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A large, stylized sunburst or fan-like graphic in a lighter shade of purple, positioned on the left side of the cover. It has a central dark purple oval shape and radiating lines that form a semi-circle.

# EFFECTIVENESS OF ADULTS' TARGETED INTERVENTIONS IN STOPPING BULLYING

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Eerika Johander





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# **EFFECTIVENESS OF ADULTS' TARGETED INTERVENTIONS IN STOPPING BULLYING**

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## ABSTRACT

Teachers and other school personnel have the responsibility to intervene quickly when a case of bullying comes to their attention. However, previous research has mainly focused on evaluating whole-school prevention programs, while targeted interventions on specific bullying cases have received little attention. In this thesis, I study effectiveness of teachers' targeted interventions in stopping bullying. In Study I, the focus is on intervention failures. It revealed that interventions failed in one out of four cases. Rather than being associated with differences between schools, intervention failures were mostly explained by characteristics of the bullying cases and the students involved. For instance, frequency and duration of the victimization were positively, and the perpetrators' own antibullying attitudes and their perception of teachers' and parents' antibullying attitudes were negatively associated with the intervention failure. In Study II and Study III, the effectiveness of different intervention approaches was examined. Study II showed that targeted interventions were more effective when the schools used program-recommended approaches (confronting and non-confronting) rather than their own adaptation. Confronting and non-confronting approaches were equally effective. Further, the interventions were more effective when follow-up discussions were organized systematically after each intervention. Study III examined the effectiveness of different approaches using an experimental design and demonstrated that on average, the condemning and empathy-raising messages were equally effective at encouraging youth to stop bullying others, and combining both messages was the most effective. The relative effectiveness of the messages was found to depend on students' level of cognitive empathy: At low levels of cognitive empathy, the condemning message was the least effective, whereas among those with high cognitive empathy, all messages were equally likely to lead to intention to stop bullying.

To conclude, this thesis increased our understanding of the challenges faced by school personnel when intervening in bullying and effectiveness of different approaches. To make intervening more effective, it is important to consider the characteristics of the bullying cases, to adhere to evidence-based methods, and organize follow-ups systematically after each intervention. The optimal strategy to stop bullying seems to be combining the confronting and non-confronting approaches.

**KEYWORDS:** Bullying, Victimization, Targeted interventions

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## TIIVISTELMÄ

Opettajilla ja muulla koulun henkilökunnalla on velvollisuus puuttua kiusaamiseen. Tutkimuksissa on yleensä keskitytty arvioimaan kiusaamisen ennaltaehkäisyyn tarkoitettujen ohjelmien tehokkuutta, kun taas spesifeihin kiusaamistapauksiin puuttumisen tehokkuudesta on kertynyt vasta vähän tietoa. Tässä väitöskirjassa tutkin kiusaamiseen puuttumisen tehokkuutta. Osatutkimus I keskittyy tilanteisiin, joissa kiusaaminen jatkui aikuisten puuttumisesta huolimatta. Tulosten mukaan puuttuminen epäonnistui neljäsosassa tapauksista. Koulujen välisten erojen sijaan epäonnistuminen selittyi pääasiassa kiusaamistapausten välisillä eroilla. Mitä useammin kiusaamista tapahtui ja mitä pidempään se oli jatkunut, sitä vaikeampaa siihen oli puuttua. Kiusaavan oppilaan omat kiusaamisen vastaiset asenteet sekä hänen käsityksensä siitä, että opettajan ja vanhempien asenteet ovat kiusaamisen vastaisia, lisäsivät puuttumisen onnistumisen todennäköisyyttä. Osatutkimuksissa II ja III tutkittiin erilaisten kiusaamiseen puuttumisen mallien tehokkuutta. Osatutkimuksen II mukaan kiusaaminen loppui todennäköisemmin silloin, kun koulussa oli käytetty näyttöön perustuvia toimintatapoja, kuin jos oli käytetty koulun omaa sovellusta. Erityisen tehokasta puuttuminen oli, kun tilannetta seurattiin systemaattisesti seurantatapaamisissa aina puuttumisen jälkeen. Osatutkimuksessa III hyödynnettiin kokeellista tutkimusasetelmaa, jossa opettaja puuttui videolla kiusaamistapaukseen eri tavoin ja oppilailta kysyttiin, kuinka todennäköisesti he lopettaisivat kiusaamisen. Keskimäärin tehokkain tapa oli sekä tuomita kiusaaminen, että yrittää herättää kiusaavassa oppilaassa empatiaa kiusattua kohtaan. Yksittäin käytettynä molemmat tavat olivat yhtä tehokkaita. Oppilaan kognitiivisen empatian määrä vaikutti viestien tehokkuuteen: kun kognitiivista empatiaa oli vähän, kiusaamisen tuomitseva viesti toimi heikoiten, mutta kun kognitiivista empatiaa oli paljon, kaikki viestit toimivat yhtä tehokkaasti.

Väitöskirja lisää tietoa kiusaamiseen puuttumisen haasteista sekä puuttumisen mallien tehokkuudesta. Puuttumisen tehostamiseksi on tärkeää kiinnittää huomiota kiusaamistapausten yksilöllisiin piirteisiin. Kiusaamiseen tehoavat parhaiten näyttöön perustuvat toimintatavat, kiusaamisen loppuminen on tärkeä varmistaa seurantatapaamisella ja optimaalisin strategia puuttumiselle näyttää olevan kiusaamisen tuomitsemisen ja empatian herättämisen yhdistäminen.

ASIASANAT: Kiusaaminen, kiusatuksi joutuminen, kiusaamiseen puuttuminen

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During the master studies writing a doctoral dissertation is rarely discussed among the students. After graduation, most of the students pursue careers as clinical psychologists, which was initially my plan as well. However, at the end of my studies, I began working as a research assistant in Opintokamu and KiVa school projects, which allowed me to get a glimpse of what it is like to work as a researcher. It was only then that I started to consider it as a possible option also for me. Although writing this thesis has been quite a journey, not to mention COVID-19 pandemic that started during my second year, I am glad that I started it, and now it is finally finished! I would like to express my gratitude for those who offered guidance, support and help along the way.

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*Eerika Johander*

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# List of Original Publications

This dissertation is based on the following original publications, which are referred to in the text by their Roman numerals:

- I Johander, E., Turunen, T., Garandau, C. F., & Salmivalli, C. (2023). Interventions That Failed: Factors Associated with the Continuation of Bullying After a Targeted Intervention. *International Journal of Bullying Prevention*. Advance online publication. <https://doi.org/10.1007/s42380-023-00169-7>
- II Johander, E., Turunen, T., Garandau, C. F., & Salmivalli, C. (2021). Different Approaches to Address Bullying in KiVa Schools: Adherence to Guidelines, Strategies Implemented, and Outcomes Obtained. *Prevention Science*, 22, 299–310. <https://doi.org/10.1007/s11121-020-01178-4>
- III Johander, E., Trach, J., Turunen, T., Garandau, C. F., & Salmivalli, C. (2022). Intention to Stop Bullying following a Condemning, Empathy-Raising, or Combined Message from a Teacher – Do Students’ Empathy and Callous-Unemotional Traits Matter? *Journal of Youth and Adolescence*, 51, 1568–1580. <https://doi.org/10.1007/s10964-022-01613-5>

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# 1 Introduction

Bullying by peers is a pervasive problem among children and youth around the world (Cook et al., 2010a). It is typically defined as intentional, repeated aggressive behavior from a group or an individual towards a peer who is less powerful than the perpetrator(s) (e.g., Olweus, 1993). Bullying can be direct, (e.g., verbal or physical aggression) or indirect/relational (e.g., spreading rumour, manipulation or social exclusion) and it can happen in-person or online. According to UNESCO report (2019), almost one third (32%) of students worldwide were bullied by their peers at least once within the last month. The victims of bullying are at high risk of internalizing disorders (e.g., depression, anxiety), whereas bullying perpetrators seem to be at risk of later criminal offending (e.g., Farrington et al., 2011; Klomek et al., 2015; Ttofi et al., 2011). Even just witnessing bullying has been associated with negative mental health consequences (Rivers et al., 2009). Thus, the need to intervene in bullying is evident. However, research has shown that as many as 20-50% of adult attempts to intervene in a particular bullying case fail – even in the context of whole-school antibullying programs (Garandeanu et al., 2014c; Rigby, 2014; van der Ploeg et al., 2016); in other words, the bullying perpetration or victimization often continues after the intervention. Despite the relatively high failure rate, almost no research has tried to understand why interventions were not more helpful in stopping bullying. There is little research about the effectiveness of the adults' targeted interventions (i.e., procedures for intervening in cases of bullying, such as serious discussions with students involved) which are sometimes but not always included in whole-school antibullying programs.

There are different intervention strategies that teachers and other school personnel can adopt when intervening in cases of bullying (see Table 1). Among those, only a few have been studied, including two major approaches: a confronting approach and a non-confronting approach (Garandeanu et al., 2014c). The confronting approach focuses on clear condemning of the bullying behavior whereas in the non-confronting approach the goal is to arouse perpetrators' empathy for the victim. So far, there is no evidence that one of the approaches would be overall more effective than the other (Garandeanu et al., 2014c; Garandeanu et al., 2016). However, only two studies have directly compared the effectiveness of the approaches (Garandeanu et al.,

2014c; Garandau et al., 2016), both assessing their short-term effectiveness in the context of a randomized controlled trial (RCT). Thus, almost nothing is known about the long-term effectiveness of the approaches and even less about how school personnel implement the approaches after evaluation trials end, i.e., whether they keep following the guidelines or start making their own adaptations. As adaptations are likely to occur (Moore et al., 2013; Sainio et al., 2018a; Stirman et al., 2013), it is important to study how they affect the effectiveness of the interventions. Moreover, although in the two previous studies the school personnel were instructed and trained to use a specific approach, the extent to which they actually followed these guidelines is unknown and could not be controlled for. Further, although there has been some indication that combining the approaches might be more effective than using one approach alone (Garandau et al., 2016), this has never actually been tested. In previous research the perpetrator's individual characteristics have also been ignored. Two personal characteristics that are likely to affect the effectiveness of the approaches are empathy (i.e. the persons' ability to feel or imagine another person's emotions) and callous-unemotional traits (i.e. lack of empathy, remorse and guilt, and shallow or deficient affect) which have been shown to be associated with bullying perpetration (Geel et al., 2017; Mitsopoulou & Giovazolias, 2015). For instance, as in the non-confronting approach the behavioral change is reliant on the perpetrators' capacity to feel empathy, it is possible that it is less likely to work with youth who are low in empathy. This has, however, never been tested.

