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## Bullying in schools: the state of knowledge and effective interventions

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### ABSTRACT

During the school years, bullying is one of the most common expressions of violence in the peer context. Research on bullying started more than forty years ago, when the phenomenon was defined as ‘aggressive, intentional acts carried out by a group or an individual repeatedly and over time against a victim who cannot easily defend him- or herself’. Three criteria are relevant in order to define aggressive behaviour as bullying: (1) repetition, (2) intentionality and (3) an imbalance of power. Given these characteristics, bullying is often defined as systematic abuse of power by peers. It is recognised globally as a complex and serious problem. In the present paper, we discuss the prevalence, age and gender differences, and various types of bullying, as well as why it happens and how long it lasts, starting from the large surveys carried out in western countries and to a lower extent in low- and middle-income countries. The prevalence rates vary widely across studies; therefore, specific attention will be devoted to the definition, time reference period and frequency criterion. We will also focus on risk factors as well as short- and long-term outcomes of bullying and victimisation. Finally, a section will be dedicated to review what is known about effective prevention of bullying.

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Bullying; violence in school; children; adolescents; antibullying intervention

Violence has been recognised as a relevant and serious problem by several international agencies. In 1996, the World Health Assembly adopted a resolution declaring violence a leading worldwide public health problem (WHA 49.25) and called upon Member States to give urgent consideration to the problem of violence. In the school context, peer bullying is the most common form of violence among children and youths. Bullying compromises children’s rights, including the right to education as requested by the Convention on the Rights of the Child (The United Nations 1989). It presents special risks for vulnerable children, such as children with disabilities; refugees, or children affected by migration; children who are excluded; children who belong to a minority group, or simply children that differ from the peer group.

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## What is bullying?

Research on bullying started more than 40 years ago (Olweus, 1973, 1978) and defined this behaviour as ‘aggressive, intentional acts carried out by a group or an individual repeatedly and over time against a victim who cannot easily defend him or herself’ (Olweus, 1993, p. 48). Despite some debate over the definition, most researchers agree that bullying involves the intent to harm and an imbalance of power between the aggressor and the victim, and it takes place repeatedly (Farrington, 1993; Olweus, 1993). Bullying involves a dynamic interaction between the perpetrator and the victim. The bully increases in power, and the victim loses power. As a result, it is difficult for the victim to respond or to cope with the problem (Menesini et al. 2012; Swearer & Hymel, 2015). Imbalance of power can be derived from physical strength, social status in the group, or from group size (e.g. a group targeting a single person). Power may also be achieved through knowing a person’s vulnerabilities (e.g. appearance, learning problem, family situation, personal characteristics) and using this knowledge to harm him or her.

Bullying comprises verbal attacks (e.g. name calling, threats), physical behaviours (e.g. hitting, kicking, damaging victim’s property), and relational/social aggression (e.g. social exclusion, rumour spreading) (Monks & Smith, 2006; Olweus, 1993; Smith, 2014) up to the most recent forms of attacks through Internet and new technologies (also referred to as cyberbullying).

## Prevalence

There is a wide variation in prevalence rates of bullying across studies, partially due to differences in measurement and/or operationalisation of the bullying construct. Such inconsistencies have strongly influenced rate estimation, and scholars have called for greater consensus in definition and measurement (Menesini & Nocentini, 2009).

In a recent review, Juvonen and Graham (2014) report that approximately 20–25% of youth are directly involved in bullying as perpetrators, victims, or both. Large-scale studies conducted in Western countries suggest that 4–9% of youths frequently engage in bullying behaviours and that 9–25% of school-age children are bullied. A smaller subgroup of youth who both bully and are bullied (bully/victims) has also been identified. In a recent meta-analysis on bullying and cyberbullying prevalence across contexts (Modecki et al., 2014) with an overall sample of 335,519 youth (12–18 years), the authors estimated a mean prevalence of 35% for traditional bullying (both perpetration and victimisation roles) and 15% for cyberbullying involvement.

