Be a buddy, not a bully?

van der Ploeg, Rozemarijn

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Four studies on emotional and social processes related to bullying, defending and victimization

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Four studies on emotional and social processes related to bullying, defending and victimization

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1

Introduction

There is a long tradition of research bullying in schools. This is not surprising as it is a serious, pervasive problem all over the world. Not only victims face severe, sometimes long-lasting negative consequences of being harassed (Reijntjes, Kamphuis, Prinzie, & Telch, 2010; Ttofi, Farrington, Lösel, & Loeber, 2011a). Witnesses of bullying are also likely to experience negative effects, such as anxiety or insecurity and a low well-being at school (Nishina & Juvonen, 2005; Rivers, Poteat, Noret, & Ashurst, 2009; Werth, Nickerson, Aloe, & Swearer, 2015). Moreover, for bullies themselves their negative behavior is related to adverse outcomes such as school-dropout, drinking problems and a higher risk at involvement in criminal behavior (Kokko & Pulkkinen, 2000; Ttofi, Farrington, Lösel, & Loeber, 2011b).

Notwithstanding the growing knowledge on bullying and victimization, efforts to reduce bullying in schools seem only modestly successful (see for instance: Ttofi & Farrington, 2011). Thus, there is a great need for a better understanding of this complex phenomenon.

In this dissertation I attempt to gain detailed insights into the victims' situation and expand the knowledge on emotional and social processes related to bullying, victimization, and defending. Why do bullies bully? What makes bystanders intervene? With this knowledge, I aim to contribute to the effectiveness of interventions aimed at counteracting bullying and victimization in schools.

School bullying: a complex group phenomenon

Bullying is traditionally defined as "*intentional and harmful behavior which is targeted repeatedly at one and the same individual who finds it difficult to defend him- or herself*" (Olweus, 1993). This definition forms the basis of the revised Olweus Bully/Victim Questionnaire (Olweus, 1996) which is commonly used in research on school bullying, including the empirical studies in this dissertation. However, recently it has been questioned whether repetition is a crucial characteristic of bullying, given that a single incident, particularly cyberbullying, can also be very harmful to victims. The new theoretical definition describes bullying as "*aggressive goal-directed behavior that harms another individual within the context of a power imbalance*" (Volk, Dane, & Marini, 2014). Both definitions emphasize that bullying is characterized by an imbalance in power which can be due to physical (e.g., size), psychological (e.g., self-esteem), or social (e.g., social standing) factors. This inequity is what makes bullying different from other forms of aggression.

Several types of bullying behavior can be distinguished (Salmivalli, Kärnä, & Poskiparta, 2011). Physical bullying (hitting, kicking), verbal bullying (calling names, insulting), and material bullying (stealing or damaging things) are considered direct types of bullying, whereas relational bullying, for instance ignoring or gossiping, and cyberbullying via computers or mobile phones can be both direct and indirect.

Bullies are often motivated by a quest for high social standing in the peer group (Sijtsema, Veenstra, Lindenberg, & Salmivalli, 2009). By harassing their peers, bullies want to show their power and strength and increase their dominant position (e.g. Volk, Cioppa, Earle, & Farrell, 2015). The peer group assigns status to its members. As such, bullying should not be seen as an interaction between just the bully and the victim, but rather as a group phenomenon in which children have different roles (participants roles, see Salmivalli, 2010). Apart from bullies and victims, witnesses of bullying can actively help the bully (assistants), encourage the bully by cheering or laughing (reinforcers), support the victim (defenders), or remain uninvolved (passive bystanders). Bullying is thus a problem that arises in the larger peer group. The same peer group is also important in counteracting bullying, given that the extent to which bullying is an effective strategy to obtain high social status depends on the witnesses. A positive change in the behavior of bystanders reduces the social rewards (i.e., becoming popular) gained by bullying and consequently the bullies' motivation to bully (Salmivalli et al., 2012).

Social standing in the classroom

High social standing or status in the classroom and a sense of belonging in the peer group is of great importance in (early) adolescent life (e.g., Cillessen & Rose, 2005) and plays a central role in the group processes concerning bullying and victimization in schools.

Social status can be reflected by receiving affection from peers and one's reputation in the peer group. In order to measure these distinct constructs, two types of social standing are usually distinguished: social preference (Cillessen & Mayeux, 2004) and perceived popularity (Parkhurst & Hopmeyer, 1998). Social preference is a measure of affection that reflects the degree to which an individual is liked by his or her peers. Peer acceptance is generally related to prosocial behaviors as well as positive developmental and psychological outcomes. In contrast, peer rejection (i.e., being disliked) is often associated with internalizing and externalizing problems (e.g., Newcomb, Bukowski, & Pattee, 1993; Ojanen, Grönroos, & Salmivalli, 2005).

Perceived popularity is a reputational measure of social standing. It reflects prestige, visibility, and a dominant position in the peer group. A popular status among peers can be achieved by outstanding behaviors which can be both prosocial and antisocial (e.g., Dijkstra, Lindenberg, Verhulst, Ormel, & Veenstra, 2009; Slaughter, Imuta, Peterson, & Henry, 2015).

The KiVa anti-bullying program

This dissertation is part of a research project on the Dutch implementation of the KiVa program, an anti-bullying intervention predicated on the idea that bullying is a complex group phenomenon in which status plays an important role. KiVa was developed in Finland, evaluated in a randomized controlled trial, and disseminated nationwide afterwards (Kärnä et al., 2013; Kärnä, Voeten, Little, Poskiparta, Alanen, et al., 2011; Kärnä, Voeten, Little, Poskiparta, Kaljonen, et al., 2011). The success of KiVa in Finland led to the implementation and evaluation of the KiVa program in the Netherlands (Veenstra et al., 2013).

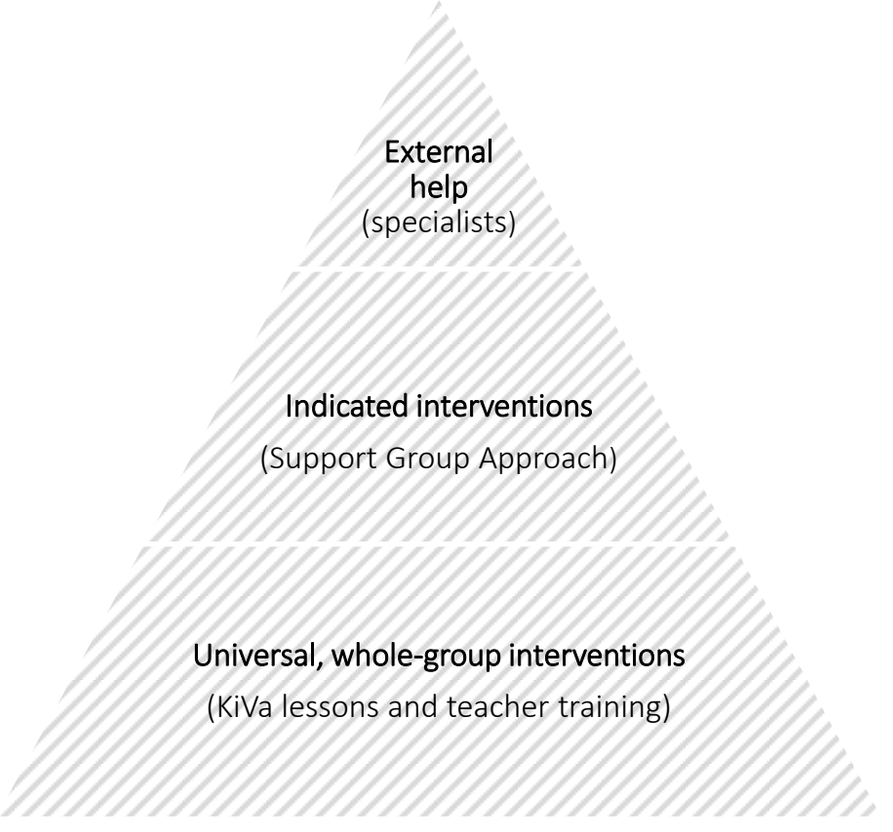
KiVa is an acronym for *Kiusaamista Vastaan*, which can be translated as 'against bullying'. The Finnish word *kiva* also means 'nice'. A main goal of the KiVa program is to raise students' awareness of their contributions to bullying and to teach them that bullying is a problem that concerns the whole group. The program aims to encourage bystanders to take a clear stance against bullying and to support the victim instead of assisting the bully. For that purpose, the intervention contains universal actions that target all students (lowest tier in Figure 1.1). The core of these universal actions is ten lessons for students in grades 3-6 covering a wide variety of themes, such as showing respect, group pressure, bullying, and intervening in bullying. The lessons consist of small group discussions, exercises and role play. In addition, students can test their knowledge about bullying and enhance their defending skills with a computer game (Poskiparta et al., 2012). The universal actions are principally aimed at preventing bullying. For solving persisting bullying cases, the KiVa intervention includes indicated actions (middle tier, Figure 1.1). In Finland, the indicated actions can be both confronting or non-confronting (Garandeau, Poskiparta, & Salmivalli, 2014), whereas in the Netherlands only a non-confronting strategy is used (the Support Group Approach, see Chapter 3). The Support Group Approach involves discussion meetings with victims and their bullies (i.e., initiators and assistants), as well with prosocial classmates. Each KiVa school has a KiVa team of at least three teachers or other school personnel. KiVa team

members are trained in addressing persistent cases of bullying, using the Support Group Approach.

Besides the manual with teacher instructions for the universal and indicated actions, the KiVa program provides a guide for parents, online material and instruction for classroom teachers, and gadgets (i.e., posters, bright colored vests for supervision during breaks) that remind both students and school personnel of being in a KiVa school (see Salmivalli, Kärnä, & Poskiparta, 2010; Veenstra et al., 2013 for a more detailed description).

Figure 1.1

Pyramid of interventions



THIS DISSERTATION

The focus of this dissertation is on the consequences of bullying, defending, and victimization in the classroom. The four empirical studies aim to address various gaps in the literature on school bullying. In the first part, I focus on the victims of bullying. I investigate the associations between experiencing victimization and students' psychological and social adjustment (Chapter 2) and the effectiveness of the Support Group Approach in altering the victims' situation (Chapter 3).

The second part is about why students intervene in bullying situations and get involved in bullying itself. Bullying can be considered strategic, goal-directed behavior to achieve high social status in the classroom hierarchy (e.g., Salmivalli, 2010; Volk et al., 2015, 2014). Defending behaviors are also likely to be related to social status (Caravita, Di Blasio, & Salmivalli, 2010; Meter & Card, 2015; Pöyhönen, Juvonen, & Salmivalli, 2010). I examine the antecedents and status consequences of defending (Chapter 4) and the longitudinal interplay between bullying and perceived popularity in the classroom (Chapter 5).

In the remainder of this introduction, I elaborate on the research topics addressed in this dissertation and discuss how the various studies add to the knowledge on school bullying. Subsequently, I describe the data used in the empirical chapters. The introduction ends with a brief overview.

The victims' situation

In the long tradition of bullying research, strong evidence is found for negative consequences of victimization. Victims of bullying are often frightened to go school, suffer from low self-esteem and are more likely to be anxious or depressed, also later in life (Reijntjes et al., 2010; Ttofi, Farrington, & Lösel, 2014; Vaillancourt, Hymel, & McDougall, 2003). Besides various psychological maladjustments, experiencing victimization is associated with social adjustment problems: victims tend to have few friends and generally have a low social standing in the peer group (e.g., Bouman et al., 2012). Nevertheless, there are differences in the emergence of adjustment problems between victims, which might be due to the extent to which children feel that they deviate from the peer group (Graham & Juvonen, 2001).

In studying when experiencing victimization is associated with more severe maladjustment the focus was mainly on the classroom context (e.g., Huitsing, Veenstra, Sainio, & Salmivalli, 2012). Specific aspects of victimization were often neglected. In Chapter 2 I attempt to understand differences in the harmfulness of victimization by assessing various indicators of bullying intensity. I argue that –

besides frequency – it is important to take into consideration in how many ways (i.e., the multiplicity of victimization) and by how many peers (i.e., number of bullies involved) the bullying is performed. Hence, this study contributes to enhancing our knowledge of differences in the victims' situation when several aspects of victimization are taken into account simultaneously. Moreover, the new measures used in this study made it possible to distinguish "less severe" victims from frequent victims and non-victims. Using these detailed measures of victimization, Chapter 2 extends current literature on (negative) correlates of victimization, and provides first insights into how the intensity of victimization can be measured in future studies.

Chapter 3 builds on Chapter 2 by examining whether the Support Group Approach, an indicated intervention aimed to improve the victims' situation is effective. In many countries, schools are strongly encouraged to implement indicated actions for tackling bullying situations that have been resistant to universal, preventive interventions (see Figure 1.1). The Support Group Approach – mostly similar to the No Blame Method (Robinson & Maines 2008; Young 1998) and The Method of Shared Concern (Pikas 1989, 2002) – is widely used in schools all over the world. However, little is known about its effectiveness. The few studies that examine the intervention are short-term evaluations of (perceived) changes in the bullying situation. In Chapter 3 I attempt to gain insight into the effects of the support group intervention over the course of a school year. Hereby the focus is not only on victimization but also on changes in defending and the victims' well-being at school. In addition, the use of exact matching methods (Iacus, King, & Porro, 2011) made it possible to examine the effects of the intervention above and beyond the school-wide KiVa anti-bullying program. This study is among the first to investigate the unique contribution of the Support Group Approach and contributes to the existing literature by offering a better understanding of short-term and long-term changes in the victims' situation caused by the intervention.

Defending victims of bullying

The behavior of bystanders is considered crucial in reducing bullying and victimization in school. Research has shown that victim support not only helps to bring an end to bullying (Hawkins, Pepler, & Craig, 2001), it also alleviates the victims' psychosocial maladjustment (Sainio, Veenstra, Huitsing, & Salmivalli, 2011). Witnesses of bullying are, however, faced with a dilemma: although most of them perceive bullying as something wrong and show supportive attitudes toward

victimized classmates, they rarely intervene (Salmivalli, 2014). There are several reasons why bystanders do not intervene when their peers are being harassed. It might be that students feel that they are unable to stop the bullying or they are afraid to lose their social standing in the peer group and risk getting victimized themselves (Juvonen & Galván, 2008; Pöyhönen et al., 2010).

Only recently scholars started to investigate factors that explain students' defending behavior, mostly using a cross-sectional design. However, to be able to encourage bystanders to stand up for their victimized classmates, it is important to know what makes students intervene in bullying situations and how this defending behavior is rewarded by peers. Therefore, in Chapter 4 I attempt to obtain more insight into both the antecedents *and* consequences of defending. The use of a longitudinal design is a substantial contribution to previous studies that investigated defending behavior. Another contribution to the existing body of knowledge is that I distinguished victims of bullying from non-victims. This way obtains a nuanced picture of the benefits and risks of intervening in bullying situations.

The complex interplay between bullying and status

Bullying appears to be an effective strategy to obtain high social status in the peer group as previous studies established that it is associated with perceived popularity over time (e.g., Cillessen & Borch, 2006; Reijntjes, Vermande, Olthof, et al., 2013; Sentse, Kretschmer, & Salmivalli, 2015). Some anti-bullying interventions, including KiVa, assume that bullies will be less motivated to bully when the social rewards gained by their antisocial behavior decline, that is when bullies are no longer perceived as popular. Yet, a recent study found that especially very popular students persist in bullying their classmates (Garandeau, Lee, & Salmivalli, 2014).

Relatively little is known about the interplay between bullying and perceived popularity over time. Is bullying a way to gain or maintain popular status? In Chapter 5 I aim to unravel the relational patterns of bullying and perceived popularity through a longitudinal social network approach. This way enables accounting for the fact that both bullying and popularity take place in dyadic relations and depend strongly on the group context (Huitsing, Snijders, Van Duijn, & Veenstra, 2014; Steglich, Snijders, & Pearson, 2010).

I especially sought to expand the knowledge on relational processes that would explain more precisely how bullying and popularity interact. I focused on the creation and maintenance of popular status among bullies on the one hand, and the formation and termination of bullying relations among popular students on the

other hand. This study contributes to a better understanding of mechanisms that may underlie the existence of bullying in the classroom context. These insights can be useful to address bullying behaviors of highly popular students in the classroom.

THE DUTCH KIVA STUDY

The data used – with the exception of Chapter 4 – come from the Dutch KiVa project, a five-wave longitudinal study on the effectiveness of the KiVa anti-bullying intervention in the Netherlands. I was involved in implementing KiVa at Dutch primary schools and the data collection.

Implementation and data collection

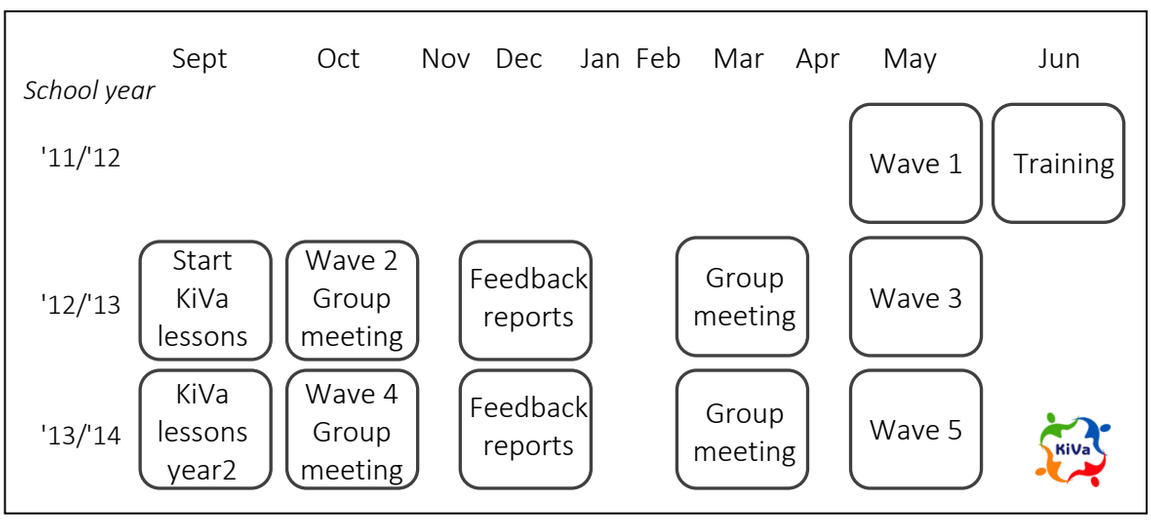
Implementation of KiVa in the Netherlands began in 2011. All teaching materials were translated into Dutch and adapted for the Dutch educational context. In addition, a new intervention condition was developed, the KiVa+ condition. In this condition teachers receive reports with feedback on the social structure of their classroom (e.g., who bullies whom?) and the well-being of their students. The report gives teachers insights into the group processes in their classroom. The aim of these reports was to help classroom teachers recognize bullying and victimization, and intervene more effectively (Huitsing & Veenstra, 2012).

In the fall of 2011, letters with information about the goals and content of the intervention and the enrollment procedure for the evaluation study were sent to all Dutch primary schools. A total of 132 schools indicated they were willing to take part in the KiVa project. The evaluation started in May 2012 with pre-assessment of about 10.000 students in grades 2-5 (ages 7-11; Dutch grades 4-7). Some schools did not participate due to lack of commitment in the school-team, or lack of time or resources to take part in the data collection. 100 schools completed the pre-assessment. Afterwards, schools were randomly assigned by the Netherlands Bureau for Economic Policy Analysis (CPB) to either the control condition (33 schools) or one of the two intervention conditions (i.e., 34 KiVa schools and 33 KiVa+ schools). One KiVa+ school dropped out because they did not want to participate anymore.

The KiVa and KiVa+ schools underwent a two-day training course developed by the KiVa Consortium.[1] Each group of about 25 participants was trained by a practitioner (school counselor) and a member from the KiVa research group. The KiVa intervention started in August 2012, at the beginning of the curriculum. Control schools were asked to continue their "care as usual" anti-bullying approach. Intervention schools shared their experiences in group meetings twice a year, under the supervision of a practitioner and a researcher. The experiences of the KiVa teachers were used as input for further development of the program. Data collection took place in October and May of each school year. For a graphic overview of the KiVa timeline see Figure 1.2.

Figure 1.2

Timeline KiVa study



Questionnaire

An online tool facilitated the data collection, a questionnaire largely based on the one that was used in Finland. It consists of both self-reports and peer nominations on bullying and victimization, students' behaviors, and their well-being. An important benefit is that peer nominations concerning bullying, defending, and victimization were direct questions. That is, instead of asking students to nominate bullies in general, children were specifically asked to name who was bullying them. These dyadic nominations allowed us to obtain a precise insight into the social structure of the classroom and the students' position within the peer group. A main

[1] The KiVa consortium is comprised of scholars from the KiVa research group, school-counselors, and implementers. In monthly meetings they congregate about the implementation, evaluation, and development of the intervention.

difference of our (Dutch) questionnaire compared to the Finnish one is that it used more peer nominations. This meant we could distinguish between the initiators of bullying ("Who in your class starts bullying you?") and their assistants ("Who in your class joins the bully or is there when the bullying takes place?"). We could also identify friendship networks in the classroom by asking the students to nominate their best friends. Another essential difference is that we included cross-classroom nominations. Students thus were able to nominate non-classmates for the main network questions (i.e., bullying, defending, rejection, friendships).

The online questionnaires were filled out in the schools' computer labs during regular school hours. The process was administered by teachers, who were also present to answer questions. Short movies were used to clarify the procedure and explain the definition of bullying to the students. The latter gave several examples covering various types of bullying, and an explanation emphasizing that bullying is intentional and repetitive behavior characterized by an imbalance of power. Students did not participate if parents did not give consent or if they did not want to fill in the questionnaire. In all waves the participation rate was high, about 98%.

OVERVIEW

This dissertation sheds light on the consequences of being victimized, as well as victim support, and involvement in bullying. The outline of the empirical studies gives an overview of the topics addressed in this dissertation (see Table 1.1). The empirical chapters (2-5) were written for publication in peer-reviewed journals and may be read as standalone research articles. For this reason, some overlap between the chapters is inevitable. Likewise, small differences in terminology may occur. The main findings of the four studies are discussed in Chapter 6, including scientific and practical implications. In this final chapter I reflect on further steps that may be taken in future research on school bullying.

Table 1.1

Overview of the empirical studies

	Research aims	Data	Sample	Analytical strategy
Chapter 2	- Investigate the extent to which frequency and multiplicity of victimization, and the number of bullies, account for differences in students' psychosocial well-being and social standing in the classroom	KiVa NL Wave 2	Control schools Grades 3-6 2859 students	Multilevel regression analyses in STATA
Chapter 3	- Examine the use of the Support Group Approach in the KiVa program in the Netherlands - Investigate the short-term effectiveness of the Support Group Approach in reducing victimization - Investigate the long-term effectiveness of the Support Group Approach in reducing victimization, amplifying defending, and improving victims' well-being at school	KiVa NL Waves 2-5	Intervention schools Grades 2-6 38 victims with SGA 571 victims without SGA	Coarsened Exact Matching in SPSS
Chapter 4	- Investigate the emotional and social cognitive antecedents of defending in bullying situations - Investigate the consequences of defending on one's social standing in the classroom - Investigate differences in the antecedents and consequences of defending between victims and non-victims	KiVa Finland Waves 1-3	Control schools Grades 3-5 2803 students	Multilevel path modeling with multiple group comparisons in MPLUS
Chapter 5	- Investigate the co-evolution of bullying and perceived popularity, focusing on how bullying affects the creation, dissolution, and maintenance of popularity ties and vice versa	KiVa NL Waves 1-3	Stable classrooms Grades 2-5 2055 students	Longitudinal multivariate social network analysis in RSIENA

2

The intensity of victimization

Associations with children's psychosocial well-being and social standing in the classroom*

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School bullying is a widespread problem. All over the world, large numbers of children are victimized by their peers (Salmivalli & Peets, 2009). Bullying is commonly defined as repetitive and intentional negative behavior against a victim who finds it difficult to defend himself or herself (Olweus, 1993). From previous research we know that victimization is related to various forms of psychosocial maladjustment (Hawker & Boulton, 2000; Reijntjes et al., 2010; Ttofi et al., 2011a). Victims of bullying are often frightened to go to school, suffer from low self-esteem, and are more likely to be anxious or depressed (Graham & Juvonen, 1998b; Kaltiala-Heino, Rimpelä, Rantanen, & Rimpelä, 2000; Ranta, Kaltiala-Heino, Fröjd, & Marttunen, 2013; Slee, 1995). Moreover, victims tend to be isolated and generally have a low social standing in the classroom (Bouman et al., 2012; Salmivalli, Lagerspetz, Björkqvist, Österman, & Kaukiainen, 1996). While strong evidence has been found for the negative consequences of being victimized, various studies have shown that the emergence of psychological and social adjustment problems varies between victims (e.g., Hoover, Oliver, & Hazler, 1992; Pronk & Zimmer-Gembeck, 2009; Ybarra, Espelage, & Mitchell, 2014).

