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Elements Contributing to Teachers' Role in Bullying

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Chapter 6

General conclusions and discussion

Examining Elements contributing to Teachers' Role in Bullying

Olweus already acknowledged teachers as key agents in preventing and reducing school bullying (Olweus, 1993a). Despite expanding research on teachers' role in tackling bullying, the research field lacked a theoretical fundament underlying and integrating these studies. This also limits the possibilities to develop and improve tailored teacher-training and tools to increase teachers' effectiveness in tackling bullying. To this end, this dissertation developed a theoretical framework based on the Theory of Planned Behavior (Ajzen, 2012). Collecting data on the key elements of the framework allowed for an empirical test of the main elements simultaneously (Chapter 3). In the remaining two chapters, the context in which teachers' operate was examined (Chapter 4), and one element, teachers' self-efficacy, was examined in relation to their students' self-esteem (Chapter 5). The aim of this dissertation was to design and empirically test a theoretical framework which could serve as a fundament integrating previous research and guiding future research in a more structured way.

At the start of this dissertation, a systematic literature review on elements contributing to teachers' role in tackling bullying showed a great variety in predictors and outcomes (see also: Durlak & DuPre, 2008). These studies were integrated and classified according to an extended model of the Theory of Planned Behavior (TPB) (Ajzen, 1991, 2012), identifying four key elements which were assumed to affect teachers' likelihood to intervene; 1) teachers' attitudes towards bullying, including their perceived seriousness, and their empathy with victims; 2) teachers' behavioral control, referring to teachers' self-efficacy and internal attributions; 3) subjective norms, referring to team elements such as collegiality and consensus, and leadership characteristics such as shared decision-making; and 4) knowledge of bullying, and its causes and consequences.

After the design of the model, a questionnaire was developed reflecting subscales of all elements of the theoretical framework. Data were collected among 180 Dutch teachers working at schools starting with the KiVa (primary school) or GRIPP (secondary school) anti-bullying programs. Teachers answered questions on key elements of the framework. The use of vignettes provided information on teachers' likelihood to intervene on hypothetical bullying situations, which is argued to be appropriate for understanding teachers' responses to incidents (Bauman et al., 2008). The aim of Chapter 3 was twofold; First, by analyzing the data on different elements into one model, the proposed theoretical framework could be tested. Second, whereas previous research had tested these elements separately, this was the first model that tested these elements simultaneously, and provided insight in the associations between the key elements and the relation with teachers' likelihood to intervene.

Teachers' attitudes, behavioral control, and knowledge related to their individual characteristics, whereas teachers' subjective norms related to their interpretation of the colleagues' norms and behaviors. These norms are reflected in the school culture, and a beneficial school culture contributes to teachers' efforts to implement an anti-bullying program and intervene in bullying situations (Ahtola et al., 2013; Roland & Galloway, 2004). Previous research (Yeager et al., 2015) found differences in implementation fidelity between primary and secondary schools. An explanation for these differences could be differences in perceived school culture between primary and secondary school teachers, which create a more or less beneficial environment to implement a program or tackle bullying situations. This hypothesis was tested in Chapter 4, where differences in school culture perceptions were examined between primary and secondary school teachers in two studies. The first study focused on differences worldwide, whereas the second study examined in more detail differences in The Netherlands.

Although this dissertation focused on the development and empirical test of a theoretical framework regarding characteristics relating to teacher outcomes, it is also relevant to examine the extent to which these elements relate to student outcomes. Previous research indicated that students' self-esteem is lower in both bullies and victims (Hawker & Boulton, 2000; van Geel et al., 2018), and teachers could potentially buffer part of the negative consequences of bullying involvement on students' self-esteem by intervening in bullying or comforting their students (Spilt et al., 2014). Therefore, the relation between one element of the framework, namely teachers' self-efficacy as part of behavioral control, was examined in relation to bullies' and victims' self-esteem. In addition, the relationship between students and teachers could also help to buffer part of the negative consequences of bullying. For instance, if victims do not have any friends in the classroom to help them or to turn to, a teacher could fulfil this role and give these students some sense of belonging (Spilt et al., 2014). If students perceive the relationship with their teacher as positive, it could potentially buffer negative consequences of being involved in bullying.

This closing chapter discusses the main findings emerging from the four studies of this dissertation, with specific attention to the integration and interpretation of elements that were included in several studies of this thesis. Scientific implications are discussed, followed by the consideration of social and practical implications. Finally, a reflection on some new research questions that arose from findings in this dissertation and directions for further research are included.

