Anti-bullying Programmes

Toolkit technical report

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This report is produced in collaboration with staff from the Campbell Collaboration Secretariat. It is a derivative product, which summarises information from Campbell systematic reviews, and other reviews, to support evidence-informed decision making'.

Abstract/Plain Language summary

In England and Wales, bullying is defined as: "Bullying is behaviour by an individual or group, repeated over time, that intentionally hurts another individual or group either physically or emotionally" (DFE, 2017) and occurs where there is a distinct power imbalance between bullies and victims. This report focuses on knowledge about preventing bullying perpetration, because of the link between perpetration and later offending.

Bullying is a serious problem. The prevalence of bullying varies according to its definition, the sample, the time period enquired about, etc. According to the DFE (2018), 17% of young people aged 10-15 in England were bullied in a way that made them frightened or upset, in the previous 12 months.

Most anti-bullying programmes include several intervention components that are implemented across the school system, targeting the individuals involved in bullying, the peer group, teachers, school staff, parents and the wider community. The most widely used programmes are the Olweus Bullying Prevention programme (OBPP) from Norway, KiVa from Finland, ViSC from Austria and NoTrap! from Italy (Gaffney et al., 2019b).

In general, anti-bullying interventions reduce bullying. The observed effect size of 0.153 corresponds to an approximate 19% reduction in bullying. The review by Gaffney et al. (2019a) is our preferred estimate and informs the headline estimate of the possible reduction in violence. The evidence rating for bullying outcomes is 3. However, due to the indirect estimate on violence outcomes, the evidence rating for violence is reduced to 2.

Since bullying perpetration predicts later offending and violence, interventions which reduce bullying should lead to reductions in offending and violence. However, the estimated reduction in violence is indirect, and so the evidence rating is lower, and future research is needed to better understand the impact of anti-bullying programmes on violence and offending outcomes.

Gaffney et al. (2019b) report that a programme is more effective when implemented in the country in which it was developed (e.g., OBPP in Norway) and Gaffney et al. (2021a) found that specific components of anti-bullying programmes are associated with greater reductions in bullying others. For example, programmes that included the following components were more effective:

- A whole-school approach to combat bullying
- An anti-bullying policy
- Implementation of classroom rules against bullying
- Teacher training on classroom management techniques to manage behaviour and prevent/ identify bullying
- Providing parents with information about bullying, both bullying others and being bullied
- Involvement of peers in class discussions, group activities, role-play exercises or in other informal ways
- Programme activities included targeted elements to work with children and young people who are bullied
- The intervention was delivered through a manual and clearly outlined curriculum
- Anti-bullying lessons were implemented using mental health approaches, such as cognitive-behavioural techniques, or the intervention also raised awareness about mental health

Problems of implementation include weak fidelity, especially over time, possibly as programmes incorporate elements into their practice that they feel work best. Also important are support from the school leadership for the programme and project staff relating well to school staff. The main challenges to fidelity are the lack of time to fully incorporate all elements of the programme into classroom time and missing out elements of the whole

school approach. Whilst training can be important to support an intervention, teachers found it to be very time consuming.

Cost data from two programmes in England give (2019) prices of £166-£411 per pupil.

Much research has demonstrated that bullying perpetration in school is a significant risk factor for a number of concerning behaviours such as weapon carrying (Valdebenito et al., 2017); drug use (Valdebenito et al., 2015); offending (Ttofi et al., 2011); and violence (Ttofi et al., 2012).

Objective and approach

The objective of this report is to provide a summary of anti-bullying programmes, their effectiveness, efficacy, and implementation. This technical report is based on two high-quality systematic reviews and meta-analyses, namely by Gaffney et al. (2019a; 2019b) and Ng et al. (2020).

Inclusion criteria

To be included in this report a systematic review must:

- Review school-based anti-bullying programmes, implemented with school-aged participants (i.e., typically between ages 4 and 18 years old) and evaluated using experimental or quasi-experimental methods.
- Focus on programmes designed to reduce school-bullying perpetration. Programmes must include specific anti-bullying components. 'School-bullying' could also be referred to as offline bullying, traditional bullying or face-to-face bullying.
- Be reported in the English language and published in peer-reviewed journals (e.g., Campbell collaboration reviews), within the past 5 years (i.e., since 2015).

Exclusion criteria

There are many systematic reviews on many facets of anti-bullying programmes, but only two high quality, recent and relevant reviews are included in the present report. Reviews were excluded for the following reasons:

- The review was not published recently (e.g., Ferguson et al., 2007; Merrell et al., 2008). Research on the prevention of bullying has advanced considerably in the last 15 years.
- The review did not use systematic review methodology (e.g., Divecha & Brackett, 2019).
- The review reported the impact of anti-bullying programmes on bullying victimisation outcomes only (e.g., Kennedy, 2020).
- The review focused on specific geographical locations, and so evaluations from the United Kingdom and Ireland would not be included. For example, anti-bullying programmes in North America (Rawlings & Stoddard, 2019) or in low- to middle-income countries (Sivaraman et al., 2019) were excluded. The two included reviews did not set restrictions on the locations of evaluations.
- The review focused on cyberbullying only (e.g., Gaffney et al., 2019c).
- The review focused on 'other' school programmes that did not include anti-bullying components, even if the evaluation reported bullying outcomes (e.g., WHO Healthy Schools Framework, Langford et al., 2015).

There was one high-quality review that examined the effect of school-based violence prevention programmes on a range of outcomes (e.g., aggression, violence, and bullying) that was conducted by UK researchers (Mytton et al., 2006). This review was excluded as it is quite old, and much more restricted than the more recent extensive review by UK researchers Gaffney et al. (2019a).

Outcomes

The main outcome of interest in the present technical report is school-bullying perpetration. Evaluations of programmes that aimed to reduce the prevalence of bullying others were included.

In England and Wales, bullying is defined as: "Bullying is behaviour by an individual or group, repeated over time, that intentionally hurts another individual or group either physically or emotionally" (DFE, 2017). Moreover, bullying involves individual(s) between whom there is a distinct physical or social power imbalance.

Bullying behaviours can take many forms, such as, physical (e.g., assault, hitting/punching, slapping, personal injury, damage to belongings) or verbal (e.g., name calling, threats, shouting abuse). Bullying can also be described as relational, and include instances of spreading rumours, social exclusion or gossiping. In the past 10-12 years, cyberbullying has emerged as another form of bullying behaviour, involving similar acts but via information and communication technologies or online social media platforms. However, research on cyberbullying is not reviewed in the present report and is instead reviewed in a separate technical report.

Description of interventions

There was a wide range of different anti-bullying programmes included in the reviews, and this technical report will focus primarily on the "packaged" anti-bullying programmes that have been repeatedly evaluated. Of these, Gaffney et al. (2019b) found that the most commonly implemented and evaluated by experimental designs are OBPP, KiVa, ViSC and No Trap!. There was a significant overlap in the programmes included in both reviews.

Intervention components

The majority of anti-bullying programmes involve an array of intervention components that are implemented across the school system. The socio-ecological framework is commonly used in anti-bullying programmes and intervention activities take place at multiple levels, for example, the individuals involved in bullying, the peer group, teachers, school staff, parents and the wider community.