The goal of the thesis is to examine the effectiveness of targeted interventions to stop bullying. For this purpose, both correlational (Study I and Study II) and experimental data (Study III) are utilized. The first aim is to examine the extent to which intervention failures (i.e. bullying perpetration or victimization continues after the intervention) are due to differences between schools or differences between individual students, and what individual-level factors are associated with the intervention failure (Study I). The second aim is to compare the effectiveness of different approaches (Study II and in Study III). In Study II, the focus is on the long-term effectiveness of the approaches. In addition to comparing the effectiveness of the confronting and non-confronting approaches, the extent to which the school personnel implement the approaches or use their own adaptations, and the effectiveness of their own adaptations, is also examined. In Study III, the effectiveness of confronting and non-confronting approach, and their combination is examined using an experimental design with video vignettes of an adult talking to a student who has been bullying a peer. The aim is to compare the effects of three different teacher messages, condemning message (as in the confronting approach), empathy-raising message (as in the non-confronting approach), and combined message on students' intention to stop (hypothetical) bullying. The use of video vignettes allows control over exactly what is said in the different conditions. In

addition, Study III examines whether students’ responses to the different messages vary depending on their level of empathy, and callous-unemotional traits.

**Table 1.** Different intervention strategies in short.

<b>Working with the bullying perpetrator(s)</b>
<p><b>Confronting approach:</b> Discussions with the focus of clear condemning of the bullying behavior and setting limits for unacceptable behavior (Garandeau et al., 2014c).</p> <p><b>Non-confronting approach:</b> Discussions with the aim of arousing perpetrator(s) empathy for their victim and obtaining their suggestion for improving the situation (Garandeau et al., 2014c).</p> <p><b>Serious Talks:</b> Discussions with a message that the bullying will be stopped and the situation will be monitored (Olweus &amp; Limber, 2010).</p> <p><b>The Support Group Method:</b> Perpetrator(s) are confronted at a group meeting with students selected to support the victim (Robinson &amp; Maines, 2008).</p> <p><b>The Method of Shared Concern:</b> Discussions where the adult shares their concern for the victim and invites perpetrator(s) to provide solution for the situation (Pikas, 2002).</p> <p><b>Bully Prevention in Positive Behavior Support:</b> Teaching and reinforcing expected behavior and imposing consequences for problem behavior (Crone et al., 2015; Ross &amp; Horner, 2009).</p>
<b>Working with the victim</b>
<p><b>Strengthening the victim:</b> Strengthening the victim to cope more effectively with the bullying (Rigby, 2011).</p>
<b>Working with both</b>
<p><b>Restorative Approach:</b> Meeting with the perpetrator(s) and victim with the aim of getting the perpetrator(s) reflect their unacceptable behavior, experience remorse and to act to restore the damaged relationships (Morrison, 2002).</p> <p><b>Mediation:</b> A group sessions with the students involved and a teacher or a peer mediator with the goal of finding a mutually acceptable solution to the situation (Rigby, 2011).</p>
<b>Other strategies</b>
<p><b>Direct sanctions:</b> Imposing sanctions or punishments for the perpetrator(s) (Rigby, 2011; Thompson &amp; Smith, 2011).</p> <p><b>School Tribunals:</b> Students are elected to examine evidence of what happened and to decide sanctions or punishments for the perpetrator(s) (Thompson &amp; Smith, 2011).</p>

## 1.1 The Effectiveness of Teacher Interventions in Stopping Bullying

The growing awareness of the adverse outcomes of bullying has led to a substantial increase in the number of school-based antibullying programs that have been developed and implemented in different parts of the world (Gaffney et al., 2019b). Such programs often combine universal, preventive actions that are directed to all students, (e.g., improved recess supervision, student lessons and information for parents), with interventions targeted to individual students. Although most

evaluation studies show that antibullying programs succeed in reducing the overall level of bullying behaviors, the average reductions in bullying perpetration are limited to approximately 19–23% and in victimization to approximately 15–20% (Gaffney et al., 2019b; Ttofi & Farrington, 2011). In these studies, however, the effect size applies to the whole program and the contribution of a specific program components to the overall program effectiveness remains unknown. Although during the past few years researchers have started to examine more closely how the presence of a specific program component is associated with the overall program effects (Gaffney et al., 2021; Hensums et al., 2022), little is still known about the efficacy of targeted interventions.

Most estimates about the effectiveness of targeted interventions come from student surveys with retrospective reports of what happened when they were bullied. The findings suggest that according to students, teacher interventions are ineffective in stopping ongoing bullying in around 50 % of the cases, and can even worsen the situation in some cases (Rigby, 2014). For example, in a survey of 2,308 early adolescents in England (Smith & Shu, 2000), the students reported that when the teacher did intervene after being told about the bullying, the bullying stopped only in 27% of the cases and decreased in 29 % of the cases. However, in 28 % of the cases the situation remained the same, and in 16 % of the cases the bullying got worse. Similar results about the teachers' and other school personnel's ineffectiveness in tackling bullying have been reported in the Netherlands (Fekkes et al., 2005), Australia (Rigby & Barnes, 2002), and the USA (Davis & Nixon, 2011). Surprisingly, despite the relatively high failure rate, almost no studies have tried to understand why the interventions were not more helpful in stopping bullying and victimization, i.e., why the adult attempts to intervene failed.

## 1.2 Factors Associated with the Intervention Failure

The first aim of the thesis is to examine the extent to which intervention failures are due to differences between schools or differences between individual students, and to identify factors that are associated with the intervention failure at the individual level (Study I). According to the social ecological framework (Swearer & Espelage, 2003), bullying does not occur in isolation but rather is the result of interactions between individuals and the social environment (e.g., peers, classroom, school). Thus, both individual factors and the social environment influence participation in bullying and are also likely to influence whether the bullying stops after an intervention. Further, intervention failures from bullying perpetrators' and victimized students' perspectives are often linked; when an adult's actions aiming to stop bullying fails and the bullying perpetration continues, it usually means that the

targeted student's victimization also continues. Although many of the potential factors associated with the intervention failure are the same for both outcomes, some of them are specific only for victimization whereas others are specific only for bullying perpetration. So far, most studies have examined the effectiveness of adult interventions only from victimized students' perspective and the perspective of the perpetrator(s) have been ignored with the exception of one study (Garandau et al., 2016) where the bullying perpetrators' intention to stop their bullying behavior after targeted interventions was examined.

Some of the individual characteristics that are likely to affect the effectiveness of the interventions, from both victimized student and bullying perpetrators' perspectives, can be derived from previous intervention research. One such characteristic is the age of the students involved. Although almost no research has tested the association between student age and the effectiveness of targeted interventions, the effectiveness of whole-school antibullying programs has consistently been found to decrease among adolescents compared to younger children (e.g., Hensums et al., 2022; Yeager et al., 2015). In addition, the *intensity* of the bullying perpetration or victimization, that is, how often it has been going on and for how long, is likely to affect the effectiveness of interventions. For instance, more frequent victimization might indicate that the victim is targeted by more than one perpetrator. This might make the situation harder to tackle, since it is not just one interpersonal conflict that has to be resolved but rather, several individuals must be confronted in order to be able to successfully stop the victimization. Indeed, in a study by Rigby (2020), the frequency of being victimized by a group was found to be negatively related to the success of the interventions. Also, the likelihood that the intervention will fail has been found to be higher the longer the victimization has been going on (Garandau et al., 2014c). Whether bullying occurs only onsite or also online might also play a role in the effectiveness of interventions. For instance, although research has shown that online victimization often co-occurs with face-to-face bullying (Olweus & Limber, 2018), and it can be addressed by school actions (Williford et al., 2013), the reductions in such behaviors are more limited than for other forms of bullying (e.g., Gaffney et al., 2019a). With regard to the characteristics specific to bullying perpetrators, there are some cognitions that are likely to contribute to behavioral changes after an intervention. Indeed, in a study by Saarento et al. (2015), increases in both students' own antibullying attitudes and their evaluation of how disapproving of bullying their teacher was, were found to lead to reductions in bullying behavior.

In addition, there are characteristics that have been found to be associated with bullying perpetration or victimization and that might also affect the effectiveness of the interventions. For instance, specific to bullying perpetrators, studies that have examined the contribution of parental processes (e.g., acceptance of violence,



positive attitudes for victimization and bullying) have found them to be positively related to bullying behaviour (for review, see Nocentini et al., 2019). Thus, in addition to perpetrators perception of their teachers' attitudes, their perception of their parents' attitudes is also likely to contribute to behavioural changes after an intervention. Specific to victimized students, there is a good indication that peer support (presence or absence of it) might play an important role in the effectiveness of the intervention. Previous research has shown that children who are being victimized, and especially those who are chronically victimized, tend to be lonely and lack social support (Acquah et al., 2016; Romera et al., 2021; Sheppard et al., 2019), whereas having even one friend can be a protective factor against victimization (Hodges et al., 1999). Finally, what the teachers and other school personnel actually do, i.e., which approach they use when they intervene, is likely to play an important role in the effectiveness of the targeted intervention.

### 1.3 Two Main Approaches to Address Bullying: Which Approach Is Most Effective?

The second goal of the thesis is to compare the effectiveness of different approaches in targeted interventions (Study II and Study III). So far, most studies examining the effectiveness of targeted interventions have not specified which approach the school personnel used when they intervened in bullying (for a review, see Rigby, 2014). Thus, very little is known about the effectiveness of different approaches. This is problematic from both researchers' and school personnel's perspective. As researchers, to be able to give guidance and recommendations about how to most efficiently intervene in bullying, we need more knowledge about the effectiveness of different intervention strategies. Teachers on the other hand, are the ones who are obligated to intervene in bullying as quickly as possible. Thus, knowing which intervention strategies work best is essential for them.

