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Strengthening teachers in their role to identify and address bullying among students in elementary schools

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CHAPTER 1

General introduction

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INTRODUCTION

In the last decade, teachers have been more and more involved in bullying prevention in schools in the Netherlands. Since 2015, bullying prevention has been formally defined in the School Safety Act (Ministry of Education, 2016), which obliges schools to ensure a safe school climate and prevent bullying. Teachers, therefore, play an important role in identifying and addressing bullying at an early stage. However, teachers do not always feel able to adequately identify and deal with bullying in their classes and school. This thesis investigates how elementary school teachers can be strengthened in identifying and addressing bullying and the effects on students' bullying behavior. Central questions are whether antibullying programs affect teachers' competences to deal with bullying, which bullying situations they find difficult, which strategies they use to deal with them, and the effects of the revised PRIMA antibullying program on both the teacher competences and, ultimately, the bullying behavior of students.

SCHOOL BULLYING – A SERIOUS AND GROWING CONCERN IN POLICY AND AN URGENT CALL FOR ACTION IN ELEMENTARY SCHOOLS

Bullying is a common problem in elementary school. Both practitioners and policymakers consider bullying a serious problem that requires effective action from novice and experienced teachers and stresses the importance of effective antibullying interventions. The Ministry of Education has been undertaken initiatives to ensure that all schools have an (effective) antibullying policy (Dekker, 2014). This initiative led to the School Safety Act, in which schools are committed to counter bullying and improve and enhance a socially safe environment at school (Ministry of Education, 2016). This law requires teachers' specific competencies: they must be able to identify bullying behavior at an early stage and then intervene adequately.

   In 2015, around the start of this thesis, the field of education indicated that teachers do not feel well equipped to deal with bullying behavior and need new applied knowledge to expand their repertoire to reduce and prevent bullying effectively. For example, the Plan of Action against Bullying (Dekker & Dullaert, 2013) stated that 'schools do not have a good idea of what is effective against bullying. Teachers cannot always identify and act effectively, and parents and students sometimes do not know where to turn with bullying problems. This finding corresponds with outcomes of studies in countries like Spain and the USA, where teachers indicate that they do not feel well prepared to deal with bullying (Bauman & Hurley, 2008; Benitez et al., 2009) and would like additional training (Bauman & Hurley, 2008; Bradshaw et al., 2012). Dutch school counsels also indicated that 'teachers must be better equipped to prevent, identify, and handle

bullying' (van Helvoirt & Smeets, 2014), and emphasized the importance 'of adopting a preventive, school-wide and integrated approach to bullying and of examining the effectiveness of antibullying programs that foster such an approach'.

In 2015, an independent national committee of experts concluded that ten antibullying programs in the Netherlands were promising in reducing bullying, including the PRIMA antibullying program (Wienke et al., 2015). In the Netherlands, PRIMA is one of the school-wide programs, together with the KiVa program (Salmivalli et al., 2011), specifically aimed at bullying prevention and reduction. Both programs have originated in Scandinavia: the PRIMA program is based on the Swedish Olweus Bullying Prevention Program (Limber, 2011; Olweus, 1993), and the original KiVa program is developed in Finland (Salmivalli et al., 2011). PRIMA consists of separate components, allowing schools to choose only the components that best fit their specific situation and needs. This modular setup fits well with the educational practice's need to independently apply "tailor-made" antibullying activities (PO-Raad, 2014 However, schools have indicated to the developer of PRIMA that the program needs some adjustments to be more in line with professionals' practical needs in education.

Catering to the need for further professionalization in preventing, identifying, and addressing bullying, a Raak-Pro application was submitted by the Centre for Applied Research in Education of the Amsterdam University of Applied Sciences and approved (Slotman, 2015). The current thesis was part of this research project. The Amsterdam University of Applied Sciences conducted the project within a consortium with VeiligheidNL, the PRIMA antibullying program developer and owner, several elementary school boards in Amsterdam, TNO, and the University of Amsterdam.

