

Addressing school violence and bullying: Evidence review

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Section 1: Introduction

NHS Health Scotland was asked by the Scottish Government's Learning Directorate Health and Wellbeing Unit to review what works to prevent and reduce school violence and bullying. This paper brings together international review-level evidence and published outcome evaluations of programmes implemented in schools in the UK and Ireland. The purpose of this report is to inform the development of policy, guidance and support on bullying and violence in schools. Ultimately, this will contribute to the following national outcomes:

- We grow up loved, safe and respected so that we realise our full potential.
- We are well educated, skilled and able to contribute to society.

The review is intended as a source of information for people working in primary and secondary education. It provides an overview of the supporting evidence for specific school violence and bullying prevention programmes. NHS Health Scotland does not endorse the use of any programme over another. Decisions to use a particular programme should take into account the effectiveness of the programme and the local delivery context. Local considerations may include cost, need, resources and workforce implications (including ongoing training and supervision). Support for schools is available from [The National Improvement Hub](#)^{*} and [respectme](#), Scotland's anti-bullying service.

The method used to identify papers for this review is detailed in Appendix 1. The review was restricted to international systematic reviews and research conducted in the UK and Ireland to ensure that findings were as relevant to the Scottish education system as possible. Only programmes that had published outcome evaluations were included.

* This resource provides access to: self-evaluation and improvement frameworks; research; teaching and assessment resource; exemplars of practice; and support for online collaboration and networks through Glow.

Section 2: Key points

Why is this important?

- School violence and bullying can have both short- and long-term consequences for children and young people's health and wellbeing.
- Bullying among school-aged children and young people can take place in and outside the classroom, on the way to and from school, as well as online. Children and young people who appear or are perceived as different from the general school population, such as those with characteristics protected by the Equality Act 2010, are at particular risk from bullying.
- Estimates of the number of school-aged children who experience bullying vary. In Scotland, 30% of children who responded to the [2014 respectme survey](#) reported that they had been bullied since the start of the school year. In the [2014 Health Behaviour in School-aged Children survey in Scotland](#), almost one-quarter of 13-year-old girls reported being bullied via electronic media at least once in the previous two months.

What works to prevent or reduce school violence and bullying?

- There is international review-level evidence that universal school-based programmes can have beneficial effects on violence and bullying in school settings. However, it is difficult to draw firm conclusions about which programmes or components are the most effective as all the reviews found that while some programmes were effective in some aspects of bullying prevention, others were not.
- Published outcome evaluations of school-based programmes to prevent violence and bullying conducted in the UK or Ireland are scarce. Robust evaluations of programmes are necessary to increase our knowledge of what works in a Scottish context. It is possible that what works well in one school may not work as well in another.

- Whole-school strategies that implement a range of complementary approaches to prevent as well as respond to bullying behaviours, tailored to the context of the school, and integrated into existing systems, are likely to be more effective than approaches delivered in isolation.
- School anti-bullying policies provide the framework for a consistent whole-school approach to prevent and respond to bullying. Programmes that include the establishment of a comprehensive policy have been found to more effective than those without.

Section 3: Background

School violence and bullying can have both short- and long-term consequences for children and young people's health and wellbeing.^{1,2} It can affect their physical and mental health.^{1,3,4} Children and young people who experience bullying are at increased risk of poor mental health and wellbeing including low self-esteem, depression and anxiety, feelings of loneliness and, in extreme cases, suicidal thoughts and/or behaviour.^{1,5-8} Physical health problems include headaches and difficulty sleeping and eating.¹ Feeling unsafe can affect children and young people's school attendance and performance. In the Longitudinal Study of Young People in England (LSYPE), young people who reported they had been bullied were less likely to be in full-time education at age 16 years.⁸ The effects of bullying can extend into later adolescence and adulthood. Adults who have been bullied in childhood have been consistently found to be at increased risk of anxiety and depression,^{2,9,10} as well as have lower educational attainment.^{10,11} Children and young people who display bullying behaviours can also be affected. They are at increased risk of depression and suicidal thoughts and behaviour, as well as becoming involved in offending behaviour and dropping out of school.^{2,3,10} Young people who are both bullied and bully others are at the greatest risk of experiencing negative outcomes in later life.^{3,5}