In order to explain these differences in the level of victims' psychosocial well-being, researchers have investigated in which contexts suffering from victimization results in more severe maladjustment (Kochenderfer-Ladd & Troop-Gordon, 2010; Nishina, 2012). The focus was primarily on the broader social context in which the victimization takes place, such as the classroom (Bellmore, Witkow, Graham, & Juvonen, 2004; Huitsing et al., 2012; Salmivalli & Peets, 2009; Sentse, Scholte, Salmivalli, & Voeten, 2007). However, it can be argued that, in addition to the classroom context, specific aspects of victimization itself account for differences in the level of students' psychosocial maladjustment and social standing in the classroom (Kochenderfer-Ladd & Ladd, 2001). Researchers have recently recommended using measures of victimization that include other indicators of bullying besides frequency in order to better assess the harmfulness of bullying (Volk et al., 2014; Ybarra et al., 2014): for instance, by how many peers and in how many ways the harassment is performed. Bullying behavior can be subdivided into several types, such as physical bullying (hitting, kicking), relational bullying (ignoring, gossiping), verbal bullying (calling names, insulting), material bullying (stealing or damaging things), and cyber bullying (via email or mobile phone). Being victimized through various types of bullying, e.g., being called names *and* being hit *and* being ignored, can be considered more intense than being victimized in one way, especially when the diverse bullying behavior is performed by the same peer.

Victimization can also be experienced as more intense when it is performed by more than one peer, and when it happens frequently. In other words, three aspects of intensity can be distinguished: frequency, multiplicity, and the number of bullies involved.

Relatively few researchers who investigated associations between psychosocial maladjustment, social status, and victimization also addressed in how many ways (e.g., Romano, Bell, & Billette, 2011) or by how many peers (e.g., Nishina, 2012) children were victimized. The frequency of victimization has more often been taken into account (e.g., Bonanno & Hymel, 2010; Bouman et al., 2012; Juvonen, Nishina, & Graham, 2000; Sweeting, Young, West, & Der, 2006, Ybarra et al., 2014), but often these specific aspects were neglected and just a distinction between victims and non-victims is made (Huitsing et al., 2012; Kaltiala-Heino, Fröjd, & Marttunen, 2010; Kochenderfer & Ladd, 1996; Ranta et al., 2013).

In line with Volk et al. (2014), we argue that in order to better understand (differences in) the harmfulness of victimization, it can be important to take into consideration not only the frequency of victimization, but also the multiplicity of victimization and the number of bullies involved. Hence, the main goal of the present study was to examine how these three characteristics of victimization account for differences in several psychosocial outcomes. More specifically, we took a closer look at students' psychosocial well-being (i.e., social anxiety, depressive symptoms, and well-being at school) and social standing in the classroom (i.e., acceptance, rejection, and perceived popularity). For explorative reasons we also included gender and gender interactions in our analyses, as differences may exist between boys and girls in psychosocial well-being, social standing, and reactions to victimization (e.g., Hawker & Boulton, 2000; Kaltiala-Heino et al., 2010; Turner, Exum, Brame, & Holt, 2013).

Victimization and students' psychosocial well-being

Being victimized may lead to psychosocial adjustment problems when children feel that they deviate from their peer group. This can be explained by attributional processes (Graham & Juvonen, 2001; Weiner, 1985). Attribution theory is concerned with the perceptions people have of why a certain (negative) event has taken place, referring to how they rationalize or make sense of it. Victims, for instance, may wonder why they are victimized. In the wide range of potential answers to this question, three dimensions are generally distinguished (Graham & Juvonen, 1998a, 2001): stability (whether the perceived cause of victimization is

stable or varies over time), controllability (whether the perceived cause of victimization can be altered by the victim), and locus (whether the cause of victimization is internal or external to the victim). These dimensions are considered to be related to victims' psychosocial adjustment (Weiner, 1985).

In sum, attribution theory can be used as a heuristic to better understand under which conditions -the frequency and multiplicity of victimization, and the number of bullies involved- experiencing victimization might lead to worse psychosocial outcomes.

In the current study the internal locus was of specific interest because particularly self-blaming attributions characterize how victims interpret harassment by peers (Graham & Juvonen, 1998a). A negative event can be internally evaluated in two ways: characterological and behavioral self-blame (Janoff-Bulman, 1979). Characterological self-blame refers to the tendency to attribute negative events to stable and uncontrollable features of the self: "*It is something about the way I am".* Behavioral self-blame, in contrast, is the tendency to attribute events to unstable and controllable features of the situation, such as one's own behavior: *"It is something about what I did*" (Graham & Juvonen, 1998a, 2001). It can be argued that maladaptive outcomes are particularly present among victims who attribute the harassment to personal characteristics rather than their behavior. These victims may feel that they lack control over the situation and, hence, be more likely to expect the victimization to happen again (Graham & Juvonen, 1998; Kochenderfer-Ladd & Ladd, 2001). Indeed, Boulton (2013a) found that the association between childhood social exclusion, verbal victimization, and relational victimization, on the one hand, and adult social anxiety, on the other hand, was moderated by characterological self-blaming attributions.

When it comes to the specific aspects of victimization, it can be assumed that more frequent harassment, victimization in multiple ways, and victimization by several bullies is predominantly associated with characterological self-blame. For instance, it was found that the more frequently victimization takes place, the more likely it is that victims will feel that they are unable to stop peers from victimizing them (Kochenderfer-Ladd & Ladd, 2001). Frequent victimization is then likely to be attributed to personal characteristics, such as incapability to stand up for oneself. Moreover, Nishina (2012) argued that victims' expectations of future victimization increase when the harassment is performed by several bullies, given that they are the target of a broader range of peers and not just random victims. In others words,

victims tend to perceive the victimization as uncontrollable and stable when more than one bully is involved and, hence, are more likely to assign the victimization to features of the self. Lastly, being victimized in multiple ways (e.g., being called names, being hit, and being ignored) by the same peer sends a message to victims that they are not random recipients of aggression but rather *the target* of bullies, making it less likely to assign the victimization to the situation.

In sum, when the bullying behavior is more intense (i.e., more frequent, performed in multiple ways, or by more than one bully), the harassment is more likely to be attributed to personal characteristics, than to features of the situation, resulting in higher levels of psychosocial maladjustment. We expected psychosocial well-being to be lower for frequently victimized students (*Hypothesis 1*), students who are victimized in multiple ways by the same peer (*Hypothesis 2*), and victims with several bullies (*Hypothesis 3).*

Victimization and social standing in the classroom

Social standing in the peer group is an important aspect of (early) adolescent life (Adler & Adler, 1998; Dijkstra, Cillessen, Lindenberg, & Veenstra, 2010a). Especially in schools, students tend to form social hierarchies in which likeability and visibility play an important role (Sijtsema et al., 2009). When it comes to social status, a distinction between likeability and perceived popularity is usually made. Likeability refers to the degree to which someone is accepted (liked) versus rejected (disliked) by peers. Popularity refers more to dominance, status, and visibility in the peer group (Cillessen & Rose, 2005; Parkhurst & Hopmeyer, 1998). Popular peers are the ones with whom many want to spend time or associate with (Dijkstra et al., 2010a).

From a range of previous research findings we know that being victimized is associated with social standing in the classroom. It has repeatedly been found that victims generally score high on social rejection and low on social acceptance (e.g., Graham & Juvonen, 1998b; Salmivalli et al., 1996) and are perceived as less popular (Bouman et al., 2012; de Bruyn, Cillessen, & Wissink, 2010). The low status of victims in the peer group can be understood both as a cause and a consequence of victimization. Low social standing can be considered a reason for being victimized, as previous studies have suggested that most bullies tend to choose so-called “easy targets” to harass: that is, peers who are disliked, or perceived as unimportant by others (Salmivalli & Peets, 2009; Sijtsema et al., 2009). However, it has also been argued that peers’ perceptions of victims change gradually when the victimization endures and becomes more apparent. If the harassment persists and its visibility

increases, victims may be seen as more worthless or risky to associate with, as a result of which their likeability and popularity in the peer group decreases (Boulton, 2013b; Olweus, 1991; Salmivalli et al., 1996).

Based on the latter, it can be assumed that the negative consequences with regard to social standing in the classroom depend on the frequency and multiplicity of the harassment, as well as the number of bullies involved. After all, the victimization becomes more visible when it occurs more frequently, happens in multiple ways, and is performed by several peers. This greater visibility of the victim is likely to result in greater social rejection by classmates and a less prominent position in the peer group, leading to a lower popular status. Although we were unable to examine causal direction in the current study, we expected that the social standing of victims who were frequently victimized would be lower than that of victims who were occasionally or not at all victimized (*Hypothesis 4*). Also the social standing of victims who were victimized in multiple ways was expected to be lower than that of victims who were victimized in only one way by the same peer (*Hypothesis 5*). Lastly, we hypothesized that the social standing of victims in the classroom would decrease as the number of bullies increased *(Hypothesis 6)*.

METHOD

Sample

Data used in this study stem from the evaluation of the Dutch implementation of the KiVa anti-bullying program. To recruit schools, letters describing the KiVa project were sent in the fall of 2011 to all 6,938 Dutch elementary schools. Special elementary schools and schools for children with special educational needs could not take part in the KiVa program and were thus not invited to participate. A total of 99 schools indicated they were willing to participate.

The schools were randomly assigned by the Netherlands Bureau for Economic Policy Analysis (CPB) to either the control condition (33 schools) or one of the two intervention conditions: KiVa (34 schools) or KiVa+ (32 schools). KiVa+ is the KiVa program with one additional component. Teachers in KiVa+ schools receive reports about the social structure of their classroom. Control schools were asked to continue their “care as usual” anti-bullying approach until their participation in the KiVa program in June 2014.

Prior to the data-collection, schools sent information on the study to students' parents. If parents did not want their child to participate in the assessment, they were asked to inform the teacher. Students were informed at

school about the research and gave oral consent. Both parents and students could withdraw from participation at any time. Students who did not receive parental consent, did not want to participate, or were unable to fill in the questionnaire, did not participate (1.5 %). The main reason for this high response rate is that data were collected online and teachers were informed about which of their students filled in the questionnaire. Moreover, students who incidentally missed the scheduled day of data collection could participate on another day within a month.

Procedure

Two times per school year (October and May) students filled in internet-based questionnaires in the schools' computer labs during regular school hours. Classroom teachers distributed individual passwords that gave access to the questionnaire. Students read all questions by themselves; difficult topics were explained in instructional videos. In these videos, a professional actor explained the questions in such a way that all students could understand them (e.g., by articulating words clearly and slowly). The term *bullying* was defined in the way formulated in Olweus' Bully/Victim questionnaire (Olweus, 1996). Several examples covering different forms of bullying were given, followed by an explanation emphasizing the intentional and repetitive nature of bullying and the power imbalance. Classroom teachers were present to answer questions and assist students when necessary. Teachers were supplied with detailed instructions before the data collection began and were encouraged to help students in such a way that it would not affect their answers (e.g., asking them questions such as "Which words are unclear to you?"). The order of questions and scales were randomized so that the order of presentation would not have any systematic effect on the results.

Participants

In the present study, we used data from schools in the control condition that were collected in October 2012. The focus of our study was on victimization within the classroom. However, some students reported that they were victimized only by peers from other classrooms or other schools (20%). These students were also included in our analyses through addition of a dummy variable that indicated whether or not students were only bullied outside the classroom. In total, 3.8% of the students had missing data on one of our study variables. They were excluded from the sample. The remaining sample consisted of 33 schools, 124 classrooms, and 2859 students in grades 3-6 (ages 8-12; Dutch grades: 5-8; 49.6% boys).

Measures

Students' *psychosocial well-being* was indicated by their levels of social anxiety, depressive symptoms, and well-being at school. We used a seven-item scale, derived from the Social Phobia Screening Questionnaire (Furmark, Tillfors, & Everz, 1999), to measure social anxiety. Students responded on a five-point scale to items such as “I am scared to be together with others during the break” (1 = never, 5 = always). The scores for the seven items formed an internally consistent scale and were averaged (Cronbach’s α = .77). To measure the emergence of depressive symptoms, nine items from the Major Depression Disorder Scale (Chorpita, Yim, Moffitt, Umemoto, & Francis, 2000) were used (e.g., “I feel worthless”). Students’ answers could vary from never (1) to always (4). Together, the items formed an internally consistent scale and were averaged (Cronbach’s α = .81). Well-being at school was indicated by seven items concerning perceptions of the classroom and school (Kärnä, Voeten, Little, Poskiparta, Kaljonen, et al., 2011). Students responded to items such as “I feel I am accepted as I am at school” (1 = never, 4 = always). The items formed an internally consistent scale (Cronbach’s α = .83) and were averaged.

The *social standing* of students in the classroom was determined using their acceptance and rejection, on the one hand, and perceived popularity, on the other hand. *Acceptance* and *rejection* were measured by asking students to nominate an unlimited number of classmates they liked most (acceptance) and liked least (rejection). To assess *perceived popularity*, participants nominated an unlimited number of classmates they perceived as most popular (“Which of your classmates is popular?”). For each student, the received nominations for "being liked", “being disliked”, and "popularity" were summed and divided by the number of nominating classmates so that proportion scores for, respectively, acceptance, rejection, and perceived popularity were created (0-1).

In order to conduct the analyses, we constructed both a categorical and a continuous measure for the indicators of victimization. *Frequency of victimization* was measured using the revised Olweus Bully/Victim questionnaire (1996). Students had to indicate how many times they had been victimized in the past months. They could answer on a five-point scale (1: it did not happen, 2: once or twice, 3: two or three times a month, 4: about once a week, 5: several times a week). In accordance with the recommendation of Solberg and Olweus (2003), students who indicated being victimized at least two or three times a month were considered to be often victimized.

The measure of *multiplicity of victimization* was also based on self-reports. Students were asked to indicate by which classmates they were victimized. Five forms of victimization were distinguished: physical (hitting, kicking), relational (ignoring, gossiping), verbal (calling names, insulting), material (stealing or damaging things), and digital (cyber bullying). Moreover, students could specify which classmates initiated the bullying. Students who nominated the same peer for at least three out of these six questions were considered to be victimized in multiple ways by the same peer. When students nominated more than one peer at least three times, they were considered to be multiply victimized by several peers. A continuous measure of multiplicity was generated by dividing for each student the sum of the reported nominations by the total number of bullies involved. Correlations between the various forms of victimization were all positive (ranging from .21 to .57) and significant ($p < .001$).

Lastly, each student could indicate by which classmates they were victimized; using this information, we created a measure of *the number of bullies* a victim has. Table 2.1 presents descriptive information on the study variables.

Analyses

We first examined whether the means in psychosocial well-being and social standing in the classroom differed as a result of the frequency and multiplicity of victimization, and the number of bullies involved, using analyses of variance (ANOVA). The results are shown in Tables 2.2, 2.3, and 2.4.

Our hypotheses were tested using multilevel regression techniques (Snijders & Bosker, 1999), with students nested in classrooms in schools. All models were estimated using Stata 13. In order to facilitate the interpretation of the outcomes, all continuous variables were standardized across the whole sample ($M = 0$, $SD = 1$). To investigate the additional value of multiplicity of victimization and the number of bullies involved, the effects of frequency of victimization were examined first (Models A). Subsequently, indicators of multiplicity and the number of bullies were added (Models B). The results are presented in Tables 2.5 and 2.6.

Table 2.1

Descriptive information on the study variables (N=2859)

	Min	*Max*	*Mean*	*SD*	*%*
Sex (1 = boy)	0	1	.50	.50	
Social anxiety	1	5	1.88	0.69	
Depressive symptoms	1	4	1.66	0.51	
Well-being at school	1	4	3.06	0.55	
Acceptance	0	.93	.41	.17	
Rejection	0	.96	.14	.14	
Perceived popularity	0	.90	.13	.16	
Frequency of victimization (continuous)	0	4	0.93	1.30	
Frequency of victimization (categorical)					
Not victimized					53.4
Sometimes victimized					25.0
Often victimized					21.6
Multiplicity of victimization (continuous)	0	6	0.58	0.97	
Multiplicity of victimization (categorical)					
Not victimized					53.4
Victimized in one way by classmate					34.8
Victimized in multiple ways by one classmate					5.1
Victimized in multiple ways by several classmates					6.7
Number of bullies (continuous)	0	27	1.29	2.83	
Number of bullies (categorical)					
Not victimized					53.4
Victimized outside the classroom					20.4
One bully in classroom					5.8
Several bullies in classroom					20.4

RESULTS

Differences in students' psychosocial well-being and social standing in the classroom

It can be seen in Table 2.2 that students who were often victimized suffered from higher levels of social anxiety and symptoms of depressiveness than students who were sometimes or not at all victimized. Additionally, it is shown that they had the lowest well-being at school. Significant differences were also found in social standing in the classroom. Frequently victimized students were more rejected, less accepted, and perceived as less popular among their classmates than less frequently victimized students or non-victims.

Table 2.3 shows that when the victimization was performed in multiple ways, students were more socially anxious and had a lower level of well-being at school. Moreover, victims of multiple victimization performed by more than one classmate showed significantly higher levels of depressive symptoms than other victims and non-victims. Multiple victimization was also found to be related to a lower social standing in the classroom. Victims who were victimized in various ways by several bullies were the most rejected among their classmates, and significantly less accepted than victims of single victimization and non-victims. As regards popularity, it can be seen that those victims who were victimized by their classmates, whether in one way or in multiple ways, were perceived as less popular than victims who were victimized outside the classroom and non-victims.

In Table 2.4, outcomes on psychosocial well-being and social standing in the classroom are distinguished by the number of bullies a victim has. Victims who had several bullies in their classroom showed the highest levels of social anxiety. Moreover, their well-being at school was lower than that of victims with no bullies in the classroom. Almost no significant differences in social standing were found. Victims with several bullies in the classroom were only found to be more rejected by their classmates than those with one bully. Nevertheless, victims were less accepted and popular than non-victims. It thus seems that for being liked or perceived as popular, whether or not one is victimized is more important than the number of bullies one has.

Table 2.2

Psychosocial well-being and social standing by frequency of victimization

	Not victimized		Sometimes victimized		Often Victimized		η^2
	Mean	*SD*	*Mean*	*SD*	*Mean*	*SD*	
Social anxiety	1.78[a]	0.64	1.91[b]	0.65	2.09[c]	0.85	.030
Depressive symptoms	1.53[a]	0.44	1.70[b]	0.45	1.94[c]	0.59	.102
Well-being at school	3.19[c]	0.51	2.98[b]	0.53	2.82[a]	0.59	.078
Acceptance	.44[c]	.16	.41[b]	.17	.37[a]	.17	.027
Rejection	.11[a]	.13	.14[b]	.14	.21[c]	.17	.071
Perceived popularity	.14[b]	.17	.13[b]	.17	.09[a]	.12	.014
N	1526		716		617		

Note. [a, b, c] *Differences in means are significant at .05 level*

Table 2.3

Psychosocial well-being and social standing by multiplicity of victimization

	Not Victimized		Victimized outside the classroom		Victimized in one way		Multiple ways by one classmate		Multiple ways by several classmates		η^2
	Mean	*SD*	*Mean*	*SD*	*Mean*	*SD*	*Mean*	*SD*	*Mean*	*SD*	
Social anxiety	1.78[a]	.64	1.94[b]	.70	1.96[b]	.71	2.06[c]	.79	2.17[c]	.85	.029
Depressive symptoms	1.53[a]	.44	1.79[b]	.54	1.74[b]	.47	1.82[b]	.52	2.01[c]	.59	.089
Well-being at school	3.19[c]	.51	2.99[b]	.54	2.92[ab]	.53	2.78[a]	.57	2.72[a]	.63	.082
Acceptance	.44[c]	.16	.41[b]	.16	.39[b]	.17	.38[ab]	.18	.33[a]	.17	.031
Rejection	.11[a]	.13	.16[b]	.15	.16[b]	.14	.19[b]	.16	.25[c]	.19	.070
Perceived popularity	.14[b]	.17	.13[b]	.16	.10[a]	.15	.11[a]	.16	.08[a]	.12	.013
N	1526		583		414		145		191		

Note. [a, b, c] *Differences in means are significant at .05 level*

Table 2.4

Psychosocial well-being and social standing by number of bullies involved

	Not victimized		Victimized outside the classroom		One bully involved		Several bullies involved		η^2
	Mean	*SD*	*Mean*	*SD*	*Mean*	*SD*	*Mean*	*SD*	
Social anxiety	1.78[a]	0.64	1.94[bc]	0.70	1.91[ab]	0.71	2.07[c]	0.77	.028
Depressive symptoms	1.53[a]	0.44	1.79[bc]	0.54	1.73[bc]	0.47	1.85[b]	0.54	.079
Well-being at school	3.19[c]	0.51	2.99[bc]	0.54	2.91[ab]	0.56	2.83[a]	0.57	.076
Acceptance	.44[c]	.16	.41[bc]	.16	.39[ab]	.16	.37[a]	.18	.025
Rejection	.11[a]	.13	.16[bc]	.15	.16[bc]	.15	.20[c]	.17	.056
Perceived popularity	.14[c]	.17	.13[bc]	.16	.10[ab]	.14	.10[a]	.14	.012
N	1526		583		167		583		

Note. [a, b, c] *Differences in means are significant at .05 level*

Victimization, psychosocial well-being, and social standing in the classroom

In Table 2.5 it can be seen that the frequency of victimization was associated with students' psychosocial well-being. Students who were more frequently victimized scored significantly higher on social anxiety (*B* = 0.17) and depressive symptoms (*B* = 0.33), and showed a lower level of well-being at school (*B* = -0.26). The same pattern was found for students who had more than one bully in the classroom (Models B). These results are in line with Hypotheses 1 and 3, in which we expected psychosocial well-being to be lower for students who were, respectively, more frequently victimized or victimized by several bullies. However, concerning the multiplicity of victimization (*Hypothesis 2)*, only the association with well-being at school (*B* = -0.08) reached significance. Additionally, it appears that students who were victimized by non-classmates (peers outside the classroom) also had a lower level of psychosocial well-being, as they reported more symptoms of depression and a lower level of well-being at school.

Models A in Table 2.6 show that students who were more often victimized were less accepted (*B* = -0.20) and perceived as less popular (*B* = -0.13) by their classmates. In addition, they were more rejected (*B* = 0.26). These results are consistent with *Hypothesis 4*, in which we expected an increase in the frequency of victimization to be associated with lower social standing in the classroom.

Multiplicity of victimization was found to be associated with acceptance (*B* = -0.05) and rejection (*B* = 0.07). Victims with more than one bully in the classroom scored lower on acceptance among classmates (*B* = -0.08) and higher on rejection (*B* = 0.11) (see Models B). Hence, in terms of acceptance and rejection, the outcomes are in line with Hypotheses 5 and 6. For perceived popularity among classmates, though, no evidence for these hypotheses was found.

All in all, the findings show that the frequency of victimization was most strongly associated with the indicators of students' psychosocial well-being and social standing in the classroom. However, when we added measures of multiplicity of victimization and the number of bullies involved, the fit of our models concerning depressiveness symptoms, well-being at school, acceptance, and rejection improved significantly.

Differences between boys and girls

We also tested whether the effects of frequency and multiplicity of victimization, and the number of bullies involved, differed between boys and girls. It was found that multiplicity of victimization was associated with symptoms of depression for girls (*B* = 0.08, *t(2859)* = 2.29, *p* = .02), but not for boys (*B* = 0.00. *t(2859)* = 0.02, *p* =.98). In contrast, a higher number of bullies was associated with symptoms of depression for boys (*B* = 0.15 *t(2859)* = 4.15, *p* < .001), but not for girls (*B* = 0.03, *t(2859)* = 1.04, *p* =.30); the same pattern was found for social anxiety (boys: *B* = 0.11 *t(2859)* = 2.91, *p* = .004; girls: *B* = 0.03 *t(2859)* = 0.80, *p* = .42). The frequency of victimization was more strongly associated with social anxiety for girls (*B* = 0.16 *t(2859)* = 4.73, *p* < .001) than for boys (*B* = 0.08 *t(2859)* = 2.52, *p* = .01). Finally, gender differences in the association between the number of bullies and rejection were found. A higher number of bullies was more strongly associated with rejection among classmates for boys (*B* = 0.28 *t(2859)* = 5.03, *p* < .001) than for girls (*B* = 0.07 *t(2859)* = 2.49, *p* = .01).

