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

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CHAPTER 6

General discussion
AIMS OF THIS DISSERTATION

Although the importance of teachers’ role in bullying prevention has been acknowledged in previous research, limited attention has been paid to providing teachers with practical tools to identify and address bullying behavior in the school. Therefore, we investigated the extent to which antibullying programs affect teachers’ competencies and which bullying situations are difficult for teachers. These results can potentially serve as input for further professional development for teachers. In addition, we tested to what extent the renewed PRIMA antibullying program affects teachers’ attitudes, self-efficacy, and intervention behavior and whether this program reduces bullying and victimization among 3-5th elementary school students.

SUMMARY OF THE MAIN FINDINGS

Chapter 2 showed that antibullying programs can strengthen teachers’ competencies to address bullying. There was a small to moderate positive effect on determinants of teacher intervention (i.e., attitudes, subjective norms, knowledge, self-efficacy) \(g = 0.531\). The most considerable effects were found for teachers’ knowledge on intervention methods and teachers’ self-efficacy to intervene. There was also a small effect on teachers’ responsiveness to bullying behavior in schools (i.e., frequency of intervening) \(g = 0.390\). Although the small number of studies included in the meta-analysis implies that these findings need to be interpreted with caution, the meta-analytic results suggest that antibullying programs can affect teachers’ competencies to address bullying and increase teachers’ level of intervention in schools. Therefore, we concluded that the effectiveness of antibullying programs could increase when components are included to strengthen teachers’ attitudes, subjective norms, self-efficacy, knowledge, and skills to reduce school bullying.

Chapter 3 exposed teachers’ experiences with difficult bullying situations in four areas: 1) identifying covert forms of bullying (e.g., digital bullying), 2) estimating the seriousness of a bullying situation (e.g., conflicting stories), 3) addressing persistent bullying cases (e.g., students with multiple problems), and 4) finding solutions with parents of students involved in bullying situations (e.g., solving disagreements). Overall, teachers with less working experience (less than ten years) experienced more difficulties than experienced colleagues (> 10 years). Teachers indicated to use a variety of strategies in their efforts to address these situations: at the individual student level (e.g., supporting victimized students), at the class level (e.g., discussing an incident in the classroom), at the school level (e.g., involving colleagues), and at the parent level (e.g., talking about the incident). Specific barriers at each of these four levels were related to a low level of
self-efficacy, a lack of knowledge about what bullying constitutes, a lack of time and skills to deal with students involved in persistent bullying situations, and difficulty with dealing with parents who disagreed with an action of the teacher in a bullying situation. A few teachers also seemed to have a normative view on bullying and victimization. Based on these findings, we concluded that teachers might profit from a systematic screening tool to detect bullying at an early stage and protocols to deal with students (at risk of being) involved in bullying situations. In addition, we concluded that teachers, and especially novice teachers, need further professional development which should address the characteristics of bullying, the group process that is involved, the negative consequences of bullying, and guidelines to deal with specific bullying situations (e.g., digital bullying) and intervention strategies (e.g., conversation techniques with parents in sometimes difficult conversations).

The results from chapter 4 confirmed earlier studies that teachers who perceive bullying as a serious problem, have empathy for victimized students, and feel confident to intervene, are also more likely to intervene in bullying situations. Furthermore, we found that teachers’ perceived seriousness and self-efficacy also predicted their actual intervention behavior. Teachers who perceived bullying as a serious issue and teachers with high self-efficacy levels were related to using more preventive intervention strategies targeted at all students in the classroom (e.g., promoting a safe social environment). We found that the school’s size and environment were related to teachers’ curative intervention strategies, mostly aimed at specific students (e.g., talking with victimized students). Teachers in large schools and urban schools more often used these types of intervention strategies than teachers in small schools and more rural schools. This suggests that preventive strategies are more likely to be related to teacher variables, whereas curative strategies are more directly related to contextual variables. More research is needed to explore possible explanations for the results from our experimental study.