Exposure to violence in childhood has been linked with an increased risk of health-damaging lifestyle behaviours such as smoking and alcohol misuse later on.¹² In a review that looked at the impact of violence on various

educational outcomes including learning, Fry et al.¹³ found that experiencing any kind of violence in childhood had significant impacts on a variety of educational outcomes, including academic achievement. Experiences of adolescent relationship violence can have negative consequences for mental health and wellbeing¹⁴ and educational attainment,^{13,14} as well as increase the risk of unintended pregnancy.¹

Definitions

Bullying

In Scotland, [Respect for All: The National Approach to Anti-bullying for Scotland's Children and Young People](#) defines bullying as:

‘both behaviour and impact; the impact is on a person’s capacity to feel in control of themselves...Bullying takes place in the context of relationships; it is behaviour that can make people feel hurt, threatened, frightened and left out. This behaviour happens face to face and online. This behaviour can harm people physically or emotionally and, although the actual behaviour may not be repeated, the threat may be sustained over time, typically by actions, looks, messages, confrontations, physical interventions, or the fear of these.’^{15†}

There are, however, a variety of definitions used by anti-bullying charities and in academic publications.¹⁶ The majority describe a pattern of behaviour^{1,4} which includes three core elements: negative behaviour that is intended to harm, is repeated, and there is a real or perceived power imbalance between the individual bullying others and those who are bullied.¹⁶ The definition used in Scotland emphasises the impact on the person experiencing bullying, rather than the repetition of the behaviour or its intention to harm.¹⁶

Bullying happens within a framework of social relationships, between individuals who bully others, those who experience bullying and, usually, those who witness the bullying behaviour.⁶ Children and young people can be both bullied and can bully others.^{3,5}

† Page 10 of the source document.

Bullying behaviours include:^{15‡}

- being called names, teased, put down or threatened face to face and/or online
- being hit, tripped, pushed or kicked
- having belongings taken or damaged
- being ignored, left out or having rumours spread about you (face to face and/or online)
- sending and/or receiving abusive messages, pictures or images on social media, online gaming platforms or by phone
- behaviour which makes people feel like they are not in control of themselves or their lives
- being targeted because of who you are or who you are perceived to be (face to face and/or online).

Bullying can take place in and outside the classroom, on the way to and from school as well as online.¹ Within schools, bullying is more likely to take place in areas such as changing rooms, toilets and the playground, where the level of supervision by teaching or school staff tends to be lower.¹

Aggression and violence

The World Health Organization (WHO) defines violence as:

‘the intentional use of physical force or power, threatened or actual, against another person or against a group or community, that either results in or has a high likelihood of resulting in injury death, psychological harm, maldevelopment or deprivation.’^{17,§}

However, what is considered to be violence, aggression, punishment and discipline varies between countries and across time. For example, smacking a child might be considered an acceptable disciplinary action in one country or at one time, but seen as unacceptable elsewhere or at another time.¹⁸ The

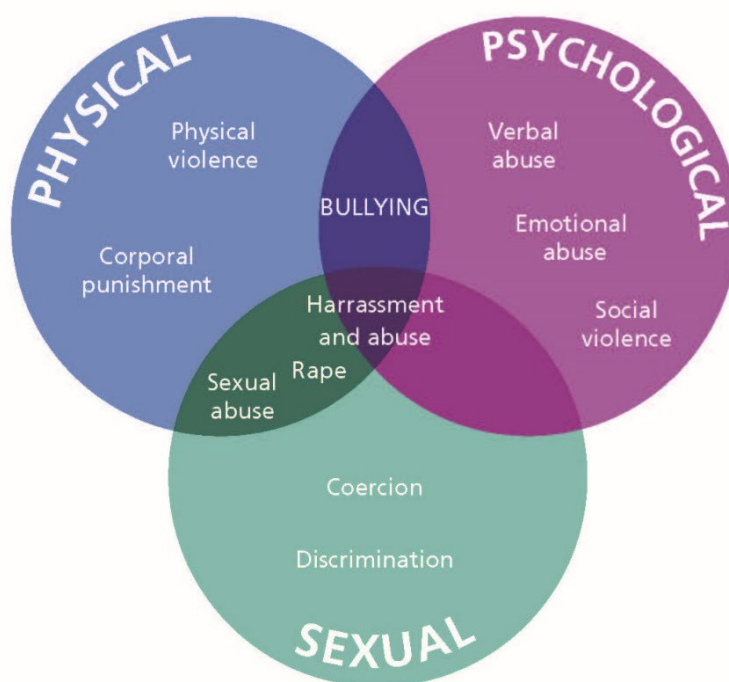
[‡] Page 10 of the source document.