A WIDER PERSPECTIVE ON BULLYING

Bullying is defined as systematic, intentional aggressive behavior against a victim who cannot easily defend him or herself (Olweus, 1993, 2013). Although prevalence rates of bullying vary, as there are differences between studies in definitions, study design, and instruments to measure bullying, the prevalence of bullying increases during elementary school age (Hymel & Swearer, 2015). A national survey of 1,588 elementary school pupils in the upper grades of primary education shows that one in ten children is being bullied regularly (Nelen et al., 2018). These children report having been subjected to bullying at least once a month, and more than three percent report being bullied weekly. At the time of the start of this thesis, the percentage of children being regularly bullied was around 14% (Nelen et al., 2018). This percentage is lower than the average of 23% of children who reported being bullied regularly across the OECD countries (OECD, 2019). The prevalence rates are highest in upper elementary and lower secondary education

(Craig et al., 2009; Nelen et al., 2018), but bullying starts in the early school years (Jansen et al., 2012). It is therefore important to intervene early on in the case of bullying.

Bullying is a major problem for students related to many health problems. Students who are bullied are more likely to develop health problems such as depression, anxiety problems, and psychosomatic complaints (Fekkes et al., 2005; Overbeek et al., 2010; Reijntjes et al., 2010). Bullying can also reduce school performance and dropouts (Goossens & Vermande, 2012). Students in the class who are not directly involved in bullying can also experience negative consequences of bullying; they feel less safe and can be afraid to become the next victim (Nishina & Juvonen, 2005). It appears that students who bully others are more likely to show delinquent or anti-social behavior later in life (Dake, Price, & Telljohann, 2003, as cited in Baar, 2012). These results show that bullying is a severe problem that needs intervention.

Bullying is not only something that happens between the bully and the victim. Current scientific insights show that bullying is a group process in which all students in the class play a role in the bullying situation's persistence. In addition to the bullies and victims, there are also other roles in the classroom. Students can be involved as assistants, reinforcers, defenders, and outsiders (Huitsing et al., 2012; Salmivalli et al., 1996). From that point of view, bullying prevention and intervention should focus on bullies and victims and should also address the role of assistants, reinforcers, defenders, and outsiders. These other students can, to a large extent, determine the norm of bullying in the group. Assistants and reinforcers directly support the bullies, while outsiders' non-intervention can also be a form of approval. Therefore, an important part of an antibullying policy is to make teachers and students stand up against bullying and support victims. Such a policy contributes to the reduction of rewards for bullies, like a higher social status in the group, which reduces their motivation to bully others (Polanin et al., 2012).

In addition to the roles that children may have in the classroom, there are places and adults outside the classroom that influence bullying behavior, such as the playground, parents, caregivers, and school staff (Hong & Espelage, 2012). Therefore, it is important to prevent and address bullying behavior at different levels: at the individual level, as well as at the classroom and school level, and together with parents.

SCHOOL-BASED INTERVENTIONS TO REDUCE SCHOOL BULLYING: IN SEARCH OF EVIDENCE

Several antibullying programs have been developed internationally and nationally, including Olweus' internationally widely used program (Olweus, 1993), which has been translated into the PRIMA program for the Dutch context. During this research project, a

study in the Netherlands on the effectiveness of different available antibullying programs indicated that PRIMA was one of the three effective programs in reducing bullying and victimization (Orobio de Castro et al., 2018). International meta-analytical research also revealed that school-based antibullying programs could be effective in reducing bullying behavior and victimization, with decline rates between 15-20% (Gaffney et al., 2019; Ttofi & Farrington, 2011). Antibullying programs also have been related to positive effects on emotional skills (e.g., self-efficacy, self-esteem) and interpersonal skills (e.g., problem-solving, social skills), and to declines in internalizing (e.g., depression, anxiety) and externalizing problem behavior (e.g., aggression, attention problems) (de Mooij et al., 2020). These studies show that antibullying programs are important instruments to support teachers and school principals to reduce bullying in their schools.

Many of these programs provide a school-wide focus, in which all students and staff are targeted to enhance a safe school environment. Ttofi and Farrington's meta-analysis (2011) is the first and influential meta-analysis of the effects of programs on bullying in the classroom and demonstrated that programs containing a school-wide approach were significantly related to lower bullying rates. School-wide programs usually consist of a combination of universal and selective program components (Ansary et al., 2015). Universal components often include preventive measures to enhance a positive school environment (for example, posters for the school or supervision at the playground), providing antibullying student lessons, teacher and staff coordination and implementation training, and systematic monitoring of the results. Selective or indicated components often contain measures to address bullying incidents, such as teacher and staff training to address bullying and bullying-related guidelines or policies. In studies investigating these programs' effectiveness, these components are often analyzed together, making it unclear which components contribute to the effects found (Menesi & Salmivalli, 2017). Ttofi and Farrington's meta-analysis (2011) showed correlational evidence for specific program components' effectiveness, such as disciplinary methods for bullies, teacher training, and parents' meetings. Although these correlative findings suggest that some specific program components may mediate the positive results of school-wide bullying programs, there is still a lack of causal evidence from experimental research for these individual components' effectiveness.