Table 2.5

Multilevel regression analyses: effects of victimization on psychosocial well-being (N=2859)

	Social anxiety				Depressive symptoms				Well-being at school			
	Model 1a		*Model 1b*		*Model 2a*		*Model 2b*		*Model 3a*		*Model 3b*	
	B	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*
Intercept	0.16	0.03	0.14	0.03	0.01	0.04	-0.04	0.03	0.06	0.04	0.10	0.04
Sex (1 = boy)	-0.36	0.04**	-0.36	0.04**	-0.02	0.04	-0.02	0.04*	-0.12	0.04**	-0.14	0.03**
Frequency of victimization	0.17	0.02**	0.12	0.03**	0.33	0.02**	0.24	0.03**	-0.26	0.02**	-0.15	0.03**
Multiplicity of victimization			0.03	0.03			0.04	0.03			-0.08	0.03*
Number of bullies			0.06	0.02*			0.08	0.02**			-0.13	0.02**
Victimized outside the			0.07	0.06			0.21	0.06**			-0.17	0.06**
Variance school level	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01
Variance classroom level	0.00	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.05	0.01**	0.05	0.01**
Variance individual level	0.92	0.02**	0.92	0.02**	0.87	0.03**	0.86	0.02**	0.87	0.02**	0.85	0.02**
Decrease in deviance	45 (*df*=1)**		6 (*df*=3)		162 (*df*=1)**		12 (*df*=3)*		106 (*df*=1)**		31 (*df*=3)**	

Note. Decrease in deviance with the former model. A significant decrease indicates an improvement in the model. The comparison in Model A is with the model in which only sex is included

***= p <.001; *= p <.01*

All variables (except sex and no bullies in classroom) were standardized

Table 2.6

Multilevel regression analyses: effects of victimization on social standing in the classroom (n=2859)

	Acceptance				Rejection				Perceived Popularity			
	Model 1a		*Model 1b*		*Model 5a*		*Model 5b*		*Model 6a*		*Model 6b*	
	B	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*
Intercept	0.15	0.07	0.16	0.07	-0.20	0.03	-0.22	0.03	-0.08	0.03	-0.10	0.04**
Sex (1 = boy)	-0.16	0.03**	-0.17	0.03**	0.40	0.03**	0.42	0.03**	0.20	0.04**	0.19	0.04**
Frequency of victimization	-0.20	0.02**	-0.14	0.03**	0.26	0.02**	0.16	0.03**	-0.13	0.02**	-0.12	0.03**
Multiplicity of victimization			-0.05	0.02			0.07	0.03*			-0.01	0.03
Number of bullies			-0.08	0.02**			0.11	0.02**			-0.03	0.02
Victimized outside the classroom			-0.02	0.05			0.08	0.06			0.10	0.06
Variance school level	0.06	0.04	0.06	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Variance classroom level	0.26	0.04**	0.25	0.04**	0.07	0.01**	0.06	0.01**	0.07	0.01**	0.07	0.01**
Variance individual level	0.67	0.02**	0.66	0.02**	0.81	0.02**	0.80	0.02**	0.91	0.02**	0.91	0.02**
Decrease in deviance	75 (*df*=1)**		18 (*df*=3)**		103 (*df*=1)**		26 (*df*=3)**		24 (*df*=1)**		5 (*df*=3)	

Note. Decrease in deviance with the former model. A significant decrease indicates an improvement in the model. The comparison in Model A is with the model in which only sex is included

***= p <.001; *= p <.01*

All variables (except sex and no bullies in classroom) were standardized

DISCUSSION

The aim of this study was a thorough investigation of differences in the correlates of experiencing victimization, using a more comprehensive concept of victimization. In previous research on victimization, specific aspects of the victimization itself were often neglected; hence, a distinction between victims and non-victims was usually made (e.g., Huitsing et al., 2012; Kaltiala-Heino et al., 2010; Kochenderfer & Ladd, 1996; Ranta et al., 2013). Some studies took into account the frequency with which the victimization occurred: it was found that more frequent victimization is associated with higher levels of loneliness (Juvonen et al., 2000), depression (Slee, 1995; Sweeting et al., 2006), and suicidal ideation (Bonanno & Hymel, 2010), as well as with a lower social standing in the peer group (Bouman et al., 2012). We argued that, in addition to the frequency of victimization, it might be important to also consider in how many ways and by how many peers a person is victimized (Kochenderfer-Ladd & Troop-Gordon, 2010; Nishina, 2012; Romano et al., 2011; Volk et al., 2014). Hence, we examined to what extent the frequency and multiplicity of victimization, and the number of bullies involved, were associated with (different levels of) students' psychosocial well-being and social standing in the classroom.

In line with previous research (e.g., Hawker & Boulton, 2000; Reijntjes et al., 2010), we found that victimization is associated with greater psychosocial problems. In our study, victims showed higher levels of social anxiety and symptoms of depression and felt less comfortable at school. However, in the present study we also aimed to take the intensity of the victimization into consideration. We proposed that psychosocial adjustment problems would particularly emerge when the victimization happened more often, was performed in various ways, or was performed by more than one peer. Our findings demonstrate that victims of more frequent victimization and victims with several bullies were indeed more likely to show more symptoms of social anxiety and depressiveness, and to feel less comfortable at school. Especially the findings concerning the number of bullies involved contributes to our knowledge that being victimized by several bullies is not only associated with increased daily humiliation (Nishina, 2012), but also with students' psychological adjustment. Multiplicity of victimization appeared to be important only for students' adjustment at school, as it was only related to a lower level of well-being at school.

We also hypothesized that students' social standing in the classroom would be associated with the frequency and multiplicity of victimization, and the number of bullies involved. We found that frequently victimized students were less accepted, more rejected, and perceived as less popular among their classmates. Additionally, we found that victims who were victimized in various ways or by several bullies were less accepted and more rejected among their classmates than victims of non-multiple victimization and victims with one bully. In contrast, no significant association with a popular status was found. Thus, for being perceived as popular among classmates, it appears less important in how many ways and by how many people a person is victimized. These findings give nuance to previous findings that being victimized is associated with a lower social standing in the peer group (e.g., Bouman et al., 2012; de Bruyn et al., 2010; Graham & Juvonen, 1998b; Salmivalli et al., 1996).

With regard to gender differences, this study reveals that the number of bullies involved is especially important to boys' psychosocial well-being and rejection by classmates. This is in line with research findings that boys tend to interact in groups where competition, and thus the number of opponents, plays an important role (Baerveldt, Van de Bunt, & Vermande, 2014; Benenson, Apostoleris, & Parnass, 1997).

Strengths and limitations

This study contributes to previous studies that investigated (negative) correlates of victimization by using several indicators of victimization (Volk et al., 2014; Ybarra et al., 2014). By taking into account the frequency and multiplicity of victimization as well as the number of bullies involved, differences in the emergence of psychological and social adjustment problems can be better understood.

It was found that the frequency of victimization is associated most with students' psychosocial well-being and their social standing in the classroom. Nevertheless, the multiplicity of victimization and the number of bullies involved additionally contribute to the explanation of differences in psychological and social adjustment, apart from symptoms of depressiveness and popularity in the classroom. In other words, those who are often victimized, victimized in multiple ways, or victimized by more than one bully have been found to be most at risk for problems with social anxiety and well-being at school, as well as acceptance and rejection among classmates. In addition to looking at the frequency with which the victimization occurs, future research on victimization should, therefore, also

investigate whether it matters by how many peers and in how many ways people are victimized.

Another strength of this study is that (assumed) less severe victimization was included, in the sense that we distinguished non-victims from victims of occasional and frequent victimization, victims of single victimization from victims of multiple victimization, and victims with one bully from victims with several bullies in the classroom. Our results clearly indicate that also students who were less severely victimized, that is, one or two times, in one way, or by one peer, were more likely to suffer from psychosocial maladjustment and a low social standing in the classroom than non-victims. However, in several previous studies on the consequences of victimization, students who indicated being victimized sometimes were considered non-victims (e.g., Huitsing et al., 2012; Ranta et al., 2013). The present findings illustrate that occasionally victimized students cannot necessarily be put together in a group with non-victims. Hence, in order to get a more thorough insight into the consequences of victimization, more detailed measures of victimization should be used, rather than dichotomies of victims versus non-victims (see for an example Ybarra et al., 2014).

Some limitations of this study should be considered. First, we were unable to draw causal conclusions due to the cross-sectional data. Although it appears reasonable that victimization leads to psychosocial adjustment problems (Reijntjes et al., 2010; Ttofi et al., 2011a) and a lower social standing in the classroom (Salmivalli et al., 1996), the opposite may also be true. Psychologically unstable (Ranta et al., 2013) and low-status children (Salmivalli & Isaacs, 2005) might be more at risk of becoming victims.

A second limitation is the potential influence of shared method variance, given that both students' psychosocial well-being and victimization are based on self-reports. It is, therefore, possible that the association between victimization and psychosocial well-being is inflated. Depressed or anxious children may not construe or report their victimization experiences accurately, as children who have negative feelings towards one aspect of life tend to think negatively about other aspects, too (Hawker & Boulton, 2000). Especially regarding the measures of the number of bullies involved and the multiplicity of victimization, little is known about the validity of the self-reports. Future research should be invested in this. Nonetheless, our outcomes concerning students' social standing in the classroom, which are based on peer reports about acceptance, rejection, and perceived popularity,

suggest that the effects are unlikely to be exclusively due to fact that the indicators of victimization and psychosocial well-being are both based on self-reports.

Third, we were not able to test the attribution mechanisms directly. However, attribution theory was helpful in generating hypotheses on differences in psychosocial adjustment problems related to different aspects of victimization. Future research should investigate the considerations and feelings of victims so that it can be examined whether victims of frequent or multiple victimization, or victims with several bullies, are more likely to blame the harassment on features of the self, and, therefore, are more vulnerable to psychosocial adjustment problems. Moreover, the "distinctiveness of victims" should be taken into account. For instance, it would be interesting to examine whether victims of frequent victimization are more likely to attribute the victimization to personal characteristics when there are few other frequently victimized children in their classroom. In this way, also the sex differences concerning the associations between the multiplicity of victimization and the number of bullies, on the one hand, and depressive symptoms and well-being at school, on the other hand, might be better understood.

Implications

The findings of the current study illustrate that differences in the maladjustment of victims can be better understood when different aspects of victimization are investigated simultaneously. Moreover, the present findings give more insight into how victimization can be measured. Our results suggest that it is highly recommended to use more detailed measures of victimization, rather than only distinguishing between non-victims and frequent victims. The tendency, both in the literature and in practice, to consider students who are occasionally victimized as non-victims raises concerns, given that this leads a group that is at higher risk for adjustment problems to be overlooked. It thus appears that the existing literature can benefit from measuring victimization in several ways. However, future researchers should investigate the validity of the various indicators more thoroughly.

Additionally, our findings reveal that a substantial part of the students were victimized by peers from other classrooms. Relatively little is known about this. Future research should, therefore, also be focused on victimization in the broader (school) context.

The results suggest that it is important to find out who is victimized, in what ways, and by how many bullies. Anti-bullying programs should not only aim to prevent and reduce victimization, but also include social-emotional monitoring so that victims and their bullies as well as (other) students with psychosocial adjustment problems can be identified at an early stage and be targeted more effectively. It may be useful for classroom teachers to receive feedback reports about the students who are often victimized or victimized in multiple ways by the same peer. The names of students who indicate having a low level of well-being at school and those who are highly disliked by their peers may also be useful information for teachers. This information may enable teachers to more effectively intervene in bullying situations.

3

The Support Group Approach in the Dutch KiVa anti-bullying program

Effects on victimization, defending, and well-being at school*

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In past decades bullying in schools has become a matter of serious concern. Bullying, commonly defined as repetitive and intentional abuse of others (Olweus, 1993), is a problem in almost all schools throughout the world (Salmivalli et al., 2012; Smith & Shu, 2000).

A wide range of research has substantiated that bullying is related to various forms of psychosocial maladjustment for all those involved (Ttofi et al., 2014). Victims of bullying suffer from mental and physical health issues, tend to be socially isolated and generally have a low level of well-being at school (e.g., Bouman et al., 2012; Reijntjes et al., 2010). Bullies are often rejected by their classmates and have an increased likelihood of dropout, problem drinking and unemployment later in life (e.g, Kokko & Pulkkinen, 2000; Warden & MacKinnon, 2003). Children who witness bullying behavior are likely to suffer from anxiety and depression, feel less comfortable at school, and show social adjustment problems (Nishina & Juvonen, 2005; Rivers et al., 2009; Werth et al., 2015).

The growing awareness of the prevalence and the negative consequences of school bullying have amplified the need for effective interventions to tackle bullying. In many countries, including the Netherlands, schools are strongly encouraged to implement some form of anti-bullying program that provides both preventive and reactive measures to handle existing bullying situations school wide (Wienke et al., 2014). Generally a distinction between two reactive strategies can be made. On the one hand, there is the punitive approach which directly confronts and sanctions bullies for their behavior (Thompson & Smith, 2011). On the other hand, there is the non-punitive approach that involves problem-solving strategies, such as the Support Group Approach, the No Blame Method (Robinson & Maines, 2008; Young, 1998), and the Method of Shared Concern (Pikas 1989, 2002). The latter approaches are very similar (Garandeau, Poskiparta, et al., 2014) and aim to change the behavior of bullies and bystanders by increasing their discomfort and raising their awareness of the victims' suffering. Non-punitive strategies are considered key in reducing bullying and victimization (Young & Holdorf, 2003). In the Netherlands, experts prefer using non-punitive, problem-solving strategies above punitive strategies in anti-bullying interventions (Wienke et al., 2014). The Dutch implementation of the *KiVa anti-bullying program* (Veenstra et al., 2013) addresses pervasive bullying situations according to the Support Group Approach.

Although the Support Group Approach is widely used in several countries (Smith et al., 2007), little is known about its success in reducing bullying (Rigby, 2014). Evaluation of the support group intervention is difficult for several reasons.

First, reactive interventions are used when bullying situations occur, which means evaluations are ad-hoc and cannot easily be organized in advance (i.e., there is no pretest or control group). Second, there is a tendency to adjust the intervention to suit the needs of a specific situation. Consequently, little insight is obtained into the exact methods of application and comparability between interventions is relatively low. Third, most evaluations are based on victims' or teachers' self-reports and thus rely on subjective interpretations of outcomes (Rigby, 2014; Smith et al., 1994).

Relatively few studies have investigated the Support Group Approach: evaluating 30 cases, Smith and colleagues (1994) concluded that most participants felt that the situation had improved as there was less bullying. Teachers also felt that the bullying behavior was reduced. A study by Young (1998) revealed that in only 6% of 50 cases the victim reported continued bullying. A report on the efficacy of anti-bullying strategies in England (Thompson & Smith, 2011) stated that the Support Group Approach was effective in 75% of bullying situations, a higher success rate than other methods (Rigby, 2014).

The studies described above base their conclusions on short-term effects only, given that the victims and their teachers were asked about their experiences immediately after the intervention took place. Moreover, effects of the reactive strategies are not isolated from other, prevention-oriented, anti-bullying interventions that might be present in school. In the current study, we investigate the effectiveness of the Support Group Approach – as part of the Dutch KiVa program – in addressing pervasive bullying situations over the course of a school year. In order to examine the effects above and beyond those of KiVa, victims for whom a support group intervention was organized were matched with similar victims without a support group, using Coarsened Exact Matching (Iacus et al., 2011).

The KiVa anti-bullying program

KiVa is an anti-bullying program developed in Finland (Salmivalli et al., 2010). It was evaluated in a randomized control trial in Finland during 2007-2009 and disseminated nationwide afterwards (Kärnä et al., 2013; Kärnä, Voeten, Little, Poskiparta, Alanen, et al., 2011; Kärnä, Voeten, Little, Poskiparta, Kaljonen, et al., 2011). KiVa is currently being implemented and tested in several countries, including the Netherlands.

The KiVa program is predicated on the idea that bullying is a group phenomenon with different roles rather than an incident between a bully and its

victim. Research on participant roles in bullying showed that the behavior of bystanders, assisting the bully or defending the victim, is crucial to maintaining or solving bullying (e.g., Salmivalli et al., 1996). A positive change in the behavior of others is expected to reduce the social rewards gained by bullying and consequently the bullies' motivation to bully (Salmivalli et al., 2012). Hence, KiVa aims to encourage bystanders to take a clear stance against bullying and support the victim instead of assisting the bully. For that purpose, the program contains universal actions that target all students. The core of these universal actions is ten student lessons covering a wide range of themes (i.e., respect, group pressure, mechanisms and consequences of bullying). Additionally, there is a computer game on which children test their knowledge about bullying and enhance their defending skills (Poskiparta et al., 2012). The universal actions are principally aimed at preventing bullying (e.g., by encouraging victim-supportive behaviors) and raising awareness about group processes. For solving existing bullying situations the KiVa program includes indicated actions, which are the focus of this study.

Indicated actions in the Dutch KiVa program: the Support Group Approach

Each KiVa school has a KiVa team consisting of at least three teachers or other school personnel. Members of the KiVa team are trained in addressing pervasive cases of bullying, using the Support Group Approach.

In line with the KiVa program, the Support Group Approach is based on the idea that bullying is a group phenomenon (Garandeau, Poskiparta, et al., 2014) and that others can alter the bullies' motivation to bully (Rigby, 2014; Robinson & Maines, 2008; Young, 1998). Instead of focusing only on (changing) the behavior of the bully, bystanders and defenders are also involved in tackling bullying situations. The purpose of the support group is not to punish or blame the bullies and their assistants, but to create mutual concern for the well-being of the victim. It is emphasized that everyone has to do something to help to improve the situation. In other words, the responsibility for solving the bullying is given to the support group. It is assumed that the shared distress will evoke empathy in bullies and that the "group pressure" or shared responsibility will trigger the bullies' willingness to alter their behavior. Assistants are expected to lose the excitement and arousal of watching bullying (Rigby, 2014; Robinson & Maines, 2008; Young, 1998).

Discussion meetings

The Support Group Approach used in the Dutch KiVa program consists of a set of individual meetings with the victim and small group meetings with the support group. KiVa team members are asked to fill in reports after each discussion meeting.

Prior to the intervention, a screening procedure is conducted to ensure that bullying is indeed involved: an intentional and systematic abuse of power with negative consequences for the victim. When these criteria are met, in the first session a KiVa team member interviews the victim. Victims are asked to talk about what has been happening. They are supposed to name who is involved in the bullying and indicate who is likely to support them. During this session victims are informed about the follow-up procedure and assured that nobody will be punished.

After the first meeting a support group is formed. Preferably, the support group consists of 6-8 children, including bullies and their assistants, defenders or friends of the victim, and a few prosocial, high status peers. The victim is not included. It is important that there is a balance between students involved in the bullying and prosocial students. In the small group discussion, the bully is not apportioned blame. Instead, KiVa team members share their concern about the victim in order to raise empathy. All children in the support group are encouraged to make suggestions that could help the victim: *'I heard person X is having a hard time. What could you do to improve the situation?'*. At the end of the meeting the responsibility for providing practical support (e.g., helping with school tasks; trying to stop the bullying) and to make the victim more comfortable at school (e.g., greeting; playing together) is given to everyone present. After a week, two follow-up meetings – one for the victim and one for the support group – are held to see whether or not the situation has changed. If the situation has improved, the support group are complimented for their help and encouraged to continue their positive behavior. If no progress has been made, additional steps are discussed.

The present study

Existing evaluations of the Support Group Approach provide us little information on the use of the intervention. Thompson and Smith (2011) state that around 10% of schools in England employ this strategy to solve bullying situations. However, there is no clear indication for which or how many victims a support group intervention is organized and what the support group looks like. The first objective of this study was therefore to gain insight into the use of the Support Group Approach in the

Dutch KiVa program. How often was a support group organized and for whom? What was the composition of the support group? Second, we wanted to investigate whether the victims' short-term evaluation of the intervention was as positive as found in other studies, in which almost all victims indicate that victimization had decreased or stopped (e.g., Rigby, 2014).

The third objective of this study was to examine the effectiveness of the Support Group Approach over the course of a school year. Until the present research, various studies showed positive outcomes regarding the (perceived) change in victimization, but these conclusions were solely based on evaluation meetings soon after the intervention (e.g., Smith et al., 1994; Thompson & Smith, 2011, Young, 1998). It is, however, essential to investigate whether positive effects of the support group intervention are still visible at the end of the school year, so that stronger conclusions about its effectiveness can be drawn. Given that both the universal component of the KiVa program and the Support Group Approach aim to reduce victimization and enhance defending behavior, this study considered changes in victimization and defending. Another more indirect aim of the Support Group Approach is to improve the victims' well-being at school (i.e., support group members are asked to make the victim feel more comfortable at school). Hence, we also investigated the changes concerning the victims' well-being at school. This way can provide an overall image of the effectiveness of the Support Group Approach rather than just focusing on the reduction of bullying.

We expected that victims for whom a support group was organized would be (1) less victimized and (2) more defended at the end of the school year than victims for whom no support group was organized. Additionally, we expected them to have (3) higher well-being at school in comparison with victims without a support group intervention.

METHOD

Sample

Data used in this study stem from the evaluation of the Dutch implementation of the KiVa anti-bullying program. To recruit schools, letters describing the KiVa project were sent in the fall of 2011 to all 6,938 Dutch elementary schools. Special elementary schools and schools for children with special educational needs could not take part in the KiVa program and were thus not invited to participate. A total of 99 schools indicated they were willing to participate.

Prior to the pre-assessment in May 2012 – and for new students prior to the other assessments – schools sent information on the study to students' parents. If parents did not want their child to participate in the assessment, they were asked to inform the teacher. Students were informed at school about the research and gave oral consent. Both parents and students could withdraw from participation at any time.

When the pre-assessment was finished, schools were randomly assigned by the Netherlands Bureau for Economic Policy Analysis (CPB) to either the control condition (33 schools) or one of the two intervention conditions (34 schools KiVa intervention and 32 schools KiVa+ intervention). KiVa+ is the KiVa program with one additional component. Teachers in KiVa+ schools receive reports about the social structure of their classroom. Control schools were asked to continue their "care as usual" anti-bullying approach until their participation in the KiVa program in June 2014.

Procedure

Students filled out online questionnaires on the schools' computers during regular school hours. These questionnaires were developed for the evaluation of the KiVa program in Finland (Kärnä, Voeten, Little, Poskiparta, Alanen, et al., 2011; Kärnä, Voeten, Little, Poskiparta, Kaljonen, et al., 2011) and adapted to the Dutch situation. Classroom teachers distributed individual passwords that gave access to the questionnaire. The order of questions and scales used in this study were randomized in such a way that the order of presentation would not have any systematic effect on the results. Students read all questions by themselves; difficult topics were explained in instructional videos. In these videos a professional actor explained the questions in such a way that all students could understand them (talking slowly and articulating words clearly). The term bullying was defined in the way formulated in Olweus' Bully/Victim questionnaire (Olweus, 1996). Several examples covering different forms of bullying were given, followed by an explanation emphasizing the intentional and repetitive nature of bullying and the power imbalance. Classroom teachers were present to answer questions and assist students when necessary. Teachers were supplied with detailed instructions before data collection began and were encouraged to help students in such a way that it would not affect their answers (e.g., asking them questions such as "Which words are unclear to you?").

During the process of the Support Group Approach KiVa team members were asked to fill in a report form for each meeting. On the basis of these forms we could derive information about the victimization, composition of the support group, arrangements that were made, and the victim's perceived effectiveness.

Participants

The present study used data collected over two school years from schools in the intervention conditions, in October 2012 and 2013, and in May 2013 and 2014. In this period, the Support Group Approach was used for 56 victims in 28 schools. This target sample consisted of 30 girls (53.6%) and 26 boys (46.4%) in grades 2-6 (age range: 7-12; M_{age} = 9.15; SD_{age} = 1.23). In five of the cases there was missing information on one of the outcome variables. Moreover, 13 students had indicated not being victimized in October. For these students no baseline information about the level of bullying and defending was provided. Hence, they were excluded from the analyses. The sample used in the analyses consisted of 38 victims (44.7% boys, M_{age} = 9.24; SD_{age} = 1.20).

Measures

In the follow-up meeting, the KiVa team member asked the victim to say if the bullying situation had changed, and choose the best-fitting option from the following: the victimization has increased (0); the victimization had remained the same (1); the victimization has decreased (2); and the victimization has completely stopped (3). We used this information to construct a variable indicating the *victim's evaluation* of effectiveness in the short term.

During online data collection, students were asked to nominate peers by whom they were victimized. These nominations could be given to both classmates and students from other classes. Peer nominations are widely used in bullying research (e.g., Huitsing, Snijders, Van Duijn, & Veenstra, 2014; Sainio, Veenstra, Huitsing, & Salmivalli, 2011; Veenstra et al., 2005; Verlinden et al., 2014) and are acknowledged as reliable and valid. To measure the *change in the level of victimization* in one school year, for each victim the number of bully nominations given in October were summed and subtracted from the total bully nominations given in May. This created a score for each victim indicating whether victimization increased (0), remained the same (1), decreased (2), or completely stopped (3).

A score indicating the change in the *frequency of victimization* was based on the revised Olweus' Bully/Victim questionnaire (1996). Students were asked to indicate how often they were victimized in the past months (0 = did not happen, 1 = once or twice, 2 = two or three times a month, 3 = about once a week, 4 = several times a week). We calculated a difference score by subtracting the frequency of victimization in May from the frequency of victimization in October. A positive score indicates improvement in the victim's situation, that is, a decrease in the frequency of victimization.

In addition to nominating their bullies, students who indicated that they were victimized were asked to nominate their defenders. Again, nominations could be given to both classmates and students from other classes. Based on the difference in the total nominations given in October and May, an indicator for the *change in defending* was created for each student. Scores varied from defending completely stopped (0) to defending increased (3).

Well-being at school was indicated by seven items concerning the perception of the classroom and school (Kärnä et al. 2011). Students responded to items such as “I feel accepted as I am at school” (1 = never, 4 = always). The items formed an internally consistent scale (Cronbach’s α = .84 in October; .86 in May) and were averaged. We calculated a difference score by subtracting self-reported well-being in May from October. A positive score indicates an increase in the student's well-being at school.