## Contextual and cultural factors on prevalence estimation

Besides scientific research done in numerous countries, data on prevalence can be derived from large cross-national surveys carried out by NGOs, state governments, or other organisations. Smith, Robinson, and Marchi (2016) used four surveys for a global comparison on bullying and victimisation: EU Kids Online Survey ([www.eukidsonline.net](http://www.eukidsonline.net)), Global School Health Survey (GSHS) ([www.who.int/chp/gshs/factsheets/en/index.html](http://www.who.int/chp/gshs/factsheets/en/index.html)), Trends in International Mathematics and Science Study (TIMSS) (<http://timssandpirls.bc.edu/timss2011/international-results-mathematics.html>) and Health Behaviour in School-aged

Children (HBSC), (<http://www.hbsc.org/>). They found a very low agreement (from small to zero) in terms of correlations across surveys, raising concerns about using cross-national datasets to make judgements on the rates of bullying and victimisation in different countries. In another contribution, Sittichai and Smith (2015) reviewed studies from 10 ASEAN countries, making use of two sets of comparative data: (1) large-scale surveys (GSHS and TIMSS), and (2) papers reported by research scholars. They came to the conclusion that there are important cultural and linguistic differences between eastern and western countries in terms of who does the bullying (friends in the same class or strangers), where it happens (classroom, playground), and types of bullying (social exclusion, extortion). In addition, definitions of bullying-like phenomena show linguistic variation and may be influenced by what is viewed as legitimate from a cultural point of view. Despite these differences, they concluded that bullying-like behaviours are fairly frequent in the 10 countries, showing comparable prevalence rates to those found in western countries (around 10%).

Whereas extensive research has been conducted on bullying and victimisation in Western and Eastern high-income countries, far less research has been done in low- and middle-income countries (Zych, Ortega, & Del Rey, 2015).

Results from Latin America show a high prevalence of bullying, with 40–50% of teens in Peru and Colombia reporting that they bully others (Oliveros, Figueroa, & Mayorga, 2009). A recent study from Lister et al. (2015) on victimisation among Peruvian adolescents provided data from an ongoing prospective study involving a cohort of 12,000 children (the Young Lives – YL). Being bullied showed figures of 47.3% at the age of 8; of 30.4% at the age of 12, and of 21.9% at the age of 15. Two studies from Nicaragua showed the involvement of 35% of secondary school students, 124% as victims, 109% as bullies and 117% as bully-victims (Del Rey & Ortega, 2008).

As for Africa, Greeff and Grobler (2008) found a percentage of 564% of South African students reporting to be bullied. Another recent study was carried out in Algeria involving a sample of 1452 school children aged 8, 10 and 12 years (Tiliouine, 2015). The findings showed a level of involvement of approximately 25–35%, including direct and indirect forms of bullying.

### Age and gender differences

Several studies suggest that the prevalence and forms of bullying are different across age groups, even though the findings are not straightforward. In a meta-analysis of 153 studies, Cook, Williams, Guerra, Kim and Sadek (2010) found that the effect size of age was 0.09 on bully role, 0.01 on bully/victim role; and –0.01 on victim role, indicating an overall stability of victim and bully-victim roles over time and a slight increase of bullying behaviour with age. Bullying peaks during middle school years (i.e. 12–15 years), and tends to decrease by the end of high school (Hymel & Swearer, 2015). With respect to the forms of bullying, with increasing age there appears to be a shift from physical bullying to indirect and relational bullying (Rivers & Smith, 1994).

It is commonly reported that boys are more likely to be involved in bullying others than are girls (HBSC survey; Pepler, Jiang, Craig, & Connolly, 2008), although some studies have found little difference. In their meta-analysis of 153 studies, Cook et al. (2010) found a correlation of gender (boys) with the bully role of .18, with the bully/victim role of .10, and with the victim role of .06, indicating a higher prevalence of boys for all three roles (although the gender difference for the victim role is not large). Most studies found that

boys are more likely to be involved in physical forms of victimisation, while bullying among girls is more likely to be either relational or verbal (Besag, 2006; Crick & Grotpeter, 1995).