Main findings and scientific implications

Not only results, but also quality matters

The systematic literature review on research on teachers in tackling bullying (Chapter 2) showed a great variety of predictors and outcomes, suggesting that the research field was rather scattered. In addition, the quality of the 69 studies that were included, were assessed using the Newcastle-Ottawa Scale (Wells et al., 2013). According to the assessed scores on selection-, comparability-, and outcome-criteria, only 22 studies had an adequate research design and scored six or more stars on the ten-point quality scale. However, originally, the NOS is a tool to assess quality of case control studies, and even though it is very often used for cross-sectional studies, results should be interpreted with caution (Luchini et al., 2017). The scores provide an indication about the research design and the comparability of studies, and does not necessarily suggest that the studies with low scores are bad studies. However, these studies are more likely to be based on convenience samples that are less representative for larger groups or different contexts. The limited number of 22 studies scoring 6 or more stars on the NOS, indicated that the research field on teachers' role in tackling bullying could be improved on two aspects. First, research should integrate multiple predictors into one framework to examine the interrelations of these elements and their associations with teacher behavior and student outcomes. Second, the quality of future studies should be improved by using larger, more representative samples and consistent measures for the different elements. This also applies to the studies in this dissertation, which had for Chapters 3, 4, and 5 scores of 6, 4, and 6 stars respectively (see Table 6.1), showing a medium quality, and showing the difficulty of collecting or using representative teacher samples, and a lack of consistency in using validated measurements. It is challenging to reach a sufficient group of teachers, and when approaching one school, not all teachers would participate or provide consent for their answers to be used

for scientific purposes. With these limitations in mind, the main findings of this dissertation are discussed with caution. Nevertheless, this dissertation has identified caveats in research on teachers’ role in tackling bullying and paved the way for further research by developing a theoretical framework.

Table 6.1 Quality assessment of studies included in this dissertation

	Selection:	Comparability:	Outcome:	Total
Chapter 3	★★★★☆	★☆☆	★★★☆☆	6
Chapter 4	★★★☆☆	☆☆	★★★☆☆	4
Chapter 5	★★★★☆	★☆☆	★★★☆☆	6

Teachers’ attitudes towards bullying matter

Previous research pointed out that teachers’ attitudes and the extent to which they take bullying seriously, were relevant for teachers’ likelihood to intervene (Bauman & Del Rio, 2006; Cunningham et al., 2019b; Duy, 2013; Sultana et al., 2020; Yoon & Kerber, 2003). However, most of these studies were not of sufficient quality according to the Newcastle-Ottawa Scale, and the studies did not control for any of the other teacher elements identified in the theoretical model presented in Chapter 2, referring to behavioral control, subjective norms, and knowledge. Chapter 3 incorporates these issues by testing the association between the four key elements and teachers’ likelihood to intervene in a qualitatively better study design (6 stars on the NOS scale). The findings of Chapter 3 strengthen the findings from previous research. Associations were found between teachers’ attitudes and the extent to which they took bullying seriously with teachers’ likelihood to intervene. The model also included teachers’ perceptions of behavioral control, subjective norms, and knowledge about bullying, and found no additional associations with teachers’ likelihood to intervene except for their internal attributions. This suggests that teachers’ attitudes are an important element in their decision-making to intervene.

Teachers' confidence and their attribution styles relate to different outcomes

Teachers' sense of behavioral control refers to the extent to which they attribute the causes of bullying internally or more externally, as well as to their self-efficacy, reflecting their confidence about their own abilities to intervene in bullying (Begotti et al., 2017; Fischer & Bilz, 2019). Separate models in Chapter 3 confirmed earlier research (Dedousis-Wallace et al., 2014; Duong & Bradshaw, 2013; Yoon, 2004; Yoon & Kerber, 2003) in finding associations for teachers' self-efficacy and internal attributions with teachers' likelihood to intervene. However, the association between teachers' self-efficacy and their likelihood to intervene disappeared when including teachers' attitudes, subjective norms, and knowledge in the model. This suggests that teachers' self-efficacy in bullying might not be as important for their tendency to intervene in bullying as previous studies argued. Previous research (see Chapter 2 for an overview) showed variety in the measurement of teachers' self-efficacy and their likelihood to intervene, and still many studies found a relation between self-efficacy and likelihood to intervene, which increases the certainty of the presence of a connection between the two. However, at the same time it remains unclear what teachers need to be confident about in order to have an effect on their likelihood to intervene, and potentially also their applied strategies and implementation effectiveness. A replication of the model, supplemented with an extended measure of self-efficacy and outcomes such as their likelihood to intervene, strategies, and implementation effectiveness, would provide more insight in the relation and allow training and interventions to be improved.

