze programma's in de praktijk nog te weinig geëxpliciteerd waren om aan een gedegen effectonderzoek te onderwerpen is in deze studie de effectiviteitspotentie van deze antipestprogramma's ingeschat op grond van algemeen methodische voorwaarden voor effectiviteit. Hierbij is nagegaan in hoeverre antipestprogramma's voor reguliere basisscholen aan deze algemeen-methodische voorwaarden voor effectiviteit voldoen. Algemeen-methodische voorwaarden voor effectiviteit kunnen worden beschouwd als apriori richtinggevende of veelbelovende principes die een antipestinterventie een kans tot slagen geven. De daadwerkelijke effectiviteit van deze programma's zal uit empirisch evaluatieonderzoek moeten blijken. De analysecriteria waaraan een effectief programma zou moeten voldoen zijn ontleend aan twee in de gezondheidsbevordering en -preventie veel gebruikte en belangrijke interventieplanning- en ontwerpmodellen. Op basis van een inhoudsanalyse zijn conclusies getrokken ten aanzien van de effectiviteitspotentie van deze antipestprogramma's. De belangrijkste is dat de effectiviteitspotentie van deze programma's (op papier) niet hoog kan worden ingeschat. Geen van de tien onderzochte antipestprogramma's voldoet aan de gestelde algemeen methodische voorwaarden voor effectiviteit. Alle programma's hebben hun eigen inhoudelijke en operationele inconsistenties en leemtes. Een andere belangrijke bevinding is dat antipestprogramma's veelal kinderen van 10-12 jaar als doelgroep hebben. Wellicht dat oudere basisschoolkinderen beter in staat zijn te reflecteren op eigen en andermans gedrag en beter hun eigen mening kunnen vormen en verwoorden. Uit pestonderzoek blijkt echter dat het aantal daders en slachtoffers op de basisschool daalt met het toenemen van de leeftijd. Als het gaat om antipestprogramma's zou het dus vanuit preventief oogpunt juist voor de hand liggen programma's op jongere leeftijdsgroepen te richten: hoe eerder hoe beter. Zo wordt op dit moment het Finse antipestprogramma *KIVA* in Nederland geïntroduceerd. Dit programma is oorspronkelijk ontwikkeld voor leerlingen van 10-12 jaar. In Nederland richt men zich

echter met de lespakketten in eerste instantie op leerlingen van 7-9 jaar vanwege de hoge prevalentie van pesten bij deze leeftijdsgroep.

In de door ons uitgevoerde vergelijkende studies in hoofdstukken 3 en 4 zijn leerlingen van de bovenbouw van de basisschool gestructureerd bevraagd op de prevalentie van pesten in zowel de context van hun basisschool als in die van hun sportvereniging. In deze dissertatie is pestgedrag onderzocht vanuit een "behavioral ecological" standpunt, waarbij agressief gedrag van kinderen niet alleen verondersteld wordt samen te hangen met persoonlijke (gedrags)factoren (bijv. jongens zijn van nature meer fysiek agressief dan meisjes) maar ook met (zich veranderende) omgevingscondities. Verwacht werd dat agressief gedrag op de sportvereniging versterkt voor zou kunnen komen doordat kinderen in contact komen met 'macho' -attitudes, -normen en -idealen en dat een bepaalde mate van agressief gedrag in competitieve spelsituaties doorgaans als legitiem wordt gezien: de "enhancement"-hypothese. Het is aannemelijk dat sporters, met name bij vechtsporters waarbij lichaamscontact juist is geboden, zich ook (fysiek) agressief zullen gedragen op de sportvereniging en wellicht dan ook daarbuiten. Ook vanuit een evolutionistisch perspectief op sociaal dominante relaties werd in de context van de sportvereniging meer agressief gedrag verwacht dan in de context van de basisschool. Verondersteld werd dat pesten, naast prosociaal gedrag, een middel is om in een nieuwe groep sociale status en een machtpositie te verwerven: de "sociale-dominantie"-hypothese. In relatief instabiele sportteams, in vergelijking met meer stabiele basisschoolklassen, is het voor kinderen moeilijker om hun sociale positie te consolideren omdat jeugdsportteams doorgaans jaarlijks van samenstelling veranderen. Een verandering in een sociaal netwerk kan een verandering in pestgedrag bij kinderen teweeg brengen omdat kinderen in nieuwe groepen komen, waarbij hun sociale positie of hiërarchie nog niet vast ligt. Dit patroon is bijvoorbeeld zichtbaar bij de overgang van kinderen van de basisschool naar het voortgezet onderwijs, waarbij in het eerste jaar een tijdelijke toename van pesten wordt geconstateerd.