## **Prejudice-related bullying**

Recent reviews have called for more studies on discriminative, or so-called prejudice-related bullying (Juvonen & Graham, 2014). The risk for bullying and victimization is not equal across student groups; a number of studies indicate that students with disabilities or suffering from obesity, or the ones belonging to ethnic or sexual minorities, are at greater risk for being victimised than their peers. Farmer et al. (2012) found that female students who received special education services were 3.9 times more likely to be victims and 4.8 times more likely to be bully-victims than their peers without disabilities. Similar results were also found in USA by Blake, Lund, Zhou, and Benz (2012).

To address the role of ethnicity in different contexts, one study examined sixth-grade students' experiences of vulnerability at school, defined as perceived victimisation, feeling unsafe and feeling lonely. The students were from 99 classrooms in 10 middle schools that varied with respect to ethnic diversity (Juvonen, Nishina, & Graham, 2006). Greater ethnic diversity was related to a lower sense of vulnerability among different ethnic groups. The authors argued that power relations may be more balanced in ethnically diverse schools with multiple ethnic groups. A recent meta-analysis of Vitoroulis and Vaillancourt (2015) focused on ethnic group differences in peer victimisation and suggested that ethnic minority status alone was not strongly associated with a higher level of peer victimisation. Thus, although ethnic minority status poses a risk for victimisation, its effect seems to depend on the context.

Many studies on the incidence of homophobic bullying are limited to single-item measures of sexual minority status, and do not measure dimensions of sexual orientation (i.e. identity as well as behaviour). In addition, even in large population-based samples, the prevalence of sexual minorities is quite low, and often different types of sexual identities and preferences are combined into a single category for statistical analyses. Despite these limitations, some data are impressive; for example, a survey run by LGBT associations involving more than 7000 students, aged 13 to 21 years, showed that nearly 9 out of 10 LGBT students experience harassment at school (Kosciw, Greytak, Bartkiewicz, Boesen, & Palmer, 2012). In addition, homophobic teasing or name-calling is a commonly reported experience, particularly by students who identify themselves as gay, lesbian, bisexual, or transgender, among these students 50–80% have experienced it (Espelage, Hong, Rao, & Thornberg, 2015; Russell, Toomey, Ryan, & Diaz, 2014). In conclusion, the problem of prejudice-related bullying appears highly relevant, affecting minority groups seriously.

## **Risk factors**

### ***Individual-level risk factors for bullying and victimisation***

#### ***Bullies***

In his seminal work, Olweus (1978, p. 136) described the 'aggressive personality pattern' of bullies as a driving force behind their mean behaviour. As bullying is a form of aggressive behaviour, it is not surprising that an individual's general tendency to aggress (trait

aggression) is associated with bullying. Having attitudes and cognitions that favour aggression and low levels of empathy towards other people are associated with both general aggression and bullying (e.g. Van Noorden, Bukowski, Haselager, & Cillessen, 2016).

Some theoretical accounts view bullies as individuals who lack social skills, have a low self-esteem, deficiencies in social information processing, low social standing in the peer group, and other adjustment problems. Others view bullying as functional, adaptive behaviour associated with benefits. Empirical studies have not always succeeded in clarifying this issue, partly due to the failure to acknowledge the heterogeneity of children and adolescents engaging in bullying. Some of them are victimised themselves (so-called bully-victims) whereas others can be considered 'pure' (non-victimised) bullies. Bully-victims are typically highly maladjusted in comparison to pure bullies. To keep this distinction clear, we discuss bullies, victims and bully-victims separately.

There used to be a rather common belief that low self-esteem leads to aggression, including bullying. Although negative self-related cognitions are (weakly) related to bullying, they do not predict a greater likelihood of being a pure, non-victimised bully (Cook et al., 2010). There is little support for the aggression – low self-esteem hypothesis in general (Baumeister, Bushman, & Campbell, 2000). Instead, recent evidence suggests that narcissism, or a sense of grandiosity and entitlement, as well as callous-emotional traits (characterised by lack of empathy and shame) are associated with bullying (Fanti & Kimonis, 2012; Reijntjes et al., 2016).