Although not directly associated with their likelihood to intervene, teachers' self-efficacy could nevertheless be relevant for what they signal to their students who are involved in bullying. Chapter 5 examined, therefore, whether teachers' self-efficacy would be important for students' self-esteem, specifically, the self-esteem of bullies and victims. The findings

indicated that self-efficacious teachers mattered adversely for bullies, who had lower levels of self-esteem compared with peers who also bullied but had a less efficacious teacher. This might be a consequence of teachers acting decisively when bullying occurs, and teachers' negative responses to bullying might directly affect bullies' feeling about themselves and their behavior. However, because this study used cross-sectional data, the direction of this association could also be the reverse, with bullies who have a highly efficacious teacher being less able to achieve self-esteem through bullying, compared with peers with less efficacious teachers, who can use bullying as a means to achieve status and self-esteem.

Contrary to teachers' self-efficacy, Chapter 3 also showed that teachers' internal attributions were found to be relevant for teachers' likelihood to intervene, when controlling for the other elements of the framework. This finding suggests that teachers are more likely to take action when they feel that they have the ability to do something about bullying and create a better atmosphere in their classroom. Teachers who attributed causes to external characteristics were also shown to have higher victimization rates in their classrooms, which suggests that teachers with internal attribution styles do not only have a higher tendency to intervene, but also act accordingly, or more effectively. Teachers' internal attribution styles were also positively related to teachers' attitudes and empathy with the victim (Chapter 3), suggesting an indirect relation with teachers' likelihood to intervene in addition to the direct association. Furthermore, it suggests that the different elements of the theoretical model contributing to teachers' likelihood to intervene in bullying are interrelated, and that most characteristics are important determinants in teachers' decisions to act. These findings could be strengthened in further research in different ways. First, extended measures of teachers' attribution styles could be included to provide a more reliable representation, and they could be related to additional outcomes, for instance teachers' actual intervention behaviors, and

student-reported bullying prevalence. Findings from these studies would strengthen these findings and contribute to improving teacher training for bullying prevention.

Colleagues play an important role

The third element of the theoretical framework concerns subjective norms, which is also an important element for teachers' likelihood to intervene in bullying. These injunctive social norms (Henry et al., 2000) reflect the assumptions of teachers about the attitudes and interventions towards bullying from their colleagues and principals as important others (Ajzen, 1991, 2012). Previous research discussed in Chapter 2 indicated that norms and actions of colleagues were important for teachers' likelihood to intervene and their likelihood to implement and participate in anti-bullying programs (Cunningham et al., 2019b; O'Brennan et al., 2014; Williford, 2015). Furthermore, cooperation and consensus among colleagues have previously been related to lower levels of bullying prevalence (Roland & Galloway, 2004), which emphasizes the importance of unifying the school team and principal, and aligning their norms and values. Principal support was shown to be important for teachers' likelihood to intervene, and an increased implementation rate of anti-bullying programs (Ahtola et al., 2013; Swift et al., 2017). These prevailing norms of a school team and the principal are reflected in the school culture, which was measured in Chapters 3 and 4 by team characteristics, such as collegiality, consensus, collective efficacy, and confidence, and leadership characteristics such as shared decision-making. Chapter 3 provided a direct test on the importance of social norms on the likelihood to intervene and found a positive relation between teachers' perceptions of leadership and the likelihood to intervene. However, the association diminished when teachers' attitudes, behavioral control, and knowledge were included in the full model. This could be explained by the correlations shown in Chapter 3 between the subscales reflecting school culture with other key elements in the model, for instance their perceptions of the seriousness

of bullying. The subjective norms and attitudes teachers perceive from their colleagues could thus influence their perceptions of bullying, taking it more seriously, which subsequently relates to their likelihood to intervene.