This meta-analysis also revealed that long-lasting and intensive programs were related to positive program effects (Ttofi & Farrington, 2011), indicating that schools must implement such programs on a structural basis. Teachers play a crucial role in implementing most components of school-wide antibullying programs (Kallestad & Olweus, 2003), especially when they implement student lessons related to bullying behavior. Student lessons are a central component because teachers address bullying in the classroom with all students, and students are actively engaged in classroom discussions and strategies to reduce bullying together. However, day-to-day practice is delicate. Several studies

have shown that programs' implementation is often weak in regular practice (Ansary et al., 2015; Orobio de Castro et al., 2018). Possible causes for suboptimal program implementation need to be investigated. Some studies suggest that individual and contextual factors play a role, such as teachers' self-efficacy to implement a program, the classroom environment, or factors such as workload and school staff changes (Domitrovich et al., 2008; Orobio de Castro et al., 2018). These findings raise the question of which factors at teacher, class, and school-level influence the implementation of individual program components by teachers and how the level of implementation of various components affects bullying and victimization at the student level.

THE IMPORTANT ROLE OF TEACHERS IN BULLYING PREVENTION

Teachers play an important role in preventing bullying. As educators and socialization agents at school, teachers are critical to promote pro-social relationships between students and prevent negative interactions (Yoon & Bauman, 2014). Teachers are often nearby when bullying occurs, and they are often the first adults where students can report bullying behavior (Wachs et al., 2019).

However, bullying often goes unnoticed because students are afraid to report bullying (Burger et al., 2015; Fekkes et al., 2005; Newman & Murray, 2005) and because bullying behavior often happens out of the teachers' sight (Demaray et al., 2013; Marshall, 2012). A recent study among 1,996 German students aged between 12 and 15 showed that in 28% of recalled bullying situations, teachers did not find out about the bullying and showed limited strategies to find out about it (for example; observing the bullying, and ignoring and dismissing the bullying) (Wachs et al., 2019). Similar findings were obtained by Oldenburg et al. (2016) among Dutch elementary school teachers in an explorative study, where most victimized students reported not having informed their teacher about the bullying, and teachers did not give victimization nominations to self-reported victims. These findings suggest that teachers overlook many bullying situations.

If teachers ignore or dismiss bullying, students may infer that bullying is acceptable, and students can become less inclined to report bullying behavior (Burger et al., 2015; Wachs et al., 2019). Lack of teacher intervention is related to higher reported bullying levels in the school (Hektner & Swenson, 2012; Marachi et al., 2007). Conversely, teacher intervention has been associated with positive outcomes in previous research. If teachers intervene in bullying situations, students are less likely to justify bullying (Campaert et al., 2017), and lower levels of bullying in the classroom have been found in classes where students perceived their teachers as efficacious to handle bullying (Crothers et al., 2006; Goldweber et al., 2013; Veenstra et al., 2014; Waasdorp et al.,

2011). These studies show that the teacher's behavior reduces the bullying behavior of children in the classroom.

Recent studies have revealed some teacher variables which determine whether a teacher intervenes or not in case of bullying. For example, teachers who see bullying as a serious matter that needs to be stopped are more likely to intervene (Bauman & Del Rio, 2006; Kochender-Ladd & Pelletier, 2008), while teachers who see bullying as normal behavior have been shown to intervene less likely (Hektner & Swenson, 2012). Also, teachers who feel empathy for the victims and teachers who consider they can obtain any reductions in bullying are more likely to intervene in bullying situations (Collier et al., 2015; Dedoudis-Wallace et al., 2014; Yoon & Kerber. 2003; Williford & Depaolis, 2016). Moreover, teachers are unlikely to intervene if they believe that the behavior is not bullying (Blain-Arcaro et al., 2012), as is sometimes the case with relational bullying (Pšunder, 2010). There is also evidence that teachers do not feel efficacious in handling bullying situations (Bradshaw et al., 2013; Bauman & Hurley, 2008; Benitez et al., 2009; Oldenburg et al., 2016). A recent meta-analysis that examined the relationship between teachers' self-efficacy and their responses showed that teachers' self-efficacy seems to be connected to the likelihood to intervene in bullying situations and to the number of intervention strategies they will use, but not to which specific intervention strategies they will employ (Fischer et al., 2020).