Gaffney et al. (2019b) reported the key components of anti-bullying programmes that have been repeatedly evaluated. Intervention activities are implemented with peers both informally (e.g., in-class group discussions) and formally (e.g., encouraging bystanders to intervene if they witness bullying, or implementing peer-led discussion forums about bullying). Teachers are commonly very involved in anti-bullying programmes. Anti-bullying programmes frequently follow a train-the-trainer model and teachers receive training in bullying prevention/intervention and implement anti-bullying lessons/activities. Parents are often involved in anti-bullying programmes. Beyond receiving parental consent, most programmes provide detailed information letters/leaflets for parents or hold information sessions for parents to highlight the issues surrounding bullying. In some instances, parents of children involved in bullying are given private consultation (e.g., Bully Proofing Your School).

A full list of intervention components that can be included in anti-bullying programmes is reported by Gaffney et al. (2021a). Components were coded on the individual, peer, classroom, school, parent and intervention levels and are as follows:

- Individual = work with bullies, work with victims, and co-operative group work (between schools and external partners).
- Peer = formal peer-led components, informal peer involvement (e.g., class discussions, group exercises, role-play, group games/activities), and encouraging bystanders to intervene.
- Classroom = development and implementation of anti-bullying rules in classrooms and teaching teachers to manage student behaviour in the classroom.
- School = whole-school approach, inclusion of increased supervision in 'hot spots' for bullying and establishing an anti-bullying policy.

- Parent = information for parents through letters or leaflets and active involvement of parents in anti-bullying activities (e.g., parent information meetings or homework activities).
- Intervention = a specific anti-bullying curriculum, lessons on social-emotional skills, a mental health approach (e.g., using cognitive-behavioural therapy techniques), inclusion of punitive and/or non-punitive disciplinary measures.

Programmes are often manualised in that they provide a range of materials that schools can use to reduce and/or prevent bullying. For example, the KiVa anti-bullying programme[1] is meant to "function as a toolbox for schools" and provide schools with ready-to-use anti-bullying materials from specific detailed lesson plans, parents' guides, posters, and online games. KiVa also includes a specially designed anti-bullying computer game where students are placed in a virtual school environment and required to respond to different bullying incidents.

Targeted or Universal

The OBPP was the first anti-bullying programme to adopt a 'whole-school' approach, meaning that the entire school community was involved in the intervention. This has remained a common approach to anti-bullying programmes, although most packaged intervention programmes include targeted components alongside whole-school activities. The whole-school approach also promotes a 'positive school climate' where bullying is not tolerated.

Lessons and classroom activities generally focus not only on bullying and raising awareness about bullying (e.g., OBPP; NoTrap!) but also target several social and emotional skills, such as: assertiveness (e.g., Bully Proofing Your School; OBPP) and empathy, perspective taking and problem solving (e.g., KiVa; NoTrap!). Other programmes are designed to target specific social/emotional skills, employ cognitive behavioural techniques (e.g., fairplayer.manual) or are described as social-emotional learning programmes (e.g., Second Step). Emotion

[1] https://www.kivaprogram.net/materials-for-schools/

regulation, targeting internalising and externalising problems, and communication/conflict resolution are often incorporated into anti-bullying programmes.

In some instances, individuals identified as being involved in bullying receive additional targeted anti-bullying activities. For example, the OBPP specifies that 'talks with bullies and their parents' are an important aspect of the intervention and incorporate non-hostile, non-physical sanctions for bullying behaviour. The KiVa programme involves creating a peer support group for victims of bullying. Steps to Respect provides students involved in bullying with coaching on the 'Four-A Responses': Affirm behaviour, Ask questions, Assess immediate safety, and Act.

Situational prevention elements are also common in anti-bullying programmes. Often schools are advised to increase supervision in playgrounds and other 'hot-spots' where bullying frequently occurs. One programme (Strengths in Motion) suggests that schools allocate one classroom as a designated intervention resource room, where children facing emotional or behavioural issues can go under teacher supervision to 'calm down'.

Implementing personnel

Most anti-bullying programmes are implemented by trained teachers in their normal classrooms. Often teachers who attend training workshops or sessions become anti-bullying 'spokespeople' in their respective schools and are also responsible for whole-school components. This train-the-trainer model is common in anti-bullying programmes and school counsellors/psychologists are also often trained to implement intervention activities. Some programmes are 'peer-led' and involve training students in schools to lead intervention activities under teacher/professional supervision. Anti-bullying programmes can also be implemented by external facilitators.

Duration and Scale

The duration and scale of anti-bullying programmes varies greatly. Interventions are implemented during school hours and throughout the school year. Smaller programmes can

involve one or two lessons/days of intervention activities (e.g., an anti-bullying video or play) or a few weeks of anti-bullying awareness-raising activities.

Packaged programmes tend to be implemented for longer periods of time. For example, KiVa is a year-long programme and includes 13 to 23 lessons implemented throughout the year (Ng et al., 2020). The programmes involve a variety of weekly anti-bullying lessons and integrating anti-bullying content into normal academic curricula.

The duration of an intervention and an evaluation extends from when baseline measures were taken to the immediate post-intervention follow-up. Schools are provided with guidelines on the quantity and frequency of intervention activities/lessons, but implementation fidelity will vary for a range of reasons. Some evaluations will vary the duration of the intervention to compare effectiveness. For example, the fairplayer.manual programme has been assessed in 'short-intervention' (10 weeks of intervention over four months) and 'long-intervention' (10 weeks of intervention over one year) formats.

Theory of change/presumed causal mechanisms

Anti-bullying programmes are most commonly designed using a socio-ecological framework, so that change is affected by implementing intervention activities on multiple levels of the ecological system. The presumed causal mechanism is that by changing social norms so that bullying is not accepted and encouraging pro-social persons to intervene and not condone bullying, behavioural change can occur.

Evidence base (design of evaluations)

Descriptive overview

Gaffney et al. (2019a) included 100 evaluations of the effects of over 60 different anti-bullying programmes on bullying outcomes. Ten were labelled 'packaged' anti-bullying programmes (Gaffney et al., 2019a). Eighty-one effect sizes were reported for bullying perpetration outcomes. These effect sizes represent data from approximately 432,874 youth aged between 4 and 16 years of age (mean age = 11.34 years).

Gaffney et al. (2019b) reported that the most commonly evaluated programmes were OBPP (12 evaluations), KiVa (6 evaluations), ViSC (5 evaluations) and No Trap! (4 evaluations). The weighted mean perpetration odds ratios for these programmes were 1.49 (OBPP), 1.14 (KiVa), 0.95 (ViSC) and 1.38 (No Trap!), compared with the overall figure of 1.32. These results suggest that OBPP and No Trap! were the most effective programmes. However, it should be noted that OBPP was more effective in Norway (OR = 1.75) than in the USA (OR = 1.47).

Evaluations were conducted using randomised controlled trials (RCTs), including cluster-randomised trials, quasi-experimental designs with before and after measures, and age cohort designs. The review included evaluations from a wide array of contexts and included five evaluations of programmes implemented in the UK and Ireland (i.e., Boulton & Flemington, 1996; O'Moore & Minton, 2004; Pryce & Frederickson, 2013; Stallard et al., 2013; Whitney et al., 1994). These programmes varied in their intensity and intervention approach. For example, Boulton and Flemington (1996) included only one anti-bullying lesson that involved watching a video.

Ng et al. (2020) conducted a review of interventions to reduce both traditional bullying and cyberbullying, but outcomes are reported separately. This review included 11 evaluations of seven different anti-bullying programmes. All evaluations were conducted using RCTs and the majority were cluster-RCTs. Programmes were evaluated in a wide range of contexts, but no UK or Irish evaluations were included. The inclusion criteria were quite restrictive; for example, no studies of children under age 10 were included.

Assessment of the evidence rating

We have confidence that, at the time of writing, the reviews by Gaffney et al. (2019a) and Ng et al. (2020) are the best available evidence on the effectiveness of anti-bullying programmes. Our decision rule for determining the evidence rating is summarised in the technical guide.