Even though the subjective norms, or perceived school culture might not play a large direct role in relation to teachers' individual likelihood to intervene, it might still be an important component of the context in which teachers operate, and how beneficial this context is for implementing an anti-bullying program and successfully executing it. Previous research (Lane et al., 2006; Yeager et al., 2015) found differences in implementation efforts and effectiveness of anti-bullying programs between primary and secondary school teachers. Assuming that individual variation in for instance attitudes and behavioral control is present in both primary and secondary school teams, a potential explanation could be found in examining the context in which teachers operate and how beneficial it is for implementing anti-bullying policies and programs. Secondary schools are often larger and more complex, sometimes also involving a middle management layer of team leaders, and secondary school teachers are often more focused on teaching a subject and less on socio-emotional development, compared with primary school teachers. Although previous research indicated that teachers were more confident and more likely to intervene in bullying if they perceived their colleagues and principal to support them (O'Brennan et al., 2014), it could be reasoned that a more positive perception of school culture, referring to both team- and leadership elements, is easier to be achieved in smaller, less complex organizations like primary schools. This would offer an explanation for the differences in implementation fidelity and effectiveness that were previously found between primary and secondary schools. The findings of Chapter 4 indeed suggest that primary school teachers perceive their general school culture to be more positive than their secondary school colleagues, both worldwide and on specific subscales in the Netherlands. Perceiving higher

levels of collegiality and being more positive about the team and the management might make it easier to align norms and values in the school with regard to bullying. If the prevailing norm in the school is then negative towards bullying, it might change teachers' individual attitudes towards bullying, increasing their perceived seriousness and internal attributions, and thus their likelihood to intervene. This might also relate positively to their willingness to implement an anti-bullying program.

Teachers matter for their students

Olweus already referred to teachers as key agents in tackling bullying (Olweus, 1993a), but the agreement between teachers and students in perceptions of bullying, victimization, and intervention effectiveness is low (Ahn et al., 2013; Huitsing et al., 2019; Rigby, 2020). Teachers' self-efficacy was shown to matter for bullies, but not for the self-esteem of victimized or non-involved students. Chapter 5 showed a positive association of student-teacher relationship with students' self-esteem. If students perceive their relationship with the teacher as positive, they are more likely to feel appreciated and seen, which is even more important for victimized students who are often having fewer friends (Salmivalli, 2010; Salmivalli et al., 1996). Chapter 5 showed that the student-teacher relationship is important for the self-esteem of all students, but even more so for victims of bullying. For severely victimized students, the difference between the absence and presence of a good teacher-relationship is large; a difference of almost one standard deviation in their level of self-esteem. The findings of this study suggest that teachers can partially buffer decreases in self-esteem in their students, in particular those who are victimized. But teachers can only be effective in alleviating the negative consequences of bullying if they are aware of who are involved, and how students perceive themselves, their peers, and the situation; that is, if they are attuned to their students (Ahn et al., 2013; Dawes et al., 2019; Marucci et al., 2020). Moreover, previous research indicated that students with

good student-teacher relationships are more likely to internalize teachers' values towards bullying. By establishing good relationships with their students, teachers could thus influence students' attitudes towards bullying positively, reducing their chances of becoming involved in bullying perpetration (Wang et al., 2015).

Societal and practical implications

Previous research has suggested that bullying has detrimental consequences for victims (Arseneault, 2017; Hawker & Boulton, 2000; Reijntjes et al., 2010), bullies (Hawker & Boulton, 2000; Tsaousis, 2016), and bystanders (Nishina & Juvonen, 2005), and referred to teachers as key agents to effectively prevent and reduce bullying (Dan Olweus, 1993b; Smith et al., 2004). Therefore, research on individual and contextual elements playing a role in teachers' efforts to tackle bullying is important to gain more insights in the coherence of these elements with teachers' actions, and the bullying prevalence in the classroom. Moreover, translating research findings into practical implications would benefit the ongoing improvement and development of trainings and anti-bullying programs that are implemented in the schools (Gaffney et al., 2019; Swearer et al., 2010).