In contrast with our findings in chapter 2, teacher outcomes related to bullying were not increased by the PRIMA program. A possible explanation for this deviant finding is that teachers had relatively high levels of perceived seriousness, empathy, and self-efficacy at the pretest measurement, indicating that the use of vignettes did not capture enough variety in teachers’ determinants. Another possible explanation is that a more intensive teacher component is needed and that the current PRIMA program’s training component should be intensified. A final explanation could be that the teacher level effects may have been absent because the program implementation level varied widely. Our results show that almost half of the teachers (45%) did not implement any of the universal components. This result shows that developing a program adapted to the teachers’ needs is not enough to empower teachers to address and prevent bullying. We found significant variation in the extent to which teachers implemented PRIMA, and this variation was related to teachers’ work experience, classroom victimization,
and the school’s urban context. Based on the findings of both chapters 2 and 4, we strongly suggest that antibullying programs include an intensive teacher component to reinforce teachers’ attitudes, subjective norms, self-efficacy, knowledge, and skills towards reducing bullying. Furthermore, sensitive and validated measures are required to investigate teachers’ variables related to intervening in bullying situations. More research is needed into the factors that support teachers in their intervention strategies and into the variables that influence teachers’ program implementation.

Chapter 5 demonstrated the effects of the PRIMA program on students. The program significantly reduced peer-reported victimization and reinforcing behavior for the experimental group with student lessons. This result highlights the importance of supporting both students and teachers to decrease bullying in schools. We also found that implementing multiple program components was related to more substantial program effects (i.e., a dose-response relationship). Therefore, we concluded that schools could benefit from evidence-based antibullying programs when implemented adequately. We found no program effects on self-reported victimization or bullying from either intervention group, indicating that we found partial experimental evidence for the beneficial effects of combining student lessons and teacher training in antibullying programs. Also, our results suggest that student lessons stimulate the implementation of other program components. We also concluded that more attention is needed to raise awareness among school professionals to select and implement these programs adequately and that schools should be facilitated with guidance and resources in this area.

GENERAL DISCUSSION OF THE FINDINGS

Teacher intervention and intervention strategies
In this thesis, we used the theory of planned behavior as a theoretical framework to study teachers’ behavior in bullying situations. This theory proposes that planned human behavior is directed by intention and that intentions are influenced by attitudes toward the behavior, perceived norms, and perceived behavioral control or self-efficacy (Ajzen, 2012). Our results indicate that teachers who view bullying as a serious problem, teachers who have higher levels of empathy for bullied students, and teachers who feel more confident to intervene are also more likely to intervene in bullying situations in the classroom practice. This finding supports earlier research that teacher determinants (perceived seriousness, empathy, and self-efficacy) are related to teachers’ willingness to intervene (Bauman & Del Rio, 2006; Bradshaw et al., 2007; Dedousis-Wallace et al., 2014). These concepts may be mutually reinforcing, with higher levels of self-efficacy leading to teachers’ intervening more often, and a subsequent positive experience may
enhance teachers’ self-efficacy (Fischer et al., 2020); hence, longitudinal studies of teachers are needed to assess the causal effects.

The current study results add to previous research that teachers’ perceived seriousness and self-efficacy are related to their actual intervention behavior in the classroom. This relationship was found for preventive teacher strategies that targeted all students in the classroom, such as promoting a safe social environment in the classroom and making bullying negotiable in the classroom. Similar strategies have shown long-term success in reducing bullying (Wachs et al., 2019). These interventions included supportive strategies aimed at all students in the class and cooperation with other school professionals and parents. We did not find a connection between teacher variables and curative intervention strategies to reduce existing bullying cases (e.g., taking action to stop bullying). However, we did find that two school characteristics were related to teachers’ curative intervention strategies to stop bullying: teachers in large schools and teachers in urban schools more often intervened in bullying cases than teachers in small schools and schools in rural areas.