A modified AMSTAR critical appraisal tool was used by two independent coders to appraise the reviews. The results are summarised in Annex 4.

The review by Ng et al. (2020) fulfils all of the requirements on this modified tool, and as such was rated 'high'. Risk of bias is addressed by Gaffney et al. in their Campbell Collaboration review (Gaffney et al., 2021b) but not in their published articles. On the AMSTAR critical appraisal tool, this review was rated 'low'. Due to the much greater number of primary evaluations, the review by Gaffney et al. (2019) is used to inform the headline impact estimate.

The evidence base is substantial: 81 effect sizes for perpetration in Gaffney et al (2019a) and 11 in Ng et al. (2020), with the majority of included studies being RCTs. All the evaluations reviewed by Gaffney et al. (2019a) had a control condition; simple before-after comparisons were excluded. However, the critical appraisal by Ng et al. (2020) against the GRADE criteria rates the studies as low or very low quality depending on which outcome is being assessed. The main areas of study shortcomings are failure to blind, attrition, and other biases.

Gaffney et al. (2019a) report an estimate of the impact of anti-bullying programmes on bullying perpetration outcomes based on 81 evaluations. The high heterogeneity (I^2 = 74%) between primary evaluations and the 'low' rating as per the AMSTAR tool, such that the evidence rating is 3 for the impact on bullying perpetration outcomes. Due to the indirect nature of the estimate for crime/violence outcomes, the evidence rating for crime and violence outcomes is 2.

Ng et al. (2020) report an estimate of the impact of anti-bullying programmes on bullying perpetration outcomes based on 9 evaluations with high heterogeneity (I^2 = 75%). The evidence rating is 3 for the impact on bullying perpetration outcomes. Due to the indirect estimate for violence and offending outcomes, the evidence rating is 2.

Impact

Summary impact measure

Anti-bullying programmes are significantly effective in reducing school-bullying perpetration, according to both reviews used to inform this technical report. The mean effect sizes are listed in Table 1.

Table 1

Mean effect sizes from included reviews on bullying outcomes

Review	ES (*n*)	CI	*p*	% reduction	Evidence rating for bullying outcomes	Evidence rating for violence outcomes
Gaffney et al. (2019a); *n* = 81	OR = 1.32 *d* = 0.153	1.27, 1.38	< .001	19%	3	2
Ng et al. (2020); *n* = 9 continuous data	SMD = -0.30 (OR = 1.72)	-0.44, -0.10	< .001	35%	3	2

Note: ES = the weighted mean effect size; *n* = number of evaluations used to estimate ES; CI = 95% confidence intervals for the mean ES; *p* = the statistical significance of the mean ES; OR = odds ratio; OR > 1 represents a desirable intervention effect; OR < 1 represents an undesirable intervention effect; OR = 1 represents a null intervention effect; SMD = standardised mean difference (negative result here means reduction in bullying).

In order to transform the reported result to a percentage reduction, we assumed that there were 200 students and equal allocation to the intervention and the treatment groups. If we assume that there was a 25% prevalence rate of bullying others, the OR of 1.32 reported by Gaffney et al. (2019a) translates to a 19% reduction in bullying perpetration. For Ng et al. (2020), the SMD (Cohen's d) was transformed to the OR using the equation Ln(OR) = d/.5513 (Lipsey & Wilson, 2001, p. 202). The resulting OR of 1.72 translates to a 35% reduction in bullying perpetration.

The measured prevalence of bullying perpetration will vary greatly depending on the definition, measurement, sample, time period, etc. For example, in the review by Farrington (1993), prevalence in a Dublin study varied from 58% of males ever bullying to 1% of females bullying once a week or more often. In the Cambridge Study in Delinquent Development,

which is a prospective longitudinal survey of 411 London males, 49% said that they were "a bit of a bully" at age 14, and 21% said this at age 18. A prevalence rate of 25% was assumed here for consistency with other technical reports.

Further information on how these effect sizes were transformed to percentage reductions in bullying perpetration is provided in Annex 1. We also provide sensitivity analyses to demonstrate that the relative reduction in bullying perpetration is not greatly affected by the assumed prevalence of bullying perpetration.

Moderator analyses

Both reviews identified significant heterogeneity between effect sizes for primary evaluations and investigated a number of mediators and/or moderators as possible explanations for this variation.

We have more confidence in the moderator analyses conducted by Gaffney et al. (2019b; 2021a) due to the larger number of included studies and a broader range of moderators.

Gaffney et al. (2021a) examined how specific intervention components were related to effect sizes for bullying perpetration. The results suggested that a number of intervention components (e.g., whole-school approach, anti-bullying policies, classroom rules, information for parents, informal peer involvement, curriculum materials and work with victims) were significantly associated with larger effect sizes for school-bullying perpetration outcomes. These results are summarized in Table 2 (Annex 2). Interestingly interventions that did not include curriculum materials were associated with increases in bullying perpetration, although not statistically significantly so.

In general, the inclusion of more intervention components was associated with greater decreases in bullying perpetration, even when the difference was not statistically significant.

Importantly, Gaffney et al. (2021a) reported that none of the intervention components that were included in anti-bullying programmes were associated with increases in bullying perpetration.

However, it must be emphasised that associations between particular components and large effect sizes do not prove that these components had causal effects. Randomized trials, in which particular components were systematically varied, would be needed to investigate causal effects.

Gaffney et al., (2019a; 2019b) found that the effectiveness of anti-bullying programmes varied (but not statistically significantly) according to the country of the evaluation and the evaluation methodology used. Specifically, programmes that were evaluated using less scientifically rigorous methods were associated with greater reductions in bullying perpetration. Gaffney et al. (2019b) also reported that a programme was more effective when implemented in the country in which it was developed (e.g., OBPP in Norway). Anti-bullying programmes can be effective across international contexts, but effectiveness seems to be optimal when a programme is designed, implemented and evaluated in the same country.

Ng et al. (2020) included length of follow-up as a moderator and found that anti-bullying programmes can reduce bullying perpetration in the long term, but this was based on only three studies with follow-up data up to one year. Their review suggested that reductions in bullying perpetration were not affected by the personnel delivering the intervention, the country of the intervention, the duration of the intervention or the presence of parental involvement. The moderator analyses reported by Ng et al. (2020) were based on a small number of studies, and therefore we have less confidence in their findings.

Gaffney et al. (2019b) recommended that, in implementing new anti-bullying programs, practitioners should consider:

- Existing research reports and meta-analyses that assess specific intervention components and their effectiveness.

- That whole-school anti-bullying campaigns can be effective, but they may not be the best strategy to combat bullying and additional intervention components may also be needed[2].
- That comprehensive anti-bullying programs should include intervention elements at multiple levels, including the school, class, parent, peer and individual level. Targeted interventions are needed to help individual children who are particularly vulnerable to bullying victimization.
- A pre-intervention survey to explore the specific manifestations of bullying in their respective schools to evaluate which components are the most effective, and practical, methods of reducing bullying victimization and perpetration.
- That online forums, moderated by trained students, may be an efficient and cost-effective way to tackle bullying victimization.
- That hot-spot supervision and specific strategies for dealing with bullying scenarios when it occurs are effective methods for preventing school-bullying perpetration and victimization.
- Practitioners should take a number of factors into consideration when choosing an anti-bullying programme. It is important to initially evaluate the nature, presence, and frequency of bullying in the relevant school. Bullying will not necessarily manifest in the same way in different countries, regions, communities, or schools, and this may impact the effectiveness of any intervention program implemented.