The findings from Chapter 3 suggest that teachers' knowledge on bullying relates to their likelihood to intervene, and even though it was less important than their attitudes, perceived seriousness, and internal attributions, knowledge was also indirectly related by correlating with teachers' perceived seriousness. This would suggest that increasing knowledge on bullying in trainee-teachers and in-service teachers would positively relate to the extent to which they take bullying seriously and are likely to take action when a situation occurs. Previous research showed a lack of understanding of the definition of bullying in both pre- and in-service teachers, even after being trained (Bauman & Del Rio, 2005; Oldenburg et al., 2016). However, there is

room for improvement. Based on the findings of Chapter 3, training could include a more explicit link with their individual perceptions of bullying. By addressing these (sub)conscious perceptions of teachers, teachers could question their own views, and discuss cases or vignettes with their team under supervision of a trainer, in order to take a more active stance against bullying, take it more seriously, and perceive the possibility to prevent or reduce bullying as being within their power, referring to an internal attribution.

Furthermore, by discussing each other's attitudes and perceptions, norms and values with regard to bullying will be more aligned within the team, which is beneficial for the perceived school culture, and might explain implementation fidelity of anti-bullying programs as was suggested in Chapter 4. The findings of Chapter 3 showed positive associations between collegiality, collective efficacy, leadership and shared-decision-making, and teachers' likelihood to intervene, making it more plausible that aligning values would contribute to teachers' actions to tackle bullying. This is confirmed by research emphasizing the importance of a shared understanding amongst professionals within an institution (Lee, 2006).

Even though role-play with colleagues and trainers is frequently used to practice skills to tackle bullying (Kärnä et al., 2013; Wachs et al., 2019), it has limitations: first, it is a less accurate representation of the complex reality of a classroom full of children, and second, it is not possible to reproduce the exact same situation multiple times for teachers to practice different strategies or for different teachers to experience the exact same situation. A promising training tool to replace role-play exercises is virtual reality (VR). VR is a technology that uses headsets and wearable equipment to create an immersive visual and audio experience and track movements from the user in the digital environment (Fox et al., 2009; Seufert et al., 2022). Teachers can enter a digitally created classroom including a specified number of students with whom they can interact, making it a realistic experience. The virtual students can perform

computer controlled actions, or their actions can be created by a trainer who enters them in the computer in response to the teacher who practicing in the virtual environment. VR could be used by one teacher, while the trainer and colleagues watch live what happens on a screen, after which the performances of the teacher with VR are discussed. This would create a reflection upon their own and each other's intervention behaviors, and increase the possibility to align norms and values within the team which contributes to the individual skills of teachers and their perceived school culture. VR could also be applied for tailored teacher-training. Not every teacher runs into the same difficulties, and differently programmed situations in the virtual classroom would allow to train different competencies. VR also allows for the exact same situation to be repeatedly trained, whereas role play cannot produce such similarities. Recent research showed that VR training in classroom management improves pre-service teachers' skills more than a video-assisted setting, and can be considered a useful tool to train and evaluate teacher actions in a virtual classroom environment (Seufert et al., 2022). Moreover, VR was also rated by participants as useful, believable, and highly relevant for teacher training in experience, self-confidence, and skills in classroom management (Seufert et al., 2022). The higher benefit, combined with user-friendliness, makes VR a useful and interesting tool to also train teachers more specifically in preventing and reducing bullying.

In addition to improving teachers' individual competencies to tackle bullying, the context in which teachers operate also seems to matter. The culture of the country where the school is situated, the policies, and even a large part of the organizational structure are often fixed elements that cannot easily be changed, but the prevailing culture *within* the team and the school is something that can be changed. Previous research in Chapter 2 suggested that principal support related to higher self-efficacy in teachers (Skinner et al., 2014) and higher implementation levels of school-wide prevention programs (Haataja et al., 2015). Subjective

norms, reflected in the school culture elements such as teachers' perceptions of collegiality, collective efficacy, leadership, and shared decision-making, were shown to correlate with teachers' likelihood to intervene in Chapter 3. Collective efficacy also positively correlated with teachers' level of empathy with the victim, their perceived seriousness, their self-efficacy and collegiality. This suggests that working on team and leadership characteristics as part of the prevailing school culture, can improve teachers' attitudes and behavioral control. Strategies from people management, referring to implement adequate HR practices by supervisors such as the principal, could contribute to create shared perceptions of leadership and mission achievement. These shared perceptions were shown to be important for organizational and team performance, and to motivate and support employees (Penning de Vries, 2021). A practical implication of these findings could therefore be to train principals and other leaders in the school team to improve their people management skills and contribute to the alignment of norms and values in the school, specifically with regard to anti-bullying policies.