This outcome raises the question of whether teachers in these types of schools encounter more bullying cases. We found a higher level of peer-reported victimization in urban schools, which is in line with previous findings in secondary schools, which have shown higher levels of peer victimization in ethnically heterogeneous classes (Vervoort et al., 2010). This finding may explain the higher level of teacher intervention in these classes from our study. As teachers in urban (primary) schools may experience more victimization in their classes, they consequently may experience a more vital need for universal, preventive tools. Regarding school size, the higher level of intervening cannot be explained by higher levels of bullying because we found lower levels of bullying in these types of schools. Therefore, a possible explanation may be that larger schools work with more protocols and are therefore more accustomed to curative intervention, which, in turn, leads to less bullying behavior. However, we could not find any evidence for this complex explanation, and the connection between contextual factors and teachers’ use of curative strategies needs to be further investigated.

**Strengthening teachers’ competencies through antibullying programs**

This thesis contributes to our current knowledge on how antibullying programs can be adjusted to better meet teachers’ needs. Previous studies showed that teachers feel ill-prepared to identify and address bullying when they start their careers as teachers (Begotti et al., 2018; Lester et al., 2018; Macaulay et al., 2019). This thesis confirms these findings from previous research (chapter 3). It demonstrates that antibullying programs can fill this gap and may serve as in-service professional development for teachers (chapter 2), acknowledging that adequate implementation is difficult (chapter 4) but is required to achieve positive effects at the student level (chapter 5).
Based on the findings in chapter 2 and 3, the PRIMA program was renewed with a multi-informant screening method to identify bullying and other participant roles in the class. A sociogram was integrated into the screening tool to measure important variables related to bullying behavior, such as social status, friendships, feelings of loneliness, and classroom climate. Furthermore, the programs' training components, the e-learning, and face-to-face training were revised to increase teachers' self-efficacy to intervene in bullying situations by practicing with fictional bullying cases. Additional information on the characteristics of bullying (e.g., imbalance of power), the group process of bullying, and underlying mechanisms (e.g., social status) was added to increase teachers' knowledge of bullying. Furthermore, to increase teachers' empathy towards victimized students and stimulate intervening, the e-learning and training sessions informed teachers about the negative consequences of bullying and presented PRIMA to teachers as an effective tool for preventing bullying. The student lessons pursue to prevent and address bullying together with students by focusing on the following three goals: (a) making students aware of the negative consequences of bullying and their role in bullying situations; (b) strengthening positive antibullying norms in the classroom and teaching students strategies to stand up against a bullying norm; and (c) increasing prosocial skills and promoting positive relations among students. Finally, protocols for difficult bullying situations were provided in which teachers receive step-by-step guidelines to follow. The student curriculum, e-learning module, face-to-face training, and the monitor report were considered universal components for all students. The protocols for specific bullying situations and the protocols following from the monitor results were considered selective components, focusing on students who are (at risk of being) involved in bullying.

Based on the renewed PRIMA program, it was expected that teachers could be strengthened in identifying and addressing bullying behavior by implementing the teacher- and student components of the PRIMA program. The meta-analytic outcomes described in chapter 2 indicated that antibullying programs can positively affect teachers' attitudes, self-efficacy, and intervention behavior. However, the experimental study described in chapter 4 showed no program effects on teachers' attitudes, self-efficacy, likelihood to intervene, and actual intervention behaviors, which was a surprising outcome.