[§] Page 5 of the source document.

United Nations and WHO view any form of corporal punishment** as an infringement of children and young people’s human rights and advocate for its prohibition.¹⁹

School violence and bullying are related, but distinct, behaviours.¹ Bullying involves an imbalance of power that aggressive and violent behaviours do not necessarily involve.²⁰ In Figure 1, physical violence includes displays of physical aggression with an intent to harm such as hitting, kicking and destruction of property. Psychological violence comprises verbal and emotional abuse, while sexual violence encompasses behaviours that involve intimidation of a sexual nature.¹

Figure 1: School violence and bullying. (Image adapted from source.^{1††})



** Corporal punishment is ‘any punishment in which physical force is used and intended to cause some degree of pain or discomfort, however light. Most involves hitting (‘smacking’, ‘slapping’, ‘spanking’) children, with the hand or with an implement – a whip, stick, belt, shoe, wooden spoon, etc. But it can also involve, for example, kicking, shaking or throwing children, scratching, pinching, biting, pulling hair uncomfortable positions, burning, scalding or forced ingestion (for example, washing children’s mouths out with soap or forcing them to swallow hot spices)’.
Page 45/46.¹⁹

†† Page 15 of the source document.

Adolescent relationship violence

Adolescent relationship violence is used throughout this paper to describe:

‘teen dating violence or intimate partner violence [which] entails the perpetration and/or victimisation of violence between intimate partners during teenage years, which can take many forms – physical, sexual or emotional, or a combination of these.’^{13‡}

Prevalence

Bullying

Bullying among school-aged children and young people happens throughout the world. The proportion of children and young people who experience bullying and those who display bullying behaviours varies, depending on their gender, age, country of residence⁷ and how it is measured.²¹ In the 2014 Health Behaviour in School-aged Children (HBSC) survey, which was carried out in 48 countries and regions across Europe and North America, the percentage of children and young people who reported having been bullied varied between 2% and 35%.⁷ On average, 12% of boys and 10% of girls aged between 11 and 15 years reported having been bullied at least twice in the previous two months.²² In the Scottish sample of this survey, 13% of boys and 15% of girls reported being bullied.²⁰ This represents an increase since the previous survey in 2010, with the percentage of girls reporting being bullied increasing from 9% and boys from 10%. By comparison, between 2002 and 2010, the numbers of respondents who reported being bullied remained relatively constant.²⁰ The percentage of young people who reported bullying others was considerably less, around 4%. Boys aged 15 years were more likely to report frequent bullying of others.²⁰

The number of children who experience bullying in any given school year may be greater than those reported in the 2014 HBSC survey, which asked about experience in the two months prior to the survey. In an online survey sent to all schools in Scotland in 2014, carried out by *respectme*, Scotland’s

‡ Page 8 of source document.

anti-bullying service, 30% of children aged between eight and 19 years reported they had experienced bullying since the start of the school year.²³