Matching variables

A match was made on five victim characteristics expected to influence changes in victimization, defending, and well-being at school, that is: frequency of victimization, the students’ level of depression and well-being at school, gender, and grade. For the analytical procedure, we had to create groups with discrete values (Iacus et al., 2011). *Frequency of victimization* was measured using the revised Olweus' Bully/Victim questionnaire (1996) as described previously.

Students' psychosocial well-being was indicated by their levels of *depressive symptoms* and *well-being at school* in October. We used the adjusted Major Depression Disorder Scale (Chorpita et al., 2000) to measure the emergence of depressive symptoms. Students’ answers on the nine items (e.g., “I feel worthless”) could vary from never (1) to always (4). Together, the items formed an internally consistent scale and were averaged (Cronbach’s α = .81). Well-being at school was indicated by students' self-reported well-being (see description above). Both

indicators for psychosocial well-being were coded into three groups, based on quartiles.

Lastly, *grade* (range 2-6; Dutch grades: 4-8) and *gender* (0 = girl; 1 = boy) were included as matching variables. Table 3.1 presents descriptive information on the study variables.

Table 3.1

Descriptive information on the study variables (weighted)

			No support group			Support group		
	Min	*Max*	*Mean*	*SD*	*%*	*Mean*	*SD*	*%*
Victim's evaluation[a]	0	3				2.13	0.66	
Change in victimization								
Increased					24.2			31.6
Remained the same					8.2			7.9
Decreased					26.8			34.2
Stopped					40.8			26.3
Change in frequency of victimization	-4	4	1.24	1.59		0.26	1.62	
Change in defending								
Stopped					26.3			10.5
Decreased					28.2			26.3
Remained the same					10.8			10.5
Increased					34.7			52.6
Change in well-being at school	-1.57	2.57	0.22	0.61		0.00	0.72	
Matching variables								
Sex (1=boy)					44.7			44.7
Grade	4	6	4.16	1.11		4.16	1.13	
Frequency victimization in October	1	4	2.92	1.42		2.92	1.44	
Depressive symptoms in October								
Low					5.3			5.3
Medium					44.7			44.7
High					50.0			50.0
Well-being at school in October								
Low					73.7			73.7
Medium					21.1			21.1
High					5.3			5.3
N			571			38		

Note. [a] *This was only asked of victims who received a support group intervention*

Analytical strategy

Victims for whom a support group was organized were statistically matched to victims who did not receive a support group. Matching is a nonparametric method that aims to balance the distribution of covariates in the treated and control group (Iacus et al., 2011; Stuart, 2010). The Coarsened Exact Matching procedure ensures that only respondents with identical scores on the covariates (e.g., age, gender, level of victimization, well-being) are matched. This provides a better comparison of victims with and victims without a support group intervention as it controls for bias in the context (Iacus et al., 2011) and allows us to test the impact of the Support Group Approach on changes in victimization, defending, and the victims' well-being at school.

The matching procedure was conducted in SPSS 20, using the Python plug-in and CEM software (Iacus et al., 2009). Respondents without an exact match were removed from the analyses, leading to a sample of 38 victims for whom a support group was organized and a control group of 571 victims for whom no support group was held. There were 30 sets of respondents (strata), indicating that a stratum existed of at least one victim with a support group (range per stratum: 1 - 4) and often several victims without a support group (range per stratum: 1 - 54). The multivariate imbalance λ_1 was 0 and the Local Common Support was 100, which implies that only exact matches were indeed included (Iacus et al., 2009).

We examined whether the changes in victimization, defending, and well-being at school differed between victims with and without a support group. As two dependent variables were measured on an ordinal scale and the other dependent variables were not normally distributed, a Wilcoxon signed-rank test was performed on 30 sets of respondents.

RESULTS

The use of the Support Group Approach in the Dutch KiVa program

Support group interventions were organized in 28 of 66 KiVa schools. Descriptive analyses of the completed reports showed a mean number of 2 (*SD*= 1.31) support group interventions per school, ranging from 1 to 6. The average size of the support group was 5.96 members (SD = 0.13; range: 3-8). Most support groups contained students from the same class (76.8%), both boys and girls (71.4%). Students in the same grade showed a slight majority (57.1%). However, in multi-grade classrooms, which are common in the Netherlands, this was in only 20.7% of the cases. Victims

reported to have on average 5.69 bullies and 3.05 defenders. Most cases, the support group contained two bullies (34.3%) and two defenders (42.4%). The majority of the support groups included at least one friend of the victim (76.9%). The chronicity of the victimization varied across the cases. Most victims indicated that they were victimized for more than a year (33.9%). However, other victims had been victimized for only one or two weeks (21.4%).

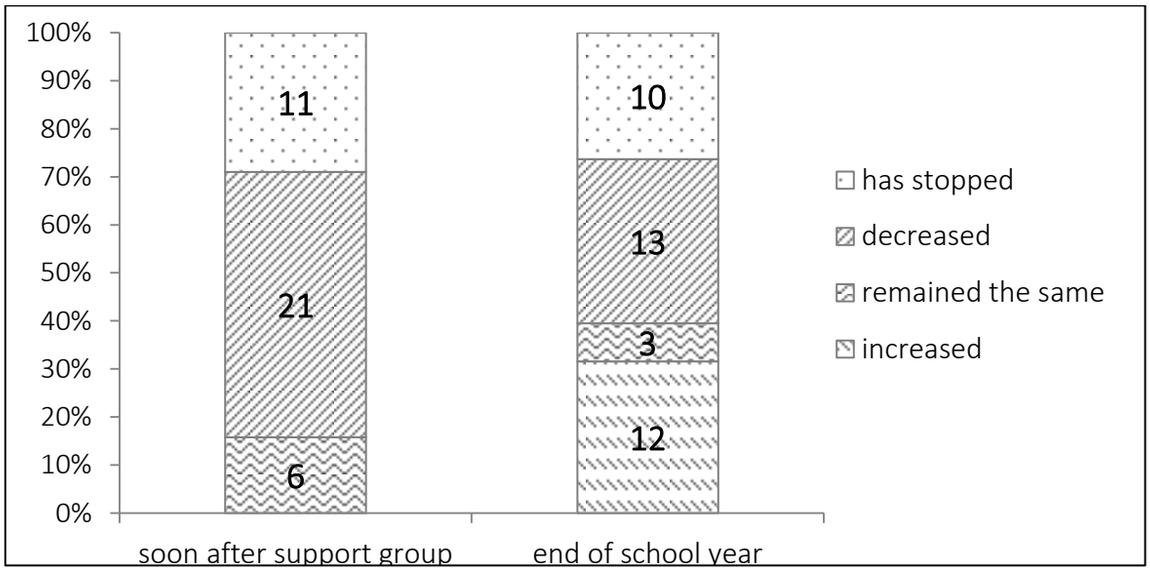
Short-term versus long-term changes in victimization

Figure 3 shows that in short-term evaluations victims were very positive about the effect of the Support Group Approach as a majority indicated that the bullying situation had improved in the past two weeks. In 11 out of the 38 cases, victims reported that the victimization had stopped, in 21 that it had decreased and in only six cases there was no change in the bullying situation. No one reported that the victimization had increased after the Support Group Approach.

Figure 3 also shows that at the end of the school year, long-term evaluations were different from the short-term evaluation. In May, ten victims for whom a support group was organized reported that victimization stopped and in 13 cases victimization decreased. However, three victims indicated that the situation stayed the same and for 12 victims the situation was worse. On average, victims were significantly more positive about the change in their bullying situation soon after the support group was organized than in the longer term (M_{dif}=0.58, z(38) = -2.71, p = .01).

Figure 3

Short-term and long-term change in victimization for victims with a support group



The effectiveness of the Support Group Approach

Changes in victimization, defending, and well-being at school for victims receiving support group intervention were compared with the situation for victims without support group intervention. Results are presented in Table 3.2: mean and median scores of both groups indicated that the number of bullies tends to remain the same over time. There was no difference between victims with a support group and victims without a support group (z = -0.03; p = .49). In contrast, a significant difference concerning change in frequency of victimization was found (z = -3.27; p = .00). The outcome revealed that for victims not involved in a support group intervention the frequency of victimization decreased (M = 1.01; Mdn = 1.44), whereas no substantial change was found for victims with a support group (M = 0.15 Mdn = 0). The findings did not support our hypothesis that victims with a support group would be less victimized at the end of the school year than victims not involved in a support group intervention.

As regards defending, the results showed that victims with a support group had more defenders at the end of the school year than victims without a support group. The difference is significant (z = -2.39; p = .01). Hence, it appears that a support group is beneficial for victims in terms of being defended. This is in line with what we expected.

Table 3.2 also shows the results with regard to the victims' well-being at school. For both groups, there were only small changes in well-being over the course of a school year (M = .19 / -.02; Mdn = .20 / .07 for victims without and with a support group, respectively). The difference was not considered statistically significant (z =-1.58; p = .06), which implies that the findings reject our hypothesis that the Support Group Approach would benefit victims' well-being at school.

In short, the results point out that victims tend to report an improvement in the bullying situation in the short term, but this decrease did not continue throughout the school year as by the end no changes in either level or frequency of victimization were found. Moreover, the findings showed an additional effect of the support group intervention on changes in defending over and beyond the school-wide KiVa intervention, but this was not the case for victimization or the victims' well-being at school.

Table 3.2

Changes in victimization, defending, and well-being at school

	No support group		Support group				
	Mean (SD)	*Median*	*Mean (SD)*	*Median*	*Z*	*P**	*Effect size*
Victimization	1.84 (0.58)	1.96	1.71 (1.12)	2.00	-0.03[a]	.49	.00
Frequency of victimization	1.11 (1.01)	1.44	0.15 (1.58)	0.00	-3.27[a]	.00	.42
Defending	1.53 (0.58)	1.49	2.08 (1.01)	2.36	-2.39[b]	.01	.31
Well-being at school	0.19 (0.31)	0.20	-0.02 (0.72)	0.07	-1.58[a]	.06	.20

Note. [a] based on positive ranks, [b] based on negative ranks, [*] one-sided *N* = 30 strata

DISCUSSION

The aim of this study was to investigate the effectiveness of the Support Group Approach as part of the Dutch implementation of the KiVa anti-bullying program. Although the Support Group Approach is widely used as an anti-bullying intervention and recommended by local authorities (Smith et al., 2007; Thompson & Smith, 2011; Young & Holdorf, 2003), relatively little is known about its successfulness. Previous studies focused on its short-term effects, often based on the evaluation meeting held two weeks after the intervention starts. It found that a majority of students or teachers reported that the support group intervention was effective in tackling bullying situations. However, it is often not known whether similar effects would be obtained if no support group intervention was used (see Rigby, 2014). Moreover, existing research merely focuses on changes in the bullying situation, whereas the Support Group Approach (implicitly) aims to increase victim-supportive behavior and enhance the well-being of victims (Robinson & Maines, 2008; Young, 1998).

We argued that it is important to see if the Support Group Approach is still beneficial in the longer term as well, above and beyond proactive anti-bullying strategies. We therefore examined its effectiveness in terms of changes in victimization, defending, and the victims' well-being at school over the course of a school year. To control for changes in the victims' situation caused by the effects of universal actions within the KiVa program, victims receiving support group intervention were matched to similar victims who did not have a support group

(Iacus et al., 2011). This way gained insight into the unique contribution of the Support Group Approach in longer term changes to the victims' situation.

In line with previous research (e.g., Rigby, 2014; Smith et al., 1994; Thompson & Smith, 2011; Young, 1998) we found that victims with a support group intervention were positive about changes in the bullying situation in the short term. Most victims indicated at the evaluation meeting that the victimization had decreased or stopped. However, by the end of the school year outcomes were less encouraging: almost 40% of the victims indicated that the victimization had not altered or had even worsened compared with their situation in October. It thus appears that the (perceived) effectiveness of the intervention is not lasting.

We hypothesized that the Support Group Approach would be beneficial for victims in terms of victimization, defending, and well-being at school. Specifically, we expected that by the end of the school year victims who received support group intervention would be less victimized, more defended, and feel more comfortable at school than similar victims without a support group. With regard to the victim's bullying situation we found no significant differences for change in the level of victimization between the two groups. For both victims with and without a support group, the victimization tended to remain the same over the course of the school year. However, the frequency of victimization was found to decrease more for victims without a support group than for those victims who received a support group intervention.

As regards the victim's well-being at school our outcomes reveal that victims do not benefit from a support group in terms of feeling more comfortable at school. A possible explanation for this unexpected finding is that the Support Group Approach only makes the victims feel more comfortable at school during the intervention period and this effect fades over time. Victims with a support group could for that reason be more likely to report a decrease in their well-being, as they probably felt better in the intervention period. Unfortunately, with our data we were could not test short-term effects concerning the victim's well-being at school.

In contrast, outcomes in relation to defending were as expected. Victims for whom a support group intervention was organized reported having more defenders (i.e., an increase in defending) at the end of the school year than victims without a support group. Regardless of whether this increase in defending is due to more stable victimization, this is an important finding given that previous research has shown that being defended relates to higher self-esteem and higher peer status than undefended ones (Sainio et al., 2011).

In sum, we can conclude that despite the fact that in the short term victims were positive about the changes in the bullying situation, the Support Group Approach was only successful in enhancing defending behavior over the course of a school year. This might imply that prosocial students especially are affected by the intervention as the success rate concerning the resolution of victimization seems to fade over time and tends even to worsen the victim's situation. These findings offer a more nuanced view to prior evaluations, which considered the Support Group Approach an effective anti-bullying strategy (Rigby, 2014; Smith et al., 1994; Thompson & Smith, 2011; Young, 1998) and underline the importance of evaluating anti-bullying interventions over a longer duration given that positive changes may disappear over time.

Limitations and directions for future studies

The outcomes of the current study should be interpreted in light of its limitations. First, the sample size was small. Although the Support Group Approach is a standard component of the Dutch KiVa program, it is used only for a small minority of the victims. This low usage of indicated actions in targeting bullying is a source of concern. Possibly the school staff do not want to use the Support Group Approach and try to solve bullying situations in other ways. Another possibility is that a high number of victims go unrecognized by parents, classroom teachers, and the KiVa team. This would be in line with the Finnish evaluation of the KiVa program, which found that only 23.5% of the structural victims received targeted intervention (Haataja, Sainio, Turtonen, & Salmivalli, 2015). It also is possible that the support group intervention was used, but the KiVa team did not fill in the reports or did not send them back. Thus our "without support group sample" might also contain victims who actually received a support group intervention. In other words, the reported differences between the two groups in this study might be overestimated. Future studies would develop knowledge if they use large-scale randomized control trials with schools that implement all program components (i.e., preventive and reactive strategies) versus schools that implement only preventive strategies. Such studies should also examine whether fidelity to the intervention plays a role.

A second limitation concerns the use of different methods in establishing the short- and long-term effectiveness related to changes in victimization. The short-term effect derives from a personal interview during the support group intervention when the victim indicates whether their bullying situation has changed. The long-term effect is based on information derived from questionnaires that are filled out

anonymously. There is a chance that victims were prone to report an improvement at the follow-up meeting either to please the KiVa team or to discontinue an intervention they perceived ineffective (see also Garandeau, Poskiparta, et al., 2014). This social desirability bias might have caused an overestimation of the difference between the changes in victimization in the short and long term. In future studies, it would be useful to have information from several informants (e.g., classroom teachers, classmates, KiVa team members) so that changes in the victim's situation can be studied from a range of perspectives.

Although we could distinguish short-term from long-term effects with regard to changes in victimization, we have little insight into what happens during the intervention itself. Data about the experiences of the victim and support group members should be collected on a frequent basis (e.g., diary studies). This would obtain more insight into the process of the Support Group Approach and would detect possible relapses in the victim's situation earlier.

Lastly, our study appears to show that the support group intervention benefits some victims more than others. Future research should examine these differences in effectiveness thoroughly. It might be that the Support Group Approach is only successful among certain victims, in tackling specific forms of bullying, or in classrooms with strong anti-bullying norms (e.g., Rigby, 2014; Thompson & Smith, 2011). For instance, it is likely that the support group intervention will be less effective for victims with limited social skills or communication difficulties. Moreover, it has been found that bystanders' feelings of empathy differ across the various forms of bullying (Nishina & Juvonen, 2005; Tapper & Boulton, 2005; Werth et al., 2015). Another possibility is that the composition of the support group plays a role. The founders of the Support Group Approach emphasize that the composition of the support group is important. Ideally, the support group includes bullies, their assistants and prosocial peers who are likely to help the victim (Robinson & Maines, 2008; Young, 1998). Up to now, little has been known about the composition of support groups. Can victims and practitioners indicate potential defenders? And are all (prosocial) bystanders competent to help their victimized classmates? Future evaluations would benefit from investigating the social position and characteristics of support group members and their consequences regarding the effectiveness of the intervention.

Practical implications

Our results suggest that only for a few victims a support group intervention is organized. It is important that victims are recognized as such by school personnel. Teachers would be helped by feedback reports on students who are structurally victimized, have a low sense of well-being at school and/or are highly disliked by their peers. Such feedback reports may be extended by suggestions for the composition of the support group or indicated actions that could be undertaken. In addition, students should be trained in identifying victimization and practice prosocial strategies for tackling (pervasive) bullying situations. This way, both school staff and students might be better prepared to improve the victim's situation.

4

Defending victims

What does it take to intervene in bullying and how is it rewarded by peers?*

*This chapter is co-authored with Tina Kretschmer, Silja Saarento, Christina Salmivalli, and René Veenstra. A slightly different version is currently under review by an international peer-reviewed journal

Bullying in schools is a severe problem worldwide with negative health consequences and psychosocial adjustment problems for those involved (Ttofi et al., 2014). In past decades it has been acknowledged that the behavior of bystanders is crucial to end bullying (Salmivalli, 2014). Research demonstrates that defending – directly stepping in, seeking help, or comforting the victim (Salmivalli & Voeten, 2004) – can make a difference. In the classroom it is associated with lower levels of bullying (Salmivalli, Voeten, & Poskiparta, 2011; Sentse, Veenstra, Kiuru, & Salmivalli, 2014) and lower risk of getting victimized (Kärnä, Voeten, Poskiparta, & Salmivalli, 2010). Among victims, being defended is associated with fewer negative psychological and social consequences (Sainio et al., 2011).

Knowing that intervening in bullying can make a difference for the victim's situation, it is not surprising that many anti-bullying interventions aim to encourage students to take a clear stance against bullying and support their victimized peers (Polanin, Espelage, & Pigott, 2012; Salmivalli, 2014). Still, most bystanders choose not to get involved (e.g., Espelage, Green, & Polanin, 2012) and little is known about the aspects that explain students' involvement in defending behavior. The main purpose of this study was therefore to obtain insight into the antecedents and consequences of defending in bullying situations. This knowledge helps to encourage bystanders to take up the role of defender.

Using a longitudinal design, we first aimed to put emotional and social cognitive antecedents of defending in bullying situations to a test. A small number of cross-sectional studies investigated between-person variation in the likelihood of defending. These showed that girls are more likely to intervene in bullying situations than boys (e.g., Trach, Hymel, Waterhouse, & Neale, 2010). Moreover, personal characteristics and beliefs such as positive attitudes toward victims, high levels of empathy, responsibility beliefs, and perceived ability to intervene are associated with defending behavior among children and adolescents (Caravita, Di Blasio, & Salmivalli, 2009; Gini, Albiero, Benelli, & Altoè, 2007, 2008; Pöyhönen et al., 2010; Rigby & Johnson, 2006).

Second, our study aimed to extend the literature by examining the consequences of defending on social standing in the peer group (i.e., popularity). Especially in schools, children tend to form social hierarchies in which concepts of dominance, status and visibility are important (Lease, Kennedy, & Axelrod, 2002; Sijtsema et al., 2009). Although intervening in favor of victims is generally perceived as risky for social standing in the peer group (Meter & Card, 2015; Pozzoli & Gini, 2012), relatively little is actually known about the consequences of defending in

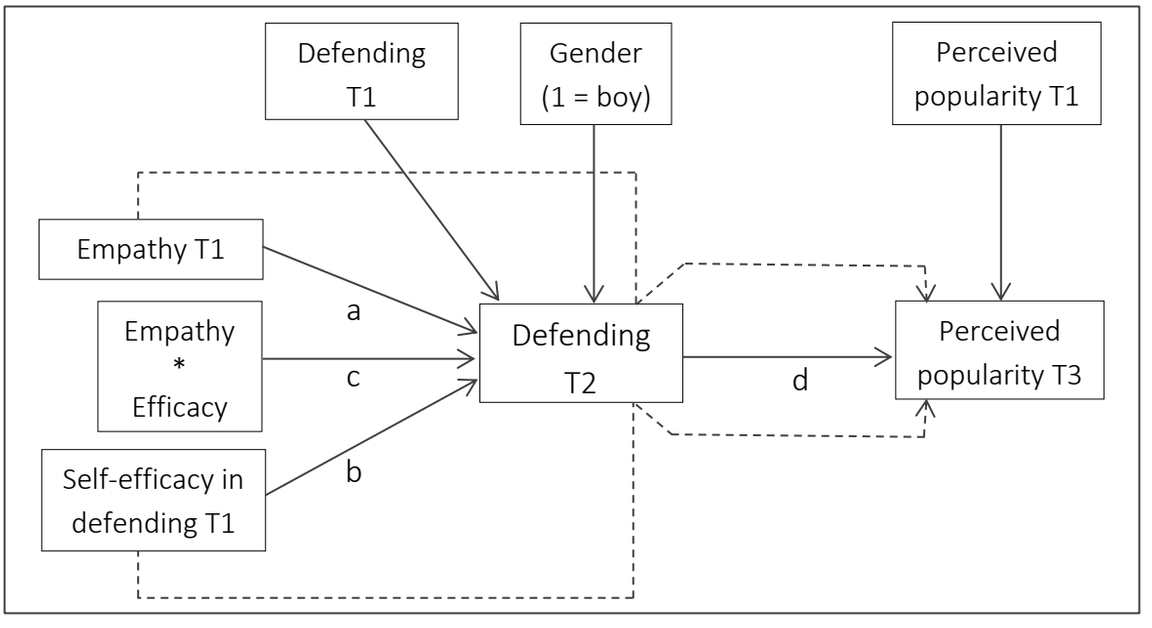
terms of popularity among peers. Some studies report positive associations between perceived popularity and defending (Caravita et al., 2009; Pöyhönen et al., 2010; Sainio et al., 2011), but the temporal order has not been examined.

The third aim of this study was to examine whether the processes described above are different for victims of bullying compared to non-victims. Previous studies have demonstrated that self-reported victimization is associated with a higher willingness to intervene (Batanova, Espelage, & Rao, 2014) and that victims of bullying often tend to defend each other (Huitsing et al., 2014). However, there is little insight into the victims' motives to defend other targets of bullying. It has been suggested that victims defend each other because they are friends (Pozzoli & Gini, 2013) or because they are targeted by the same bully (Huitsing et al., 2014). We argue that it is important to understand whether being victimized affect both the predictors and consequences of defending.

The present study first examines emotional and social cognitive factors as antecedents of defending. As various anti-bullying programs have incorporated empathy and efficacy in defending as essential features to reduce bullying (Farrington & Ttofi, 2010), we test the roles of empathy (see Figure 4.1, path a), self-efficacy (path b) and their interaction (path c). Subsequently, we examine the consequences of defending concerning perceived popularity in the peer group (path d). We end by investigating the differences in motives for defending and status consequences of defending between victims and non-victims of bullying.

Figure 4.1

Theoretical model



Empathy and self-efficacy as antecedents of defending

Students' emotions are likely to determine their behavior and can influence whether or not someone is willing to stand up for victims of bullying (e.g., Barchia & Bussey, 2011; Caravita et al., 2009; Pöyhönen et al., 2010). Empathy is the ability to understand and share emotions of another (Cohen & Strayer, 1996). It has been proposed to play an important role in prosocial behavior in general (Belacchi & Farina, 2012) and defending behavior in particular (Espelage et al., 2012; Nickerson & Mele-Taylor, 2014). Most previous studies use cross-sectional data to examine whether empathy is related to defending victims of bullying (see Van Noorden, Haselager, Cillessen, & Bukowski, 2015 for an overview). It was found that both understanding how victims of bullying feel (i.e., cognitive empathy) and actually feeling the victims' emotions (i.e., affective empathy) are associated with higher levels of defending. In line with these findings, we hypothesized that a higher level of empathy is related to a higher involvement in defending behavior over time (*Hypothesis 1*).

Besides emotions, social cognitions such as self-efficacy possibly predict whether someone is willing to take a stance against bullying. Self-efficacy is the belief in one's capacity to successfully perform a specific task in a specific situation – unless a person can be certain of the successfulness of their actions, there is little motivation to act (Bandura, 1997, 2001). In line, it has been argued that students only defend victims of bullying when they believe in their ability to be effective (Pöyhönen & Salmivalli, 2008). Several studies have reported positive (cross-sectional) associations between students' perceived self-efficacy in defending victims of bullying and their actual defending behavior (e.g., Gini et al., 2008; Pöyhönen et al., 2010; Rigby & Johnson, 2006). In contrast, a longitudinal study on peer aggression found no significant effect of self-efficacy beliefs on defending (Barchia & Bussey, 2011). As our study concerns defending victims of bullying in particular, we expected that – in line with the literature (e.g., Bandura, 1997, 2001) and the cross-sectional findings – a higher level of students' self-efficacy beliefs in defending is related to a higher involvement in defending behavior over time (*Hypothesis 2*).