The belief that bullies are socially incompetent was challenged by Sutton, Smith, and Swettenham (1999), who found that 7–10-year-old bullies scored relatively high in tasks designed to assess understanding of others' cognitions and emotions. Accordingly, Peeters, Cillessen, and Scholte (2010) identified three subtypes of bullies, a popular-socially intelligent group, a popular moderate group, and an unpopular-less socially intelligent group; the study underlines the heterogeneity of children and adolescents involved in bullying. Overall, there is a need to understand better the heterogeneity of students bullying their peers and their differing motivations to do so (Rodkin, Espelage, & Hanish, 2015).

Research guided by the social cognitive framework has found that bullies are characterised by thought processes that support the use of aggression. Bullies feel confident about using aggression, expect positive outcomes for aggression (e.g. peer approval), view aggression as an accepted way of behaving, and have an overall positive view on the use of aggression (Toblin, Schwartz, Gorman, & Abou-ezzeddine, 2005). A recent meta-analysis (Gini, Pozzoli, & Hymel, 2014) provides empirical evidence of bullies using several moral disengagement mechanisms to self-justify their negative behaviour.

Whether such tendencies should be regarded as deficiencies or merely as differences in social-cognitive processing styles, has been debated in the literature. Traditionally, social competence has been seen as a behaviour that is socially accepted and associated with being liked by others. However, it can be also defined as an ability to be successful at achieving one's goals. According to the latter view, children who successfully achieve their goals, either by using prosocial or coercive strategies, could be seen as socially competent. Some studies suggest that many (pure) bullies are so-called bistrategic controllers, who use both prosocial and coercive strategies to get what they want (Olthof & Goossens, 2008; Olthof, Goossens, Vermande, Aleva, & Van der Meulen, 2011; Rodkin et al., 2015).

Bullies value dominance (Olthof et al., 2011; Sijtsema, Veenstra, Lindenberg, & Salmivalli, 2009) and they often acquire it (Olthof et al., 2011; Pellegrini & Long, 2002). Even if they are



not necessarily personally liked by many classmates, bullies may be perceived as popular, powerful, and 'cool' among their peers (Caravita, DiBlasio, & Salmivalli, 2009; Reijntjes et al., 2016). Moreover, bullies are often central members of their peer networks and have friends. Adolescent bullies like others who engage in similar behaviours (Sentse, Kiuru, Veenstra, & Salmivalli, 2014), and affiliate with them and can thereby provide reinforcement for each other's coercive behaviour.

Regarding family influence, bullies tend to perceive their parents as authoritarian, punitive and unsupportive (Baldry & Farrington, 2000), and they report less family cohesiveness than other children (Smith, 2014). In a meta-analysis by Cook et al. (2010) family factors were, on average, only weakly related to bullying; however, several family factors such as parental conflict, monitoring and family SES were examined together rather than separately.

### ***Victims of bullying***

Victimisation is associated with a number of internalising problems such as depression, anxiety and low self-esteem (Cook et al., 2010; Hawker & Boulton, 2000). Victimisation is also related to numerous interpersonal difficulties such as peer rejection, low peer acceptance, having few or no friends, and negative friendship quality (Cook et al., 2010; Hawker & Boulton, 2000). Also, children with externalising problems and low levels of prosocial behaviour are more likely to be victimised (Card, 2003; see the section on bully-victims). Children with internalising (or externalising) problems are more likely to become victimised if they also face interpersonal difficulties (Hodges, Boivin, Vitaro, & Bukowski, 1999; Hodges & Perry, 1999).

Many risk factors for being bullied can be understood in the light of the bullies' characteristics and goals: children who are unassertive and insecure can elicit aggression-encouraging cognitions in potential bullies. Such characteristics may also make a child a suitable target for someone aiming at status enhancement. By choosing victims who are submissive, insecure about themselves (Salmivalli & Isaacs, 2005), physically weak (Hodges & Perry, 1999), and rejected by the peer group (Hodges & Perry, 1999), bullies can signal their power to the rest of the group without having to be afraid of confrontation or losing affection of other peers (Veenstra, Lindenberg, Munniksmas, & Dijkstra, 2010).