De resultaten van de twee cross-sectionele studies lieten op de sportvereniging weliswaar significant hogere zelfgerapporteerde pest prevalenties zien voor zowel daderschap en slachtofferschap, maar de gevonden effectgroottes waren klein. In het algemeen bleek pestgedrag behoorlijk stabiel te zijn over de twee verschillende contexten. Met andere woorden, context doet er minder toe dan aanvankelijk gedacht en de "sociale-dominantie"-hypothese wordt daarmee verworpen. Bij mannelijke dropouts werden opvallend hoge correlationele scores op daderschap gevonden voor beide contexten. Dit impliceert wellicht

dat dropouts meer moeite hebben met het consolideren van hun sociale status binnen (instabiele) sportgroepen en dat dit mogelijk een belangrijke reden is om niet meer te willen sporten. Verder onderzoek zal dit moeten uitwijzen. Een andere hoofdconclusie van deze twee studies was dat georganiseerde sportbeoefening niet tot beduidend meer pestgedrag leidt op sportverenigingen, ook niet bij vechtsporten in vergelijking met contactsporten en niet-contact sporten (verwerping "enhancement"-hypothese). Hier past wel de kanttekening dat we slechts cross-sectioneel onderzoek hebben gedaan hetgeen deze conclusie voorlopig maakt. De stabiliteit van pestgedrag over de verschillende contexten impliceert meer aandacht van trainers, stafleden en ouders voor en alertheid op pestgedragsituaties waar minder toezicht is zoals in kleedkamers. Gepleit wordt voor een meer integrale aanpak gericht op alle contexten waarin kinderen zich bevinden waarbij pestgedrag niet alleen tijdens de actieve sportbeoefening maar ook vlak voor en na het sporten en direct buiten de locatie van de sportvereniging worden gemonitord. Daarbij is het gebruik van een protocol of een antipestprogramma geen overbodige luxe.

Hoofdstuk 5 doet verslag van een explorerende studie waarbij trainers van verschillende takken van sport met open interviews zijn bevraagd op hun visie en handelen inzake pestgedrag op sportverenigingen bij kinderen van 10-13 jaar. Gezien de vele programma's voor pestinterventies op scholen kan worden verwacht dat leraren informatie hebben over pesten en hoe daarmee om te gaan. Maar hoe is het gesteld met de trainers van sportverenigingen? Trainers zijn in eerste instantie verantwoordelijk voor het voorkomen van en interveniëren in pestgedrag op de sportvereniging. In deze studie zijn de gegevens van de trainers kwalitatief geanalyseerd en vergeleken met die van leraren van bovenbouwgroepen van de basisschool als referentiegroep. Uit de resultaten blijkt dat geen enkele trainer of sportvereniging gebruik maakt van een programma om pesten te voorkomen of tegen te gaan. Men acht programma's ook niet nodig want trainers zijn in het algemeen tevreden over hun eigen aanpak. De indruk bestaat dat trainers zich sterker bewust moeten worden van potentieel pestgedrag op hun sportvereniging. Uitgaande van het gegeven dat de pestprevalentie op sportverenigingen minstens zo hoog is als op basisscholen (hoofdstukken 3 en 4), bestaat de indruk dat trainers de feitelijke omvang van pesten op hun sportvereniging niet goed inschatten en waarschijnlijk de effectiviteit van hun aanpak overschatten. Trainers hebben meer vaardigheden nodig voor het signaleren van pestgedrag en voor hun omgang met daders en slachtoffers.

In de epiloog (hoofdstuk 6) worden de belangrijkste bevindingen van deze dissertatie samengevat en vervolgens bediscussieerd op inhoud, relevantie en mogelijke implicaties voor verder onderzoek, beleid en praktijkontwikkeling. Geconcludeerd wordt dat pestprevalentie en pestrollen over verschillende contexten behoorlijk stabiel zijn. Pesten vindt ook bij het van en naar school gaan plaats, in de onmiddellijke omgeving van de school en in andere sociale contexten. Naast tot de school beperkte interventies wordt een meer brede inzet en samenwerkingsverband tussen basisscholen, sportverenigingen, buurt(werk), gezin en professionele onderwijs- en zorginstanties voorgestaan om pestgedrag op reguliere basisscholen meer adequaat aan te pakken, waarbij ingespeeld wordt op schoolexterne omgevingsinvloeden, condities en sociale netwerken. Ook de noodzaak van het ontwikkelen van voor de sportvereniging specifieke observatie-instrumenten en antipestprogramma's en van aandacht voor het thema pesten in de curricula van trainer- en lerarenopleidingen wordt onderstreept. Effectieve preventieprogramma's zijn veelal het resultaat van langdurig onderzoek naar de achtergronden en oorzaken van probleemgedrag, theoriegestuurde programmaontwikkeling, try-outs en verbeterde versies, en herhaalde proces- en effectevaluaties. Hopelijk levert deze dissertatie een bijdrage aan de huidige en toekomstige ontwikkeling van interventies om pestgedrag zoveel mogelijk te voorkomen en tegen te gaan op scholen en sportverenigingen.

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in het bijzonder. Ik heb het behartigen van de belangen van kinderen in dit proefschrift ter harte genomen. Met de resultaten en aandachtspunten van deze studie hoop ik op te kunnen komen voor de belangen van kinderen die direct betrokken zijn bij pestgedrag op scholen en sportverenigingen.