A possible explanation for this finding at the teacher level is that most teachers already felt competent to deal with bullying, considering the relatively high scores on the pretest measurement from the experimental study (see chapter 4). This finding deviates from the findings that were reported in chapter 3 and previous research findings that teachers do not feel competent to handle bullying and want more support in addressing bullying behavior (e.g., Bradshaw et al., 2013; Marshall, 2012). Findings of a recent meta-analysis by Fischer et al. (2020) showed that most teachers generally
feel confident in managing bullying behavior in quantitative studies, while they report lower confidence levels in dealing with bullying behavior in qualitative research. It seems that teachers feel more motivated to report their insecurities in face-to-face interviews, where there is more room for detail. This explanation contradicts the findings from the meta-analysis in chapter 2, where (quasi-)experimental studies of antibullying programs with quantitative outcome measures showed increases unfavorable teacher outcomes. This raises the question of how to measure in the area of teacher intervention. Since, in our study, teachers scored relatively high on the vignette scales, this measurement method does not seem to measure enough variation in these variables. Larger teacher samples to increase statistical power or more sensitive measures focused on specific experienced difficult situations may be needed to measure teachers’ change. A promising approach uses a mixture of both qualitative and quantitative measures to investigate teacher variables, such as teachers’ self-efficacy (Fischer et al., 2020).

Another possible explanation is that the PRIMA program is a school-wide program with relatively modest teacher training. Perhaps a more robust and specific teacher component is needed to support teachers, particularly with difficult bullying situations. Although the findings of the meta-analyses described in chapter 2 should be interpreted with caution due to the small number of studies included, the most considerable effects found were associated with programs with a more specific theoretical framework (e.g., the social cognitive framework and social deficit model) and a more extensive teacher training. In contrast, smaller effects were found for school-wide programs. Although intensive training is desirable, our research indicates that implementing the PRIMA program takes a considerable amount of teachers’ time. One way to take this pressure away from in-service teachers is to incorporate the training component into pre-service teacher education.

Research has shown that some in-service programs are beneficial, but their implementation seems vulnerable. This calls for teacher education to pay more attention to addressing bullying in both preventive and curative ways to prepare future teachers. The recent plans of the Ministry of Education for a hybrid form of teacher education, with division for teaching young children and older children (Ministry of Education, 2020), possibly create room to add antibullying training into the curriculum. Since bullying behavior is particularly prevalent from grade 5 onward, it is plausible to add this theme to the teacher training curriculum for the elder children.

Besides, the PRIMA program may complement the current training sessions in which receiving information is the norm, and the degree to which the required skills are practiced is relatively low (Yoon & Bauman, 2014). Individual and tailored coaching is perhaps needed to promote more meaningful changes in how teachers manage bullying (Pas et al., 2014, as cited in Pas et al., 2019; Yoon & Bauman, 2014). Structural interprofessional collaboration between PRIMA-coaches and teachers may be needed.
to achieve this goal. One promising method, for example, is the recently evaluated Classroom Check-Up method, which is specifically designed to support teachers in identifying, addressing, and preventing bullying, using behavior change techniques from the psychological field, such as motivational interviewing, performance feedback, and goal setting (Pas et al., 2019). Research in social skill training showed that skill-building components (e.g., exercises aimed at improving interpersonal skills) yielded positive effects on children and adolescents’ interpersonal skills and emotional skills. This type of training may also be effective for teachers and for addressing bullying in education.

We found a wide variety in PRIMA’s program implementation (see chapters 4 and 5). Recent studies suggest a lack of feasibility of such programs in the current school systems. For example, Ossa et al. (2020) reported difficulties in recruiting schools for their study, and Orobio de Castro et al. (2018) reported a lack of interest in several promising antibullying programs despite various supporting policies. We also experienced difficulties in recruiting schools for our RCT-study. Only 4% of the schools that were assessed for eligibility ultimately participated in our study. Even though we adjusted the program to teachers’ needs and offered an expense fee for the time taken to participate in the study, it was still unlikely that schools participated. Other studies on the implementation of school-based programs show that various personal and more contextual factors play a vital role in whether the components are implemented, such as teachers’ perceived effectiveness of a program and more organizational factors, such as school administrative support for the program (Domitrovich et al., 2008; Durlak & DuPre, 2008; Leadbeater et al., 2015). In addition, a study of the implementation processes of the KiVa program suggested that a school-wide program requires a staff member who is in charge of the program coordination and who engages the whole school in implementing the program (Sainio et al., 2020). Although every school had a staff member who was appointed to coordinate the PRIMA program and supported colleagues to use the program, we did not investigate to what extent this staff member engaged other teachers and staff members to implement the different PRIMA components. The implementation study of Sainio and colleagues also suggested that many schools need support during the initial years to launch and maintain the implementation of the program and that ‘concrete tasks’, such as delivering student lessons and the use of vests during the recess, are important components to commit other school professionals to the program. Our findings confirmed the importance of continued support since the teachers in the intervention group that received the student lessons implemented significantly more components than teachers in the intervention group without student lessons. These components may thus be important predictors of the implementation of other parts of the program.
Reducing student victimization and bullying: Which program components are effective?