Effects on offending and violence

There is no doubt that bullying perpetration predicts later offending and violence. Ttofi et al. (2011) published a systematic review of 18 longitudinal studies and found a summary OR = 2.50 for bullying perpetration predicting offending up to 11 years later, which reduced to OR = 1.82 after controlling for major childhood risk factors. If we assume that 25 out of 100 non-children who didn't bully others went on to offend, an OR = 1.82 would correspond to 38.8 out of 100 children who did bully others going on to offend, or a 34% difference. This estimate

[2] UNESCO and the World Anti-Bullying Forum now recommend that the whole-school approach is defined as a whole-education approach to address how bullying should be addressed with help from community, technological and education sectors.

does not vary greatly with very different prevalence estimates. For example, it would be a 41% decrease with a prevalence of 10% and a 27% decrease with a prevalence of 40%.

Ttofi et al. (2012) published a systematic review of 15 longitudinal studies and found a summary OR =3.09 for predicting violence six years later on average, which reduced to OR = 2.04 after controlling for major risk factors. Again, assuming that 25 out of 100 non bullies became violent, an OR = 2.04 would correspond to 41 out of 100 non-bullies becoming violent, or a 38% difference.

Therefore, we can expect that reductions in bullying would be followed by reductions in offending and violence. However, we have not found any evaluation of an anti-bullying programme with a follow-up to investigate the later effects on offending. To the extent that both bullying and offending are behavioural manifestations of the same underlying theoretical construct (e.g., an antisocial personality), then, if this is decreased by the anti-bullying programme, we might expect that offending would be similarly decreased; in other words, that a decrease of 19% in bullying perpetration would be followed by a decrease of 19% in the prevalence of offending.

However, if this is not true, and decreases in bullying cause decreases in offending, we might expect that the consequent decrease in offending would be less than the observed decrease in bullying. Based on the above reviews, if all bullies became non-bullies, we might estimate that offending could decrease by 34-38%. In light of our best estimate of the decrease in bullying caused by anti-bullying programmes (19%), we could estimate that existing anti-bullying programmes might be followed by a decrease in offending of about 2.6% (with a range of 1.6 to 3.9 with varying assumptions). The corresponding estimate for Ng et al. (2020) would be 5%, but this is based on fewer studies. Therefore, the estimate for Gaffney et al. (2019a) is our preferred estimate.

However, these estimates are quite speculative and would vary with different assumptions and the evidence rating is low for violence outcomes (rating = 2). Longitudinal follow-ups of anti-bullying programmes to study later effects on offending would be needed to verify them.

Implementation

Neither review includes implementation issues. Evidence regarding implementation comes from ten studies, including eight studies of seven programmes in the United Kingdom and Ireland and one from the United States. We also included the OFSTED report 'No place for bullying' which conducted visits to 37 primary schools and 19 secondary schools to evaluate schools' approach to bullying. These studies include: the INCLUSIVE whole school approach with social-emotional learning in schools in southern England (two papers), the KiVa anti-bullying programme in Wales, and a school social worker programme in two schools in England.

Overall, evaluations find that anti-bullying programmes are being implemented, though rarely with complete fidelity. The main variations in fidelity are that the delivery time is less than planned, and that elements of a whole-school approach may be missing. Also, fidelity declines over time, though this can be because parts of the programme are incorporated into regular practice.

Examples of weak fidelity include the fact that good practice suggests keeping a record of bullying incidents, but this is not routinely done even if part of the intervention. The involvement of parents (or primary caregivers) can be important in managing a child's behaviour, and some programmes lacked this, or did not do it.

In the INCLUSIVE trial, fidelity was good for the first two years, but much less in the third year of the study. Respondents indicated that the useful aspects of the programme, notably restorative justice, were built into routine practice. However, for both INCLUSIVE and KiVa, fidelity to the curriculum was weak, and in the KiVa study this was also true for other parts of the programme. Teachers reported difficulty in incorporating the material into an already full curriculum.

Factors supporting successful implementation are buy-in from school management and teachers, ensuring awareness of the programmes amongst pupils and staff, good materials to

support the programme, and programmes which have 'fun activities' for children, like theatre and games. Programmes are appreciated if there are other cues as to their importance. These cues include senior leadership engagement in the programme, the programme meeting national priorities (such as tackling bullying and exclusion) and fitting in with the school's ethos. At the same time, an external programme can give 'a push' to take action to tackle a problem.

However, whilst good materials are appreciated, they should not be too time-consuming for teachers to master and should allow teachers some flexibility in delivery. Adaptability of the proposed approach is appreciated rather than a one-size-fits-all approach. Teachers may not adopt parts of the programme that they feel are inappropriate or difficult to implement. Teachers appreciate an individualized approach where this is made available.

Where external support is provided then the nature of this support also matters. The personality of the project staff can be important, with appreciation of the trust, calmness and time that were given in dealing with complex situations.

The challenge most commonly mentioned is the time required, with the time for training being seen as a burden by teachers (though training is also seen as important for successful implementation). Some children expressed the view that bullying takes different forms from that shown in the material (big, strong perpetrator against small, weak victim), although others said they achieved a better understanding of the many types of bullying. Some teachers are resistant to approaches emphasising reconciliation through restorative approaches, as they have a preference for being able to punish perpetrators.

Cost analysis

Neither review includes cost data. There are two UK studies that provide cost data. In the Learning Together study of a whole-school anti-bullying intervention with socio-emotional learning for all pupils and restorative justice sessions to deal with bullying episodes, expenditures on anti-bullying programmes were £108 per pupil per year in control schools

and £166 per pupil in treatment schools (at 2019 prices), indicating an additional cost of £58 per pupil.

Clarkson et al. (2019) reported information on the costs associated with the implementation of the KiVa anti-bullying programme in Welsh primary schools. The authors found that the 'ongoing costs' of the programme were small, approximately £2.84 per student per annum based on the first year of implementation. There is no evaluation of the cost-benefit ratio for the full programme implementation.

Findings from UK/Ireland

Evaluations of anti-bullying programmes conducted in the UK and Ireland are shown in Table 3 below in relation to bullying perpetration outcomes. Gaffney et al. (2019a; 2019b) also included additional evaluations conducted in the UK, but they only reported outcomes of bullying victimisation (i.e., Bonell et al., 2015; Fox & Boulton, 2003; Herrick, 2012; Knowler & Frederickson, 2013). The review conducted by Ng et al. (2020) did not include any evaluations conducted in the UK or Ireland.

Overall, anti-bullying programmes that were implemented in the UK were effective in reducing bullying perpetration (OR = 1.16, 95% CI 0.87 – 1.54, p = 0.32), although the mean effect size was not statistically significant (Gaffney et al., 2019b). This corresponds to an approximate reduction of 9% in bullying perpetration. This is a desirable impact of anti-bullying programmes, although it is a smaller reduction than seen in other contexts. For example, the mean reduction in bullying perpetration outcomes for all European evaluations was approximately 13% and in Scandinavia it was approximately 20%.