Because both emotions and social cognitions are considered essential prerequisites for defending victims of bullying, it is likely that merely being empathic or having only high self-efficacy beliefs in defending might be insufficient to make someone intervene in bullying situations (see for an example: Gini et al., 2008). Put differently, it can be argued that empathetic children are particularly

likely to defend when they also feel they can do so, and vice versa. We therefore hypothesize that children with both high levels of empathy *and* high self-efficacy beliefs in defending are particularly involved in defending behavior over time (*Hypothesis 3*).

Popularity among peers as a consequence of defending

Although negative behaviors such as aggression and bullying are considered particularly effective strategies to obtain popular status in the peer group (Salmivalli, 2014), prosocial behavior has also been linked to perceived popularity among peers (Caputi, Lecce, Pagnin, & Banerjee, 2012; Slaughter et al., 2015). Defending can be seen as a subtype of prosocial behavior as defenders show that they care for victims of bullying by actively supporting or comforting them (Veenstra, Verlinden, Huitsing, Verhulst, & Tiemeier, 2013). Defenders demonstrate dominant behavior (Meter & Card, 2015) to peers (i.e., bullies) who are generally perceived as highly popular (e.g., Caravita et al., 2009). That is, by intervening in bullying situations defenders exhibit that they are powerful and dare take a stance against bullying. Defenders may thus achieve a more popular status by lowering the dominant and powerful position of bullies (Salmivalli, Voeten, & Poskiparta, 2011). Moreover, their "revolt" against bullying increases the visibility of defenders in their peer group, as a result of which they will likely be perceived as socially dominant. Given that perceived popularity refers to social dominance, status, and visibility in the peer group (e.g., Cillessen & Rose, 2005; Lease et al., 2002), we hypothesize that defending will lead to an increase in perceived popularity among peers (*Hypothesis 4*).

Defenders: victims versus non-victims

Previous studies showed that defending is positively associated with victimization (Barchia & Bussey, 2011; Batanova et al., 2014; Pozzoli, Gini, & Vieno, 2012) and that victims of bullying tend to defend each other (Huitsing et al., 2014). It has been argued that victims are willing to intervene in others' bullying situations because they have high levels of (affective) empathy, given that they know what it feels like to be a victim (Batanova et al., 2014; Pozzoli et al., 2012). In contrast, it can be assumed that victims' perceived self-efficacy in defending is relatively low as they are unable to protect themselves from victimization. Hence, we expect that on the one hand, empathy will be a stronger indicator for victims' involvement in defending behavior than for non-victims' involvement (*Hypothesis 5a*). On the other

hand, self-efficacy in defending is expected to be a weaker predictor of defending in victims compared to non-victims (*Hypothesis 5b*).

With regard to popularity in the peer group, we know that victims are generally unpopular among their peers (Bouman et al., 2012; De Bruyn et al., 2010). This can be explained in two ways. First, most bullies tend to choose easy targets to harass, usually peers perceived as unimportant by others (Sijtsema et al., 2009; Veenstra et al., 2007). Second, it has been argued that the peers' perceptions of victims change gradually when victimization endures. If the harassment persists, victims may be seen as less worthy or more risky to associate with, as a result of which their popularity in the peer group decreases (e.g., Boulton, 2013; Sentse, Dijkstra, Salmivalli, & Cillessen, 2013).

It can be argued that others do not perceive defending among victims as a revolt against the bully, but rather as supporting fellow sufferers. Victims of bullying are unlikely to have a central position in the classroom (De Bruyn et al., 2010; Salmivalli & Peets, 2009). The fact that "victim-defenders" are still victimized themselves is likely to level out the positive effect of defending. Hence, we expect that defending will not result in an increase in perceived popularity among peers for victims of bullying (*Hypothesis 6*).

METHOD

Participants

Data come from three waves of data collection for the evaluation of the Finnish KiVa anti-bullying intervention and were collected in May 2007 (pretest, Grades 3 to 5), December 2007 and May 2008 (Grades 4 to 6) in 78 primary schools. The participating schools represent all five provinces of mainland Finland (see Kärnä, Voeten, Little, Poskiparta, Kaljonen, et al., 2011 for more information on the sampling procedure). Half of the participating schools were randomly assigned to the intervention condition; the others served as control schools. Control schools were asked to continue their "care as usual" anti-bullying approach until they could start participating in the KiVa program starting in August 2008.

As the KiVa intervention might influence the associations between our study variables, we used data only from schools in the control condition (N = 4229 students, 49%). Not all classes and schools participated in every wave. Some only participated in the pretest, whereas others just took part in the post-test. These classes and schools were excluded from our sample (N= 1162 students, 27.5%). The

final sample consisted of 2803 students (50% boys, M_{age} = 11.28) from 182 classrooms and 36 schools. In our data, the percentage of missing data was low (8.6%). More details on the percentages as well as common missing data patterns in the dataset are described extensively in the KiVa evaluation study (see Kärnä et al., 2011, Appendix A).

Procedure

The data were collected via online questionnaires that students filled out once their parents had given active consent. Questionnaires were administered during regular school hours by teachers who were provided with detailed instructions two weeks prior to the data collection. In addition, teachers could obtain support via phone or email during data collection.

At the start of the questionnaire, students were guaranteed that their responses would remain anonymous and would not be revealed to teachers or parents. Instructions for participating were presented orally by teachers as well as written in the questionnaires. Similarly, the definition of bullying, as formulated in Olweus' Bully/Victim Questionnaire (Olweus, 1996), was explained to students. Several examples covering different types of bullying were given, followed by an explanation emphasizing the intentional and repetitive nature of bullying and the imbalance of power. The questionnaire included both self-reports and peer nominations. The order of questions, scales, and items was randomized so that presentation order would not have a systematic effects on the results.

Measures

This study distinguishes between victims and non-victims, based on students' self-reports concerning victimization. Participants indicated how many times they had been victimized in the past months (Olweus, 1996) on a five-point scale (1: did not happen, 2: once or twice, 3: two or three times a month, 4: about once a week, 5: several times per week). According to the recommendation of Solberg and Olweus (2003), students who indicated they had been victimized at least two or three times a month were considered victims of bullying.

Students' *perceived popularity* was assessed using peer nominations. Participants were asked to nominate up to three classmates whom they felt were most popular. For each student the nominations received were summed and divided by the number of nominating classmates to create proportion scores (scores varied from 0-1).

Defending was measured using the Participant Role Questionnaire (PRQ) (Salmivalli & Voeten, 2004). The defender scale consisted of three items (i.e., "Tries to make others stop bullying"; "Comforts the victim or encourages him/her to tell the teacher about the bullying"; "Tells others to stop bullying or says that bullying is stupid"). Students were asked to nominate an unlimited number of classmates who fit the descriptions given in these items. For each participant, the nominations received were summed and divided by the number of nominators (proportion scores). Afterwards, a scale score was created by averaging across the three items (Cronbach's α = .92 in both waves). Scores could range from 0 to 1.

Seven items that specify the degree to which students share or understand the feelings of victims of bullying were used to measure *empathy* (e.g., "I can understand how the bullied student must feel" (Kärnä et al., 2011). Answers could range from never true (score 0) to always true (score 3). The items were averaged such that a higher score indicated a higher level of empathy (Cronbach's α = .84).

To measure students' *self-efficacy* in defending, students were asked to indicate how difficult or easy it would be for them to defend a victim of bullying (Pöyhönen & Salmivalli, 2008). The questionnaire included three ways of defending, similar to the PRQ items (e.g., "Trying to make others stop bullying would be 0: very easy […] 4: very difficult for me"). Answers were reverse coded, meaning that a higher score indicated greater self-efficacy beliefs in defending. Together the items formed an internally consistent scale (Cronbach's α = .71).

Previous studies showed significant differences between boys and girls in defending behavior, with girls more likely to defend (Trach et al., 2010). Hence, *gende*r (0 = girl, 1 = boy) was included as a control variable.

Analyses

Our hypotheses were tested using multilevel path models (Muthén & Asparouhov, 2011) with students nested in classrooms (type = COMPLEX). School was not used as a third level, given that school-level variation in our data was low and peer nominations were limited to the own classroom. All models were estimated in Mplus 7.2 (Muthén & Muthén, 1998-2012) using full information maximum likelihood (FIML) estimation with robust standard errors (MLR). The estimation has two important advantages over conventional linear regression. First, it avoids listwise or pairwise deletion as it includes all pieces of available information in generating the final parameter estimates. The FIML estimation is regarded as a state-of-the-art technique for handling missing data (Enders, 2010) as it avoids bias

caused by complete cases analyses. A second advantage is that maximum likelihood estimation with robust standard errors adjusts for non-normality in observations.

We first estimated an overall path model which made no distinctions in victim status. Subsequently, we used multiple group comparisons to examine whether the associations between empathy, self-efficacy and defending on the one hand, and the association between defending and perceived popularity on the other hand, differed among victims and non-victims. For each association we computed separate models for both groups and tested for differences in effects by constraining paths to be equal in both models. The constrained model fit was compared to the model in which paths were free to vary, using the Satorra-Bentler difference test (Muthén & Muthén, 1998-2012). If a constrained model fit the data as well as an unconstrained model, the constrained model was preferred because of model parsimony. A non-significant difference in model fit between constrained and unconstrained models indicates that victims and non-victims do not differ with regard to model parameters. In all models we tested for indirect effects of empathy and self-efficacy on perceived popularity.

RESULTS

Descriptive results

Means and standard deviations of our study variables are presented in Table 4.1. Table 4.2 shows correlations, suggesting that both wave 1 and wave 2 defending, and wave 1 and wave 3 perceived popularity were highly correlated. This indicated stability in defending and one's popular status over time. Moreover, positive associations between empathy and defending as well as defending and perceived popularity were found. With regard to self-efficacy in defending, correlations with defending and perceived popularity were small but statistically significant in both waves.

Table 4.1

Descriptive information on study variables (N=2803)

	Min	*Max*	*Mean (SD)*
Independent variables			
Empathy T1	0	3	2.01 (0.61)
Self-efficacy in defending T1	0	3	1.79 (0.73)
Grouping variable			
Victim	0	1	.19 (.39)
Control variables			
Gender (1 = boy)	0	1	.50 (.50)
Defending T1	0	1	.19 (.15)
Perceived popularity T1	0	1	.16 (.18)
Dependent variables			
Defending T2	0	1	.20 (.14)
Perceived popularity T3	0	1	.12 (.19)

Table 4.2

Correlations between the study variables

	1	*2*	*3*	*4*	*5*	*6*	*7*
1. Empathy T1							
2. Self-efficacy in defending T1	.19**						
3. Victimization	.03	-.08**					
4. Gender	-.25**	-.06*	.04~				
5. Defending T1	.30**	.10**	-.04~	-.42**			
6. Perceived popularity T1	.01	.07**	-.07**	.06*	.18**		
7. Defending T2	.28**	.10**	-.05*	-.41**	.74**	.17**	
8. Perceived popularity T3	.03	.07**	-.07**	.02	.13**	.69**	.20**

*Note. **p < .001; *p < .01; ~p < .05*

Antecedents and consequences of defending

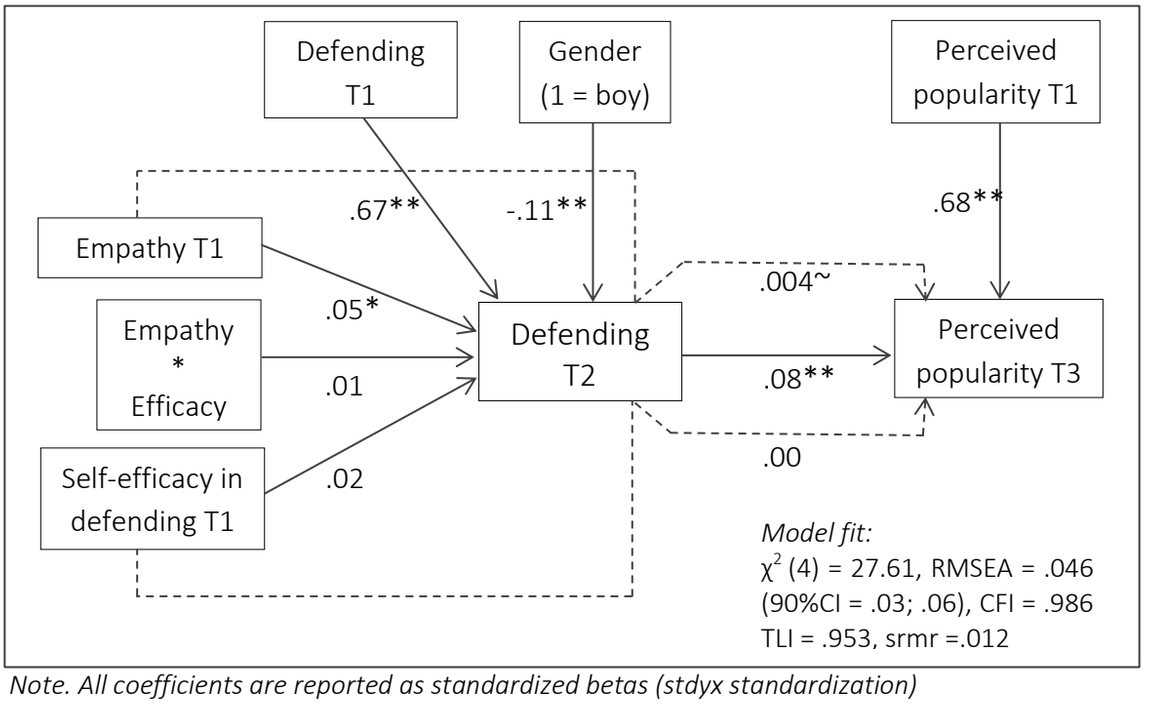
Figure 4.2 presents the standardized regression coefficients for the overall path model. This initial, freely estimated model showed a good fit: $\chi 2(4) = 27.61$, *RMSEA* = .046 (90% *CI* = .03; .06), *CFI* = .987, *TLI* = .953, *SRMR* = .012 (Hu & Bentler, 1999). Results indicated that higher levels of empathy predicted defending behavior over time (β = .05; $p < .01$) after controlling for gender (more girls defend) and stability in defending. This is in line with our expectation that empathy is positively related to involvement in defending behavior over time (*Hypothesis 1*).

In contrast, our second hypothesis that self-efficacy in defending would affect one's defending behavior was rejected (β = .02; p = .11). Also, no significant interaction effect for empathy and self-efficacy on defending over time was found (β = .01; p = .47), implying that those who are highly empathetic *and* have high self-efficacy beliefs are not particularly involved in defending (*Hypothesis 3)*.

After controlling for stability in perceived popularity, defending behavior predicted perceived popularity over time (β = .08; $p < .001$*)*. Our finding was consistent with the expectation that defending can increase social status (*Hypothesis 4*). Lastly, a small but statistically significant indirect effect from empathy to perceived popularity, via defending was found (β = .004; $p < .05$).

Figure 4.2

Antecedents of defending and its status consequences (N = 2803)



Note. All coefficients are reported as standardized betas (stdyx standardization)

***p < .001; *p < .01; ~p < .05*

The model explained 55.7% of the variance in defending and 48.2% of the variance in perceived popularity (both $p < .001$).

Differences between victims and non-victims

Satorra-Bentler comparisons of model fit suggested that all paths could be constrained to be equal between victims and non-victims, except for the path between defending in wave 2 and popularity in wave 3. The constrained model showed good fit: $\chi 2$ (16) = 52.30, *RMSEA* = .041 (90% *CI* = .03; .05), *CFI* = .980, *TLI* = .968, *SRMR* = .020.

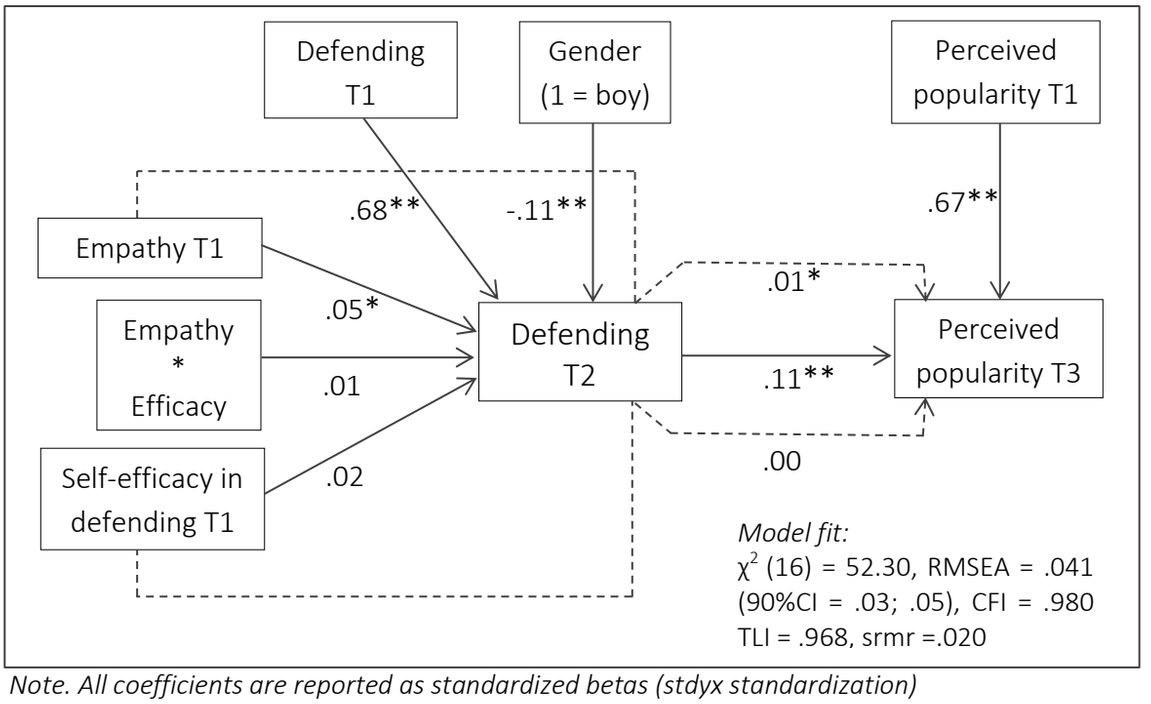
Figure 4.3 presents the path model examining predictors of defending and its status consequences for non-victims. The outcomes are similar to those presented in the overall model. Higher levels of empathy positively affected future defending behavior among non-victims (β = .05, $p < .01$) and non-victims who defended victims of bullying became more popular among classmates over time (β = .11; $p < .001$). The indirect effect of empathy on popularity, via defending was small (β = .01; $p < .05$), but statistically significant. The model explained 57.3% of the variance in defending and 48% of the variance in perceived popularity (both $p < .001$).

Figure 4.4 presents the results for victims of bullying showing that higher levels of empathy lead to higher levels of defending (β = .04; $p < .01$), after controlling for gender and stability in defending. However, the results indicate that defending among victims did not statistically significantly affect their perceived popularity among classmates (β = -.04; p = .58). Moreover, the indirect paths did not reach statistical significance. This implies that neither empathy nor self-efficacy in defending had a statistically significant influence on victims' popularity.

In sum, the results of the multiple-group models do not support our expectations that empathy and self-efficacy in defending are more and less important, respectively, in predicting victims' involvement in defending as compared to non-victims (*Hypothesis 5)*. However, the results concerning the consequences of defending with regard to perceived popularity among peers are in line with our hypothesis that defending other victims would not benefit the popularity of victimized children (*Hypothesis 6*). The explained variance in defending (49.2%, p <.001) was a bit lower compared to the other models. For perceived popularity the variance was explained by 49% (p <.001).

Figure 4.3

Antecedents of defending and its status consequences for non-victims (N = 2284)

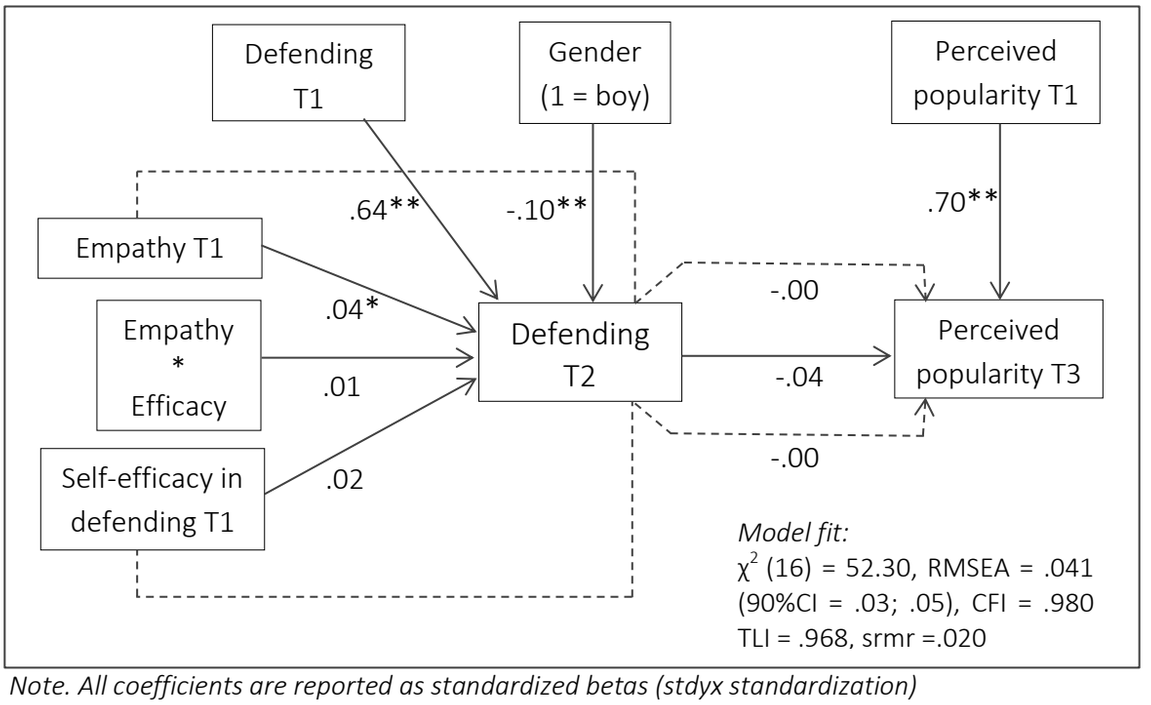


Note. All coefficients are reported as standardized betas (stdyx standardization)

***p < .001; *p < .01; ~p < .05*

Figure 4.4

Antecedents of defending and its status consequences for victims (N = 519)



Note. All coefficients are reported as standardized betas (stdyx standardization)

***p < .001; *p < .01; ~p < .05*

DISCUSSION

The aim of our study was to simultaneously investigate the antecedents and consequences of defending, while distinguishing between non-victims and victims of bullying. Although many anti-bullying interventions focus on enhancing defending behavior in bullying situations (see Polanin et al., 2012), the share of defenders in classrooms is low (e.g., Espelage et al., 2012). Relatively little is known about factors that explain students' involvement in defending behavior. Likewise, there is little insight into whether differences in the processes related to defending exist between victims and non-victims of bullying (for an exception see Batanova et al., 2014). To heighten the prevalence of defending, it is important to know what makes students intervene in bullying situations and how peers reward this defending behavior. Hence, we examined to what extent emotional and social cognitive factors influenced involvement in defending and tested how defending affected students' popularity in the peer group.

We hypothesized that empathy and self-efficacy in defending were important predictors for students' involvement in defending. Our findings demonstrate that students with a higher level of empathy are more likely to be involved in defending over time. This is in line with cross-sectional studies in which empathy is positively associated with defending (Van Noorden et al., 2015). However, contrary to our expectations and most cross-sectional studies (Gini et al., 2008; Pöyhönen et al., 2010; Pöyhönen & Salmivalli, 2008; Rigby & Johnson, 2006), students' perceived self-efficacy failed to predict defending. In other words, believing that you are good at defending does not necessarily make students actually stand up for victims. Moreover, self-efficacy was not found to amplify the influence of empathy on defending, or vice versa. It thus seems that empathy is a stronger predictor of defending than self-efficacy is.

A possible explanation for these unexpected findings for the role of self-efficacy is that the context of the bullying situation might play a role. Barchia and Bussey (2011), who also did not find a longitudinal effect, argued that even self-perceived efficacious adolescents might not intervene in bullying situations unless they know that they would be supported. This is consistent with other studies which found that students' tendency to defend depends on both individual characteristics and (perceived) classroom norms of bullying (Nickerson & Mele-Taylor, 2014; Pozzoli et al., 2012; Sandstrom, Makover, & Bartini, 2013). Likewise, the inclination of self-efficacious students to intervene might depend on the popularity of the bullies or the defender's relationship with the victim (Peets, Pöyhönen, Juvonen, &

Salmivalli, 2015). Future studies should thus examine thoroughly whether self-efficacy beliefs in specific situations do lead to actual defending behavior.