The effects of implementing the various components at the student level are highlighted in chapter 5. This study showed that the implementation of all universal components is essential to achieve student-level effects. We found effects on peer-reported victimization when all universal PRIMA components were implemented. Similar results were found for the effectiveness of the OBPP in Germany among middle school students (Ossa et al., 2020). These findings complement earlier findings that program implementation (e.g., dosage, fidelity, implementation quality) is an important indicator of the program’s effects on bullying and victimization (Ttofi & Farrington, 2011).

Our findings demonstrate the importance of student lessons in antibullying programs. In the RCT study of PRIMA (chapter 5), we found that including both student and teacher components is crucial for effects at the student level. This finding underlines the importance of targeting the whole group to prevent and reduce bullying and adds to the existing evidence that bullying is a group process (Salmivalli et al., 1996). In addition, reductions in peer-reported victimization were significant when all universal components had been implemented. These findings indicate the importance of a school-wide approach in antibullying programs, indicating that bullying is a complex phenomenon that needs to be addressed at multiple levels in the school (Hong & Espelage, 2012), including individual students, the classroom, the teacher, and school.

Although we did not find effects of PRIMA on the number of self-reported victims, our findings show that the number of self-reported victims declined in all conditions. A possible explanation for this result is a decrease in self-perceived victimization because of the recent implementation of antibullying guidelines for all schools in the Netherlands, assuming that this policy has affected children’s subjective perceptions. Another possible explanation is that peers in the classroom may be the first to observe a change in bullying behavior or reputations, whereas PRIMA may only result in delayed effects for victims’ subjective experience. Possibly, bullying behavior has to stop before victims’ experience improvement from their point of view. More experimental research into the different perspectives on victims’ self- and peer reports is needed to study this complex issue.

LIMITATIONS AND FUTURE DIRECTIONS

This study has, despite several strengths, also some important limitations. Below we address six issues that are related to the studies described in chapters 2 thru 5. The meta-analysis from this thesis included a small number of studies. Therefore, it was not possible to investigate moderating effects of variables that possibly influence teacher
outcomes, such as the included studies’ methodological quality. Teacher outcomes should be more often included in program evaluation studies so that these relations can be further investigated. It is also desirable if future evaluation studies would include more information on program implementation (e.g., dosage for each program component) and on possible predictors for program implementation (e.g., teachers’ perceived program effectiveness, teaching experience, motivation, and school context). In this way, future studies may increase our current insight into which program components are effective and for whom.

Our study could not find causal relations between individual determinants for teacher intervention, their willingness to intervene, and actual intervention behavior, possibly due to our short-period research design. More longitudinal research is needed to test the hypothesized sequence from teachers’ beliefs, norms, and self-efficacy that subsequently increase teachers’ willingness, leading to more intervening in bullying situations.

The difficult bullying situations, revealed in this thesis by conducting in-depth interviews with teachers, may not generalize across other elementary school teachers. We used a selective sample since teachers signed up for the interviews. This procedure may have resulted in a biased sample. Future research should evaluate whether various difficult situations are experienced by a broader population of teachers using quantitative measurements or a mixture of surveys and interviews.