Table 3

Evaluations of anti-bullying programmes conducted in the UK and Ireland

Study	**Programme**	**Design**	**Impact**

Boulton & Flemington (1996)	An anti-bullying video, 'Sticks and Stones' was shown to students. The video includes individuals or groups of students discussing their views on and experiences of bullying. It also shows actors acting out scenes of bullying behaviour. This was a single-component intervention, and only involved one anti-bullying activity.	Students from Year 7 – 10 (aged 11 – 14 years old) from a semi-rural secondary school in England participated (N = 170; n female = 82, n male = 86). One class group from each year was randomly assigned to the experimental condition and the remaining classes comprised the control group. All participants completed a self-report questionnaire about bullying at baseline and after two weeks. The students in the experimental group watched the anti-bullying video halfway through this two-week period.	There was no reported change in bullying behaviours or attitudes towards bullying in the experimental condition. There were also no changes in the control condition. OR = 0.87 (95% CI 0.44 – 1.71, *p* = .69).
O'Moore & Minton (2004)	Anti-bullying components based on the Olweus Bullying Prevention Programme were implemented. Teachers were trained and received a teacher resource pack containing training, support and intervention materials for anti-bullying, focus on classroom management, positive school and classroom environment, staff leadership and parent-teacher co-operation. Parents also received an information	22 primary schools from a rural Irish county took part. Participants were aged 6 to 11 years old. Bullying was measured before and after implementation of the intervention using the Olweus Bully/Victim Questionnaire. The programme was evaluated using a repeated measures design with post-intervention measures occurring at 1 year after implementation.	There was a reduction of self-reported bullying perpetration in the last school term and in the previous 5 days. OR = 2.12 (95% CI 0.81 – 5.55, *p* = 0.13)

	leaflet, "Bullying: What parents need to know". that included information on prevalence, types, causes, impact and indicators of bullying. A whole-school awareness-raising campaign against bullying was also implemented and children were encouraged, through peer leadership, to support bullied children.		
Pryce & Frederickson (2013)	'Anti-Bullying Pledge Scheme' was set up to help schools implement the government's national anti-bullying charter in England and Wales. A member of the schools' governing body, the principal and a student representative would sign up to the charter and pledge a commitment to anti-bullying work and provide a plan for anti-bullying work in their schools.	Students from Year 4 – 6 classes (aged 8 – 11 years) participated. In total 14 classes from 4 primary schools from the West Midlands took part in the evaluation and a total of 338 students (*n* female = 160; *n* male = 178). Between 1 – 2% of participants identified as ethnic minorities. A treatment-as-usual comparison group of two schools was used. All participants completed data collection before and after the implementation of anti-bullying activities. Bullying was measured using both self-report measures and peer-report instruments.	The ABPS scheme did not have the desired impact on bullying perpetration, either using self-report data or peer-report data. OR = 0.54 (95% CI 0.32 – 0.91, $p = 0.02$) Both self-reported and peer-reported bullying perpetration were significantly negatively correlated with school belonging and pupil perceived control over time.
Stallard et al. (2013)	'RAP', the Resourceful Adolescent programme which is a classroom-	A cluster-randomised trial was conducted, and year groups from 8 schools were	There was some beneficial impact of the classroom-based

	based cognitive behavioural therapy to reduce depression symptoms in high-risk adolescents was implemented and outcomes of bullying were included. RAP is a manualised depression prevention programme and based on CBT model and interpersonal therapy principles. The programme's key elements are: personal strengths, helpful thinking, keeping calm, problem solving, support networks, and keeping the peace. The programme is implemented to flexibly adapt to the usual school curriculum.	randomly assigned to one of three experimental conditions: the RAP programme, attention-control PSHE curriculum, and usual PSHE curriculum (treatment-as-usual control group). High risk of depression was measured using the Short Mood and Feelings Questionnaire. The RAP programme was implemented by two trained facilitators and consisted of nine 50-60 minute sessions, and the majority of sessions (median 89%) were attended. In total 5,030 participants took part in the evaluation (*n* female = 2,467; *n* = 2,563) and 85.5% identified as white.	CBT programme on bullying perpetration and cannabis use at the 12-month follow up period for all participants. OR = 1.06 (95% CI 0.77 – 1.44, *p* = 0.73) There was no significant impact of the programme on bullying perpetration for high-risk participants.
Whitney et al. (1994)	A whole-school programme using curriculum and classroom strategies was implemented. Anti-bullying activities included 'quality circles', theatrical play ("Only playing Miss"), peer counselling, bully courts and changes to playgrounds and lunch breaks.	The 'Sheffield Anti-bullying programme' was evaluated using an age cohort design involving 8,309 students aged between 8 – 16 years old from 27 UK schools.	The programme had a significant desirable effect on bullying perpetration. OR = 1.33 (95% CI 1.11 – 1.59, *p* = 0.002)

Note. OR = odds ratio from Gaffney et al. (2019a) meta-analysis; OR > 1 represent a desirable intervention effect; OR < 1 represent an undesirable intervention effect; OR = 1 represents a null intervention effect.

The INCLUSIVE trial (Bonell et al., 2015) is not included here because it only included victimisation outcomes, not perpetration outcomes. After these reviews were completed, a randomised trial of KiVa in Wales was published by Axford et al. (2020). The KiVa anti-bullying intervention was evaluated in a cluster-randomised controlled trial involving 22 primary schools and 3,214 students aged 7-11 in Wales. The effect was small and not statistically significant, and the evaluation was greatly impacted by poor implementation fidelity.

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Annex 1: Effect size calculations

This annex shows the calculation based on the results and assumptions given in the text. We assume 200 youth, evenly divided between treatment and comparison groups. That means there are 100 youth in the control group and 100 youth in the treatment group. Assuming that 25% of youth in the control group reported bullying others, the mean effect sizes for Gaffney et al. (2019a) can be easily transformed to a percentage reduction in bullying perpetration.

If the odds ratio for bullying perpetration is 1.32, then using the table below and the formula for an OR, we can estimate the value of X. The odds ratio is estimated as: A*D/B*C, where A is the number of non-bullies in the treatment group, B is the number of bullies in the treatment group, C is the number of non-bullies in the control group, and D is the number of bullies in the control group. Therefore, the value of X is 20.16 in the case of Gaffney et al. (2019a).

	Did not bully others	Did bully others	Total
Treatment	100-x	x	100
Control	75	25	100

Therefore, the relative reduction in bullying is [(25 – 20.16)/25]*100 = 19.36%. In relation to the review by Ng et al. (2020) the value of X is 16.23 and the relative reduction in bullying is 35.06%.

The prevalence of bullying others is likely to vary between studies and can be influenced greatly by the type of report (e.g., self-report or peer-report), the survey used, or the questions asked (e.g., frequency of bullying others in the past couple of months versus the frequency of bullying others in the past year, or ever). If we were to adjust our reasonable assumption that 25% of the control group bully others, the overall relative reduction in the intervention group is not greatly affected.

For example, if we assume that 10% of the control group bully others, the 2x2 table would be as follows and the value of X is 7.76 (for Gaffney et al., 2019a). Therefore, the relative reduction is 22.36% (i.e., (10-7.76)/10]*100).

	Did not bully others	Did bully others	Total
Treatment	100-x	x	100
Control	90	10	100

Similarly, if we assume that 40% of the control group bully others, the value of X would be 33.56 (for Gaffney et al. 2019a) and the relative reduction in bullying perpetration would be 16.1%. Given the dramatic differences in the assumed prevalence of bullying perpetration, the percentage reduction does not vary in a similar fashion. Table 4 shows this further.

Table 4

Variation of the relative reduction in bullying perpetration depending on various estimates.

	Gaffney et al. (2019a) OR = 1.32	Ng et al. (2020) OR = 1.72
Assumed prevalence	Relative reduction	
10%	22.36%	39.32%
25%	19.36%	35.08%
40%	16.1%	30.18%

Calculation of effect on offending

Using the same method as above, we can use the odds ratio from Ttofi (2011) of 2.04 of bullies being more likely to offend, and assuming that 25% of non-bullies offend, we can calculate the prevalence of offending amongst bullies and non-bullies:

	Offending	Not offending	Total	Offending prevalence
Did not bully others	25	75	100	0.25
Did bully others	40.5	59.5	100	0.40

The next step is to calculate offending with and without the intervention. Without the intervention bullying prevalence is 25% and we know what percent of children who did and did not bully others offend.