Victims of bullying have been largely ignored as defenders of other victims in most previous studies. Only Batanova and colleagues (2014) investigated how self-reported victimization moderated the associations between psychological responses to bullying and willingness to intervene. We proposed that the motives to intervene in bullying situations differed between defenders who are victimized themselves and non-victimized defenders. Precisely, we hypothesized that empathy would be more predictive and self-efficacy would be less predictive of defending for victims compared to non-victims. Yet, the results show no significant differences between the two groups in the effects of empathy and self-efficacy on involvement in defending over time. It thus seems that although victims may have more empathy and less self-efficacy, the emotional and social cognitive processes are not differently related to defending among defenders who were victims of bullying themselves and those not victimized.

With regard to the consequences of defending concerning perceived popularity in the peer group, we expected that defending would lead to higher popular status among peers, but only when defenders were not victimized themselves. We found that defending was indeed only for non-victims an effective way to gain popularity over time. This finding offers a nuanced picture to the general perception that defending is hazardous for one's social standing in the peer group and an earlier finding that defending is linked to less acceptance by peers (Meter & Card, 2015). Promisingly, not only bullying but also intervening on behalf of victims could be related to a higher popular status in the peer group.

Strengths, limitations, and directions for future research

This study makes a substantial contribution to previous studies that investigated the associations between emotional and social cognitive factors, perceived popularity and involvement in defending behavior with a longitudinal design. We could simultaneously examine what it takes to intervene in bullying situations and to what extent defenders are rewarded by their peers in terms of popularity. A major strength of our study is that it gives important insights into how students can be encouraged to take a stance against bullying and stand up for their victimized peers. With this knowledge, school bullying can presumably be better addressed in the future as the pro-victims behavior of bystanders is likely to reduce bullies' motivation to harass others (Polanin et al., 2012; Salmivalli, 2014).

Another main strength of the present study is that victims of bullying are distinguished from those not victimized . Although no differences in the students' motives to defend were found, defending led to a more popular status among non-victims only. This finding underlines the importance of distinguishing between victims and non-victims when investigating (the consequences of) defending in future research to obtain a nuanced view of the benefits and costs of defending.

Aside from these strengths, some limitations should be considered. Most importantly, the role of teachers in encouraging defender behavior should be investigated. Previous research has found that teachers' efforts to reduce bullying as perceived by students was related to a lower level of peer-reported bullying over time (Veenstra, Lindenberg, Huitsing, Sainio, & Salmivalli, 2014). Similarly, it can be argued that teachers are important in influencing the attitudes, beliefs and actions of bystanders such that they stand up for victims of bullying. It is likely that defending is rewarded more in the classroom when the teacher approves of and encourages defending. With higher understanding of these complex processes, anti-bullying interventions can become more effective in encouraging defending and reducing victimization.

Another limitation is that our study has no information about individuals who perceive defenders as (un)popular and how this relates to personal characteristics of defenders or others involved in the bullying situation. It might be that defenders are perceived as popular by their group of friends, among passive bystanders or just among victims. Social network studies may contribute to our understanding of these processes (see Huitsing et al., 2014; Huitsing & Veenstra, 2012).

Future studies would move the field ahead if they considered group norms while examining the antecedents and consequences of defending. Previous research has already shown that students' willingness to defend is associated with contextual factors such as anti-bullying attitudes (Pozzoli et al., 2012) and the level of bullying (Peets et al., 2015) in the classroom as well as perceived peer pressure (Pozzoli & Gini, 2010). It is likely that also the consequences of defending differ among classrooms.

Practical implications for interventions

Our findings illustrate that empathy is predictive of intervening in bullying situations and defending is rewarded with greater popularity for non-victims. However, the role of self-efficacy might be overrated. It thus seems that empathy training – a focus of many anti-bullying interventions – is important to enhance defending and

so would help to reduce bullying and victimization in schools. However, anti-bullying interventions should also address the fact that not all students benefit from defending and for certain students in certain situations it might even be harmful to take a stance against bullies. Put differently: understanding which students should be encouraged to serve as defenders is probably essential to effectively intervene in bullying at school.

5

The complex interplay between bullying and perceived popularity in the classroom

A social network investigation*

*This chapter is co-authored with Christian Steglich and René Veenstra. A slightly different version is currently under review by an international peer-reviewed journal

School bullying is a persistent problem in schools that affects all who are involved. It is characterized by an imbalance of power and a continuous intention to harm or discomfort peers (Olweus, 1993). In the past, bullying was often considered an impulsive, uncontrolled outburst of aggression toward a victim (Olweus, 1978). Nowadays, most scientists and practitioners agree that bullying is a complex group phenomenon (Salmivalli et al., 1996) that predominantly involves strategic, goal-directed behavior (Olthof, Goossens, Vermande, Aleva, & Van der Meulen, 2011; Reijntjes, Vermande, Goossens, et al., 2013; Salmivalli & Peets, 2009; Volk et al., 2014). Specifically, bullies are thought to bully to achieve dominance and high social status in the peer group.

Previous studies reveal that bullies have indeed higher social status goals than non-bullies (Cillessen & Mayeux, 2004; Sijtsema et al., 2009) and that they are often dominant and powerful (Vaillancourt et al., 2003). Research demonstrates that bullies strategically pick on easy victims, that is, the physically weak or those who are rejected by other classmates (Salmivalli & Peets, 2009; Sijtsema et al., 2009; Veenstra et al., 2007). This strategy seems effective because bullying is repeatedly found to be associated with perceived popularity among peers both cross-sectionally (e.g., Caravita et al., 2009; De Bruyn et al., 2010) and longitudinally (Cillessen & Borch, 2006; Reijntjes, Vermande, Olthof, et al., 2013; Sentse et al., 2015).

Although it has been acknowledged that the association between involvement in bullying and perceived popularity is bi-directional (Reijntjes, Vermande, Olthof, et al., 2013), little is known about the interplay between bullying and perceived popularity over time. Sentse and colleagues (2015) examined the longitudinal interplay between bullying, victimization, and social status. However, their study did not account for the fact that both bullying and popularity take place in dyadic relations and strongly depend on the group context. Previous studies mainly investigated whether a person bullied or was perceived as popular and did not consider who was bullied or by whom a person was perceived as popular. In other words: it remains unclear how bullying and perceived popularity interact within the peer group in which the bullying occurs. The aim of this study is therefore to unravel the relational patterns of bullying and social status.

To do this, we investigated the longitudinal interplay of bullying nominations and perceived popularity nominations in the classroom, based on the peer nomination questions “Who in you class always starts bullying you?” and “Who is popular in your class?”. Using longitudinal multivariate social network analysis in

RSiena, we analyzed the simultaneous evolution of multiple networks and their interplay in the group context (for examples see Huitsing et al., 2014; Rambaran, Dijkstra, Munniksma, & Cillessen, 2015). Based on the existing body of knowledge, we expected that bullying would result in higher social status *and* that having high social status would lead to involvement in bullying behavior (e.g., Cillessen & Mayeux, 2004b; Reijntjes, Vermande, Olthof, et al., 2013; Sentse et al., 2015). In addition, we sought to expand the understanding of processes that would explain how bullying and popularity are intertwined. Specifically, we focused on the maintenance of existing bullying and popularity nominations and formation of previously non-existing nominations.

The importance of social status

A goal-framing approach helps us to understand why bullies bully and clarifies how this behavior is related to high social status in the peer group. Goal-framing theory argues that human behavior is affected by the pursuit of goals: people act in ways that help to accomplish their goals and refrain from behaviors that hinder goal attainment (Lindenberg, 2008). In late childhood and early adolescence, obtaining high social status in the peer group becomes an important goal (e.g., Adler & Adler, 1998; Cillessen & Rose, 2005; LaFontana & Cillessen, 2010). After all, those with high social status are considered more attractive to spend time with, have greatest access to (social) resources and a higher (emotional) well-being (Dijkstra et al., 2009; Huberman, Loch, & Önçüler, 2004; Volk et al., 2015).

Usually two types of social status are distinguished: social preference and perceived popularity. Social preference refers to the degree to which someone is liked or disliked by peers. Popularity reflects dominance, prestige, and visibility in the peer group (Cillessen & Rose, 2005; Lease et al., 2002; Parkhurst & Hopmeyer, 1998). Peer popularity is an important reason why students engage in bullying behavior (Cillessen & Mayeux, 2004; Sijtsema et al., 2009). Dominance and visibility play an important role especially in schools: during late elementary and middle school years, discussion about who is popular or 'cool' are widespread (Lease et al., 2002; Shoulberg, Sijtsema, & Murray-Close, 2011).

Popular students turn to be highly influential and often serve as role models: by imitating their behaviors, less popular classmates try to gain higher status in the peer group and increase the chance of affiliation with popular peers to bask in reflected glory (Dijkstra, Cillessen, & Borch, 2013; Dijkstra, Cillessen, Lindenberg, & Veenstra, 2010b; Garandeau, Lee, et al., 2014). For this reason, many anti-bullying

interventions focus on diminishing the social status of bullies by targeting group norms (Salmivalli et al., 2012; Wölfer & Scheithauer, 2014). Yet, these interventions do not always work, as especially the popular bullies persist in their bullying behavior (Garandeau, Lee, et al., 2014). To better understand why bullying is a successful strategy for popular students, it is essential to examine the interplay between bullying and perceived popularity more thoroughly.

Bullying results in a popular status

In many (early) adolescent groups, antisocial and 'tough' behavior, such as physical and verbal bullying, are perceived as 'cool' (Reijntjes, Vermande, Goossens, et al., 2013; Rodkin, Farmer, Pearl, & Van Acker, 2006; Salmivalli & Peets, 2009). Bullies can increase their visibility and reputation in the peer group by harassing others, resulting in greater perceived popularity among their peers (Reijntjes, Vermande, Goossens, et al., 2013). Group norms and social power are factors that can explain when bullying leads to a popular status in the peer group. In almost all bullying situations witnesses are present (e.g., Salmivalli, 2010) and as such, group norms are important given that the peer group assigns status to its members. Put differently, bullies depend on their classmates to gain popularity.

Next to group processes, social power can play a role in the association between bullying and popularity. Especially indirect types of bullying, such as relational bullying (i.e., exclusion, ignoring, gossiping) or cyber bullying, can be used to manipulate group relationships in such a way that bullies possess a central position in the peer group. The peer group is repeatedly confronted with the bullies' power over others, by their systematically lowering the status of victims, which may reinforce the bullies' popularity (Peets & Hodges, 2014; Reijntjes, Vermande, Goossens, et al., 2013; Sutton, Smith, & Swettenham, 1999). Moreover, given that popularity in any group is relative, any loss of status for victims is balanced by small status gains for everyone else, including bullies (Faris, 2012).

In sum, bullying can increase students' visibility and power in the peer group. We hypothesize that engagement in bullying behavior will lead to higher popular status in the classroom (*Hypothesis 1*).

Popular status encourages bullying

High social status stimulates bullying for two reasons. First, those high in the social hierarchy may feel competition to maintain their position and resort to bullying to do so (Cillessen & Rose, 2005; Dijkstra et al., 2009; Garandeau, Lee, et al., 2014;

Reijntjes, Vermande, Goossens, et al., 2013; Sentse et al., 2015; Volk et al., 2015). Social competition often takes the form of bullying (Volk et al., 2015). For instance, popular students may use verbal or physical bullying to intimidate 'fellow competitors' who threaten their social standing (Cillessen & Rose, 2005) or manipulate to overtly demonstrate their superiority over others (Kolbert & Crothers, 2003).

Second, popular students who challenge high status peers are likely to get (even) higher access to desired social resources, including influence and power (Peets & Hodges, 2014; Volk et al., 2015). Being socially powerful or influential in the peer group can foster relational bullying as highly central (popular) students are in an ideal position to exclude peers and spread information (Faris, 2012; Garandeau, Lee, et al., 2014; Reijntjes, Vermande, Goossens, et al., 2013).

Hence, we hypothesize that having higher popular status will lead to engagement in bullying *(Hypothesis 2)*.

Mechanisms underlying the interplay between bullying and popularity

We argued that bullying is strategic, goal-directed behavior either to obtain high social status in the classroom or to avoid losing this high social position. The interaction between bullying and perceived popularity plays an important role in both goals. However, the relational processes are different. The interplay between bullying and perceived popularity in the classroom can develop according to several mechanisms, that is, ties can be created, dissolved or maintained (Ripley, Snijders, Boda, Vörös, & Preciado, 2015).

With regard to bullying as a way to gain popularity, it can be argued that bullying makes students more visibly perceived as dominant among all classmates. As such, we expect that the popularity of students who start bullying will increase among those classmates who did not perceive them as popular before (creation popularity tie, *Hypothesis 3)*. Moreover, it is likely that those who already perceived the 'new bully' as popular will not reconsider their opinion, as his/her visibility and social power in the peer group increases. Hence, we hypothesize that bullying stabilizes popularity (maintenance popularity tie, *Hypothesis 4).*

Once high social status is attained, it can be expected that popular students will start bullying classmates who threaten their high social standing, rather than maintaining their existing bullying relations with – most probably – low status peers. Not only because low status peers are less threatening to their popular position, but also because for high status students harassing other high status peers is more

effective (Peets & Hodges, 2014). Those who attempt to dominate highly popular others are often perceived as courageous and highly visible in the peer group, which makes it more likely that their popularity gets consolidated. We therefore hypothesize that being perceived as popular will lead to the formation of new bullying relations over time (creation bullying tie, *Hypothesis 5)* and the dissolution of existing bullying relations (dissolved bullying tie, *Hypothesis 6)*.

METHOD

Data and sample

Data stem from the evaluation of the Dutch implementation of the KiVa anti-bullying program and were collected at three time points: May 2012 (pre-intervention), October 2012, and May 2013 in grades 2-5 in 99 Dutch primary schools. Prior to the pre-assessment in May 2012 – and for new students prior to the other assessments – schools sent information on the study and permission forms to parents. Observational research using data does not fall within the ambit of the Dutch Act on research on human subjects and so passive consent was used. Parents who did not want their child to participate in the assessment were asked to return the form. Students were informed at school about the research and gave oral consent. Both parents and students could withdraw from participation at any time.

When the pre-assessment was finished, schools were randomly assigned by the Netherlands Bureau for Economic Policy Analysis (CPB) to the control condition (33 schools) or either one of the intervention conditions (66 schools). Control schools were asked to continue their "care as usual" anti-bullying approach until their participation in the KiVa program began in June 2014.

In the Netherlands, especially in large schools, it is common to change the classroom composition each year. However, our aim was to longitudinally investigate developments in relatively stable peer groups. We therefore used data only from relatively homogenous classrooms. Moreover, we needed classrooms networks present at all three waves with less than 20% missing cases to perform social network analyses (Ripley et al., 2015). There were 82 classrooms from 15 schools suitable for the analyses. The total number of students was 2055 (M_{age} = 9.71 in wave 1; 50% boys). All students were included, despite the possibility of having missing values for the variables at one of the waves, for instance caused by

absence during the assessment (wave 1: 1%, wave 2: 1%, wave 3: 3%). These absent students could still be nominated by others and were thus included in the networks.

Procedure

Students completed online questionnaires on the schools' computers during regular school hours, under supervision of their classroom teachers who were supplied with detailed instructions before the data collection started. Teachers were present to answer questions and, if needed, help students in such a way that it would not affect their answers (e.g., by asking them questions such as "Which words are unclear to you?"). The order of questions, items, and scales used in this study were extensively randomized to prevent any systematic order effects.

Difficult topics were explained in several instructional videos. In one video, students were told that their answers would remain confidential but that their teacher might be given general feedback to improve the classroom climate. In another video, the term *bullying* was defined as formulated in Olweus' Bully/Victim questionnaire (Olweus, 1996). Several examples covering different forms of bullying were given, followed by an explanation emphasizing the intentional and repetitive nature of bullying and the power imbalance between bullies and victims.

Measures

Students were first asked to indicate whether they were being victimized, using 11 bully/victims items covering the various types of bullying (Bully/Victims Questionnaire, Olweus, 1996). Those who indicated that they were victimized at least once on any of the items were asked to nominate the classmates who were victimizing them ("Who in your class always starts bullying you?"). A roster with the names of all the children in class was presented on the computer screen. Bully nominations were coded 1 and non-nominations 0. As our study aimed to investigate active *bullying behavior* and not being nominated as a bully, the network was transposed so that the presence of a relation indicates a bully-victim relation instead of a victim-bully relation.

Students could nominate an unlimited number of classmates they perceived as popular ("Who is popular in your class?"). Similar to the bullying network, popularity nominations were coded 1 and non-nominations 0, resulting in status attribution networks consisting of directed popularity nominations for each classroom.

Analytical strategy

Our hypotheses were tested using longitudinal social network modeling with SIENA (Simulation Investigation for Empirical Network Analyses) in R. SIENA is a stochastic actor-based model to examine the development of (multiple) social networks, which can take individual characteristics or behaviors into account (Ripley et al., 2015; Snijders, van de Bunt, & Steglich, 2010; Snijders, Lomi, & Torló, 2013). Social networks change over time. These changes can occur between observation moments and are as such unobserved. SIENA simulates data between two time-points by interpreting the observed social networks as the cumulating outcome of an unobserved series of changes (i.e., micro steps) based on decisions (maintaining, dissolving or creating ties) individuals in the network make (Huitsing et al., 2014; Rambaran et al., 2015; Veenstra & Steglich, 2012). The reliability of the estimates in the simulation process is assessed using good convergence statistics, that is, *t*-ratios close to zero (Ripley et al., 2015).

Model specification

There are two main model parts, one for each dependent network variable. Because our hypotheses are about the effect of the two networks on each other, we will first describe how these hypotheses are operationalized. We then give a detailed description of the other effects used for modeling the dynamics of status attribution, and finish with a sketch of the corresponding model for bullying dynamics.

Stochastic actor-based models of a single network distinguish between effects modeling the speed of the change process (*rate effects*) and effects modeling the nature of the network changes (jointly contributing to the *objective function*). In our case of two co-evolving networks, there are rate and objective function effects for the status attribution network on the one hand, and for the bullying network on the other hand. We used an intercept model for the rate functions and will not discuss these any further. To test our hypotheses about popularity (i.e., status attribution indegree) going together with bullying, in Model 1 we estimated two effects. The *bullying to status* effect indicates whether a higher outdegree in the bullying network (i.e., bullying more others) implied a higher indegree in the status attribution network (i.e., being considered popular by more others). Conversely, the *status to bullying* effect indicates whether high indegree in status attribution implied high outdegree in bullying. In Model 2, these two effects are further nuanced according to whether they explain the creation of new ties or

the maintenance of existing ties. Furthermore we tested, as a second type of network-crossing effects, whether a high indegree in bullying (i.e., being a victim) implied a lower indegree in status attribution (*victimization to status* effect), or whether the converse was the case (*status to victimization* effect).

Besides these cross-network effects, we included univariate, structural effects of network change for both networks, which capture the tendencies of individuals to form and maintain relationships under specific network-structural conditions. These effects also serve to optimize the goodness of fit of the model (Huitsing et al., 2014; Rambaran et al., 2015; Snijders et al., 2010).

The following univariate, structural effects were added to explain the dynamics of status attribution. The *outdegree* effect expresses the overall tendency of individuals *i* to attribute status to other individuals *j* in the network (notation: $i \rightarrow j$). The *reciprocity* effect models the tendency to reciprocate a status nomination ($j \rightarrow i$ implied $j \rightarrow i$). This effect acts against the differentiation of a status hierarchy in the school class. Two effects of triangular closure (i.e., group formation) were included. The first is the *transitive triplets* effect, which reflects the tendency of individual *i* to attribute status to those peers *k* who received status nominations from peers *j* that *i* also attributes status to (transitive closure: $i \rightarrow j$ and $j \rightarrow k$ together imply $i \rightarrow k$). This group formation effect is in line with the assumption of a status hierarchy inside the group, which can be seen from a simple tie count: *k* receives two ties but sends none (high status), *i* sends two ties but receives none (low status), and *j* sends and receives one tie (middle rank; Snijders & Steglich, 2015). The second group formation effect is the *three cycles* effect, which investigates the tendency of individuals *i, j,* and *k* to form a non-hierarchical group (cyclical closure: $i \rightarrow j$ and $j \rightarrow k$ together imply $k \rightarrow i$).

In order to differentiate between individuals who received or sent many ties, three degree-related effects were included. The degree-related effects were all measured with the square roots of the degrees instead of the raw degrees (Huitsing et al., 2014; Snijders et al., 2010). *Indegree popularity* reflects the tendency for those who receive many status attributions to receive even more over time – known as the *Matthew effect* on status reputation (Merton, 1968). This effect expresses status differences that are (exclusively) captured in the standardized popularity measures discussed above (Cillessen & Rose, 2005), and accordingly we expect it to be very strong in the data. *Outdegree activity* is about the tendency for those who attribute status to many others to send even more attributions over

time. Finally, *indegree activity* models the tendency to attribute status to others when being attributed status often oneself.

One more effect we included was *gender similarity*, accounting for whether individuals were more likely to attribute status to others of the same sex than to others of the opposite sex.

The effects used to explain bullying dynamics are generally the same as those used for status attribution dynamics. However, instead of the *indegree activity* effect, we included the *outdegree popularity* effect which reflects the tendency to being victimized for those who bully others (we expect a negative effect). Moreover, due to the low density of the bullying network, the effects of *reciprocity*, *transitive triplets,* and *three cycles* could not be identified in most classrooms. The group formation effects therefore were entirely dropped from the model specification, while the reciprocity effect was not estimated but score tested (we tested whether the model lacked fit, compared to an enriched model including the effect). Also the direct tie-level effects that examine the main effects of perceived popularity on bullying, and vice versa, were included in the score tests.

Model building

The co-evolution of the status attribution and bullying networks was analyzed in two steps. The first model included the main effects as described above to test our hypotheses 1 and 2. We added endowment and creation parameters in the second model so that the effects for the maintenance and formation of ties could be distinguished (hypotheses 3-6). The two models were estimated separately for each classroom, using all three time points. Subsequently, each model's results were combined in a meta-analysis in RSiena (Siena08, see Snijders & Baerveldt, 2003).

RESULTS

Descriptive results

Table 5.1 presents descriptive statistics of the status attribution and bullying networks. The average degree shows that students nominated on average around three classmates as popular and bullied on average one to two classmates. Status attributions tend to rise somewhat over time, whereas bullying nominations slightly decrease. For both status attribution and bullying, reciprocation tends to increase in one year and there was evidence for transitive closure and hierarchical network

structures (see reciprocity and transitivity indices). Same gender nominations were the majority (57-68%).

The Jaccard index indicates the proportion of stable relations among the total number of new, lost, and stable ties between observed time-points. For the status attribution networks the Jaccard indices were good, but the proportion of stable relations was low for bullying (see Snijders et al., 2010; Veenstra, Dijkstra, Steglich, & Van Zalk, 2013). Yet, this had no severe consequences for the analyses as all models converged.

Table 5.1

Class-level descriptive statistics for status attribution and bullying networks per wave

	Status attribution network			Bullying network		
	Wave 1	*Wave 2*	*Wave 3*	*Wave 1*	*Wave 2*	*Wave 3*
	M (SD)	*M (SD)*	*M (SD)*	*M (SD)*	*M (SD)*	*M (SD)*
Average degree	3.11	3.16	3.37	1.94	1.38	1.17
	(1.25)	(1.39)	(1.69)	(1.06)	(0.79)	(0.80)
SD indegree	3.51	3.73	4.00	3.06	2.48	2.23
	(1.64)	(1.67)	(1.76)	(1.24)	(1.11)	(1.22)
SD outdegree	3.16	3.18	3.27	1.96	1.58	1.41
	(1.23)	(1.19)	(1.51)	(0.78)	(0.71)	(0.75)
Reciprocity	0.19	0.19	0.21	0.16	0.17	0.19
	(0.08)	(0.09)	(0.15)	(0.10)	(0.10)	(0.17)
Same sex	0.69	0.68	0.66	0.57	0.62	0.68
nominations	(0.12)	(0.10)	(0.11)	(0.14)	(0.17)	(0.19)
Transitivity	0.53	0.55	0.57	0.52	0.47	0.58
	(0.14)	(0.14)	(0.14)	(0.18)	(0.22)	(0.23)
Average class size	25.2	25.1	25.0	25.2	25.1	25.0
	(4.2)	(4.4)	(4.4)	(4.2)	(4.4)	(4.4)
Non-respondents	1%	1%	3%	1%	1%	3%
	Wave 1→ 2	*Wave 2→ 3*		*Wave 1→ 2*	*Wave 2→ 3*	
Hamming distance [a]	77.3	77.6		53.6	43.4	
Jaccard index [b]	0.32 (0.12)	0.34 (0.12)		0.19 (0.10)	0.18 (0.12)	

Note [a] Hamming distance is the number of tie changes

. [b] Jaccard index is the fraction of stable ties relative to all new, lost, and stable ties

N = 82 classrooms in 15 schools

Structural network effects

Table 5.2 presents the outcomes of the SIENA meta-analyses for all schools. Model 1 shows that students tended to be selective in attributing status to classmates (*outdegree, B = -5.34, p* < .001) and in nominating classmates as a bully (*outdegree, B = -6.02, p* < .001). The positive reciprocity parameter in the status attribution network (*B* = .24*, p* <.001) indicated that status nominations were likely to be reciprocated. In other words: students called popular tend to call each other popular too. Additionally, when students attributed status to one of their classmates and this classmate attributed status to a third classmate, students were inclined to attribute status to this third classmate over time (*transitive triplets, B =* .08*, p* <.001). The *three cycles* effect was negative (*B* = -.10*, p* <.001), which implied that local hierarchies exist in triplets. Hence, the group formation effects indicated that some students were perceived as popular more often than others.