Our quantitative study’s teacher variables were measured with newly constructed items customized to the objectives of the PRIMA program’s teacher-focused components. However, a valid and sensitive instrument is needed in future research. A growing body of research has examined teachers’ strategies to prevent and reduce bullying related to real-life experiences (see, for example, Pas et al., 2019; Wachs et al., 2019). Although our study showed that vignettes are a reliable way to measure teacher outcomes, these fictive cases do not necessarily reflect real-life experiences. Future research should focus on teachers’ self-efficacy regarding a variety of specific and difficult bullying situations, such as handling digital bullying, bullying outside their sight, bullying of students with multiple problems, or chronic victims. Furthermore, since there is little agreement between student and teacher reports on bullying and effective interventions, a measure is needed that shows more convergence between students and teachers in multiple-informant studies (Pas et al., 2019).

Another limitation is that implementation factors were only examined in a limited and exploratory manner in this thesis. More research is needed on the factors that may explain the varying PRIMA program implementation of the various components. We found possible evidence for relations between teacher experience, the extent to which they identify bullying behavior, and school factors such as school size and location, with the degree of implementation of different program components. Future research could further explore these variables and examine why these factors play a role in using
mixed-method design factors like the perceived program effectiveness, the role of a coordinator, and alignment with the school’s culture (Domitrovich et al., 2008; Sainio et al., 2020).

Finally, we could not examine whether teacher effects influenced effects at the student level. Teachers scored relatively high on the pretest measurements in our experimental study, and this so-called ceiling effect affected the power to analyze effects at the teacher level. More sensitive measurements are needed to investigate teachers’ intervention behavior to increase this variation (see, for example, the Handling Bullying Questionnaire (HBQ) developed by Bauman et al., 2008). In addition, this thesis showed that teachers only experience difficulties in particular bullying situations, and, therefore, these specific situations could be used to collect data on teachers’ self-efficacy and their intervention strategies. Other studies have provided preliminary evidence for teacher interventions’ positive effects on both students’ victimization and bullying behavior (Fischer et al., 2020; de Luca et al., 2019). The relationship between these two sides of the same coin should be given a prominent role in future evaluation research to fully understand the teacher’s role and how it contributes to preventing bullying.

Practical implications

This thesis shows that the multi-component PRIMA antibullying program effectively reduces peer-reported victimization and that it is important to target both students and teachers, implementing all universal components. Based on our findings, we argue that elementary schools can benefit from evidence-based antibullying programs if multiple components are indeed adequately used. Based on the finding that the program implementation varied widely, we argue that more attention is needed to increase awareness among school management and teachers to select and implement these programs adequately. Implementing a school-wide program requires support and time from all professionals in the school (Durlak & DuPre, 2008; Gaffney et al., 2019; Orobio de Castro et al., 2018), and school management and teachers need to be facilitated in resources and time to implement these programs appropriately. More funding is needed to support schools in the resources needed to prevent bullying effectively. The societal costs of untreated bullying and victimization are high (Jantzer et al., 2019), and a cost-benefit analysis of KiVa showed that the program was very beneficial in terms of savings on social costs (Huitsing et al., 2020a). In addition, we argue that highly visible components with an impact on teachers and students, such as student lessons, should be included in programs since they seem to stimulate the school-wide program with various other components.