Intervention strategies that have been investigated include two main approaches: a confronting approach, and a non-confronting approach (Garandau et al., 2014c). In the confronting approach, the emphasis is on setting clear limits for unacceptable behavior. It is a disciplinary strategy (although the only sanctions is the discussion itself), and it consists of telling the perpetrators that their bullying behavior has come to the attention of school personnel, it is not tolerated and it must stop immediately (see Olweus, 1993). The key element in this approach is the condemning of the bullying behavior. The non-confronting approach was originally derived from the Method of Shared Concern (Pikas, 1989) and the Support Group Method (Robinson & Maines, 2008). In this approach, the aim is to achieve behavioral changes (i.e. stop the bullying) by trying to arouse the perpetrators' empathy for their victim without accusing them of any wrongdoing. Instead, the adult shares his or her concern about

the victimized peer's situation, without taking a stand on who is responsible for it. The main goal is to get the perpetrator to share the adults' concern and offer a solution to improve the situation.

Although the use of confronting, authoritarian approaches is more common than the use of non-confronting, solution-focused approaches (Bauman et al., 2008; Burger et al., 2015; Power-Elliott & Harris, 2012), there is no evidence of their superior effectiveness. Indeed, so far only two studies have directly compared the effectiveness of the approaches. Both studies examined the short-term effectiveness of the approaches and were conducted in the context of the RCT of the KiVa antibullying program in Finland (Garandeau et al., 2014c; Garandeau et al., 2016). In the RCT, the intervention schools (i.e., schools implementing the KiVa program) were divided into two groups: in one group the school personnel were instructed and trained to use the confronting approach, and in another group, they were instructed and trained to use the non-confronting approach. In the first study, the effectiveness of the approaches was examined from the victimized student's perspective (Garandeau et al., 2014c). In a follow-up meeting (organized about two weeks after the intervention), victimized students were asked to indicate whether the intervention had any effect on their situation. In 78.2 % of the cases the victimized students reported that the bullying had stopped, and in 19.8% of the cases they reported that their victimization had decreased. Thus, when considering all the cases where the bullying had either stopped or decreased, the success rate of the interventions was quite high (98%). Both approaches were found to be equally effective when the duration of victimization (how long the victimization had been going on), the types of aggression (e.g., physical, verbal, relational, online), and the level of schooling (primary vs. secondary school) were controlled for. However, the duration of victimization and level of schooling were both found to moderate the relative effectiveness of the approaches. Whereas the two approaches worked equally well in cases of long-term victimization (i.e., victimization had lasted more than 6 months) and in primary schools (grades 1–6), the confronting approach was slightly more successful than the non-confronting approach in cases where the victimization had lasted less than 6 months and among secondary school students (grades 7–9).

In the second study, the effectiveness of the approaches was examined from the bullying perpetrators' perspective by testing how bullying students' perception of the intervention influenced their intention to change their behavior (Garandeau et al., 2016). Right after meeting with school personnel to discuss their behavior, bullying students were invited to report in an anonymous questionnaire the extent to which they perceived that the teacher had condemned their behavior and tried to arouse their empathy for the victimized peer. In addition, bullying perpetrators were asked to evaluate the extent to which they believed that the discussion will affect their future behavior. According to the results, bullies' intention to change their behavior

(i.e., stop bullying) was overall quite high (mean of 4.12 on a scale from 0 to 5). Perceived condemning of the bullying behavior and perceived attempts to raise empathy for the victim were both positively – and equally strongly – related to bullies’ intention to change their behavior. Further, bullies’ intention to change was highest when they felt that the teacher had both condemned the bullying behavior and tried to arouse their empathy for the victim, rather than employing only one of the two strategies.

## 1.4 Important New Steps in Examining the Effectiveness of the Different Approaches

Based on existing research, the effectiveness of the confronting and non-confronting approaches is quite high, and they seem to be overall equally successful in stopping bullying and victimization (Garandau et al., 2014c; Garandau et al., 2016). However, the research literature on the topic is still very limited. Thus, several important new steps need to be taken in order to improve our understanding of the relative effectiveness of the different approaches.

### 1.4.1 Long-Term Effectiveness of the Approaches

Previous research has only assessed the short-term effectiveness (either right after the intervention discussion or in a follow-up meeting two weeks after the intervention) of the confronting and non-confronting approaches (Garandau et al., 2014c; Garandau et al., 2016) and their long-term effectiveness has never been compared. Overall, the long-term effectiveness of teacher interventions has rarely been examined. Based on the few existing studies, teachers’ interventions are less effective in stopping bullying in the long term than in the short term (van der Ploeg et al., 2016; Wachs et al., 2019). For instance, the effectiveness of the Support Group Method (a non-confronting, solution-focused approach) was examined in the context of implementing the KiVa anti-bullying program in the Netherlands (van der Ploeg et al., 2016). The immediate success was relatively good: the bullying had stopped in 29% of the cases and decreased in 55% of the cases, whereas the situation had stayed the same in 16% of the cases. However, at the end of the school year the situation looked worse as then only 26% of the victims reported that the bullying had stopped, 34% reported that it had decreased, 8% reported that it had stayed the same, and as many as 32% reported that the bullying had increased. In a study by Wachs et al. (2019) students were asked to recall bullying incidents they had either witnessed or been involved in as a perpetrator or a victim. The short-term effectiveness of the interventions was higher: 23,6 % of respondents estimated that the intervention did not successfully stop the bullying in the short term whereas

34.6% of the respondents estimated that the intervention did not successfully stop the bullying in the long term. The interventions were less likely to succeed in the long term when the teacher used authoritarian-punitive strategies (e.g., giving student a particular look, disciplining) compared to supportive strategies (e.g., gathering information, talking to involved pupils, including all pupils in the class). Thus, to make stronger conclusions about the effectiveness of different approaches, it is essential to examine their long-term effectiveness.

### 1.4.2 Adherence to Guidelines vs. Making Adaptations

The effectiveness of the confronting and non-confronting approaches have only been compared in the context of a RCT (Garandean et al., 2014c; Garandean et al., 2016). Half of the schools were instructed and trained to use the confronting approach, whereas the other half were instructed and trained to use the non-confronting approach. However, conducting strictly controlled evaluation trials is one thing, but bringing interventions to scale is another. To what extent school personnel implement the approaches after the evaluation trial ends and the program is brought to a wider usage is unknown. Previous research has shown that evidence-based methods might be adapted or they might not be implemented at all (Moore et al., 2013; Sainio et al., 2018a; Stirman et al., 2013). The reasons for adaptations may include lack of time or resources, lack of information or appropriate training, or strong beliefs about the ineffectiveness of a particular strategy (Durlak & DuPre, 2008; Haataja et al., 2015; Moore et al., 2013; Ringwalt et al., 2003). Given that adaptations are likely to occur, further understanding of their impact on intervention effectiveness is needed.

### 1.4.3 Controlling the Exact Content of the Discussions

In previous studies, the exact messages that teachers actually delivered to the perpetrators were either not known or could not be controlled for in the study design (Garandean et al., 2014c; Garandean et al., 2016). The studies relied either on what teachers were instructed to do or what students reported happened during the discussion. Further, although the school personnel received training and guidelines for the use of a specific approach (either the confronting or the non-confronting), the exact content of the discussions was not observed or recorded. Thus, the extent to which teachers followed these instructions could not be verified. It is possible that in some cases, school personnel used elements also from the other approach, or added elements that were not originally part of either approach (e.g., blaming or empowering the student). Indeed, in the study examining the effectiveness of the approaches from the perspective of the bullying perpetrators, the discussions were

most effective when the students felt that the teacher both, condemned the bullying behavior and tried to arouse their empathy (Garandeau et al., 2016). In that study, however, no teacher had been instructed to use elements from both approaches. Thus, to be able to reliably compare the effectiveness of different approaches, it is important to ensure that the discussions include only elements that are intended to be part of the used approach.

#### 1.4.4 Combining the Confronting and the Non-Confronting Approaches

The debate about the most effective intervention strategy has mostly centred around the confronting and the non-confronting approach. However, in the study by Garandeau et al. (2016) the discussions were most effective when the perpetrators perceived that the teacher had used elements from both of the approaches (i.e. condemning of the bullying behavior and arousing perpetrators empathy for their victim). Thus, it is possible that combining the two approaches might make the interventions even more effective than just using one approach as such. This has, however, never actually been tested.

#### 1.4.5 Empathy and Callous-Unemotional Traits as Possible Moderators of the Effectiveness of the Confronting and Non-Confronting Approaches

In previous research, the potential moderating effects of psychological characteristics of the students have been ignored. One personal characteristic that likely influences the effectiveness of the confronting and non-confronting approaches is empathy (i.e. the person's ability to feel or imagine another person's emotions). It is often divided into two components: affective empathy and cognitive empathy (Cuff et al., 2016). Affective empathy refers to the ability to *experience* what the other person is feeling whereas cognitive empathy refers to the ability to *understand* what the other person is feeling and the perspective of others. In the non-confronting approach, the focus is on arousing the perpetrators empathy for their victim. This means that in this approach the attempts made to stop the bullying depend on the perpetrators capability to feel empathy. However, research has shown that youth who bully others tend to be deficient especially in affective empathy (van Noorden et al., 2015; Zych & Llorent, 2019). This could imply that trying to stop bullying behavior by appealing to perpetrators' capability to feel empathy is unlikely to work with bullies who are low in affective empathy. Results regarding cognitive empathy are less consistent. Although the association between bullying behavior and cognitive empathy is generally found to be negative (e.g., van Noorden et al., 2015),

its magnitude is quite small (Zych & Llorent, 2019). Some studies find no significant association (Jolliffe & Farrington, 2006) whereas other studies find that those who bully others are actually higher in cognitive empathy than their peers (Caravita et al., 2010). Thus, it is also possible that youth who bully others are already aware of the suffering their behavior is causing for the victim. Therefore, merely telling the perpetrator what they already know (i.e., their behavior makes the victimized peer suffer) might be unproductive.