Without the intervention			
Did not bully others	300	Offend	75
		Don't offend	225
Did bully others	100	Offend	40
		Don't offend	60

We now repeat with the anti-bullying intervention so there are fewer bullies:

With the intervention			
Did not bully others	319	Offend	80
		Don't offend	240
Did bully others	81	Offend	33
		Don't offend	48

Using the last two tables, we can produce a 2x2 table from which we get the relative percentage reduction, the odds ratio and *d*:

	Offend	Don't offend	Total
Without intervention	115	285	400
With intervention	112	288	400
% reduction	-2.6		

d =	-0.0203
OR =	0.964

Sensitivity analysis

If we assume control bullying prevalence and offending amongst children who bully others are 10% not 25%, then the reduction in offending increases to -3.9%. If they are assumed to be 40% then the decrease is less at -1.6%

Annex 2: Moderator analyses

Table 5

Summary of moderator analyses reported by Gaffney et al., (2021a, p. 48)

Component	*ES when component present* OR (95% CI, *n*)	*ES when component absent* OR (95% CI, *n*)
Whole-school approach	OR = 1.26* (1.16 – 1.38, *n* = 43)	OR = 1.095 (0.96 – 1.26, *n* = 39)
Increased supervision	OR = 1.24 (1.12 – 1.37, *n* = 21)	OR = 1.19 (1.07 – 1.33, *n* = 61)
Anti-bullying policy	OR = 1.29* (1.17 – 1.42, *n* = 25)	OR = 1.15 (1.01 – 1.28, *n* = 57)
Classroom rules	OR = 1.29* (1.21 – 1.38, *n* = 31)	OR = 1.14 (1.00 – 1.29, *n* = 51)
Classroom management	OR = 1.27* (1.17 – 1.37, *n* = 22)	OR = 1.17 (1.04 – 1.31, *n* = 60)
Information for teachers	OR = 1.22 (1.12 – 1.32, *n* = 66)	OR = 1.16 (0.89 – 1.49, *n* = 16)
Teacher training	OR = 1.19 (1.09 – 1.31, *n* = 51)	OR = 1.29 (1.12 – 1.49, *n* = 31)
Information for parents	OR = 1.28* (1.18 – 1.39, *n* = 35)	OR = 1.14 (1.08 – 1.21, *n* = 47)
Involvement of parents	OR = 1.15 (0.96 – 1.37, *n* = 21)	OR = 1.23 (1.13 – 1.34, *n* = 61)
Informal peer involvement	OR = 1.29* (1.199 – 1.396, *n* = 57)	OR = 1.02 (0.95 – 1.10, *n* = 25)
Encouraging bystanders	OR = 1.17 (1.07 – 1.29, *n* = 25)	OR = 1.24 (1.18 – 1.29, *n* = 57)
Formal peer involvement	OR = 1.32 (1.13 – 1.55, *n* = 13)	OR = 1.19 (1.096 – 1.30, *n* = 69)
Work with bullies	OR = 1.15 (1.12 – 1.18, *n* = 27)	OR = 1.17 (1.05 – 1.30, *n* = 55)

Work with victims	OR = 1.29* (1.18 – 1.40, *n* = 31)	OR = 1.15 (1.03 – 1.29, *n* = 51)
Cooperative group work	OR = 1.33* (1.21 – 1.46, *n* = 37)	OR = 1.15 (1.03 – 1.28, *n* = 45)
Curriculum materials	OR = 1.26* (1.17 – 1.36, *n* = 69)	OR = 0.98 (0.76 – 1.26, *n* = 13)
Socio-emotional skills	OR = 1.03 (0.87 – 1.22, *n* = 27)	OR = 1.31* (1.22 – 1.40, *n* = 55)
Mental health	OR = 1.52* (1.16 – 2.00, *n* = 8)	OR = 1.16 (1.09 – 1.24, *n* = 77)
Punitive disciplinary methods	OR = 1.28 (1.16 – 1.41, *n* = 16)	OR = 1.18 (1.07 – 1.30, *n* = 66)
Non-punitive disciplinary methods	OR = 1.28 (1.13 – 1.47, *n* = 11)	OR = 1.196 (1.096 – 1.31, *n* = 71)

Note. OR = odds ratio; CI = confidence interval; *n* = number of studies; ES = effect size; * = indicates that the differences between subgroups was statistically significant.

Annex 3: Summary of process evaluation findings

Author & Title	Intervention	Success	Issues/ Challenges	Young People's views
Axford et al 2020 The Effectiveness of the KiVa Bullying Prevention Program in Wales, UK: Results from a Pragmatic Cluster Randomized Controlled Trial	KiVa –a school-wide EBP developed in Finland for children aged 7 to 15 years with focus on changing the role of bystanders as a means to prevent and stop bullying in schools. Cluster RCT of 22 primary schools (11 KiVA and 11 usual school provision) with students aged 7-11.	Completed lesson records of units Lesson records were completed for at least one of the 20 lessons (across two units) for 65 identifiable classes in the intervention arm (96% of classes). Self-completed teacher records suggest adherence Teachers reported delivering 90% of lesson components on average. The median preparation time per lesson was 20 min (interquartile range, 15 to 30) High score on items concerning stakeholders' knowledge of KiVa	Decline in completed lesson records with time Proportion of completed lesson records diminished over the course of units. Lesson records were missing for over half of lessons. Low average lesson delivery time Average lesson delivery times were substantially less (60 min, IQR 45-90) than the recommended 90 min Low score on implementation at whole school level: Scores were lower for items concerning the implementation of whole school elements.	NA

		Schools scored higher on items concerning stakeholders' knowledge of KiVa, with teachers and head teachers scoring highest. Visibility of KiVa materials in schools A total of three schools displayed KiVa posters in all communal areas, and all other schools displayed them in some but not all communal areas.	Low score on keeping a KiVa Team logbook Only five schools provided evidence of keeping a KiVa team logbook Low score on staff promotion Only five schools had school staff wearing the KiVa vests/tops during playtime.	
Bonell et al 2018 Effects of the Learning Together intervention on bullying and aggression in English secondary schools	Learning Together (LT) intervention used three approaches, namely, restorative practice, social and emotional skills education, and student participation	The intervention worked to curtail existing bullying and aggression (secondary prevention) as well as prevent new bullying (primary prevention). The intervention was cheap, falling into the very low cost category for	Sustainability Fidelity to the intervention varied between schools and over time, with a reduction in the fidelity of formal intervention activities in the third year The curriculum was not delivered with good fidelity.	About half of the students reported that if there was trouble at school, staff responded by talking to those involved to help them get on better.

(INCLUSIVE): a cluster randomised controlled trial	in decision making to reduce bullying and aggression, and promote student health and wellbeing across various domains.	UK school interventions. The costs of trainers, facilitators, and school staff were an additional £47–58 per pupil in the intervention group compared with control schools over the 3 years. Integration of intervention components to school structure and processes Although many schools did not deliver formal intervention components so well in the third year as earlier, the process evaluation suggests that by the third year schools had integrated components of the intervention into mainstream school structures and processes.	Time consuming training and curriculum delivery The main time-consuming activities for school staff were attending the training and curriculum delivery.	About two-thirds of students reported that teachers and students got together to build better relationships or discuss their views and feelings.