Furthermore, this thesis suggests that an intensive teacher component is necessary to increase the likelihood that teachers’ beliefs, self-efficacy, and their intervention repertoire can be improved. To provide teachers with passive information, a focus on
more active forms of learning in teacher programs, such as coaching, goal setting, and in-service on-the-spot guidance, may be necessary. Especially with a complex phenomenon like bullying, it is essential to provide tailored training (Pas et al., 2014, as cited in Pas et al., 2019). In addition, a continued focus on the use of supportive strategies, aimed at all students and together with colleagues, is needed. These strategies strongly align with the focus of many school-wide antibullying programs such as PRIMA but deserve more attention. The teacher’s role should be emphasized more within the training, for example, by more explicitly portraying school professionals as actors that can significantly reduce bullying in the classroom and school. At the same time, teachers need to be facilitated in this role with sufficient time and resources. During our research, elementary schools went on strike against the high workload, and a number of contact persons dropped out due to work-related burnout symptoms. It is essential to provide teachers with structural support in terms of tools, methods, and collaboration with specialized colleagues, such as school psychologists. We argue that special attention is needed to specific bullying situations, such as digital bullying, and support for chronically victimized students.

Preparing novice teachers for an active role in the classroom’s social dynamics should begin as early as in-service teacher education. Courses on using evidence-based programs and discussing how these programs can help teachers identify and prevent bullying should be incorporated into the regular curriculum of pre-service teacher education. The gap between pre-service education and in-service practice is widely recognized among scholars (Benitez et al., 2009; Bradshaw et al., 2011; Hektner & Swenson, 2012; Orobio de Castro et al., 2018; Yoon & Bauman, 2014) and deserves more attention in policy and resources. In addition, broader cooperation is needed with childcare and out-of-school care. A special role for bullying prevention among the staff of both sectors could be in place here now these sectors have started to collaborate in an integrated approach at various locations (Kindcentra 2020; SER, 2016; Taskforce Samenwerking Kinderopvang-Onderwijs, 2017)

Finally, more attention is needed for self- and peer-reported victimized students who remain or become victimized despite the implementation of an antibullying program. A growing body of literature indicates that not all students benefit from a universal school-wide antibullying program. The possibility that an improved social context harms some individuals has been called the “healthy context paradox” (Garandeau & Salmivalli, 2019). A study on this ‘healthy context paradox’ showed that students who remained victimized or became victimized in intervention schools had more depressive symptoms and lower self-esteem than victimized students in control schools (Huitsing et al., 2020b). Especially persistent victims are vulnerable to this effect since these students more often experience high levels of peer rejection, internalizing problems, and lower quality relationships with their parents (Kaufman et al., 2018). The results call for tai-
lored strategies in interventions aimed at those students who either remain or become victimized. Several authors have strongly suggested that low-threshold collaboration with behavior specialists in the school or referral to experts is needed, as is stacking of interventions (i.e., a school-wide intervention with on top of that evidence-based targeted interventions for students; see Gregus et al., 2020; Rawlings & Stoddard, 2019; Rigby, 2020).

CONCLUSION

This thesis contributes to previous research by describing teachers’ specific needs in bullying prevention and improving their competencies by developing and evaluating a school-wide antibullying program. Teachers can be strengthened in their responsiveness towards stopping bullying (chapter 2). A school-wide program with both universal and selective components offers teachers in different circumstances and contexts (e.g., novice teachers, teachers who identify bullying, teachers in large and urban schools) several tools for a differentiated approach to prevent and stop bullying. However, bullying remains a complex phenomenon for teachers (chapter 3), and the implementation of such programs is vulnerable (chapter 4 and 5), which indicates that a multi-component approach still demands a great effort from teachers. A methodological challenge for researchers is that different measurement instruments are being used in teacher research, both qualitative (chapter 3) and quantitative (chapter 4), resulting in different outcomes. Future practice-based evaluation research should focus more on teacher and contextual variables related to teachers’ intervention strategies and bullying and victimization at the student level, such as teaching experience, identified victims, and school characteristics. More research is also needed to unravel the teacher and contextual variables related to implementing different program components. Customized training and a process-oriented approach for teachers may be needed, but this will require resources to facilitate schools in this regard. There is an opportunity for teacher education to begin early in preparing novice teachers to deal with bullying by teaching them about evidence-based programs and promising strategies to prevent and reduce bullying in the classroom and practice these strategies during training.