In addition to empathy, callous-unemotional traits are also likely to influence the effectiveness of the confronting and non-confronting approaches. In addition to lack of empathy, individuals high in callous-unemotional traits are also characterized by lack of remorse and guilt, and by shallow or deficient affect (Frick, 2009; Kimonis et al., 2015). Callous-unemotional traits have also been found to be positively associated with bullying behavior (e.g., Zych et al., 2019). Some researchers have suggested that in order to reduce bullying among youth who are high in callous-unemotional traits, antibullying programs should use both strategies: trying to increase their empathic concern for the victim's suffering and utilize authoritative school discipline and teaching style (Thornberg & Jungert, 2017). However, other researchers suggest that neither relying on raising empathy nor on punitive strategies is likely to work with youth high in callous-unemotional traits because of their known difficulties with empathy and reduced responsiveness to punishments in learning new strategies (Blair et al., 2006; Viding et al., 2009; Waller et al., 2020). Although in the confronting approach the only sanction is the discussion itself, it is a disciplinary strategy. Thus, it is possible that attempts to stop bullying by condemning the bullying behavior are unlikely to work with youth who are high in callous-unemotional traits.

## 2 Aims of the Thesis

The purpose of the thesis is to examine the effectiveness of adults' targeted interventions to stop bullying. In Study I, the goal is to examine the extent to which intervention failures are due to differences between schools or differences between individual students. Further, Study I aim at identifying factors that are associated with intervention failure at the individual level from both victimized students' and bullying perpetrators' perspective. In Study II and Study III, the focus is on the effectiveness of different approaches in targeted interventions. In Study II, the extent to which school personnel implement the confronting and non-confronting approaches or use their own adaptation, and how effective the different approaches are in the long term, is examined. In Study III, the effectiveness of different approaches is examined in an experimental setting by testing the effects of three teachers' messages - condemning message (as in the confronting approach), empathy-raising message (as in the non-confronting approach), and a combination of both - on students' intention to stop bullying behavior. In addition, Study III examines how perpetrators' level of affective and cognitive empathy, and callous-unemotional traits influence the effectiveness of the different messages.

The specific questions addressed in the thesis were:

1. How much of the variation in intervention failures is due to differences between schools vs. differences between individual students? (Study I)
2. Which individual-level factors are associated with intervention failure? (Study I)
3. Do the school personnel implement the evidence-based methods (i.e. the confronting or the non-confronting approach) or do they use their own adaptations (Study II).
4. How effective are the different approaches in stopping bullying?
  - a. What is the long-term effectiveness of the confronting and non-confronting approaches, and of the schools' own adaptations? (Study II)

- b. Is it more effective to combine the confronting and non-confronting approaches rather than use one approach as such? (Study III)
- c. Do affective empathy, cognitive empathy, and callous-unemotional traits influence the effectiveness of the confronting, non-confronting, and combined approach (Study III)?



# 3 Method

## 3.1 Participants and Procedure

The empirical studies presented in this thesis utilized survey data collected from Finnish schools that were implementing the KiVa® antibullying program (Study I and II) and experimental data collected from Finnish schools as a part of the Challenge research project (Study III).

### 3.1.1 The KiVa Samples

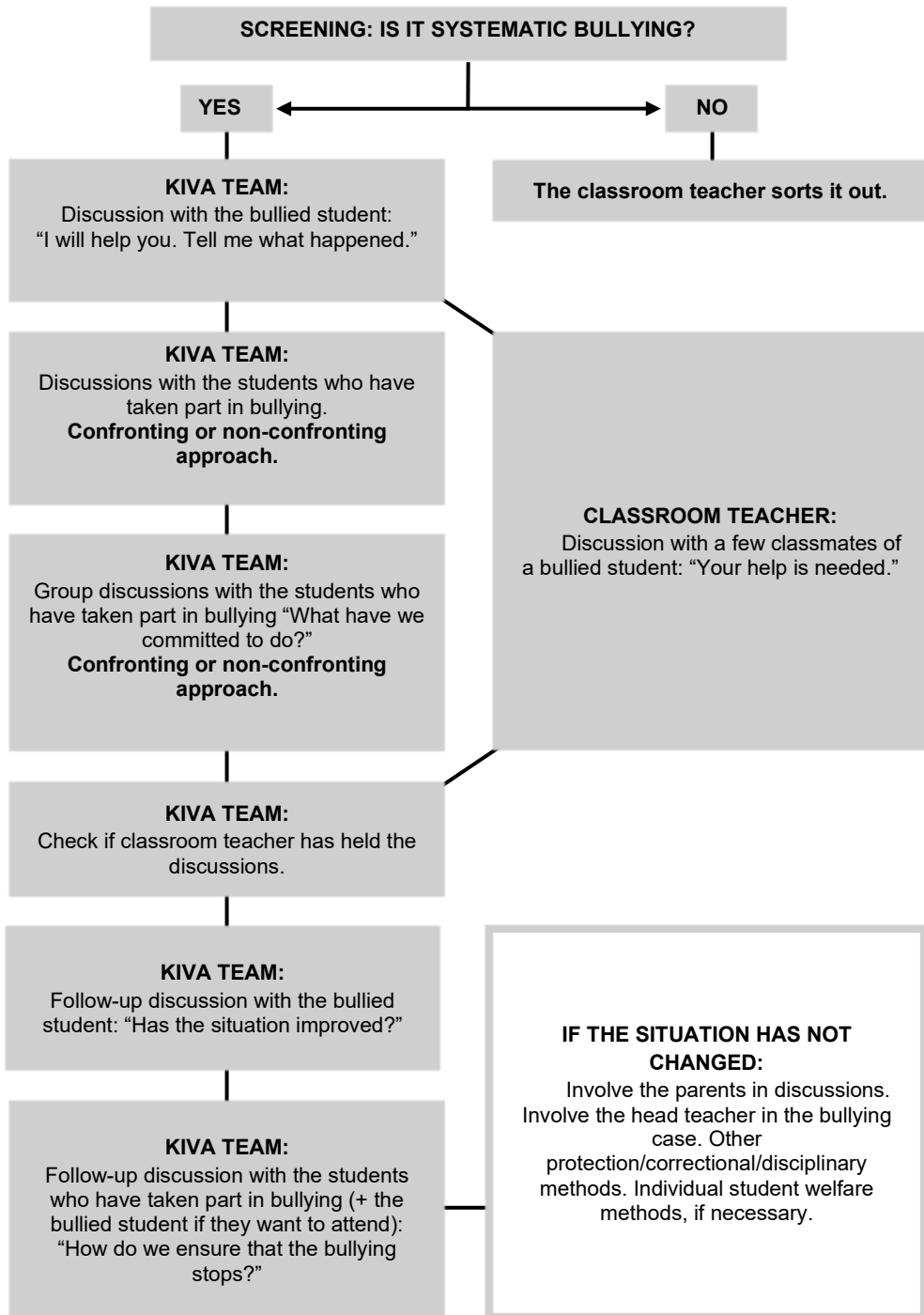
Data for Study I and II came from annual online surveys provided for all the schools implementing the KiVa® antibullying program in Finland. At the end of each school year, an invitation is sent to all registered KiVa schools to respond to three online questionnaires. One questionnaire is for students, one for schools' KiVa teams responsible for intervening in cases of bullying, and one for the teachers delivering the KiVa student lessons. Data utilized in Study I came from the student questionnaire whereas the data used in Study II came from two questionnaires, the one for the students and the one for the KiVa teams.

#### 3.1.1.1 Study I

The data used in Study I included responses from schools that were implementing the program between years 2009–2016, and from which students had responded at least once to the questionnaire starting in 2011. The question on whether the adults at school had intervened in the bullying (see the description of the intervention procedure in Fig. 1), was asked only from the victimized and bullying students in grades 4–9, thus, the study utilized data only from these grades. During the study years, a total of 838,695 students from 2,107 schools responded to the questionnaire. At the time, this represented 77 % of Finnish comprehensive schools ( $n = 2,719$ ; Official Statistics of Finland, 2022). The final sample included data from 2,032 schools from which students reported that the victimization or bullying perpetration had been addressed by the adults at school. The schools were from all around

Finland: 1,352 were primary schools, 296 secondary schools, and 394 were combined schools with both primary and secondary grades.

Out of the 2,032 schools, students from 1,901 schools reported that their situation had been addressed either because they had been victimized (n = 57,611) or had bullied others (n = 44,832). In 89 schools, reports were obtained only from victimized students (n = 224), and in 42 schools, data included only reports from students who had been bullying others (n = 86). Thus, in total 57,835 students reported that their situation had been addressed by adults because they had been victimized and 44,918 reported that their situation had been addressed because they had bullied others (that is 6.9 % and 5.4 % of the respondents).



**Figure 1.** Flow diagram of the intervention procedure used in schools that are implementing the KiVa® antibullying program (Sainio et al., 2018b).

### 3.1.1.2 Study II

The data used in Study II included responses from schools that were implementing the program between years 2009–2015, and from which KiVa teams had responded at least once to the questionnaire (about the use of different intervention approaches) starting in 2010. During the study years, responses were obtained from 1,525/2,260 (68%) registered KiVa schools. Since one aim of the study was to test differences between primary (grades 1–6) and secondary schools (grades 7–9), combined schools (grades 1–9;  $n = 304$ ) were excluded from the study. The final sample included data from 1,221 schools from all around Finland: 978 (80%) of them were primary and 243 (20%) secondary schools. During the study years, there were a total of 2,197 (85%) primary and 388 (15%) secondary schools in Finland (Official Statistics of Finland, 2019), thus primary schools were underrepresented in the study sample.