		Training, action groups, and restorative practices were delivered with good fidelity. Awareness about the intervention among staff and students Slightly over half of staff in intervention schools were aware that the school had been taking steps to reduce bullying and aggression, falling slightly between the second and third years. About a third of students were aware that the school had been taking steps to reduce bullying.		
Goodwin et al 2019 Bullying in schools: An evaluation of the use of drama in bullying prevention.	Drama-based bullying prevention session (BPS) in 6 high schools with	Students appreciated use of humour, realistic depictions of school-life and departure from traditional teaching methods. Combination of PowerPoint, theatre, and discussion	The stereotypical image of the large bully and the physically less imposing victim was found problematic. Presentation of subtler and less stereotypical depictions of bullying behaviour may prove useful.	Students shared that BPS would give them the confidence to stand up for one of their peers who was experiencing bullying and

	students aged 12-15 years in Ireland	assisted in their comprehension of the subject, engaging them in an interactive way Useful in raising awareness and knowledge of bullying types and role of bystanders in preventing bullying BPS gave students a heightened sense of awareness about the variety of ways in which bullying can manifest itself. Students also demonstrated an awareness as to the indiscrete nature of cyberbullying after the BPS. Students also reported a heightened awareness of the position of the bully. Raising awareness of how bystanders may influence bullying events is a key element of BPS and developing an awareness about the various	Teachers needed more training and awareness about what happens outside of the school grounds. Incorporation of students' suggestions to practice did not seem to occur. Whole-school approach was needed rather than focusing on one year group	how BPS was useful in raising awareness about bullying types as: "it is interesting though because it really did like show the different types. Like I didn't realise there were that many types of bullying out there and then." "it's about you know all the different people's back stories… they didn't only show you from like the victim's side, they show you like why the bully's a bully." Students criticised the stereotypical

		elements associated with bullying is useful for students to challenge future episodes of bullying that they witness.		representation of bullies and victims as: "Yeah, that's kinda stereotypical like, the small fella against the big fella" Students also expressed need for teachers to be more vigilant.
Humphrey et al 2018 Good Behaviour Game: Evaluation report and executive summary (England)	Core components of Good Behaviour Game (GBG): classroom rules, team membership, monitoring of behaviour, and positive	Adherence Fidelity/quality was relatively high in first and second years of trial, indicating that teachers followed most of the prescribed procedures associated with the game with minor context-specific adaptations.	Attitudes of Teachers Teachers did not see the intervention yielding outcomes when compared to the effort and time invested in the implementation. Time constraints: The amount of lesson time required to deliver the GBG was a	Pupils generally reported considerable enjoyment of the GBG, during a focus group as "the best game, learning game, in the world" and "means you get to do more fun things"

	reinforcement (rewards). Universal intervention RCT (77 schools, intervention=38, usual practice=39) Pupil in Grade 3 (7-8 years) during first round of implementation.	Enthusiasm and Engagement of Teachers Active engagement of pupils by teachers in decisions regarding implementation such as allowing them to choose preferred rewards. Consistent and Flexible support of GBG coaches: Regular visits from the school's GBG coach and consistent support of coach to teachers and flexibility around teacher's needs beyond coach conversations were useful. Senior leadership team support as well as alignment of school's ethos and practices with GBG.	factor that made teachers reluctant to continue implementation. Some schools found the training and visits for the implementation of GBG too demanding. Discordance between the underlying principles of GBG and teachers' preferred pedagogical and classroom management approaches. Teachers did not quite like the lack of (direct) communication with children during GBG implementation and felt that communication was central. Staff turnover and changes in school structure also posed challenges.	Some pupil find it challenging initially, particularly in games involving the use of 'voice level 0' for activities in which, "you really, really need help"

			Stability in game play frequency and duration over the years suggests that teachers settled in a routine and the frequency and duration did not increase with time as intended.	
Ofsted 2012 No place for bullying How schools create a positive culture and prevent and tackle bullying, England		Positive culture and ethos in the school and the ability of the schools to create a culture that acknowledges, accepts and celebrates difference. Well-written behaviour and anti-bullying policy Planning and Delivery of curriculum with a clear focus on developing an understanding and acceptance of diversity. Amending the curriculum to teach openly about lesbian, gay and	Lack of positive culture and structured curriculum. A generalised policy document ineffective at informing all concerned about bullying. Ineffective preventive work. Inadequate training to staff of the school to tackle different types of bullying. Lack of knowledge and confidence in staff to tackle real world bullying episodes.	Pupils' responses and experiences were correspondingly positive in some of the schools. They believed that behaviour was positive in their schools. They had developed a high level of awareness of the impact that their behaviour could have on others and empathetic attitudes towards their peers.

		bisexual (LGB) issues alongside other aspects of equality and diversity. Well-planned training for staff about tackling various forms of bullying and discrimination as well as ensuring the staff is provided with regular and relevant training. Careful analysis of bullying incidents to identify trends and patterns. Firm and imaginative action against bullying. Involvement of parents and carers and members of the community to assist in shaping the overall environment conducive and	Issues in recording and reporting, or the analysis of information about bullying incidents and lack of action.	In their responses, pupils in some schools were able to explain what the positive behaviour looked like as: "If you came into our playground you would see pupils asking to join in games and other people would let them." "People would be using the friendship bench and others would be coming to play with them so no one is on their own." "Pupils saying sorry to each other."

		compatible to positive school environment. Successful targeting of prejudice-based attitudes to prevent bullying against students from certain groups such as homosexual students, students with disability or those with special educational needs.		"You wouldn't see fighting or arguments because we are too busy with the equipment."
Skinns 2009 An evaluation of Bristol RAiS	Restorative Approaches in Schools, in 4 schools in Bristol.	The 'triad' model (involving three staff members of different ranks and roles, regularly meeting with the Champion) was an important part of the implementation process Whole-school approach maximized staffs' access to training and support provided within the two-year rollout	Resistance by Staff: Staff in all schools reported that RAs were resisted by their colleagues because they threatened the existing climate for learning in which they had power to discipline and punish badly behaved pupils	Pupils reported that RAs helped increase the attendance rate because they reduced the likelihood of conflicts and victimization that may have, otherwise, kept pupils at home.

		period and was believed to ensure more adherence. The likelihood of the integration of programme into school policy and retention in the longer term was more in whole-school approach rather than being diluted and forgotten. Involvement of staff and pupils in implementation: Using pockets of Restorative Approaches (RAs) allowed staff and pupils the opportunity to become involved in the decision-making process regarding how RAs could be best implemented in the school. This also gave time to staff and pupils to gradually get exposure of RAs before	Non-adherence: staff mentioned it difficult or unnecessary to keep to the set script. Time constraint: Staff in all the schools, particularly teachers, saw time as a major obstacle that prevented them from using RAs as much as they would like to have done Senior management had to deal with disgruntled teachers struggling to adapt to new rules in schools following whole-school approach.	Sharing about the need for awareness about RAs, one of the pupils mentioned: "I don't think a lot of kids know about it, until they are in a conference. Why don't they tell everyone about it so we can do it then?" Another mentioned the need to make it more interesting as: "I think it would help if we were explained about it in lessons, maybe watch something about it or maybe if, in an activity

		they were incorporated into school policy. The full use of support staff in the delivery of programme to tackle time constraints of staff, particularly teachers or senior managers.		day. But it has to be done in a way that makes it interesting and fun for kids." Punishment was seen by staff and pupils as an important and necessary part of the climate for learning as one pupil shared: "If the people actually don't care about what the other person is thinking, and don't really care if they're being horrible to someone, and if they're sort of winning, in a way, then it doesn't work, maybe they should get in trouble."