At the onset of this study, there was little research on teacher responses in bullying situations. Some studies indicated that some teachers choose strategies that are not likely to be effective, such as advising victims to handle the bullying on their own (assertiveness) or to avoid the bully (avoidance) without further assistance or monitoring (Troop-Gordon & Ladd, 2015). Also, teachers did not seem to know which strategies they should use to prevent and reduce bullying (Hektner & Swenson, 2012; Marshall, 2012), and especially novice teachers do not feel well prepared to reduce bullying effectively (Begotti et al., 2018; Lester et al., 2018; Macaulay et al., 2019). These studies suggest that teachers could use help in preventing and addressing bullying behavior. However, little is known about what teachers themselves experience as difficult bullying situations to prevent and address. In addition, antibullying programs have several components that can potentially support teachers in preventing and counteracting bullying. However, it is unknown to what extent teachers are implementing these different components and whether they are strengthened in addressing bullying behavior by using them. Also, these programs are primarily aimed at preventing and addressing bullying at the level of children. At the same time, they also have the potential to strengthen, as a kind of in-service training, teachers' strategies for addressing bullying and the determinants needed to intervene (e.g., attitude, self-efficacy). As schools have indicated to the developer of PRIMA that the program needs adjustments to be more in line with the practical needs of professionals in education, this program is central to

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this research project. This research project has been conducted based on these gaps and the need for renewal of the PRIMA program. In this thesis, we aim to gain insight into teachers' experiences with difficult bullying situations and the impact of antibullying programs, specifically the renewed PRIMA program, on teachers' intervention behavior and, eventually, students' peer victimization and bullying behavior. These insights can then serve as input for developing or adapting antibullying programs that better meet teachers' needs.

THE FURTHER DEVELOPMENT AND EVALUATION OF THE PRIMA ANTIBULLYING PROGRAM

The current thesis is based on a comprehensive study that was undertaken to support the development and evaluation of a renewed version of the PRIMA program during three phases. The program's further development was aimed at better alignment with teachers' needs and underpinning the program based on the most recent scientific insights about bullying.

The PRIMA program is an integral and school-wide antibullying approach aimed at preventing and reducing bullying behavior and based initially on the Bullying Prevention Program (Olweus, 1993), including the following components on three levels:

· At school level: developing a 'Core Team Bullying' of school professionals who coordinate all antibullying activities in the school, developing an antibullying policy, providing e-learning for all school professionals, organizing parent meetings to inform them about the antibullying policy, organizing school-wide meetings with all students, and conducting questionnaires among teachers and parents about bullying and antibullying activities.

· At group level: conducting the Olweus Bully/Victim Questionnaire (OBVQ, Olweus, 1996) translated into Dutch, making agreements about bullying in the group, and providing student lessons about bullying in grades 5 and 6.

· At student level: measures to stop bullying, including a method to investigate bullying actively, and guidelines to talk with students directly involved in bullying situations.

Several years ago, teachers and school principals using the PRIMA program indicated the need for a more comprehensive program, including student lessons for all grades in elementary schools, a more preventive approach to the curriculum, more user-friendly tools to identify and address bullying, and an updated version of the e-learning module (Hoekstra et al., 2007; Kreutzer, 2013). These concerns led to this further development and evaluation of the PRIMA program in a project with three phases (see below).

First phase: Mapping needs of teachers and summarizing current scientific insights

In the first phase, in 2015-2016, we interviewed 43 teachers and seven school principals or coordinators to identify their needs regarding antibullying measures more precisely. Semi-structured interview guidelines were used to identify teachers' experiences with difficult bullying situations (chapter 2), the need for protocols for bullying situations, and experiences with one of the PRIMA program's core components (screening method, e-learning, training, or student lessons).