Data from the whole sample (1,221 schools) were used for descriptive analysis. One main goal of the study was to test the effectiveness of the approaches and the contribution of follow-up meetings to their effectiveness using reports from two sources, from school personnel and victimized students. However, the question on whether the school personnel had organized follow-up discussions, was only included in the questionnaire from 2011 onwards. Thus, data for predicting the intervention effectiveness from the school personnel's perspective included responses only from 1,101 schools. Since the questions of whether the victimization (or bullying perpetration) was addressed were not asked from younger students (grades 1–3), this study also used data only from students in grades 4–9. In total, students from 1,041/1,101 schools in grades 4–9 reported being summoned to a discussion because they had been victimized ( $n = 38,931$ ). Consequently, data for the multilevel model predicting the intervention effectiveness from the victimized students' perspective included responses only from those schools.

### 3.1.1.3 Informed Consent

When responding to the questionnaires, school personnel are asked to provide an informed consent on whether their responses can be used for research purposes. Only responses from those who gave their consent were used. Students provide the responses anonymously during regular school hours, using school-level ID to log in to the survey. Thus, their personal information was never identified. When the data utilized in the studies was collected, TENK (The Finnish National Board on Research Integrity) instruction was that if directly identifying information is not collected, and the school principals have given their consent for the research to be carried out as part of the school's normal activities, it is not necessary to request a

permission from the students guardians (National Advisory Board on Research Ethics, 2009).

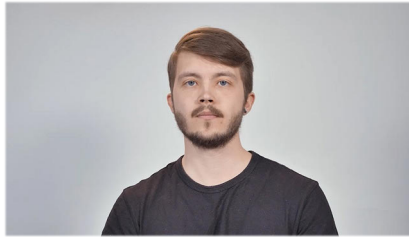
### 3.1.2 The Challenge Sample

Data for Study III was collected from a convenience sample of secondary ( $n = 3$ ) and combined schools ( $n = 4$ ) in Finland. The data collection started in February 2020. However, due to the COVID-19 pandemic and school lockdown, the data collection had to be interrupted and the rest of the data was collected in May 2020 and September-October 2020. In February and September-October the data was collected in schools by the author and trained research assistants using pen and paper questionnaires, whereas in May the data was collected using an online survey. To recruit participants, the study was first explained to the school principals who were then asked to invite all grade 7 students in their school to participate. Parents or guardians of the students were provided with information about the study procedures and data protection, and asked to give informed consent for their child to participate. Only students who obtained active parental consent and provided their own assent were allowed to participate in the study.

The sample consisted of 295 students from seven schools and 38 classrooms: 273 of the students responded at school to a pen-and-paper questionnaire and 22 of the students responded at home to the online questionnaire. Among the students who responded to the online questionnaire, 9/22 reported that they had not watched the video before moving to a second part (two of them were the only participants from their classroom), and these cases were excluded from further analyses. The remaining online participants did not differ from pen-and-paper participants in the study variables, with the exception of the gender of the teacher in the video ( $t(263) = -15.97, p < 0.001$ ). Although half of the video messages were delivered by a female teacher and the other half by a male teacher, the online participants all saw a message presented by the female teacher. From the students who responded to the pen-and-paper questionnaire, 9/273 were excluded due to clearly patterned responses to the survey. The final sample consisted of 277 students (129 females, 147 males, and one for whom the information on gender was missing;  $M_{age} = 12.93, SD = 0.49$ ) from 37 classrooms.

Each classroom was assigned to one of the three experimental conditions (condemning, empathy-raising, and combined message) with the exception of one large classroom where students were randomly divided across the three conditions (see the description of the conditions in Fig. 2). To make the data collection easier for the schools, students from several classrooms (within the same school) were assigned to the same experimental condition, and participated in the same test group. There were total of 22 test groups (all students who participated online were considered as one test group). Participants responded to two short surveys, one

before watching the video of a teacher delivering the antibullying message corresponding to their condition, and one after watching the video. The pre-questionnaire consisted of items about demographic information (e.g., gender, age), victimization, bullying behavior, empathy, and callous-unemotional traits. Prior to watching the video and responding to the questionnaires, participants were provided with a definition of bullying. Right before seeing the video, participants were asked to imagine that they had been involved in bullying a peer at school and the teacher had invited them to discuss the situation. They were told to listen carefully, since the video would be played only once. Each group saw one of the six videos, (i.e., one of the three messages delivered by either a female or male teacher). After watching the video, participants' answered questions about their perception of the extent to which the teacher had condemned their bullying behavior or tried to arouse their empathy for the victim. Finally, they were asked how likely they would stop their bullying behavior after such a discussion, if it happened to them in real life. The whole procedure took about an hour.



I wanted to talk to you...

#### Condemning

...because your classmate has been bullied and I know that you have been involved... Bullying behavior is absolutely forbidden, and it must stop immediately. Bullying is not tolerated in this school. You must stop bullying immediately.

#### Empathy-raising

... because I am very sad and concerned about the situation of a classmate of yours... I think it must be quite awful to go to school when such things are happening. It must feel really bad. If this happened to you, wouldn't you feel very bad?

#### Combined

... because your classmate has been bullied and I know that you have been involved... I think it must be quite awful to go to school when such things are happening. It must feel really bad. If this happened to you, wouldn't you feel very bad? Bullying behavior is absolutely forbidden, and it must stop immediately. Bullying is not tolerated in this school. You must stop bullying immediately.

**Figure 2.** Different conditions in short.

## 3.2 Measures

### 3.2.1 Outcome Variables: Intervention Failure, Effectiveness of the Interventions, and Intention to Stop Bullying Behavior

Measures for victim-perceived and bully-perceived intervention failures were used as outcomes in Study I. Victim-perceived intervention failure was assessed by asking students who reported that the victimization had been addressed by adults at school to indicate whether the intervention had an effect on their situation. Response options to the question “When you had been bullied, did the adult intervention affect your situation?” were the following: (1) *the situation did not change at all, I was still bullied*, (2) *since then I was bullied less or the bullying stopped completely*, and (3) *since then I was bullied more*. Bully-perceived intervention failure was measured by asking students who reported that the bullying perpetration had been addressed by adults at school to indicate whether the intervention had an effect on their behavior. Response options to the question “Did the adult intervention affect your behavior?” were the following: (1) *the situation did not change at all, I continued bullying*, (2) *since then I bullied less or stopped bullying completely*, (3) *I bullied more after that*. For the analyses, the response options one and three were combined into one category “did not change at all/increased” and a dummy-coded variable (0 = *decreased/stopped*, 1 = *did not change at all/increased*), where the latter represented the intervention failure, was created. This was done for both victim- and bully-perceived intervention failure.

Measures for personnel- and student-perceived effectiveness of the targeted interventions were utilized as outcomes in Study II. Personnel-perceived effectiveness of the discussions was assessed by asking the schools’ KiVa teams to evaluate the effectiveness of their interventions conducted during the past school year. Answers to the question “In your opinion, to what extent have the discussions led to a desired outcome (that is, ceasing of the bullying)?” were given on a five-point scale (0 = *not at all or very poorly*, 1 = *rather poorly*, 2 = *I do not know*, 3 = *rather well*, 4 = *very well*). Student-perceived effectiveness of the discussions was measured using the same question as was used to measure the victim-perceived effectiveness of the discussions in Study I. For the analyses, responses to the options one and three were again combined into one category “did not change at all/increased” and dummy-coded variable (0 = *did not change at all/increased*, 1 = *decreased/stopped*) was created. Within each school, individual student responses were averaged to create a school-level mean variable of the measure.

Intention to stop (hypothetical) bullying behavior was assessed in Study III. For this measure, participants responded on a six-point scale (0 = *strongly disagree*, 5 =



*strongly agree*) to a total of six items (e.g., “If the teacher would have talked to me like this I would stop bullying the classmate.”). For the analyses, the scores for the six items were averaged. The reliability coefficient McDonald’s omega (see Hayes & Coutts, 2020) for these six questions was satisfactory ( $\Omega = 0.84$ ).

### 3.2.2 Implementation of the Approaches and Organization of Follow-up Discussions

Measures assessing the implementation of different approaches was utilized in Study II. The KiVa teams were asked to indicate which of the four approaches, the confronting, non-confronting, case-specific (either the conf. or the non-conf. depending on situation) or their own adaptation they had used when intervening in cases of bullying, or whether they did not know which approach they had used (referred to as “unspecified method”). For the analyses, five dummy-coded variables (0 = *school did not use the method*, 1 = *school used the method*) were created to represent these five response categories. In addition, the KiVa teams were asked to indicate how often, if at all, they had organized follow-up discussions during the past school year. Response options to the question “Has your school’s KiVa team arranged follow-up discussions to make sure that the bullying has stopped?” were the following: (1) *no*, (2) *occasionally*, or (3) *in all cases*. For the analyses, three dummy-coded variables were created to represent these three response categories.

### 3.2.3 Teachers’ Antibullying Messages and Students’ Perception of the Messages

In Study III, there were three different experimental conditions (video messages presented to the participants): condemning message, empathy-raising message, and combined message. For the analyses, three dummy-coded variables (0 = *participant did not receive this message*, 1 = *participant received this message*) were created to represent these three experimental conditions. The students’ perceptions of the messages were assessed with two measures: perceived condemning of the bullying behavior and perceived empathy-raising. The measures were used to check whether the participants had perceived the different messages as intended. The perceived condemning of the bullying behavior was composed from a total of three items (e.g., “*Teacher clearly mentioned that I have behaved wrongly.*”), and the perceived empathy-raising was composed from a total of four items (e.g., “*The teacher talked especially about how bad my classmate is feeling.*”). For both measures, the responses were given on a six-point scale (0 = *strongly disagree*, 5 = *strongly agree*) and for the analyses, the mean scores for both, perceived condemning of the bullying behavior ( $\Omega = 0.86$ ) and empathy-raising ( $\Omega = 0.79$ ), were calculated.