Having protective friends moderates the association between risk factors and victimisation. Thus, children who are shy and anxious have a higher probability of being victimised if they have friends who are physically weak and/or disliked by other peers, as compared to the children who have friends and who are strong and/or liked by others (Hodges, Malone, & Perry, 1997). Yet, although victimised children can benefit from having friends who are strong and who can protect them from bullies, in reality, victimised children tend to hang out with other victimised peers (Sentse, Dijkstra, Salmivalli, & Cillessen, 2013).

Many children who are victimised by peers are also victimised in other contexts, including their home (poly-victimisation, see Finkelhor, Ormrod, & Turner, 2007). In contrast, some studies have found that victims view their home environment as rather positive, but also overprotective. A meta-analysis by Lereya, Samara, and Wolke (2013) found support for both overprotection and abuse/neglect in the family: the former was more strongly related to being a pure victim, whereas the latter was more strongly associated with the bully-victim status.

### ***Bully-victims: a distinct group***

Bully-victims are a distinct, albeit a rather small group of children and adolescents. They are highly rejected by their peers and show both externalising and internalising problems. They often come from the most adverse home environments, characterised by maltreatment and neglectful parenting (Cook et al., 2010; Lereya et al., 2013). Bully-victims score high on reactive aggression (besides scoring high on proactive aggression). They also show a different socio-cognitive profile compared to pure bullies (e.g. Toblin et al., 2005).

### ***Classroom-level risk factors***

Classrooms of students, as well as whole schools, vary in rates of bullying. As variation between different classrooms is much larger than variation between schools, we focus on the former. Classroom-level risk factors may be sought from demographic factors (such as class size), peer group dynamics, or teacher characteristics.

Demographic factors do not seem to explain classroom-level differences in bullying well. For instance, there is no clear evidence of class size being related to the prevalence of bullies or victims in the class. When an association has been found, it has often been contrary to the common expectation: more bullying has been found in smaller rather than in bigger classrooms. Several other demographic candidates have failed to explain differences between classrooms as well (e.g. the proportion of boys in a classroom, the proportion of immigrants in a classroom), or the findings have been controversial. Classroom differences can be better explained by factors related to peer group dynamics or teacher characteristics (for a review, see Saarento, Boulton, & Salmivalli, 2015).

Classroom hierarchy is associated with bullying behaviour: there is more bullying in highly hierarchical classrooms, where peer status (such as popularity) or power (who typically decides about things) are centred upon few individuals rather than being evenly distributed. In a recent study (Garandeau, Lee, & Salmivalli, 2014), it was found that classroom hierarchy leads to an increase in bullying over time, rather than bullying leading to increased hierarchy. A non-hierarchical classroom, on the other hand, is not a favourable environment for bullying to flourish.

Furthermore, classroom norms explain why students in some classrooms are more likely to be involved in bullying. Probullying norms can be reflected in low levels of antibullying attitudes, in positive expectations regarding the social outcomes of probullying actions and negative expectations of the social outcomes of provictim actions – each of these factors is associated with students' higher risk of bullying involvement in a classroom (Nocentini, Menesini, & Salmivalli, 2013). Classroom norms can also be reflected in the behaviours of students when witnessing the acts of bullying. As the reactions of peers in bullying situations provide direct feedback to the bullies, they have important implications for the emergence and maintenance of bullying. The frequency of bullying perpetration is indeed higher in classrooms where reinforcing the bullies' behaviour is common and defending the victimised classmates is rare, implying that bullying is socially rewarded (Salmivalli, Voeten, & Poskiparta, 2011).

From the point of view of students at risk for becoming the targets of bullying, recent research has shown that the association between individual risk factors (such as social anxiety and peer rejection) and victimisation varies across classrooms, suggesting that individual vulnerabilities are more likely to lead to victimisation when the classroom context allows that to happen. The likelihood that vulnerable children become the targets of bullying is



exacerbated in classrooms characterised by high levels of reinforcement of the bully and low levels of defence of the victim (Kärnä, Voeten, Poskiparta, & Salmivalli, 2010) by the peer bystanders.