The positive *indegree popularity* effects for both status attribution (*B* = .90*, p* <.001) and bullying (*B* = 1.27, *p* <.001) showed that popular students attracted more popularity nominations over time and that often-bullied students attracted more bullying nominations over time. Moreover, students who attributed status to many others or who bullied many others, tended to increase this tendency further (*outdegree activity, B* = .57 for status attribution; *B* = .69 for bullying*, p* <.001).

Lastly, the positive *gender similarity* effects in both networks indicated that status nominations and bullying relationships were more likely to occur between students of the same gender (*B* = .61 for status attribution*; B* = .39 for bullying, *p* <.001).

The interplay between bullying and perceived popularity

The between network effects in Model 1 revealed that a high outdegree in bullying resulted in receiving more status attributions over time (*bullying to status, B* = .09, *p* = .004). In other words: being a bully makes you popular. This outcome is consistent with our hypothesis which expected that bullying was a way to gain popularity (*Hypothesis 1*). Moreover, it was shown that a high indegree in status attribution increased the likelihood of a high outdegree in bullying over time (*status to bullying, B* = .24, *p* <.001). This is in line with our hypothesis that having higher popular status will lead to engagement in bullying over time (*Hypothesis 2*).

Table 5.2

Meta-analyses of multivariate network analysis: status attribution and bullying

	Model 1		Model 2	
	Est.	SE	Est.	SE
Status attribution network				
Structural network effects				
Outdegree (density)	-5.34	0.16**		
maintenance			-2.89	0.18**
creation			-7.25	0.15**
Reciprocity	0.24	0.05**	0.25	0.04**
Transitive triplets	0.08	0.02**	0.07	0.01**
Three cycles	-0.10	0.03**	-0.06	0.01**
Indegree popularity	0.90	0.03**	0.88	0.02**
Indegree activity	0.03	0.03	0.04	0.03
Outdegree activity	0.57	0.03**	0.57	0.03**
Individual effects				
Gender similarity	0.61	0.04**	0.60	0.03**
Between networks effects				
Victimization → status	-0.02	0.02	-0.03	0.02
Bullying → status	0.09	0.03*		
maintenance status			0.13	0.07
creation status			0.25	0.07**
Bullying network				
Structural network effects				
Outdegree (density)	-6.02	0.19**		
maintenance			-4.12	0.31**
creation			-7.50	0.29**
Indegree popularity	1.27	0.05**	1.19	0.04**
Outdegree popularity	0.16	0.14	-0.11	0.09
Outdegree activity	0.69	0.06**	0.57	0.05**
Individual effects				
Gender similarity	0.39	0.09**	0.35	0.06**
Between networks effects				
Status → victimization	-0.09	0.06	-0.10	0.07
Status → bullying	0.24	0.04**		
maintenance bullying			-0.41	0.15~
creation bullying			0.82	0.19**

Note. Rate of change effects were omitted from the table.
All effects, except for status attribution reciprocity, show significant variation over classrooms
~ p <.05; * p <.01; ** p <.001 (two-tailed tests)

Model 2 unraveled the interplay between bullying and popularity by distinguishing effects for the dissolution, maintenance, and formation of ties. For the status attribution network it turned out that bullying results in new status attributions over time (*creation status, B* = .25, *p* <.001). Put differently, bullying makes you popular among certain classmates who did not consider you popular before. This finding is consistent with what we expected (*Hypothesis 3*). The *maintenance status* effect was positive but not statistically significant (*B* = .13, *p* = 0.065), which implies that there is no significant change in the stability of existing status attributions under the conditions of (initiating) bullying. Hence, among classmates who already considered you popular, your bullying will not make them reconsider. This is in line with our expectations (*Hypothesis 4*).

The outcomes concerning the development of bullying relations (i.e., bullying network) demonstrated that students with high status discontinue bullying their former victims (*maintenance bullying*, *B* = -.41, *p* = .006) and start bullying classmates whom they did not bully before (*creation bullying, B* = .82, *p* <.001). Hence, the results are in line with our expectations that being perceived as popular will lead to the formation of new bully relations over time (*Hypothesis 5*) and the dissolution of existing ties (*Hypothesis 6*).

The mean values of the score tests were significant for bullying reciprocity (*M* = .61, *p* = .013) and the direct tie-level effect of bullying on popularity (*M* = -.15, *p* <.001). However, we consider it unlikely that inclusion of these effects to the models will change our main results.

DISCUSSION

The present study focused on bullying as strategic, goal-directed behavior linked to high social status in the peer group. The aim was to unravel the complex interplay between bullying and one's popularity in the classroom over time. In the existing body of literature, the bi-directionality of bullying and social status as well as their longitudinal interplay were understudied (see for exceptions Reijntjes, Vermande, Olthof, et al., 2013; Sentse et al., 2015). Moreover, to our knowledge, perceived popularity was rarely analyzed relationally. We argued that bullying and perceived popularity reinforce each other, and we used longitudinal multivariate network analysis to get more insights into the relational patterns of bullying and perceived popularity. Our study is the first that investigated how bullying affects the creation, dissolution, and maintenance of popularity ties and vice versa.

In line with previous studies (Cillessen & Mayeux, 2004; Cillessen & Borch, 2006; Reijntjes, Vermande, Olthof, et al., 2013; Sentse et al., 2015) we found that bullying makes students popular among classmates *and* that being perceived as popular leads to bullying. In addition to these general findings, we aimed to distinguish between the creation and maintenance of a popular status among bullies on the one hand, and the formation and termination of bullying relations among popular students on the other hand. We hypothesized that bullying would make students popular among classmates who did not consider them popular before. Our findings demonstrated that bullies indeed received "new" popularity nominations over time. This implies that some classmates reward bullying behavior with a popular status. In addition to attaining a popular status among new peers, it is was shown that bullying leads to a stabilized high social standing among those classmates who already perceived the bully as popular. These findings contribute to the perspective that bullying is a complex group phenomenon in which obtaining and maintaining high social standing in the peer group plays an important role (Olthof et al., 2011; Salmivalli et al., 2012; Volk et al., 2014).

Bullying might not only be a way to fulfill the goal of obtaining high status, it can also be necessitated by having to maintain the obtained high status. We argued that bullying not merely results in increased popularity over time, but that having popular status may also lead to engagement in bullying. Specifically, we proposed that being perceived as popular would lead to the formation of new bully relations and dissolve former ones. In line with our expectations and previous social network analyses on bullying (Huitsing et al., 2014), we found that, on the relational level, bullying is not stable over time. On the contrary, our findings indicate that popular students discontinue bullying their former victims and start bullying classmates whom they did not bully before. Changes in bullying patterns can thus occur even when bullying and victimization appear stable on the individual level. Longitudinal social network analyses are therefore essential to understand the development of bullying relations in the classroom.

The current study provides important novel insights into how bullying and perceived popularity are intertwined. It can be seen a starting point in using social network analysis to unravel the relational patterns between bullying and social status. In future studies it would be interesting to investigate whether popular students do indeed start bullying those victims who threaten their high social status in the peer group (i.e., other high status peers) and stop bullying low status classmates.

The bullying and popularity networks in our study were examined in stable classrooms only. In most countries, classroom composition is homogenous and remains the same during the students' entire elementary school career. In the Netherlands, multi-grade classrooms are common and the composition of the classroom is likely to change between school years (Veenman, 1995). Now that we have developed a framework to investigate the relational processes behind bullying and popularity, it would be interesting to examine whether these processes differ in heterogeneous, unstable classrooms. In addition, it might be fruitful to move beyond the own classroom, seeing that a substantial share of the bullying and victimization takes place outside it (Huitsing et al., 2014; Van der Ploeg, Steglich, Salmivalli, & Veenstra, 2015).

Another important question is to what extent the classroom context influences the interplay between bullying and perceived popularity, as bullying and popularity both depend on peer context (Salmivalli et al., 1996; Salmivalli, 2010). Several anti-bullying interventions aim to change classroom norms such that bullies are less supported by bystanders and that their antisocial behavior is less rewarded among peers (Kärnä, Voeten, Little, Poskiparta, Kaljonen, et al., 2011; Salmivalli, 2014; Wölfer & Scheithauer, 2014). Future researchers should examine whether the interplay between bullying and popularity is different in classrooms with strong anti-bullying norms and investigate among which students these differences occur.

The focus of our study was on bullying in general. Nevertheless, bullying behavior can occur in several forms (Salmivalli, Kärnä, & Poskiparta, 2011), physical (hitting, kicking), verbal (calling names, insulting), material (stealing or damaging things), relational (ignoring, gossiping), and cyber bullying (via email or mobile phone). Some types are more visible within the peer group or more rewarded than others, which makes it likely that the different types of bullying are also differently related to perceived popularity. Now that we can investigate the complex interplay between these two networks, the longitudinal interplay of the various forms of bullying with perceived popularity may be studied separately in future research.

Practical implications

The results illustrate that popularity plays an essential role in involvement in bullying behavior. The use of longitudinal social network data helps to better understand the relational patterns of bullying and social status. The findings imply that bullying is an effective strategy to obtain and maintain popular status in the

classroom. Teaching bullies prosocial ways to gain or maintain high status is probably essential to effectively intervene in school bullying (Ellis, Volk, Gonzalez, & Embry, 2015). Moreover, an important finding for anti-bullying interventions is that bully-victim relations seem to be unstable over time. Reactive anti-bullying interventions that aim to solve existing bullying situations should thus acknowledge that bullies tend to switch victims.

6

Discussion and conclusion

This dissertation was part of a research project on the implementation and evaluation of the KiVa anti-bullying program in the Netherlands. This large project not only evaluated the effectiveness of the anti-bullying intervention, it also aimed to expand our knowledge of the complex processes related to bullying, defending, and victimization so that the effectiveness of interventions, including KiVa, can be enhanced. This is highly needed, given that irrespective of the successful reductions in bullying and victimization in Dutch KiVa schools, after two years some 12% of the students were still victimized (Veenstra, 2015).

The main aim of this dissertation was to gain insights into the role of emotional and social processes related to involvement in bullying, defending, and victimization as well as the effectiveness of the Support Group Approach in altering the victims' situation. To this end, I used new measures, new research designs, and new analytical strategies.

I first investigated how the intensity of victimization was associated with psychological and social adjustment problems among victims. Subsequently, I studied whether the Support Group Approach was effective in reducing bullying and victimization, improving the victims' well-being, and increasing defending behavior. To facilitate encouraging students to take up the role of defender more effectively, I examined factors that explain involvement in defending behavior in a third study. Students' social standing in the peer group is considered of very important in the persistence of school bullying (Salmivalli et al., 2012). It can be argued that if defenders become more popular, students might be more willing to intervene in bullying situations. I therefore investigated to what extent and for whom defending was rewarded by classmates in terms of popularity in the peer group. In the fourth study, I studied social status mechanisms that may underlie bullying in the classroom. I investigated the complex interplay between bullying and perceived popularity in the classroom over time, while focusing on how bullying affects the formation and maintenance of popularity ties and vice versa. The following discusses the main findings of the four empirical studies.

MAIN FINDINGS

The victims' situation

Chapter 2 describes my new measures to better address the intensity of victimization and its correlates with victims' psychological and social adjustments. I argued that, in addition to the frequency of victimization, it might be important to consider in how many ways and by how many peers a person is victimized (Kochenderfer-Ladd & Troop-Gordon, 2010; Nishina, 2012; Romano et al., 2011; Volk et al., 2014).

Theories on attributional processes (Graham & Juvonen, 2001; Weiner, 1985) were used to generate hypotheses on when experiencing victimization leads to more severe psychological problems. I proposed that psychological maladjustment would emerge particularly when the victimization happened often, was done in various ways, or done by several bullies, as in these situations victims were expected to be more likely to assign the harassment to personal characteristics rather than contextual features of the situation. Although I was not able to test the attribution mechanisms directly, the findings showed that victims of more frequent victimization and victims with more than one bully were indeed more likely to show more symptoms of social anxiety and depressiveness, and to feel less comfortable at school. Multiplicity of victimization appeared to be important only for students' well-being at school.

I hypothesized that students' social standing in the classroom would be associated with the frequency of victimization, multiplicity of victimization, and the number of bullies involved as the victimization becomes more visible when it happens more often, in various ways, or by more than one bully. In line with the expectations, I found that frequently victimized students were less accepted, more rejected, and perceived as less popular among their classmates. Victims who were victimized in multiple ways or by several bullies were less accepted and more rejected among their classmates than victims of non-multiple victimization and victims with one bully.

In sum, the findings of Chapter 2 demonstrate that the intensity of victimization is associated with (differences in) students' psychosocial adjustment and social standing in the classroom. Those who are often victimized, victimized in multiple ways, or victimized by more than one bully have been found to have high levels of social anxiety and low levels of well-being at school, as well as low acceptance and high rejection among classmates.

The Support Group Approach, which is mostly similar to the No Blame Method (Robinson & Maines, 2008; Young, 1998) and The Method of Shared Concern (Pikas, 1989, 2002), aims to tackle pervasive bullying situations and improve the victims' situation in terms of their well-being at school. It involves several discussion meetings with victims, their bullies (i.e., initiators and assistants), and prosocial classmates about how the victims' situation can be altered. Although the Support Group Approach is widely used as an anti-bullying intervention (Smith et al., 2007), few studies investigated its effectiveness. These studies focused on short-term evaluations of changes in the bullying situation (e.g., Smith et al., 1994; Thompson & Smith, 2011; Young, 1998). Most students or teachers reported that the support group was effective in reducing bullying, but often it was not known whether similar effects would be obtained if no support group intervention was organized (Rigby, 2014).

Chapter 3 describes how I used exact matching techniques (Iacus et al., 2011; Stuart, 2010) to compare victims with a support group to similar victims without a support group. I investigated not only differences in bullying, but also took into account defending behavior and the victims' level of well-being at school, as the Support Group Approach (implicitly) aims to increase victim-supportive behavior and the well-being of victims (Robinson & Maines, 2008; Young, 1998). Moreover, I argued that it was essential to examine whether effects of the support group intervention were still visible at the end of the school year, so that stronger conclusions about its effectiveness could be drawn. I hypothesized that at the end of the school year, victims who received a support group intervention would be less victimized, more defended, and feel more comfortable at school than similar victims without a support group.

In line with previous findings, I found positive effects in the short term: a vast majority of the victims for whom a support group intervention was organized indicated at the evaluation meeting that the victimization had decreased or stopped. However, at the end of the school year outcomes were less encouraging, seeing that the Support Group Approach only was successful in enhancing defending behavior. No significant differences in the change in the level of victimization between victims with and victims without a support group were found. Moreover, the frequency with which the victimization took place was found to decrease more for victims without a support group than for those victims who received a support group intervention. Also regarding the victims' well-being at school our findings revealed that victims do not benefit from a support group.

All in all, I conclude from Chapter 3 that the Support Group Approach was ineffective in improving the victims' situation in the long term. The short-term success rate seems to disappear over time and victimization tends to even get worse. These findings underline the importance of evaluating anti-bullying interventions over a longer period as effects may fade in time.

Defending victims of bullying

Defending is considered important in improving the victims' situation (Sainio et al., 2011; Salmivalli et al., 2011). I argued that more insights into factors that explain students' involvement in defending behavior were needed so that anti-bullying interventions, including KiVa, could more effectively encourage students to intervene in bullying situations. Chapter 4 describes a longitudinal design I used to examine simultaneously the antecedents and status consequences of students' involvement in defending. As victims tend to defend each other (Huitsing et al., 2014) and there are few insights into differences in the processes related to defending between victims of bullying and non-victims, I made a distinction between non-victimized and victimized defenders.

As various anti-bullying programs have incorporated emotional and social cognitive factors as essential features to reduce bullying (Farrington & Ttofi, 2010), I hypothesized on the roles of empathy and self-efficacy in defending on explaining students' involvement in defending behavior. Students with high levels of empathy and high self-efficacy beliefs were expected to be most likely to take a clear stance against bullying and support victims. However, the findings in Chapter 4 demonstrate that only students with a higher level of empathy were more likely to be involved in defending over time. This was the same for defenders who were also victims of bullying. From Chapter 4 it thus appears that empathy is a stronger predictor of defending than self-efficacy.

Bullying and social status

Although it is promising that intervening on behalf of victims can be related to a greater popularity in the classroom, it is known that bullying is also an effective strategy to obtain high social status among peers (Cillessen & Borch, 2006; Reijntjes, Vermande, Olthof, et al., 2013; Sentse et al., 2015). Chapter 5 describes the longitudinal social network analyses in RSIENA used to unravel the complex interplay between bullying and social status. We investigated the co-development of bullying and perceived popularity in the classroom.

Theories on bullying as goal-directed behavior (Volk et al., 2014), goal-framing theory (Lindenberg, 2008), and social competition theory (Volk et al., 2015) were used to generate hypotheses about how bullying affects students' popularity in the classroom and vice versa. I argued that students become more visible and socially dominant in the classroom by engaging in bullying behavior. Accordingly, I expected that bullying would make students popular among classmates who did not perceive them as popular before. Moreover, I argued that classmates who already perceived the 'new bully' as popular would not reconsider this. In other words: I hypothesized that bullying stabilizes popularity. I also proposed that being perceived as popular would lead to the formation of new bully relations over time and the dissolution of existing bullying relations, as popular students are likely to start bullying those who threaten their high social standing in the classroom.

In line with the expectations, I found that bullying makes students more popular over time *and* that having high social standing leads to engagement in bullying. When I distinguished between the dissolution, maintenance, and formation of bullying and popularity ties, I found that bullying makes students popular among classmates who did not perceive them as popular before. Besides, students' involvement in bullying did not make classmates reconsider their popular status in the peer group. I also found that popular students discontinue bullying their former victims and start bullying classmates whom they did not bully before.

The results in Chapter 5 show that bullying and perceived popularity are intertwined: ties in one network influence the realization of ties in the other network. As such, knowledge about children's social standing in the classroom contributes to our understanding of bullying processes. Another important finding is that bullying relations seem unstable, particularly for popular bullies, who tend to switch victims over time.

The outcomes of the four studies show that bullying, defending, and victimization are related to one's social standing in the classroom, one of the most salient features in (early) adolescent life. The four studies reveal that using new measures (Chapter 2), new research designs (Chapter 3 and Chapter 4), and new analytical strategies (Chapter 5) benefits our understanding of how bullying and defending behaviors develop, and provides insights into how (changes in) the victims' situation can be better addressed. In the remainder of this chapter, I discuss the scientific implications and directions for future research. Subsequently, I reflect on the practical implications for anti-bullying interventions that can be derived from the four empirical studies in this dissertation.

SCIENTIFIC IMPLICATIONS AND DIRECTIONS FOR FUTURE RESEARCH

Although school bullying has been investigated in a wide range of studies for many years, we have gained substantial new insights into the victims' situation, emotional and social processes related to bullying and defending, and (examining) the effectiveness of an intervention. One main finding in Chapter 2 is that the intensity of victimization can be measured in several ways, which can help to better understand differences in the maladjustment of victims. Although future researchers should investigate the validity of the new measures (i.e., multiplicity and the number of bullies involved), we recommend using these detailed measures of victimization in future studies, rather than only distinguishing between non-victims and frequent victims. This might prevent overlooking a group that is at higher risk for (adjustment) problems (see Ybarra et al., 2014).

From the findings in Chapter 3 we can conclude that evaluations of interventions benefit from a longitudinal design, seeing that effects can disappear over the course of a school year. In our study, sample size was relatively small and matching strategies were needed to distinguish victims with a support group from those without a support group. Future intervention studies would move the field ahead if randomized control trials are used to study the effectiveness of both preventive and reactive anti-bullying strategies. In addition, especially for reactive strategies (if preventive strategies do not work) it might be fruitful to collect data frequently to obtain more insights into what happens during the intervention. Besides, future studies should use randomized control trials rather than post-hoc matching procedures. This would make it easier to discover if, why, and when there is a relapse in the reduction of bullying with regard to the support group intervention. There are several possible reasons why positive changes in the short term disappear over the course of a school year. For instance, from Chapter 3 it seems that prosocial students in particular are affected by the intervention. The short duration of the Support Group Approach and the failure to address the costs and benefits of bullying might give bullies little reason to give up their strategy (see Ellis et al., 2015). Moreover, in Chapter 5 I found that bully-victim relationships are unstable over time as bullies tend to choose new victims. The Support Group Approach might be effective for a specific bullying situation, but the victim might get harassed by others afterwards. These processes should be investigated in order to be able to enhance the effectiveness of the intervention.

A longitudinal design was also needed to explore the antecedents and consequences of students' involvement in defending (Chapter 4). I focused on

emotional and social cognitive factors as predictors of defending behavior. However, it is essential to also examine the extent to which other factors, such as personal goals (Rodkin, Ryan, Jamison, & Wilson, 2013) or the classroom context (Peets et al., 2015) can clarify why students (do not) intervene in bullying situations. An important novel finding in Chapter 4 was that defending is rewarded with greater popularity for defenders who were not victimized themselves. This finding offers a nuance to the general perception that intervening in bullying situations can be harmful for social standing in the classroom (Meter & Card, 2015). However, a challenge for future research is to unravel who perceives these defenders as popular and how defenders' social status depends on the persons they defend. Social network analyses may contribute to increase our knowledge on these interpersonal processes (see Huitsing et al., 2014; Huitsing & Veenstra, 2012).

In Chapter 5 I used social network analysis to better understand the relational patterns of bullying and perceived popularity. Studying both bullying and popularity as dyadic relations, that is who bullies whom, and who perceives a person as popular, rather than examining whether a person is bullied or how many people perceive someone as popular (i.e., proportion scores) provided valuable insights into this complex phenomenon. The study showed that bullying is an effective strategy to increase one's popularity in the classroom *and* that popular students tend to establish new bully relations and dissolve their former bullying relations over time. It thus appears that social status is indeed one of the mechanisms that underlies involvement in bullying.

In this dissertation, I argue that involvement in both bullying and defending behavior are likely to arise from status goals (e.g., Lindenberg, 2008; Pöyhönen et al., 2012; Salmivalli, 2010; Sijtsema et al., 2009; Volk et al., 2015). However, from the empirical studies it remains unclear which students use antisocial behavior and which use prosocial behavior to obtain popular status in the peer group. Possibly, defenders not only strive for a dominant position, but also want to be accepted by their classmates. Studies on school bullying can move ahead by investigating how status goals affect behavior. This will help to better understand how to strengthen defending behavior and how to discourage involvement in bullying.

Another, more general direction for research on bullying and victimization is to focus on between-classroom processes. This dissertation was about bullying, defending, and victimization in the classroom. Nevertheless, in Chapter 2 a substantial number of victims reported being harassed by students from other classrooms. Another recent study (Huitsing et al., 2014) found that bullying and

defending ties outside the classroom were quite common (25%). It would be interesting to see whether differences in emotional and social processes exist when the bullying or defending takes place outside the classroom. Moreover, we should investigate whether preventive and reactive interventions, such as KiVa and the Support Group Approach, are effective in tackling bullying and victimization in the broader school context, for instance in bullying situations which involve students from several classrooms.

A final and probably most essential direction for future research is to examine how these processes related to bullying, victimization, and defending can be influenced by interventions. For instance, using longitudinal social network analyses, we can examine whether or not bullies become less popular over time in intervention schools as compared to bullies in control schools. In addition, we could investigate effective ways to increase students' empathy. Lastly, we could examine which support group composition is most beneficial for altering the victims' situation. This information can be used to enhance the efficacy of anti-bullying interventions.

PRACTICAL IMPLICATIONS

With this dissertation I aimed to increase our understanding of the complex group processes related to bullying, defending, and victimization since I wanted to build on the effectiveness of interventions counteracting school bullying. In this section I translate the main research findings into practical implications for classroom teachers and other practitioners and make suggestions for anti-bullying interventions.

A main problem in tackling bullying situations is that many victims tend to go unrecognized (Haataja et al., 2015). Likewise, in Dutch KiVa schools the support group intervention was organized for only the vast minority of the victims, which might indicate that classroom teachers and the KiVa team are not detecting bullying and victimization. It has been suggested that teachers may benefit from feedback reports on the social structure of their classroom and the well-being of their students (Huitsing & Veenstra, 2012). These reports would not only be useful to discover who is victimizing whom and how, but can also help identify students with psychosocial adjustment problems at an early stage. In addition, the information about social hierarchy in the classroom can be used to optimize the composition of the support group as it makes it easier to select well-liked (prosocial) peers and friends of the victim. A carefully selected support group is likely to enhance the

potential success of the Support Group Approach in improving the victims' situation in the longer term. Lastly, the reports might be used to distinguish between students who should be encouraged to take up the role of defender and those who should better not intervene in bullying situations, for instance because they are victimized themselves or have a marginal position (e.g., highly disliked, few friends) in the classroom. In the KiVa+ condition, classroom teachers already receive feedback reports. Yet, it seems that these reports are rarely used in targeting bullying situations. Anti-bullying interventions, including KiVa, should therefore carefully instruct teachers on how the information can be used in preventing victimization and tackling existing bullying situations.