### 3.2.4 Victimization and Bullying

Self-reported frequency of victimization and bullying were utilized in Study I and Study III. Students were asked to indicate whether they had been bullied and whether they had bullied others (global single items from the revised Olweus's Bully/Victim Questionnaire; Olweus, 1996). Responses to the questions "How often have you been bullied at school in the last couple of months?" and "How often have you bullied others at school in the last couple of months?" were given on a five-point scale (0 = *not at all*, 1 = *only once or twice*, 2 = *two or three times a month*, 3 = *about once a week*, and 4 = *several times a week*). Before responding, the definition of bullying was provided (Olweus, 1996). In Study III, the focus was in the individual characteristic that might have an effect on whether the intervention will be successful, regardless of whether the participant had been victimized or had bullied others in the past. Thus, in Study III both measures were used as control variables.

Measures for online victimization and duration of victimization were utilized in Study I. For the online victimization, students were asked to indicate whether they had been bullied online. Responses to the question "Have you been bullied through Internet during the past few months?" were given on a five-point scale (0 = *not at all*, 1 = *only once or twice*, 2 = *two or three times a month*, 3 = *about once a week*, and 4 = *several times a week*). To measure the presence of online victimization (rather than frequency), for the analysis, response options from 1 to 4 were combined into one category "presence of online victimization" and dummy-coded variable (0 = *no online victimization*, 1 = *presence of online victimization*) was created. For the duration of victimization, victimized students who reported that they had been bullied two or three times a month or more during last couple of months were asked to indicate how long the victimization had been going on. Responses to the question "How long have you been bullied?" were given on a five-point scale (0 = *a week or two*, 1 = *1 month*, 2 = *about 6 months*, 3 = *1 year*, and 4 = *many years*).

### 3.2.5 Students' Individual Characteristics and Perception of their Teachers' and Parents' Antibullying Attitudes

Measures assessing students' grade level, whether they had friends in the class, their own antibullying attitudes, and their perception of their teachers' and parents' antibullying attitudes were utilized in Study I. For grade level, students were asked to indicate which grade (4–9) they were in. For having friends in the class, students responded on a five-point scale (0 = *I disagree completely*, 4 = *I agree completely*) to two statements: "I have friends in my class" and "I have good friends in my class". For the analysis, scores of the two items were averaged ( $\Omega = 0.85$ ). For students own antibullying attitudes, students responded on a five-point scale (0 = *I disagree completely*, 4 = *I agree completely*) to questions such as "It is okay to call some kids

nasty names” (reverse coded) and “I feel sad seeing a child bullied”. For this measure, there were a total of six questions (adapted from Provictim scale; Rigby & Slee, 1991). For the analysis, three negatively coded items were reverse coded and mean scores of the six items were calculated ( $\Omega = 0.76$ ). Students’ perception of their teachers’ antibullying attitudes were measured asking “In your opinion, what does your teacher think about bullying?”. The responses were given on a five-point scale (0 = *my teacher thinks bullying is a good thing*, 1 = *my teacher does not care whether students are being bullied or not*, 2 = *I do not know*, 3 = *my teacher thinks that bullying is bad*, 4 = *my teacher thinks that bullying is absolutely wrong*). Same question was asked regarding their perception of their parents’ antibullying attitudes and again, responses were given on a five-point scale (0 = *they think bullying is a good thing*, 1 = *they do not care whether students are being bullied or not*, 2 = *I do not know*, 3 = *they think bullying is bad*, 4 = *they think bullying is absolutely wrong*).

Students level of affective and cognitive empathy, and callous-unemotional traits were measured in Study III. For affective and cognitive empathy, students filled in a 20-item self-report scale (Basic Empathy Scale, BES; Jolliffe & Farrington, 2006) in which 11 items capture affective (e.g., “*After being with a friend who is sad about something, I usually feel sad*”) and 9 items capture cognitive empathy (e.g., “*I am not usually aware of my friend’s feelings*” reverse coded). For callous-unemotional traits, students filled in a 24-item self-report scale (The Inventory of Callous-Unemotional Traits, ICU; Frick, 2004) in which questions such as “*I do not feel remorseful when I do something wrong.*” and “*The feelings of others are unimportant to me.*” are used to measure three aspects (uncaring, callousness, and unemotionality) of callous-unemotional traits in youth. Responses for both questionnaires were given on a six-point scale (0 = *strongly disagree*, 5 = *strongly agree*), and mean scores were calculated for affective ( $\Omega = 0.83$ ) and cognitive empathy ( $\Omega = 0.81$ ), and for total callous-unemotional trait scale ( $\Omega = 0.86$ , excluding items 2 and 10 as recommended by Ray et al., 2016).

### 3.2.6 Control Variables

The number of years of KiVa implementation was used as a control variable in Study I and Study II. It was calculated as a difference between the year the schools had originally registered as program users and each measurement year (the year in which the response was provided). In Study I, the range of implementation years was 0-7, whereas in Study II, the range was 1-6. In addition, self-reported frequency of bullying and victimization were used as control variables in Study III, gender of the student (self-reported; 0 = *girl*, 1 = *boy*) was used as control variable in Study I and Study III, and teacher speaking in the video (0 = *female*, 1 = *male*) was used as control variable in Study III. The student gender was used as a control variable

because previous studies indicate that there are gender differences not only in bullying behavior (e.g., Cook et al., 2010b), which was measured in Study I and Study III, but also in empathy (e.g., Farrell & Vaillancourt, 2021), and callous-unemotional traits (e.g., Essau et al., 2006), measured in Study III. For the generalizability of the results, the teacher speaking in the video was controlled for in Study III – one female and one male actor were used to represent teacher in the videos.

### 3.2.7 Statistical Analyses

The objectives of Study I were to examine how often teachers' targeted interventions fail in stopping bullying, to what extent the failures are due to differences between schools vs. students involved, and which student-level factors were associated with intervention failure. This was done using reports from both victimized students and bullying perpetrators. Mean scores were calculated for the prevalence of failure, and intraclass correlations (ICC) were calculated to examine the extent to which the failure varied between schools vs. students. For the last aim, a series of two-level logistic regression analyses were used to predict the victim-perceived and bully-perceived intervention failure. The analyses were conducted using *Mplus* 8.3 (Muthén & Muthén, 1998-2023) and the robust version of maximum likelihood estimation (MLR). Missing data was handled using full information maximum likelihood estimation (FIML). A two-level modelling was chosen to account for the nested structure of the data (cases nested within schools).

In Study II, firstly, to examine the extent to which school personnel implementing the KiVa antibullying program chose to use the program-recommended approaches (*confronting, non-confronting, and case-specific approach*), or their *own adaptation*, or whether they did not know which approach they had used when intervening in bullying, proportions of schools using each of the five approaches were calculated. Secondly, cross-tabulation was used to examine the relationship between the number of years of KiVa implementation and the used approach. Finally, to examine the effectiveness of the interventions, two-level regression analyses with random intercepts were used to test the effects of number of years of KiVa implementation, the used approach, organizing follow-up discussions, and the level of schooling (primary vs. secondary schools), on the personnel- (Model 1) and student-perceived effectiveness of the discussions (Model 2). Analyses were performed using *Mplus8* (Muthén & Muthén, 1998-2020) and the robust version of maximum likelihood estimation (MLR). Two-level modelling was used to account for the nested structure of the data (response years nested within schools).

In Study III, firstly, a validity check was performed to ensure that the three messages (the condemning, empathy-raising and combined message) were perceived as intended. For this, regression analyses were conducted using the different messages as predictor variables, teacher speaking in the video, gender of the student and self-reported frequency of victimization and bullying as control variables, and perceived condemning of the bullying behavior and perceived empathy-raising as outcome variables. Secondly, after entering the control variables, a series of hierarchical regressions analyses were conducted to examine the main effects of the three messages (Model 1), cognitive and affective empathy (Model 2a), and callous-unemotional traits (Model 3a) on students' intention to stop bullying behavior. Finally, the effects of interactions terms between the message received and affective and cognitive empathy (Model 2b), and callous-unemotional traits (Model 3b) on intention to stop were tested. Analyses were performed using *Mplus8* (Muthén & Muthén, 1998-2021) and the robust version of maximum likelihood estimation (MLR). The COMPLEX option of *Mplus* was used to account for the differences between the test groups.

## 4 Overview of the Studies

### STUDY I

**Johander, E., Turunen, T., Garandeau, C. F., & Salmivalli, C. (2023). Interventions That Failed: Factors Associated with the Continuation of Bullying After a Targeted Intervention. *International Journal of Bullying Prevention*, 2023. Advance online publication.**

Study I examined how often adults' targeted interventions fail in stopping bullying and to what extent this varies between schools vs. between students involved. In addition, the study investigated which student-level factors were associated with intervention failure. Data were collected annually in 2011–2016 via online questionnaires and included responses from a total of 838,695 students in 2,107 Finnish primary and secondary schools implementing the KiVa® antibullying program. Students responded to the surveys anonymously during regular school hours, using school-specific password to log in. During the years of the study, a total of 57,835 students reported having been summoned to a discussion with adults at school because they had been victimized, and 44,918 reported being summoned to such a discussion because they had bullied others.

According to the results, 27 % of the students who had been victimized reported that their situation did not improve after the adult intervention. Among the bullying perpetrators who were targeted by an intervention, 21% said they did not bully less as a result. Intervention failures were mostly due to differences between individuals: only 3–12% of the total variance in continued victimization and bullying was due to between-school differences. Two-level logistic regression analysis showed that victim-perceived failure was more likely when the victimized student was in higher grades, had been victimized more frequently and for a longer time, had been victimized also online, had bullied others, and had fewer friends in the class. Bully-perceived failure was more likely when the bullying student was in higher grades, bullied more frequently, and was victimized. Finally, the bullying students' antibullying attitudes and their perception of teacher's and parents' antibullying attitudes were negatively associated with failure of the intervention. Taken together, although the adults in KiVa schools were overall quite effective in reducing

victimization and bullying in the long term, approximately in one out of four cases the intervention failed. Most of the variant in intervention failures was between students. Thus, in order to better understand the challenges faced by school personnel when intervening, it is important to consider the characteristics of the bullying cases.