We also conducted a systematic literature review to substantiate each core component scientifically with international peer-reviewed studies on effective approaches and interventions on bullying behavior in elementary schools. These interviews and literature study resulted in recommendations for further developing and expanding the PRIMA program (van Verseveld & Fekkes, 2016).

Second phase: Developing and extending the PRIMA program

The results of both the literature review and the qualitative study have led to several recommendations for further developing the various PRIMA program components. The role of the research team was to make recommendations based on the knowledge gained during phase 1. VeiligheidNL subsequently carried out the development and extension of the program in the year 2016-2017. Below we discuss the most important recommendations by the research team that has been followed up by VeiligheidNL.

1) *Screening of bullying problems at school.* From both national and international studies, it appears that many teachers have no insight into the bullying incidents that take place at their school (Fekkes et al., 2005; Oldenburg et al., 2016). These findings emphasize the importance of a suitable screening instrument to gain insight into school bullying. The meta-analysis of Farrington and Ttofi (2009) showed that screening methods to identify bullying contribute to reducing bullying behavior. Therefore, a screening method can contribute to the need for schools to identify bullying at their school.

   The screening method of PRIMA was based on the validated OBVQ (Olweus, 1996). Teachers indicated that they would like to use a shorter questionnaire since many questions were not applicable to most students. It was recommended to shorten the questionnaire using the general question about victimization from the revised QBVQ (Olweus, 1996) and by combining bullying questions in different situations into one question with multiple answers. It was also recommended to apply a multi-informant approach to measure bullying and victimization (Cornell et al., 2006; Crothers & Kolbert, 2004; Frey, 2005). Based on the Participant Roles Questionnaire (Kärnä et al., 2013; Salmivalli et al., 1996), two items were added to measure peer-reported bullying and victimization. Also, other participant roles in

bullying situations were added to the questionnaire, such as reinforcer, defender, and outsider. Teachers also reported that they would like the screening method to be non-anonymized. Teachers indicated that they could not intervene well because they had no idea which children were involved in the reported bullying situations. A study by Chan and colleagues (2005) among 562 elementary school students (grades 1-8) showed no significant difference in students' reporting behavior on the incidence of either bullying or victimization, regardless of whether they were required to identify themselves. Therefore, the instrument is made non-anonymous while emphasizing that the confidentiality of the results is essential. A sociogram was also integrated measuring bullying-related variables, such as social status, friendships, and pro-social behavior. In this way, teachers get a clearer picture of the peer relationships in the classroom that form the context of bullying behavior.

2) *Protocols for bullying situations.* Research on bullying shows that many students are reluctant to tell their teacher that they are being bullied and that when teachers do know about it and try to stop it, the bullying problem remains the same or even worsens (Fekkes et al., 2005; Newman & Murray, 2005). Not all teachers have effective strategies to stop bullying (Wachs et al., 2019). Also, teachers do not always intervene when they notice bullying (Atlas & Pepler, 1998; Wachs et al., 2019). Furthermore, teachers only intervene in a bullying situation when they estimate that they could influence it (van Hattum, 1997). Protocols with guidelines to solve the bullying situation could strengthen teachers' beliefs that they can influence the bullying situations and their level of intervening.

   Teachers indicated difficulties in specific bullying situations. For the renewed version of PRIMA, six protocols for specific bullying situations were developed, such as cyberbullying, lonely and victimized students, and relational bullying. Also, twelve protocols were developed and linked to the screening method's results, involving both protocols on the class level (e.g., group support method) and protocols on the individual level (e.g., shared concern method).

3) *E-learning training teachers and school management.* As teachers overlook many bullying situations, it is vital to make teachers more aware of bullying and how to identify bullying. In addition, teachers should be trained in how to deal with bullying situations. Teachers who had attended training in dealing with bullying felt more competent to intervene in bullying situations effectively than teachers who did not participate in such a training activity (Byers et al., 2011; van Hattum, 1997). Also, it is important to focus training on strengthening other teacher variables, such as teachers' attitudes (e.g., perceived seriousness of bullying and empathy for victims) (Collier et al., 2015; Dedoudis-Wallace et al., 2014; Yoon & Kerber. 2003; Williford & Depaolis, 2016).