Het idee om dit proefschrift te wijden aan het thema pesten is deels geboren uit mijn doctoraalscriptie naar sportuitval bij het jongensturnen. In de interviews met de kinderen bleek een aantal jongens gepest te worden, niet alleen op hun sportvereniging maar ook op school. Hun trainers hadden hierin overigens een aandeel door niet adequaat in te spelen op pesten of door zelfs pestgedrag uit te lokken. Ook bleken jongens preventief met turnen te stoppen voordat zij naar de middelbare school gingen uit angst om gepest te worden vanwege het "meisjesachtige" imago van deze tak van sport. De vragen van Bert Brinkman over pesten op volleybalverenigingen vormden een tweede inspiratiebron voor de themakeuze van deze dissertatie. Bert ken ik nog van mijn volleybaltijd in Apeldoorn en we waren beiden zeer actief als volleybaltrainers van jeugdteams. In 1992, tevens mijn oudst bewaarde mail in de inbox, stelde hij mij al de vraag of ik bekend was met onderzoek naar pesten op sportverenigingen, aangezien hij zich geconfronteerd zag met dit fenomeen in zijn sportpraktijk. Bert, bedankt voor je vragen. Tot op de dag van vandaag heb ik nog geen ander serieus onderzoek gevonden over pesten op sportverenigingen, dus zal je het voorlopig met dit proefschrift moeten doen.

Het schrijven van een proefschrift is te vergelijken met die van een bevalling: op een gegeven moment is er geen weg meer terug. Ik zonderde mij af van wereldse zaken om mij thuis, in Drenthe, zoveel mogelijk op het onderzoek te concentreren. Voor onderwijs beperkte ik mij zoveel mogelijk tot colleges en individuele afspraken (veelal via internet) met studenten. Daardoor miste ik de sociale contacten op de werkvloer. Ik wil collega's van de opleiding pedagogiek en onderwijskunde dan ook bedanken voor hun hart onder de riem gesprekken, voor het uitwisselen van onderzoekservaringen, maar ook voor de vaak gezellige gesprekken tussen alle bedrijvigheid door. Deze gesprekken gaven mij morele steun voor het onderzoek en waren een prettige afleiding van de dagelijkse onderzoeksroutines.

In het bijzonder wil ik mijn naaste collega's van de master Maatschappelijke Opvoedingsvraagstukken (MOV) bedanken voor de prettige samenwerking en de gezamenlijke inspanningen om deze maatschappelijk dienstbare en internationaal georiënteerde master op de kaart te zetten. We zien elkaar niet vaak maar we hebben het ook

ontzettend druk met al die ambitieuze studenten die hun master en thesis doen op het gebied van jeugd-, onderwijs-, en opvoedingsproblematiek in ontwikkelingslanden. Pesten is een maatschappelijk opvoedingsprobleem en met dit proefschrift probeer ik dus ook een bijdrage te leveren aan verbetering van de levenskwaliteit van kinderen. Er valt op dit gebied nog een belangrijke missie te vervullen!

Alle dataverzameling voor dit proefschrift had ik niet alleen kunnen doen. Vier jaargangen bachelorthesis studenten wil ik enorm bedanken voor het afnemen van de vele vragenlijsten en interviews tot in alle uithoeken van Nederland. Veel studenten deden de verkorte opleiding, hadden zelf een PABO achtergrond en stonden op dat moment zelf als leraar voor de klas. Ik denk met veel plezier terug aan hun betrokkenheid en inlevingsvermogen ten aanzien van het thema pesten. Zonder de medewerking van de basisscholen en sportverenigingen, en de kinderen, hun leraren en trainers, was dit proefschrift niet tot stand gekomen. Het invullen en beantwoorden van al die vragen heeft heel wat van hun tijd gekost. Mijn dank hiervoor is dan ook groot.

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Steun en opofferingen van het thuisfront zijn onontbeerlijk voor het schrijven van een proefschrift. Onze geweldige zoons Laurens en Guido, respectievelijk 19 en 12 jaar, zijn de laatste jaren getuige geweest van een grotendeels thuis aan onderzoek werkende vader die betrekkelijk weinig tijd voor ze had. In die zin is promoveren een uiterst asociale activiteit. De jongens zorgden regelmatig voor een welkome en vrolijke afleiding en hun dagelijkse verhalen over leeftijdgenoten hebben op mij inspirerend gewerkt bij het schrijven van deze dissertatie. Jongens, reuze bedankt!

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was niet altijd gemakkelijk te combineren met je eigen werk en de opvoeding van onze kinderen. Zoals je weet: iedereen is dol op je, maar ik ben je grootste fan!

Curriculum Vitae

Paul Baar was born on April 30, 1964 in Amersfoort, the Netherlands. After completing secondary school in Apeldoorn in 1983 he obtained his elementary school teaching certificate in Deventer in 1986. He then went on to study Sports, Human Movement and Health at the Department of Pedagogical and Educational Sciences at Utrecht University, and specialized in youth sport participation and sport dropout. Since his graduation in 1991, he has been a lecturer at this department. Baar teaches courses on (sport)pedagogical topics, prevention, education, socialization and youth policy. His current research focuses on peer aggression and victimization in Dutch elementary schools and sports clubs.