## STUDY II

**Johander, E., Turunen, T., Garandeanu, C. F., & Salmivalli, C. (2021). Different Approaches to Address Bullying in KiVa Schools: Adherence to Guidelines, Strategies Implemented, and Outcomes Obtained. *Prevention Science*, 22, 299–310.**

Study II examined the extent to which school personnel implementing the KiVa® antibullying program in Finland during 2009–2015 systematically employed the program-recommended approaches (*confronting* or *non-confronting*), used one or the other depending on the bullying case (*case-specific approach*), or used their *own adaptation* when talking to perpetrators of bullying, and whether they organized follow-up meetings after such discussions. In addition to examining adherence to program guidelines, the study investigated how effective these different approaches were in stopping bullying in the long term. Finally, the study tested the contribution of follow-up meetings and the number of years KiVa had been implemented in a school to the effectiveness of the interventions, using reports from both school personnel and victimized students. The data were collected annually across 6 years via online questionnaires and included responses from 1,221 primary and secondary schools. There were separate questionnaires for the school's KiVa team (one or several members of the team can respond) and for the students. In the schools where more than one KiVa team member responded, personnel-perceived effectiveness of the used approach was averaged across their responses. Students responded to the surveys anonymously during regular school hours, using school-specific password to log in. During the years of the study, a total of 38,931 students reported having being summoned to a discussion with adults at school because they had been victimized.

The results showed that the school personnel were more likely to use the confronting approach than the non-confronting approach. However, over time, rather than sticking to the two program-recommended approaches, they started making more adaptations. Two-level regression analyses indicated that the discussions were equally effective, according to both personnel and victimized students, when the confronting, non-confronting, or a case-specific approach had been used. The discussions were less effective when the personnel used their own adaptation or could not specify the method used. Perceived effectiveness was higher in primary schools than in secondary schools, but unrelated to the number of years KiVa had

been implemented. Finally, the school personnel perceived the discussions to be more effective when follow-up discussions were organized systematically after each intervention. Taken together, the findings emphasize the importance of adherence to evidence-based methods and organizing systematic follow-ups, rather than the superiority of a specific recommended approach as such, for the effectiveness of the interventions.

### STUDY III

**Johander, E., Trach, J., Turunen, T., Garandeau C. F., & Salmivalli, C. (2022). Intention to Stop Bullying following a Condemning, Empathy-Raising, or Combined Message from a Teacher – Do Students’ Empathy and Callous-Unemotional Traits Matter? *Journal of Youth and Adolescence*, 51, 1568–1580.**

In Study III, the effects of teachers’ (1) condemning, (2) empathy-raising, and (3) combined (including elements of both) messages on students’ intention to stop bullying were tested in a between-subject experimental design. In addition, the study examined whether students’ responses to the different messages varied as a function of their levels of empathy and callous-unemotional traits. The data was collected in Finland from a convenience sample of secondary schools ( $n = 3$ ) and combined schools (primary and secondary grades together;  $n = 4$ ). Participants completed a short survey before and after watching the video where a teacher delivered the antibullying message with one of the above messages. Before seeing the video, participants were asked to imagine that they had been involved in bullying a peer at school and the teacher had invited them to discuss the situation. The final sample included responses from a total of 277 seventh grade students ( $M_{age} = 12.93$ ,  $SD = 0.49$ ; 47% female).

Hierarchical regression analyses indicated that on average, students’ intention to stop bullying was equally high among those who saw the condemning and empathy-raising messages, and highest among those who saw the combined message. Callous-unemotional traits were negatively, and affective and cognitive empathy positively associated with intention to stop bullying. Students’ level of cognitive empathy moderated the relative effect of the condemning message on intention to stop bullying. At low levels of cognitive empathy, the condemning message was the least effective, whereas among those with high cognitive empathy, all messages were equally likely to lead to intention to stop bullying. Taken together, the findings suggest that for educators intervening in bullying among adolescents, an approach involving both condemning and empathy-raising messages is the ‘best bet’, most likely to lead to intention to stop bullying.



# 5 Discussion

In comparison to evaluations of whole-school prevention programs, little attention has been given to addressing cases of bullying. This thesis increased our understanding of the challenges faced by school personnel when intervening in bullying by focusing on intervention failure (Study I). Further, more knowledge was gained about the effectiveness of different approaches. The school personnel's use of different approaches (the confronting, non-confronting, or school's own adaptation) and how effective students and teachers in schools using these different approaches perceived the targeted interventions to be was examined in Study II. In Study III, the experimental design was used to test the effects of three teachers' messages (the condemning, empathy-raising, or combination of both) on students' intention to stop bullying. Study III also examined whether students' level of empathy and callous-unemotional traits influence the effectiveness of the different messages.

## 5.1 Factors Associated with Intervention Failure

The findings of this thesis show that when intervening in bullying, it is important to consider the individual characteristics of the students involved. In approximately one out of four cases in which an adult intervened, the intervention failed, i.e., bullying and victimization continued (Study I). However, only a small portion of the variation in intervention failures were due to differences between schools. This means that rather than some schools being in general less efficient than others in stopping bullying, some characteristics of the bullying cases, or of the children involved, are likely to make interventions more challenging.

Overall, the interventions were less effective in secondary schools than in primary schools (Study II). However, Study I showed that it is not only a matter of primary schools having a greater capacity than secondary schools for dealing with bullying, but of developmental differences as well; every additional year in grades made the intervention failure more likely. These findings are consistent with results of meta-analyses indicating that the effects of whole-school antibullying programs tend to decrease among older students (e.g., Hensums et al., 2022; Yeager et al., 2015). Further, the more frequent the bullying or victimization was, the higher the

likelihood that the intervention failed. In line with a previous study, the duration of victimization (i.e. how long the victimization had been going on) also positively predicted the intervention failure (Garandau et al., 2014c). Interventions were also more likely to fail when the students involved were both victimized by others and bullied others themselves (i.e., bully-victims) and when the targeted student had been victimized also online and when they had fewer friends in the class (Study I). Thus, the age of the students involved, the intensity of bullying and victimization as well as their co-occurrence, the absence of peer support, and exposure to several forms of bullying should be taken into consideration when intervening in bullying since they might hinder the effectiveness of the interventions.

The result of the thesis also showed that there are some cognitions (Study I) and psychological characteristics (Study III) of the bullying perpetrators that make interventions less likely to succeed. The stronger the perpetrators' own antibullying attitudes were and the stronger they thought their teachers' antibullying attitudes were, the more likely they were to stop bullying after the intervention addressing their behavior (Study I). This is in line with studies suggesting that students observe their teachers' attitudes and modify their behavior accordingly (Saarento et al., 2015). The results of the thesis also suggest that they do the same with regard to the attitudes of their parents: the stronger the perpetrators perceived their parents' antibullying attitudes to be, the more likely they were to stop their bullying behaviour after the intervention (Study I). With regard to the psychological characteristics, both, affective and cognitive empathy were positively, and callous-unemotional traits negatively associated with students' intention to stop bullying behavior (Study III). Previous research has shown that youth with higher levels of empathy are less likely to bully others (e.g., van Noorden et al., 2015). The results of Study III suggest that they are also more likely to stop (or at least intend to stop) their bullying behaviour in response to adults' targeted intervention. The opposite seems to be true for youth with higher levels of callous-unemotional traits; they are more likely to bully others (Zych et al., 2019), but also less likely to respond to an intervention aimed at decreasing their bullying behavior.

## 5.2 Adherence to Guidelines vs. Making Adaptations

The results of Study II showed that in schools implementing the KiVa program, overall, the most common way to intervene in bullying was to use the program-recommended approaches i.e., the confronting and non-confronting approaches. However, in line with previous research indicating that teachers tend to prefer authority-based interventions (e.g., Bauman et al., 2008; Burger et al., 2015), the school personnel implementing the KiVa program strongly favored the use of the

confronting over the non-confronting approach. Further, the school personnel's preferences changed over the years. During the first year of program implementation, the most common way to intervene was to use the confronting approach, but over the years the use of school's own adaptation became more frequent so that in the fifth year of program implementation, the most common way to intervene was to use the school's own adaptation.

### 5.3 Long-Term Effectiveness of the Approaches

The findings of Study II showed that the targeted interventions were overall quite effective in reducing bullying in the long term, and their effectiveness did not vary depending on whether the school personnel had used the confronting or the non-confronting approach. This finding is in line with previous studies (Garandeanu et al., 2014c; Garandeanu et al., 2016), providing further evidence that the confronting and the non-confronting approach are overall equally effective in reducing bullying and victimization. However, the interventions were less effective when the school personnel had used their own adaptation. Thus, increasing adaptations did not make the interventions more effective, quite the contrary. This is in line with studies suggesting that higher adherence to program's original design results in better outcomes (Durlak & DuPre, 2008).

Rather than being associated with the use of the confronting or the non-confronting approach, the effectiveness of the interventions was found to depend strongly on the systematic organization of follow-ups. The school personnel perceived the interventions as less effective when they did not organize follow-up discussions at all, or when they organized follow-up discussions only occasionally, compared to when they organized follow-up discussions in all cases. Thus, for the discussions to be effective, organizing follow-up meetings to ensure that the bullying has stopped is essential.

### 5.4 Controlling the Exact Content of the Discussions and Combining the Two Approaches

The results of Study III showed that the students' intention to stop their (hypothetical) bullying behavior was on average equally high for those who saw the condemning and the empathy-raising message. This means that when the exact message delivered to the students was controlled for and thus, known, the condemning message (i.e., condemning the bullying behavior as in the confronting approach) and the empathy-raising message (i.e., trying to arouse empathy for the victim as in the non-confronting approach) were equally effective at encouraging

students to stop bullying others. This finding is again in line with previous studies (Garandeanu et al., 2014c; Garandeanu et al., 2016) and provides even more support for the confronting and non-confronting approaches being overall equally effective. However, the students' intention to stop their bullying behavior was highest for those who saw the combined message. This means that when the message included both condemning the bullying behavior and attempts to arouse empathy for the victim, it was even more effective at encouraging students to stop bullying than just using one of the strategies as such. This is also in line with previous findings (Garandeanu et al., 2016) and provides further evidence for the notion that combining the confronting and non-confronting approaches might be more effective than using a single approach.