In Chapter 5 it appears that bully-victim relationships are unstable, despite the fact that victims are often chronically victimized and bullies persist in peer harassment (Kochenderfer-Ladd & Wardrop, 2001; Scholte, Engels, Overbeek, de Kemp, & Haselager, 2007). This might be a reason why the Support Group Approach was found to be unsuccessful in reducing victimization over the course of a school year. It is important for anti-bullying interventions to get detailed insights into the development of group processes, and acknowledge the instability both in classroom hierarchy and in students' participant roles in bullying (see Huitsing et al., 2014). Particularly interventions that target current bullying situations cannot be straightforward, but should always be adjusted to the specific situation.

Lastly, the findings of this dissertation are consistent with the notion that social status is an important mechanism underlying students' involvement in bullying and defending behavior (e.g., Salmivalli, 2010). Nevertheless, the extent to which bullying is a successful strategy to obtain or maintain high social standing in the classroom depends on classroom norms (e.g., Salmivalli, 2014). Anti-bullying programs should therefore contain elements that enhance a positive group climate, which rewards prosocial rather than antisocial behavior. For instance, teachers could be trained in showing their disapproval of bullying and intervening in negative behavior since they are highly influential in establishing group norms (Saarento, Kärnä, Hodges, & Salmivalli, 2013; Veenstra et al., 2014). Moreover, bullies can be taught other, prosocial behavior to achieve or maintain high social status (Ellis et al., 2015; Ellis et al., 2012; Garandeau, Lee, et al., 2014). To enhance students' involvement in defending, interventions should target students' empathy and emphasize that high social standing in the classroom can also be achieved by intervening in bullying and supporting the victim.

CONCLUSION

This dissertation reports on research conducted to better understand the complex phenomenon of school bullying. Why children bully and why bystanders (do not) intervene have been important questions in bullying research for many years. This book offers new insights into the emotional and social processes that play roles in bullying, victimization and defending among classmates. The most important take-home message for anti-bullying interventions is that not only bullying, but also defending can be helpful to gain high social standing in the classroom. Nevertheless, this dissertation also shows that it is crucial to further investigate how victim support can help alter the victims' situation in the longer term. I have taken some important steps in unraveling the mechanisms behind bullying and defending. Future studies should thoroughly examine how the current findings can best be implemented in anti-bullying interventions. Ultimately, such research can be used to further reduce school bullying and will help to make schools safe places for all students.

Samenvatting

Summary in Dutch

Emotionele en sociale processen bij pesten, gepest worden en verdedigen

Pesten op school is een wereldwijd probleem met negatieve korte- en langetermijngevolgen voor alle betrokkenen. Slachtoffers hebben vaak psychische klachten en een laag schoolwelbevinden. Omstanders voelen zich vaker onveilig op school en zijn bang om zelf slachtoffer te worden. Kinderen die zelf pesten, hebben een hoger risico op schooluitval en gedrags- en ontwikkelingsproblemen zoals agressief of gewelddadig gedrag en criminaliteit. Er is al veel onderzoek gedaan naar mechanismen achter slachtofferschap en daderschap van pesten, maar het blijft lastig om pesten op scholen effectief aan te pakken. Het is een complex groepsfenomeen waarbij veel factoren een rol spelen.

Dit proefschrift maakt deel uit van een grootschalig onderzoek naar de werking van het van oorsprong Finse KiVa anti-pestprogramma op Nederlandse basisscholen. Het uitgangspunt van KiVa is dat pesten een groepsproces is waarbij het streven naar sociale status een belangrijke rol speelt. Pesters worden vaak gesteund door kinderen die mee gaan doen (assistenten), kinderen die om het pesten lachen (versterkers) of kinderen die niets doen om het pesten te stoppen (passieve omstanders). Het doel van KiVa is om de groepsnorm in de klas zodanig om te buigen dat kinderen opkomen voor slachtoffers van pesten (verdedigers) en dat pesters met hun negatieve gedrag geen status in de groep meer krijgen. Op deze manier wordt beoogd dat de motivatie om te gaan pesten afneemt en er uiteindelijk minder gepest wordt op school.

Het doel van dit proefschrift was inzicht te krijgen in de emotionele en sociale processen die een rol spelen bij pesten, gepest worden en verdedigen. Om dit te bereiken heb ik gebruik gemaakt van nieuwe meetinstrumenten, nieuwe onderzoeksdesigns en nieuwe analysetechnieken.

Dit proefschrift bestaat uit vier empirische studies die elk een bijdrage leveren aan de bestaande kennis op het gebied van pesten op school. In de eerste twee hoofdstukken ligt de focus op de slachtoffers van pesten. Ik heb verschillen in de mate van gepest worden en het emotionele en sociale welbevinden van slachtoffers onderzocht en getest in hoeverre de zogenaamde Steungroepaanpak (*Support Group Approach*) effectief is in het stoppen van pesten en het bevorderen van het schoolwelbevinden van slachtoffers van pesten. Het derde en vierde hoofdstuk gaan over verdedigen en pesten zelf. Waarom pesten kinderen? En waarom nemen sommige kinderen het voor de slachtoffers op, terwijl anderen niks doen om pesten tegen te gaan? In deze twee hoofdstukken speelt sociale status een grote rol. Met name ‘populair zijn’ is belangrijk: kinderen willen veelal opvallen

en een dominante positie hebben in de klas. Pesten en verdedigen kunnen strategisch worden gebruikt om populair te worden.

De onderzoeksvragen uit de vier studies zijn beantwoord met zelf verzamelde data in het kader van het KiVa-project in Nederland (hoofdstuk 2, 3 en 5) en bestaande data afkomstig uit het KiVa-project in Finland (hoofdstuk 4). Het gaat hierbij om gegevens van leerlingen in de midden- en bovenbouw van de basisschool.

Belangrijkste bevindingen

In hoofdstuk 2 heb ik onderzocht hoe de intensiteit van het pestgedrag samenhangt met het emotionele en sociale welbevinden van leerlingen. Het doel was om verschillen tussen slachtoffers in de mate van hun welbevinden en sociale status in de groep nader te verklaren. Ik heb gebruik gemaakt van nieuw meetinstrumenten om de intensiteit van het pestgedrag vast te stellen. In plaats van alleen te kijken naar de frequentie van pesten, heb ik ook gekeken of het pesten op één of meerdere manieren plaatsvond en of er één of meerdere pesters bij betrokken waren. Mijn verwachting was dat een hogere intensiteit van pesten (vaak, op meerdere manieren, door meerdere pesters) samenhangt met meer negatieve consequenties voor slachtoffers.

Uit multi-level regressie analyses is gebleken dat slachtoffers angstiger waren en zich minder fijn voelden op school naarmate het pesten vaker, op meerdere manieren of door meerdere personen gebeurde. Daarnaast is gebleken dat de 'intensieve slachtoffers' het minst leuk werden gevonden en het meest werden afgewezen door hun klasgenoten. De bevindingen laten dus zien dat de intensiteit van het pestgedrag gerelateerd is aan verschillen tussen slachtoffers in de negatieve gevolgen van gepest worden.

Zowel in Finland als in Nederland is gebleken dat KiVa succesvol is in het verminderen van pesten. Toch worden óók op KiVa-scholen nog steeds kinderen gepest: in Nederland ongeveer 12%. Hoofdstuk 3 gaat over de Steungroepaanpak, een interventie die in het KiVa-programma wordt gebruikt voor het oplossen van bestaande, aanhoudende pestsituaties. Naast het stoppen van pesten heeft deze interventie als impliciet doel om het schoolwelbevinden van slachtoffers van pesten te vergroten. Hoewel de Steungroepaanpak wereldwijd, ook als losse interventie, wordt gebruikt, is er weinig bekend over de effectiviteit. Eerder onderzoek naar de werking van de Steungroepaanpak is alleen gericht op kortetermijnveranderingen in de pestsituatie. In dit proefschrift heb ik daarom onderzocht in hoeverre de

Steungroepaanpak effectief is in het verminderen van pesten, het stimuleren van verdedigen en het verbeteren van het schoolwelbevinden op de langere termijn, gedurende één schooljaar.

Om de effecten van de Steungroepaanpak bovenop die van het universele KiVa-programma te kunnen toetsen, zijn slachtoffers met een steungroep gekoppeld aan vergelijkbare slachtoffers zonder steungroep (*Coarsened Exact Matching*). De resultaten lieten zien dat slachtoffers op de korte termijn enthousiast waren over de Steungroepaanpak. De meerderheid gaf aan dat het pestgedrag was afgenomen. Deze positieve resultaten hielden echter geen stand op de langere termijn. Er was aan het eind van het schooljaar geen verandering in de hoeveelheid pesten en slachtoffers met een steungroep werden zelfs frequenter gepest dan vergelijkbare slachtoffers die geen steungroep hadden. Ook wat betreft schoolwelbevinden hadden de slachtoffers geen baat bij de Steungroepaanpak: slachtoffers met een steungroep hadden aan het eind van het schooljaar een lager schoolwelbevinden. De interventie lijkt daarentegen wel effectief te zijn in het stimuleren van verdedigen: slachtoffers met een steungroep hadden aan het eind van het schooljaar meer verdedigers dan vergelijkbare slachtoffers zonder steungroep.

Verdedigen is belangrijk in het tegengaan van pesten. Het helpt om pestgedrag te stoppen en zorgt ervoor dat slachtoffers meer zelfvertrouwen en een betere sociale positie in de klas hebben. Desondanks is er relatief weinig onderzoek gedaan naar wat kinderen motiveert om in te grijpen in een pestsituatie. In hoofdstuk 4 heb ik de drijfveren om te gaan verdedigen en de consequenties van verdedigen onderzocht in een longitudinaal onderzoeksdesign. Mijn verwachting was dat emotionele en sociaalcognitieve factoren van invloed zijn op het gaan verdedigen. Daarnaast verwachtte ik dat verdedigen zou leiden tot een hogere populariteit in de klas, maar dan alleen voor verdedigers die zelf niet gepest worden.

Multi-level pad-analyses lieten zien dat voor zowel slachtoffers van pesten als voor niet-slachtoffers, een hogere mate van empathie voor het slachtoffer leidde tot meer verdedigen. Er is geen effect gevonden van gevoelens van bekwaamheid in verdedigen. Het maakt dus voor het gaan verdedigen niet zozeer uit of iemand denkt dat hij of zij er goed in is. Het kunnen inleven in de gevoelens en emoties van slachtoffers van pesten bleek wel belangrijk om te gaan verdedigen. Uit de resultaten kwam tevens naar voren dat verdedigen een effectieve strategie kan zijn om je populariteit te verhogen. Kinderen die anderen verdedigden werden

populairder gevonden door hun klasgenoten, maar alleen wanneer deze verdedigers zelf geen slachtoffer van pesten waren.

Het is positief dat prosociaal gedrag als verdedigen (voor sommige kinderen) kan leiden tot een hogere status in de klas. Toch weten we dat ook pesten een manier is om populair te worden en te blijven. In hoofdstuk 5 heb ik het verband tussen pesten en populariteit onderzocht. Ik heb gebruik gemaakt longitudinale sociale netwerkanalyses om meer te weten te komen over hoe pesten van invloed is op iemands populariteit in de klas (Door wie word je populair gevonden?) én om te onderzoeken hoe populariteit effect heeft op pestgedrag (Wie wordt door wie gepest?).

Uit de resultaten is gebleken dat kinderen die pestten over de tijd heen door meer klasgenoten populair gevonden werden. Daarnaast veranderden de klasgenoten die de pester al voordat hij/zij ging pesten als populair beschouwden hun mening niet. Een ander belangrijk resultaat was dat vooral populaire kinderen in de loop van de tijd hun oude pestrelaties verbraken en klasgenoten gingen pesten die ze daarvoor nog niet pestten. De bevindingen laten zien dat pesten een effectieve manier is om populair te worden of te blijven en dat (populaire) pesters geneigd zijn om van slachtoffers te wisselen.

Bijdragen van dit onderzoek

De vier studies in dit proefschrift dragen elk bij aan de kennis over pesten op school en helpen om het complexe groepsproces van pesten beter te begrijpen. Er zijn nieuwe inzichten verkregen in (de verandering in) het welbevinden van gepeste kinderen en de emotionele en sociale processen die gerelateerd zijn aan pesten en verdedigen. Deze inzichten zijn belangrijk voor het wetenschappelijk onderzoek en voor anti-pestinterventies.

De voornaamste bevinding uit dit proefschrift is dat zowel pesten als verdedigen kan leiden tot een hogere status in de klas. De resultaten zijn in lijn met de recente theorieën dat pesten een groepsproces is waarin sociale status een grote rol speelt. Dit proefschrift laat zien dat het door middel van netwerkgegevens mogelijk is om verder te onderzoeken in welke situatie (bijvoorbeeld: wie is het slachtoffer?) en door welke klasgenoten (vrienden, buitenstaanders) pesters of verdedigers populair worden gevonden. Voor anti-pestinterventies lijkt het essentieel om (pestende) kinderen zich ervan bewust te maken dat zij door middel van prosociaal gedrag ook populair kunnen worden. Interventies kunnen

bijvoorbeeld oefeningen bevatten die het empathisch vermogen van leerlingen vergroten, of pesters trainen in het gebruiken van prosociaal gedrag.

Een andere belangrijke bevinding uit dit proefschrift is dat de relaties tussen pesters en slachtoffers instabiel zijn. Dit kan er voor zorgen dat curatieve interventies voor het oplossen van specifieke pestsituaties, zoals de Steungroepaanpak, niet effectief zijn, bijvoorbeeld omdat slachtoffers na de interventie opeens door andere klasgenoten gepest worden.

Een van de grootste problemen bij het tegengaan van pesten, is dat een groot deel van de slachtoffers onopgemerkt blijft. Uit het onderzoek in dit proefschrift blijkt dat in het huidige KiVa-programma voor slechts een klein deel van de slachtoffers een steungroep wordt ingezet. Het is daarom belangrijk dat leerkrachten meer inzicht krijgen in de groepsdynamiek van hun klas. Rapporten met daarin informatie over de sociale structuur van de klas (Wie is bevriend met wie?, Wie wordt gepest door wie?) en het welbevinden van leerlingen kunnen helpen om gepeste kinderen en pesters in een vroeg stadium te signaleren. Daarnaast kunnen deze rapporten gebruikt worden om een uitgebalanceerde steungroep samen te stellen met daarin kinderen die in het bijzonder aangemoedigd kunnen worden om te gaan verdedigen, bijvoorbeeld omdat zij een goede positie hebben in de groep en zelf niet gepest worden.

Voor vervolgstudies is het essentieel om te onderzoeken hoe de verworven inzichten over de emotionele en sociale processen die een rol spelen bij pesten, gepest worden en verdedigen - en de daaruit voortvloeiende implicaties - het best toegepast kunnen worden in anti-pestinterventies. Op deze manier kan wetenschappelijk onderzoek een fundamentele bijdrage leveren aan het voorkomen en oplossen van pesten op school.

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Hoe het allemaal begon? Daarvoor moeten we terug naar 2011…

Na een zenuwslopende sollicitatieronde bij de ICS-commissie met vragen als “Wat is je favoriete sociologische boek?” (*eeeehm…*), kreeg ik een email van René. Hij zocht nog PhDs voor zijn onderzoek naar het anti-pestprogramma KiVa en vroeg zich af of ik wilde langskomen voor een gesprek. Niet lang daarna kwam het verlossende telefoontje: ik kon in september gaan promoveren.

René, jouw vertrouwen in mijn kunnen is heel belangrijk geweest voor de totstandkoming van dit proefschrift. Je begeleiding heeft ervoor gezorgd dat ik mij heb kunnen ontwikkelen als onderzoeker. Ik heb ontzettend veel van je geleerd! Je gedrevenheid en behaalde successen zijn een groot voorbeeld. Gelukkig kunnen we onze samenwerking voortzetten in een nieuw en uitdagend onderzoeksproject. Christian, als er iemand is van wie ik veel kan leren, ben jij dat. Ik heb de “RSiena-taal” veelvuldig vervloekt, maar het is zondermeer een verrijking geweest voor dit onderzoek. Zonder jouw hulp, geduldige uitleg en motiverende woorden was het laatste - misschien wel meest interessante - artikel er nooit gekomen. Ik ben blij dat jij, een jaar na de start van mijn PhD-traject, mijn copromotor wilde worden. Jelle, ondanks dat je maar kort mijn copromotor bent geweest, heb ik veel aan je gehad. Niet alleen praktische hulp, zoals het vouwen van zo’n 1000 brieven, maar ook de uitgebreide feedback op mijn werk. Het was een goede start! Ik had bovendien het geluk dat *Ms KiVa* mijn promotor wilde zijn. Christina, your work is a great inspiration for people all over the world, including me. It is wonderful to see that KiVa is successful in so many different countries. But above all, it is your passion that inspires me. It was a pleasure to visit Turku last year and a great opportunity to participate in your research group. Kiitos! Dit proefschrift zou er niet geweest zijn zonder de goedkeuring van de leescommissie. Sigi, Toon en Tony, bedankt voor het lezen en beoordelen van het manuscript.

De implementatie van KiVa in Nederland heb ik gelukkig niet alleen hoeven doen. Beau, ik zal onze eerste werkdag nooit vergeten. Daar zaten we dan: zonder kantoor, maar mét een dikke KiVa handleiding voor onze neus. Het was prettig dat we veel dingen samen konden doen. In een kerk een lezing geven aan driehonderd kritische leerkrachten is toch een stuk minder eng met z’n tweetjes. Nu gaan we al een tijdje ieder onze eigen weg, maar “Beauzemarijn” is er als het nodig is.

Toen Beau en ik nog maar net begonnen, was jij, Gijs, al een oude rot in het vak. Talloze keren heb ik aan je bureau gestaan en altijd was je bereid te helpen. Het is fijn om zo'n collega te hebben. In de loop der jaren is de KiVa onderzoeksgroep steeds groter geworden. We hebben samen al veel bereikt René, Gijs, Beau, Miranda, Ashwin, Mariola, Coby, Gerine en Tessa. Daar kunnen we trots op zijn!

Freek en René, jullie zijn van onmisbare waarde voor KiVa Nederland en hebben, misschien wel zonder dat jullie het beseffen, een groot aandeel gehad in het succesvol afronden van mijn proefschrift. De afwisseling tussen de abstracte wetenschap en de realiteit van de onderwijspraktijk had ik niet kunnen én willen missen. Het was dat dit boekje toch echt af moest, anders was ik graag nog veel vaker meegegaan naar starttrainingen, ervaringsbijenkomsten, ouderavonden en workshops. Door jullie heb ik de "trainer in mij" kunnen ontwikkelen. Iets waar ik, zeker nu ik steeds meer lesgeef, veel aan heb.

De vakgroep sociologie kenmerkt zich door waardevolle en betrokken collega's. Ik ben vooral dank verschuldigd aan de onderzoekers van de WALM. Jullie verfrissende en ook kritische blik heeft mijn werk naar een hoger niveau getild. Tina, ik ben blij dat jij coauteur van het vierde hoofdstuk bent en ik hoop dat we in de toekomst opnieuw samen aan een artikel kunnen werken.

Hard werken houdt niemand vol zonder ontspanning. Ik denk nog vaak terug aan de lunchpauzes op de *Wii* bij jou thuis, Victor. Je was de perfecte kamergenoot en ik vind het nog steeds jammer dat je nu helemaal op Zernike zit. Gelukkig is Veerle een goede vervanger. Het is voor andere mensen misschien moeilijk te geloven dat er tussen het gepraat, gelach en de huizenjacht op Funda door ook écht gewerkt wordt (dit proefschrift is een bewijs). Lieve Veerle, je bent vaak mijn steun en toeverlaat geweest. Vooral op de momenten dat het écht niet wilde lukken met de analyses of het schrijven. Met jou als paranimf komt het ook met de laatste beproeving wel goed. Daar heb ik alle vertrouwen in!

Het is dat ik maar twee paranimfen mag hebben, Femke en Kim. Het liefst had ik jullie er ook bij gehad. Dankjewel voor alle bemoedigende woorden en wijze adviezen, maar vooral ook voor de gezelligheid. We moeten van de woensdag maar een "koffie-in-de-morgen" en "borrel-in-de-avond" dag maken.

Dat ik zulke fijne collega's zou krijgen wist ik natuurlijk niet toen ik het telefoontje van René kreeg. Oh, wat zag ik er tegenop om naar Groningen verhuizen. Gelukkig was daar Ela, die letterlijk vanaf dag één op de stoep stond. Lieve Ela, jij hebt er voor gezorgd dat ik me thuis voelde in die vreemde stad. Ook hielp het dat Marloes een stukje Nijmegen mee naar Groningen bracht. Heel fijn die gezamenlijke koffie-uurtjes en dat rennen over Nijmeegse en soms Groningse wegen.

Al snel na mijn verhuizing stond ik op het Harense hockeyveld. Behalve échte hockeykakkers lopen daar heel wat leuke meiden rond. Lieve teamgenootjes, ook door jullie is Groningen mijn stad geworden. Hanneke, wat was het toevallig dat jij sociologie hebt gestudeerd en dus veel van mijn nieuwe collega's kende. Wat begon als een "gedeelde hobby en studie" is uitgegroeid tot een vriendschap. Ik hoop dat we samen nog veel films gaan kijken. Marieke, het trainen van de G-tjes zou niet half zo leuk zijn zonder jou. Drie keer per week op het kunstgrasveld staan, is vaak nog niet genoeg. Ik ben blij dat je weer in Grunn woont. En jij, Manja, mag voorlopig niet weg! Hoe overleef ik anders bedrijvenhockey in mijn eentje tussen al die mannen? Maar bovenal zou ik dan je gezelligheid en nuchtere kijk op de wereld gaan missen. Als je weggaat, is het samen met ons voor een vakantie naar….?

Reisafstand maakt voor goede vriendschappen niets uit. Dat is in de afgelopen jaren wel gebleken. Lieve Brecht en Sophie, ik mis onze wekelijkse etentjes nog steeds. Gelukkig bestaan er autovakanties naar Brabant, Utrecht en Groningen ;-). Er zijn al vele "rondjes Nederland" gereisd. Wat ben ik blij dat ik jullie nog regelmatig zie lieve Birgit, Carolien, Hanneke, Maartje, Marije, Marleen, Menno en Vivian. Marieke, jij bent bijna altijd ver weg, maar gelukkig op 14 april niet. Ik vind het geweldig dat jullie allemaal bij mijn verdediging zijn!

Dat het promoveren niet altijd even makkelijk was, heeft vooral het thuisfront gemerkt. Lieve papa en mama, het is heel erg fijn om te weten dat jullie er voor mij zijn. Hoewel jullie mijn frustraties lang niet altijd begrepen, kon ik wel altijd bij jullie terecht. Een dankjewel is eigenlijk niet genoeg voor alles wat jullie voor me doen…
Lieve Marjolein, toen ik je vertelde dat ik het zo erg vond om naar Groningen te verhuizen, lachte je me stiekem een beetje uit. En terecht! Hoe ver is Groningen nou vergeleken met Guadalajara? Toch voelt het nooit alsof je ver weg bent. Ik hoop dat ik gauw weer naar het mooie Mexico kan komen.

Lieve Jasmijn, onze vriendinnen zijn altijd verbaasd dat we als tweelingzusjes zó verschillend kunnen zijn. Dat we veel van elkaar verschillen klopt, maar tegelijkertijd hebben we aan een half woord genoeg. Ik ben trots op wie je bent en wat je doet. Je weet het hè, de moeilijkste vraag is straks voor jou!

Toen ik naar Groningen vertrok wist ik één ding heel zeker: voor mij géén Groninger. Het bewijs dat er uit Groningse genen toch wel leuke mannen kunnen voortkomen, ben jij Dieko. Door jou werd naar het werk gaan een feestje. Ik hoop dat we dit feestje nog heel lang samen kunnen vieren.

Op naar een mooie toekomst!

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About the author

Rozemarijn van der Ploeg was born on August 1, 1988 in Nijmegen, the Netherlands. She started her undergraduate studies in Sociology in 2006 at the Radboud University Nijmegen. During her undergraduate studies, she was an intern at the Verwey-Jonker Instituut in Utrecht. After graduating in Sociology (2009, cum laude), she enrolled in the Research Master's program in Social and Cultural Science at the Radboud University Nijmegen. She wrote her Master's thesis on ethnic differences in educational performances during an internship at The Netherlands Institute for Social Research (SCP) in The Hague and graduated in August 2011 (cum laude). She was appointed as PhD candidate at the ICS graduate school in Groningen. As part of her PhD project she spent two months at the University of Turku in Finland to work with Christina Salmivalli. As of October 2015, she is employed as postdoctoral researcher and lecturer at the Department of Sociology at the University of Groningen.