Teachers indicated that the previous version of the e-learning contained information that they already knew and would like to learn new information about methods to reduce bullying. Based on the recommendations, the e-learning was extended with scientific insights on the group process of bullying, the effects of creating antibullying group norms, and the teachers' role (e.g., modeling and reinforcing positive pro-social behavior). Furthermore, the e-learning provided teachers with methods to identify and deal with bullying (e.g., methods of the PRIMA program) and to practice these skills with fictional cases of bullying.

4) *Face-to-face staff training.* Research shows that training and guidance can positively impact a program's effectiveness (Vernberg & Gamm, 2003). During face-to-face training, teachers and school leaders can be further strengthened in their attitudes, self-efficacy, and knowledge of identifying and handling bullying situations (Collier et al., 2015; Dedoudis-Wallace et al., 2014; Yoon & Kerber. 2003; Williford & Depaolis, 2016). The training is also an important tool to embed PRIMA in the school's safety policy by customizing it to the school's needs during the training.

After e-learning, customized training is provided by a certified PRIMA coach at school. Based on the recommendations, the certified PRIMA coach reflects with the school professionals on the themes discussed in the e-learning and examines whether any factors may hinder the implementation of the different program components. Teachers' knowledge and skills are deepened, and teachers' current bullying cases in the class are considered. In addition to giving face-to-face training, the certified PRIMA coach also guides the school coordinator to implement and coordinate the PRIMA program.

5) *Student lesson for each grade.* The group's process of bullying, which plays an important role in bullying conflicts (Huijtsing et al., 2012), usually starts in grade 3. Therefore, it is crucial to start the student lessons about bullying in grade 3 so that students become aware of the roles that they can take on in the bullying process. Previous studies also indicate that bullying develops early (3-6 yrs.), and early intervention is needed (Repo, 2015). This finding provides scientific support for teachers' desire to start student lessons about bullying in Kindergarten and create a continuous learning line.

Based on new scientific insights, the student lessons focus on three principles: 1) making students aware of the group process of bullying and its consequences; 2) creating antibullying group norms; 3) promoting pro-social skills. The lessons are interactive, and various work forms are used, including video clips, physical exercises, role-playing, and puzzles. Students from grade 2 onwards work with a workbook to make group-, or individual exercises. In line with the teachers' need for ready-made lessons due to lack of time, the teacher receives a manual of the 'ready-to-use' lessons. Specific student lessons are developed for each group, taking into account the different development stages of students.

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Third phase: Conducting a randomized controlled trial to evaluate PRIMA

In the third phase, in the school year 2017-2018, we conducted a cluster randomized controlled trial to investigate the renewed PRIMA program's effectiveness on students and teachers in grades 3-6. More specifically, we examined the effects of implementing multiple PRIMA components on teachers' intervention behavior (chapter 4) and students' bullying behavior, and peer victimization (chapter 5). In a preventive approach, student lessons are a key component in which both students and teachers learn about bullying behavior. However, a more teacher-centered approach is also possible, in which the focus is on teacher support in identifying and addressing bullying.

This trial was set up with two experimental research groups and a control group to investigate whether the student curriculum has added value to the rest of the PRIMA program. In the first experimental group, teachers receive all PRIMA core components, including the student lessons (hereafter: PRIMA-L$^+$ schools). In the second experimental group, teachers receive all components except the lesson series (hereafter: PRIMA-L$^-$ schools). The control group carries out their 'care as usual' policy and included schools that did not use a school-wide antibullying program. This design makes it possible to investigate the student lessons' added value, strengthening both teachers and students. In addition, the extent to which teachers implemented each component has been examined, so that insight can be gained into the effect of stacking program components. This information is vital for the development of antibullying programs and training in school-based antibullying programs. Especially novice teachers can benefit from guidance in handling bullying situations because these kinds of practice-oriented skills are often only trained after several years of teaching.