## 5.5 Empathy and Callous-Unemotional Traits as Possible Moderators of the Effectiveness of the Confronting and Non-Confronting Approaches

The results of Study III also showed that students' level of affective empathy or callous-unemotional traits did not moderate the relative effectiveness of the condemning, empathy-raising or combined messages. This means that regardless of the students' level of these characteristics, all messages worked equally well (or equally poorly). This, and the weaker intention to stop bullying behavior for students high in callous-unemotional traits, is in line with studies suggesting that neither confronting nor non-confronting interventions are likely to work with youth high on callous-unemotional traits (Viding et al., 2009). However, the students' level of cognitive empathy i.e., ability to understand the perspective of others, was found to moderate the relative effectiveness of the condemning message. It was the least effective message among students with low cognitive empathy, whereas all messages worked equally well among students with high cognitive empathy. This finding indicates that students with lower levels of cognitive empathy would not be expected to be as responsive (i.e., stop their bullying behavior) to approaches that rely only on a condemning of the bullying behavior compared to approaches that either only try to raise empathy for the victim or use both strategies. Previous research has found that bullying perpetrators do not form a homogeneous group (e.g., Peeters et al., 2010). Whereas some bullying perpetrators might be cold manipulators with superior theory-of-mind skills (Renouf et al., 2010; Sutton et al., 1999), some might engage in bullying partly because of their deficiencies in their ability to take the perspective of others (Monks et al., 2005). For this group of perpetrators low in cognitive empathy, raising their awareness of the victims' suffering might be more effective than just condemning their behavior. Since for many students the content of the message does not matter, and simply condemning the behavior is not helpful for

those low in cognitive empathy, it might be most efficient to use the combined message with all the students.

## 5.6 Strengths and Limitations

The main strengths of this thesis lie in using large sample sizes and the examination of the perspectives of victimized students, bullying perpetrators, as well as school personnel. The consideration of a wide range of factors predicting the failure and effectiveness of the targeted interventions is also a clear advantage. Moreover, the use of the experimental design in Study III is also a strength, because it allowed to control for the content of the messages presented to the students.

The thesis has also some limitations. First, to preserve the anonymity of the responses, the students who participated in the Study I and Study II logged in to the survey using a school-level password. This means that it is unknown whether some of the victimized (Study I and Study II) or bullying students (Study I) who reported that their situation was addressed by the school personnel had participated in the discussions only once or several times within school year or during the years of the study. Because in Study II the effectiveness of the interventions was measured on the school-level, this does not create such of an issue. However, in Study I both of the outcome variables were on the student level. If individual students could be followed from one year to the next, the data could be analyzed as a three-level model (targeted interventions nested within students nested within schools), which would increase the validity of Study I.

Second, Study I and Study II both relied on retrospective reports of whether the interventions had been successful. Although the data were collected at the end of each school year, the interventions might have taken place at any time during that school year. An obvious limitation is therefore memory bias. Further, some interventions and their consequences might have been more memorable than others and therefore the memories of these events may be more likely to be retrieved when responding to the survey.

Third, Study I examined how different factors were associated with the intervention failure. However, due to the timing of the survey, it is unclear whether the intervention failures were antecedents, rather than consequences, of some of the examined factors. For instance, it is possible that the victimization lasted longer because the intervention failed in the first place rather than duration of victimization making intervention failures more likely.

Fourth, the surveys utilized in Study I and Study II were not designed specifically for these studies; the data had been collected years before planning the studies and the available measures were limited. Thus, other factors than the ones investigated might have an effect on the success of an intervention but could not be taken into

consideration. Further, the used data lacked information about what exactly was done when the schools used their own adaptation i.e., whether and to what extent they adapted the program-recommended approaches or whether they did something completely different.

Finally, Study III examined students' intention to stop their hypothetical bullying behavior as a response to a video vignette depicting an adult talking to them. Although the use of video vignettes was a deliberate choice as it allowed to control exactly what was said in different conditions, it is unclear to what extent the obtained results can be generalized to real-life setting. Further, most students in the sample reported that they had not bullied others. As bullies were overall less responsive to the different messages, it is possible that the results of Study III would be different in a sample including only students who actually bully others in real life.

## 5.7 Conclusions and Practical Implications

The results of this thesis showed that the targeted interventions conducted by adults in KiVa schools were overall quite effective in reducing bullying and victimization. However, in approximately one out of four cases where adults intervened, the intervention failed. Most of the variation in intervention failures could be explained by the characteristics of the bullying cases and the students involved. Thus, in order to better understand the challenges in intervening bullying and victimization, and to identify actions needed when such challenges emerge, it is important to consider the situations, cognitions, and behavior of the victimized students and bullying perpetrators involved. The results of this thesis suggest that such challenges could be related to the pro-bullying attitudes of perpetrators, or the lack of friends or aggressiveness of the victimized student. Further, the findings of the thesis support the idea that students with low levels of empathy and high levels of callous-unemotional traits are less likely to stop their bullying behavior after adults' intervention. Together these results suggest that it is extremely important to follow the situation after the intervention and make sure that the victimized students' situation improves. If bullying still continues, further actions need to be taken.

Both, the confronting and the non-confronting approach seem to be overall equally effective in stopping bullying and victimization also in the long term. However, when school personnel intervene in bullying, they do not necessarily choose the approach that is the most effective. Firstly, although the school personnel implementing the KiVa perceived the confronting and non-confronting approaches to be equally effective, most of them chose to use the confronting, rather than the non-confronting approach. Thus, the non-confronting approach was rarely chosen. Secondly, the longer the schools had been implementing the program, the more the personnel started to use their own adaptation. This happened despite the fact that

they perceived the interventions to be less effective after using their own adaptation. Thus, making adaptations to the recommended approaches did not increase the effectiveness of the interventions. However, organizing follow-up meetings systematically after each intervention had a positive effect on the effectiveness of the interventions. Together these results emphasize the importance of adherence to evidence-based methods and organizing systematic follow-ups, rather than the superiority of a specific recommended approach as such, for the effectiveness of the interventions.

The results of this thesis also suggest that combining condemning the bullying behavior with attempts to arouse empathy for the victim might be even more effective strategy to intervene in bullying than just using either of the two strategies alone. Thus, instead of using either the confronting or the non-confronting approach only, the optimal strategy to intervene in bullying seems to be combining the two approaches especially in cases, when teachers do not know the characteristics of the perpetrators. When they happen to know that the perpetrator has difficulties in understanding the perspective of others, it might be preferable to avoid using only condemning of the bullying behavior, i.e., the confronting approach.

## 5.8 Future Research

Study I examined how the characteristics or situations of the students involved are associated with intervention failure. However, there are other factors that might have an effect on the success of the intervention. For instance, the level of perceived popularity of the perpetrators has been shown to be associated with reduced effectiveness of antibullying programs for bullying perpetration (Garandeau et al., 2014a) and might also make perpetrators less responsive to targeted interventions. In addition, future research should also examine how characteristics of the teacher (e.g., warmth, assertiveness), the quality of the teacher-student relationship, and different contextual factors, such as classroom status hierarchy (Garandeau et al., 2014b), bullying norms (Sentse et al., 2015), and the support provided by the headmasters for antibullying work (Ahtola et al., 2013), might be related to the success of the intervention. Moreover, Study I did not consider which approach school personnel used when they intervened in victimization and bullying. Future studies should examine whether the association between different factors and intervention failure vary between different intervention strategies.

Study II examined the relative effectiveness of the confronting and non-confronting approaches. However, there are other strategies, such as direct sanctions (Thompson & Smith, 2011), or restorative approach (Morrison, 2002) that were not considered in the study. A comprehensive investigation of the relative effectiveness of different strategies would include comparison among a wider range of methods.

Further, what the schools actually did when they used their own adaptation is unknown. To increase the understanding of the association between implementation fidelity and effectiveness of targeted interventions, future research should examine the type of adaptations schools make to the recommended approaches, and why they make the adaptations.

Study III examined the effects of the condemning, empathy-raising and combined message on students' intention to stop their hypothetical bullying behavior. Although previous studies have also focused on the effects of condemning and empathy arousal either by comparing the effectiveness of the confronting and the non-confronting approach (Garandeau et al., 2014c), or examining the bullying perpetrators perception of the interventions (Garandeau et al., 2016), no study has examined the effectiveness of combined approach with actual bullying cases. Future studies should compare the effectiveness of the confronting and non-confronting approaches to the effectiveness of the combined approach in a real-life setting. Further, Study III focused on the effects of students' level of empathy and callous-unemotional traits on their intention to stop bullying behavior. However, there are other characteristics, that might affect the effectiveness of the different messages, such as student level of moral disengagement which has been shown to be positively associated with bullying behavior (Bjärehed et al., 2021). Future studies should examine the effects of other characteristics on students' intention to stop their bullying behavior or whether they actually stop their bullying behavior in real life.

The three studies included in the thesis were all conducted in Finland. However, it is possible that some findings of the thesis might be different if the studies had been conducted in other cultural contexts. For instance, Finland and many other Western countries are considered to have more individualistic culture, while many East Asian countries (e.g., China, South Korea) are considered to have more collectivistic culture. These cultural differences influence communication style, with individualism being linked to a preference to more direct and collectivism to more indirect communication (for meta-analysis, see Oyserman et al., 2002). Thus, it is possible that school personnel from more collectivistic culture would prefer to use the non-confronting approach over the confronting approach. Further, in collectivistic cultures, where there is a strong emphasis on interdependence and maintaining social harmony (e.g., Hofstede, 1980; Hook et al., 2009), interventions that focus on condemning the bullying behavior may be perceived as stigmatizing and lead to social exclusion of the perpetrator, which could further worsen the problem of bullying. Instead, interventions that emphasize empathy and promote positive relationships may be more effective in reducing bullying behavior in such a culture. Therefore, in more collectivistic culture, the non-confronting approach might be more effective in reducing bullying and victimization than the confronting approach. To gain knowledge on whether the results of the thesis could be



generalized to non-Western cultures, future studies should examine teachers' use of different approaches and the effectiveness of these approaches in different cultural contexts.

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