Finally, students' perceptions regarding teacher attitudes towards bullying are associated with the level of bullying problems in a classroom. A study examining the mediators of the KiVa antibullying programme (Saarento et al., 2015) found that changes in student perceptions of their teachers' bullying-related attitudes mediated the effects of the programme on bullying. During the year when the KiVa programme was implemented, students started to perceive their teachers' attitudes as more disapproving of bullying, and consequently, their bullying behaviour was reduced. This is strong evidence for the importance of teachers communicating their disapproval of bullying to students.

### Health consequences for bullying

Bullying brings negative health consequences for both bullies and victims, and it can have a negative impact on the bystanders as well (Wolke & Lereya, 2015). Several longitudinal studies from different countries, along with systematic reviews and meta-analyses, have demonstrated the relationship between school bullying or the experience of being victimised and later health outcomes. These associations hold even when controlling for other childhood risk factors (Arseneault, Bowes, & Shakoor, 2010).

In the past three decades, a significant effort has been put forth by researchers analysing the effects of bullying and victimization on physical, psychological, relational and general wellbeing. The main results show that adolescents who are bullied miss more school and show signs of poor school achievement (Nakamoto & Schwartz, 2009), report higher loneliness and poorer health (Fekkes, Pijpers, Fredriks, Vogels, & Verloove-Vanhorick, 2006), and greater levels of anxiety and depression than their non-victimised peers (Juvonen & Graham, 2014). These negative outcomes are also related to the severity of the victimisation experience. Van der Plog, Steglich, Salmivalli, and Veenstra (2015) found that victims of frequent and multiple victimisation, and victims who were victimised by several bullies, suffered more than those whose experiences were less frequent or perpetrated by fewer peers. Reijntjes, Kamphuis, Prinzie, and Telch (2010) analysed the role of internalising problems and their relationship to bullying. They concluded that such problems appear to be both antecedents and consequences of peer victimisation, constituting a 'vicious cycle' that contributes to the elevated stability of peer victimisation. Studies have also linked victimisation to suicidal ideation (Holt et al., 2015; Klomek, Sourander, & Elonheimo, 2015). As Arseneault et al. (2010) underscored in their review, being bullied is associated, in the short-term, with severe symptoms of mental health problems and, furthermore, has long-lasting effects that can persist until late adolescence. McDougall and Vaillancourt (2015) in recent systematic review underscored the necessity to use a complex and multifactorial model to understand direct and indirect links connecting peer victimisation experiences and later adult outcomes. Finally, Wolke and Lereya (2015), reviewing studies of genetically identical monozygotic twins who lived in the same households but were discordant for experiences of bullying, confirmed the dramatic consequences of being a victim of bullying over and above other personal and contextual factors.

Active bullying has also relevant impact on individual life. In a meta-analysis of 28 longitudinal studies, Ttofi, Farrington, Lösel, and Loeber (2011b) concluded that bullying

perpetration is a strong and a specific risk factor for later criminal offending and psychotic symptoms. Klomek et al. (2015) confirmed this pattern and proposed a dose effect, in which more frequent bullying involvement in childhood is more strongly associated with adult adversities. The same authors concluded that bullying perpetration is followed by an increased risk of delinquency whereas victimisation is followed by an increased risk of depression.

Bully-victims, victims and bullies had a significantly higher risk for psychosomatic problems than non-involved age-mates (Gini & Pozzoli, 2015), and victimisation is a major childhood risk factor that uniquely contributes to later depression, even controlling for many other major childhood risks (Ttofi, Farrington, Lösel, & Loeber, 2011a).

The authors of the studies cited above brought up the importance of carrying out effective anti-bullying programmes that would have a high benefit-cost ratio in terms of preventing early crime, suicide, internalising symptoms and other psychological problems. Many authors proposed that such interventions should be viewed as a form of early intervention for public health.

### **Effective interventions**

The amount of research on antibullying interventions is significant, with numerous scientifically evaluated school-based programmes. In their meta-analysis, Farrington and Ttofi (2009) concluded that such programmes are often effective, reaching an average decrease of 20–23% for bullying others and of 17–20% for being bullied. However, the effects vary considerably across programmes; they are also weaker when programmes are evaluated with more stringent designs, such as randomised controlled trials (Langford et al., 2015; Ttofi & Farrington, 2011). It should be noted that some programmes do *not* lead to positive outcomes, some have never been evaluated, and some have been evaluated so poorly that no conclusions can be drawn regarding their effects. Evans and colleagues (Evans, Fraser, & Cotter, 2014) reported that up to 45% of the studies showed no programme effects on bullying perpetration and about 30% showed no programme effects on victimisation. Which programmes work best, or what are the effective ingredients of these programmes, are urgent questions.