RESEARCH QUESTIONS

The current thesis is based on studies that are part of the comprehensive study on further developing and evaluating the PRIMA program, as described above. This thesis aims to deepen our understanding of teachers' needs in bullying prevention and improve their competencies. The research provides teachers and school management with theoretically underpinned and practice-based tools to reduce bullying behavior in elementary school students through a school-wide approach. The central research question is: How can elementary education teachers be strengthened in their role to identify and reduce bullying behavior? In this thesis, we aim to answer the following questions:

1. To what extent do antibullying programs affect teachers' interventions in bullying situations?
   a. What are the effects of antibullying programs on teachers' attitudes, subjective norms, self-efficacy, and knowledge to stop bullying?
   b. What are the effects of antibullying programs on teacher intervention to stop bullying?
2. What are difficult bullying situations for teachers, and how do they respond to these situations?
   a. What are teachers' views concerning bullying behavior, and what do they consider as difficult bullying situations?
   b. What strategies do teachers report to deal with these situations?
   c. What are the barriers experienced by teachers in identifying and addressing bullying?
3. What teacher- and context variables are related to teacher intervention, and what are the effects of a school-wide antibullying program on teachers' competencies to intervene in bullying behavior?
   a. What is the relation between teachers' attitudes and self-efficacy, and their likelihood to intervene and intervention behavior?
   b. What are the PRIMA antibullying program's effects on teachers' determinants of intervention (perceived seriousness, empathy, and self-efficacy), likelihood to intervene, and their intervention behavior?
4. What are the effects of implementing multiple components in a school-wide antibullying program on victimization and bullying among 3-5th grade students (in Dutch: groep 5 t/m 8)?
   a. What are the effects of implementing only teacher-focused components of PRIMA versus teacher- and student-focused components?
   b. What are the effects of stacking multiple universal components of PRIMA?

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OUTLINE OF THE DISSERTATION

This thesis contains six chapters. Following this introduction, chapters 2 reports a meta-analytical review of experimental studies, and the chapters 3, 4, and 5 each report an empirical study. Chapter 6 involves the integration of the main findings of the different studies into a general discussion.

Chapter 2 (research question 1) presents a meta-analysis on the effectiveness of antibullying programs on teachers' intervention behavior in bullying. The objectives of this meta-analytical review were: 1) to describe whether and how antibullying program focus on the role of the teachers and whether the program consists of a training component for teachers; 2) to examine the effects of antibullying programs on teachers' determinants of teacher intervention (i.e., attitude, social norms, and self-efficacy), teachers' willingness to intervene, and teachers' frequency of intervening. The content of the programs and training component for teachers of 17 peer-reviewed papers were systematically coded. Further, the relation between these variables and program outcomes for 13 studies was examined using a robust variation analysis, resulting in effect sizes of antibullying programs on the different outcome variables.

Chapter 3 (research question 2) reports a qualitative study exploring which bullying situations teachers experience as difficult, how they responded to these situations, and what barriers they encountered. This study's objective was to provide an innovative insight into difficult bullying situations' main characteristics from the teacher's perspective. Insights from this exploratory research can then serve as input for developing or adapting antibullying programs that better meet teachers' needs. These topics were investigated by conducting individual in-depth interviews with 38 elementary school teachers.

Chapter 4 (research question 3) reports on an experimental study that evaluated predictors of teacher intervention and the effectiveness of the PRIMA program on teacher intervention among 3-5 grade schoolteachers. The objectives of the study were: 1) to investigates the relationship between behavioral determinants and the self-reported strategies used by teachers in the classroom (universally) and individually (selectively); and 2) the effects of the use of different components of the PRIMA approach on teachers' determinants of teacher intervention (i.e., attitude, social norms, and self-efficacy), teachers' willingness to intervene, and teachers' frequency of intervening. Furthermore, this study explored the relationship between teacher, class, and school variables and teachers' use of program components. The relations and effects were investigated using logistic regression models.

Chapter 5 (research question 4) involves a cluster randomized controlled trial to evaluate the effectiveness of implementing different PRIMA program components on bullying behavior and victimization among students from 3-5th grade. It was examined

whether PRIMA influenced students' self- and peer-reported bullying and victimization by comparing two experimental conditions (a school-wide program with student lessons and a school-wide program without these lessons) to a control group and investigating the effect of stacking of different program components. This study further explored the effects of the PRIMA program on students' participant roles in bullying (i.e., reinforcer, outsider, and defender).

Chapter 6 integrates and discusses the four studies' main findings, followed by suggestions for future research and implications for educational practitioners and program developers.

The four studies included in this thesis have been written as stand-alone articles. Therefore, there is some overlap in the introductory sections. The studies reported in chapters 2, 3, and 5 have been published in peer-reviewed international journals. The study reported in chapter 4 has been submitted.