				Half the pupils interviewed stated that they felt that the atmosphere in the school had improved as a result of RAs, while the other half thought it had stayed the same. One pupil shared the improvement in school climate as: “Before there was like bad vibes like when you walk around like, just even walk past each other, but there was no bad, it was just like you were a friend and just chatting about normal things, so it’s definitely like, I think it’s a really good idea.”

Bowes et al 2009 Process Evaluation of a School-Based Intervention to Increase Physical Activity and Reduce Bullying	Peers Running Organized Play Stations (PROPS) is one of the comprehensive programs using 'train the trainer approach' as it addresses bullying and physical inactivity on the playground with the help of trained peer leaders aged 10-13 years. Halton Health Department encouraged schools to implement PROPS.	Resources were identified by some respondents as implementation facilitators. The participating schools received a PROPS binder, CIRA resources (game books), physical activity guides, and skipping ropes. Four of the schools viewed The PROPS binder as extremely useful while other four reported it as moderately useful. Support of administration like school boards and school support staff, teachers, students, and parents was mentioned as the key to success. Regular training sessions Ample Publicity.	Lack of storage space for PROPS Equipment Lack of funding to purchase equipment or storage bins for the equipment. Time constraint for training and staff participation Lack of formal partnership agreement between health department and school boards as PROPS requires teachers or parent volunteers to run the program. Inability to keep volunteers interested in the program. Lack of support for PROPS to changing environments, including staffing changes	NA

	The study is a process evaluation of 41 elementary schools in Canada.		at school boards, within schools, and within the health department	
Kidscape 2016 Final evaluation of Kidscape's Extended Primary Bullying Intervention Training Programme	The Extended Bullying Intervention Training (BIT) programme for primary schools was delivered in two phases: Phase 1 had pupil workshops and masterclasses for professionals who have already been part of the	Common understanding of bullying among professionals, children as well as parents and carers resulting from the training and support. Support from Kidscape to schools has been useful in developing and maximising the impact of the anti-bullying programme within schools. Support of Kidscape staff	Difficulty in completing lessons in 45 minutes. Challenges around addressing cyberbullying. Age appropriate lessons for young children	As many as 102 children expressed high levels of satisfaction with the workshop and they enjoyed working with children from other schools. Equipped students with strategies to use in bullying situations: "The most useful thing I've learned is that when you're

	programme. Phase 2 involved 3 stages: Training for school professionals, anti-bullying lessons ad school support	Cascade model of the programme with skills of professionals ensures programme reaches more children. Adaptability of the resources ensures that the programme is extended to other year groups in schools. Quality of resources such as easy to follow manual with lesson plans Downloadable free resources from Kidscape's website to schools facilitates their use in supporting delivery of further BIT lessons. Training of additional staff by Kidscape in schools facilitated consistent approach across whole school		approached by a bully, always be assertive". Ability to help others: "I learnt to help the person who is being bullied and how to deal with bullying outside the school." Confidence and Self-esteem: "[The most useful thing I learnt was] to be yourself – don't change because someone doesn't like you." Bystander intervention "[I learnt] not to be a bystander and help the

				person who is getting bullied"
Wood 2013 An evaluation of the implementation fidelity and outcomes of the Olweus Bullying Prevention Program in three elementary schools in Virginia	Olweus Bullying Prevention Program (OBPP) is a whole-school, "systems change" program made up of four levels- school level, classroom level, individual, and community levels. The study is a Program evaluation of implementation fidelity and outcomes, of the OBPP, in three	Teacher leadership Importance of staff support and accepting the teacher responsibilities are part of the OBPP. Teacher buy-in was critical for the program to be taught and carried out using a common language amongst students, parents and staff. Administrative leadership Administrative leadership was evident in expectations and beliefs of the administrators. They believed that OBPP had made positive changes in their school. They respected the teacher leadership and expected teacher to hold class	Lack of time as teachers never had enough time to get all the work done. Lack of funding Schools had to pay for the yearly administration of the Olweus Bullying Questionnaire (OBQ) and school budgets did not always allow for this expenditure. Lack of parental involvement in class meetings to help spread principles of best practice in community and anti-bullying messages. Lack of community involvement or community partnerships to spread anti-bullying messages beyond school.	NA

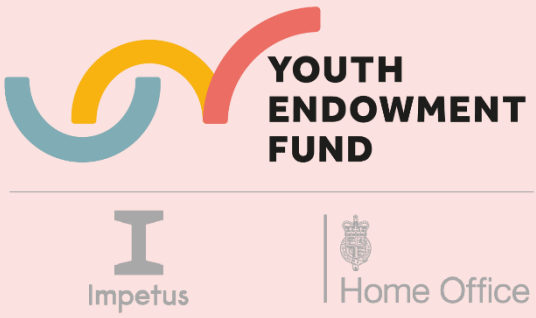
	elementary schools in Virginia.	meetings as it was crucial for sustaining the program. School wide commitment Teachers, parents and students shared a common language and understanding of what bullying is and the schools' enforcement of the no bullying rules. It was evident from their explanations that OBPP was a way of life in their schools.	Lack of using Olweus Bullying Questionnaire (OBQ) data When a school did not use the OBQ it was not able to use the data from the survey to assist the staff in making decisions as to what parts of the program were and were not working.	
Bonnell et al 2019 Modifying the secondary school environment to reduce bullying and aggression: the INCLUSIVE cluster RCT	The INCLUSIVE (initiating change locally in bullying and aggression through the schoolenvironment) trial evaluated the	Involvement of students in decision making was one of the key strengths. Improved interpersonal relationships between students and teachers	Challenges in curriculum delivery	Improved understanding between staff and students: An 11 year old male student at one of the schools shared;

	Learning Together intervention using restorative approaches and to develop social and emotional skills.	Training, action groups and restorative practices were all delivered with good fidelity. Staff and student awareness about the intervention at school		"Yes [it made me feel differently about teachers], a hundred per cent because it gives you a different insight to what they're really like, especially if you're with teachers who haven't taught you before or something like that. Because they're not as bad as you think"

Annex 4: AMSTAR Rating

Modified AMSTAR item		Scoring guide	Anti-Bullying in Schools	
			Gaffney 2019	Ng 2020
1	Did the research questions and inclusion criteria for the review include the components of the PICOS?	To score 'Yes' appraisers should be confident that the 5 elements of PICO are described somewhere in the report	Yes	Yes
2	Did the review authors use a comprehensive literature search strategy?	At least two bibliographic databases should be searched (partial yes) plus at least one of website searches or snowballing (yes).	Yes	Yes
3	Did the review authors perform study selection in duplicate?	Score yes if double screening or single screening with independent check on at least 5-10%	No	Yes
4	Did the review authors perform data extraction in duplicate?	Score yes if double coding	No	Yes
5	Did the review authors describe the included studies in adequate detail?	Score yes if a tabular or narrative summary of included studies is provided.	Yes	Yes

6	Did the review authors use a satisfactory technique for assessing the risk of bias (RoB) in individual studies that were included in the review?	Score yes if there is any discussion of any source of bias such as attrition and including publication bias.	Partial Yes	Yes
7	Did the review authors provide a satisfactory explanation for, and discussion of, any heterogeneity observed in the results of the review?	Yes, if the authors report heterogeneity statistic. Partial yes if there is some discussion of heterogeneity.	Yes	Yes
8	Did the review authors report any potential sources of conflict of interest, including any funding they received for conducting the review? Overall	Yes, if authors report funding and mention any conflict of interest	Partial Yes Low	Yes High



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