The findings from Chapter 5 indicated that teachers matter to their students. While teachers' self-efficacy mattered less for students' self-esteem, the individual student-teacher relationship seemed more important, in particular for victims. Teacher-training and anti-bullying programs should thus include training or supervision for teachers to establish and maintain sustainable relationships with their students. By creating a group where everyone is partially responsible for the atmosphere, effective anti-bullying programs could also create a beneficial environment to establish these relationships. If teachers promote more status equality by reducing status extremes, and become more attuned to their students, students were shown to be less likely to reward aggression with status and levels of victimization decrease (Ahn & Rodkin, 2014; Serdiouk et al., 2015)

Directions for future research

The previous sections already bear some suggestions for further research. This section will elaborate and describe recommendations for future research in more detail.

The first suggestion would be an emphasis on data collection. Data on teachers in relation to bullying often concerns small samples or a limited number of constructs being included. This results in many cross-sectional studies on convenience samples, whereas testing the comprehensive theoretical framework requires larger, longitudinal data collection in representative samples of primary and secondary school teachers in different countries. The questionnaire that was developed was based on a theoretical framework and can be extended by additional, validated, measurement tools. The questions on teachers' self-efficacy, seriousness, empathy, and likelihood to intervene were answered after teachers read six written vignettes, which might limit the generalizability of these answers to other, not-described situations and does not reflect reality or the relationship history of the teacher with involved students. Future data collection could include additional scales on these elements, to strengthen findings from this dissertation, and get more detailed insights in the coherence between these elements and teachers' likelihood to intervene or actual intervention behaviors. Longitudinal data would also provide insights in direct and indirect causal relations between different elements and teachers' likelihood to intervene.

The second recommendation builds upon the first recommendation, namely extensively testing the theoretical framework and including all elements in one model simultaneously. This could be shaped in two ways. On the one hand, different teacher elements could be examined in larger samples and different contexts and cultures in which teachers operate. Additional control variables could be included, such as teachers' gender, work experience, and the presence of effective anti-bullying programs in the school. The findings from such research

would strengthen the theoretical framework, and also contribute to the development and improvement of tailored teacher trainings.

The key elements of the framework including teachers' likelihood to intervene, could also be related to other outcomes. Previous research examined teachers' preferred strategies (Bauman et al., 2008; Burger et al., 2015), and their perceptions of effectiveness of different strategies for bullying prevalence (Dake et al., 2004). Large and longitudinal data collections similar to those previously described, would allow for the key teacher elements to be related to their strategies. Bullying prevalence is another interesting outcome. Previous research suggests that multi-informant studies provide a valuable perspective on prevalence (Kaufman et al., 2020; Nickerson & Ostrov, 2021; Veenstra et al., 2014). Self-reports on prevalence by teachers, and self- and peer-reports by students could serve as outcomes. Different teacher elements from the framework could be related to these different prevalence indicators, to find consistencies in teacher elements that matter most for the level of bullying. In addition to what characteristics relate to teachers likelihood to intervene and their strategies, it is even more important to find out what contributes to reducing the prevalence of bullying.

Third, this dissertation includes one study that relates one key element of teachers to student-outcomes, namely self-efficacy to students' self-esteem. However, self-efficacy, or behavioral control, is only one of four key elements that relates to teachers' likelihood to intervene. Future research could examine the associations between the other three elements and student-outcomes to examine teachers' contribution to students' wellbeing. By including all these associations in one model, insights would be gained in which teacher-aspects are most relevant for different aspects of students' wellbeing, which would also benefit teacher training and the development of anti-bullying programs.

Finally, VR could be an important tool for training teachers, and therefore needs to be included in future research as well. Recent studies already emphasize the importance and wide range of possibilities of this promising technical tool. By integrating state-of-the-art techniques with systematic research on different teacher characteristics, future research may examine how VR-training can improve the different elements contributing to teachers' likelihood to intervene, and how training of their intervention skills affects bullying prevalence. This would increase the usability and accurate tuning to the weak spots of teachers in tackling bullying.

To summarize, teachers' role in tackling bullying is complex. Individual and contextual characteristics play a role, and relations to other actors, such as colleagues, the management, and students, relate to teachers' efforts to tackle bullying. Teachers' attitudes towards bullying, how serious they perceive bullying behaviors, and their causal attributions are related to their tendency to intervene. Based on this dissertation, teacher training and implementation of anti-bullying programs could be complemented with more attention for these three elements, whereas further research may examine their interrelations and the associations of different elements with student-outcomes.