Whole-school programmes are often complex, consisting of various components targeted at different levels of influence (individual students, parents, classrooms, whole schools) and including a variety of methods. The different components are typically evaluated in combination, rather than separately. Consequently, the contribution of each individual component to the overall effects of a given programme is unknown. It is possible that a programme reaches the best effects when all components are used together, but it is also conceivable that some components are responsible for the good outcomes whereas some others contribute little, or nothing to the effects. From the public health perspective, it is necessary to assess interventions in terms of their cost-effectiveness.

The effective ingredients of bullying prevention programmes were investigated by Ttofi and Farrington (2011). Their conclusion, based on between-programmes evaluation, was that the intensity (such as number of hours) and duration (number of days/months) of programmes is related to their effectiveness. This suggests that programmes need to be long-lasting and intensive in order to have the desired effects. The authors identified two additional

elements that were related to programme effectiveness, namely parent training/parent meetings, and disciplinary methods (referring to sanctions within a warm framework).

The mobilisation of bystanders, or the silence of the majority witnessing bullying, are key to success. Research has demonstrated that peer witnesses' responses are crucial to inhibit or fuel bullying. Further, some of the highly effective programmes, such as the KiVa antibullying programme developed in Finland, rely on enhancing bystanders' awareness, empathy and self-efficacy to support victimised peers, instead of reinforcing the bullies' behaviour (Kärnä et al., 2011). Although the inclusion of the element 'work with peers' was not found to strengthen the effects of antibullying programmes in the analysis by Ttofi and Farrington (2011), in their coding work with peers it was defined as 'formal engagement of peers in tackling bullying' (including the utilisation of formally assigned peer mediators, or peer supporters), rather than awareness-raising about the role of *all* peers and formulation of rules for bystander intervention in classrooms. On a theoretical as well as empirical basis, the latter type of approach is highly recommended (Salmivalli, 2010). Formal peer helpers intervening in bullying has, based on current evidence, little effect on ongoing bullying. It should be noted, however, that assigning peers as *educators* (involving them in awareness-raising) has been found effective in reducing bullying among adolescents (NoTrap! intervention, see Palladino, Nocentini, & Menesini, 2015).

There is variation between schools and between individual teachers in how they implement prevention programmes. Even programmes that were designed to be intensive can be implemented more or less intensively, depending on the resources and commitment in the schools. Also, teachers might adapt the programmes and change some critical parts; in other words, they can decide not to implement the programme as it was designed to be implemented. There is evidence that better implementation fidelity is associated with better outcomes (such as greater reductions in students' experiences of being bullied, see Haataja, Boulton, Voeten, & Salmivalli, 2014).

In summary, whole-school programmes to prevent bullying are often successful. Their effects vary, however; some programmes show consistent positive effects whereas others have little or no evidence of effectiveness. What explains the divergent effects? Programmes should be intensive and long-lasting, and they should be implemented with fidelity. Involving parents seems to strengthen the effects, as well as the use of disciplinary practices with bullies. Raising awareness among students about the role of the whole group has an impact on maintaining bullying, and enhancing antibullying norms and responses within classrooms is crucial. It is also highly important that teachers clearly communicate their antibullying attitudes to students.

In several countries, it is legally required that schools have an anti-bullying policy. This obligation is desirable, but it should be remembered that having *any kind of policy* in place might not be enough; interventions that have been found to be effective through rigorous evaluations should be utilised. Schools should be provided with guidance regarding most effective practices and programmes. We agree with the suggestion by Farrington and Ttofi (2009) that a system of accrediting effective anti-bullying programmes should be developed in order to ensure that programmes adopted by schools contain elements that have been proved to be effective in high-quality evaluations.

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