Bullying using electronic and computer-based applications is known as online bullying.^{§§} Online bullying adds another layer of complexity to the relationship between the individuals who bully others and those who experience bullying.²⁴ It has the potential to be anonymous.^{16,25} However, in *respectme*'s survey, more than 90% of children and young people who had experienced online bullying knew the person bullying them.²³ In addition, it is not possible for the person who is bullying others to see the immediate reaction of those they are bullying^{16,25} and the audience is potentially much wider.¹⁶ The omnipresence of electronic communication, and its embeddedness in adolescents' everyday lives means that online bullying may be harder to escape.^{16,24} These differences may mean that the impact of online bullying is greater than face-to-face bullying.¹⁶ In the 2014 HBSC survey in Scotland, almost one-quarter of 13-year-old girls reported being bullied via electronic media at least once in the previous two months.²⁰

Aggression and violence

In the 2014 HBSC study in Scotland, on average, 5% of girls and 15% of boys reported being involved in a physical fight three or more times in the previous 12 months. The percentage of boys being involved decreased from 21% at age 11 years to 11% at 13 and 15 years. Between 2002 and 2014, the rates of boys who reported fighting fell from 23% to 15%, while during the same time period, the rates for girls remained static.²⁰

Internationally, there is very limited information about the numbers of school-aged children and young people who experience adolescent relationship violence¹⁸ or sexual violence.¹ Estimates vary considerably from study to study, in part, as a result of differences between the definitions and measures used.²⁶ Thus, it is difficult to know the numbers of children and young people in Scotland who have been affected. In 2018, the National Society for the Prevention of Cruelty to Children (NSPCC) reported that there had been an

^{§§} Also often known as 'cyberbullying'.

increase of more than 25% of counselling sessions in the UK, by ChildLine, for peer-on-peer sexual abuse in year 2017/18 compared to the previous year.²⁷ The increased numbers of young people seeking support may be, in part, a reflection of the high-profile social media campaign #MeToo, which has seen celebrities and others speaking out against sexual harassment, abuse and violence.

Risk and protective factors

Individual, family and community risk and protective factors for school violence and bullying have been identified.³ The focus in this section is on bullying.

Age

Rates of bullying behaviours tend to increase throughout primary school education, peaking around the time children move up to secondary education (12–14 years) before decreasing in later adolescence.^{3,28} In the LSYPE, the percentage of participants who reported being bullied fell from 47% at age 14 years to 29% at 16 years.⁸ Similarly, in the 2014 HBSC study in Scotland, the percentage of boys and girls who reported being bullied at least twice in the previous two months fell from 14% at age 13 years to 9% at age 15 years for boys and 19% to 9% for girls.²⁰

Gender

Girls are more likely than boys to report that they have been bullied. In the 2014 HBSC study in Scotland, at age 11 and 13 years, a greater proportion of girls than boys reported having been bullied at least twice in the previous two months.²⁰ Similarly, in the LSYPE study, girls in the younger age group were more likely to report experience of being bullied compared to boys.⁸ However, in both studies, no gender differences were evident in the oldest age group.^{8,20} Girls were more likely to report psychological bullying, whereas boys tended to report physical bullying.⁸ Boys are more likely to report bullying others than girls are.²⁹ In the 2014 HBSC study in Scotland, 8% of 15-year-old boys reported having bullied others at least twice in the previous two months, compared to 1% of 15-year-old girls.²⁰

Relationships

Using information from the [Edinburgh Study of Youth Transitions and Crime](#), researchers looked at the impact of bullying during early adolescence on later outcomes. McVie found that having a stable family background with a high level of parental supervision and low levels of parental conflict seemed to protect against later involvement in violence.³ The quality of relationships with parents, siblings and peers were found to be important predictors of resilience against the negative impacts of being bullied.²⁸ In the LSYPE study, children living in step-families or in care were more likely to report being bullied.⁸ Children and young people who experience bullying tend to have smaller friendship and social networks.³⁰ Those who display bullying behaviours tend to have more negative beliefs about others and are more likely to be negatively influenced by others.³⁰

Socio-economic status

In a meta-analysis that examined the nature and strength of the relationship between bullying and socio-economic status, Tippett & Wolke³¹ found that there was a small but significant association between bullying roles and measures of socio-economic status. Children and young people from low socio-economic backgrounds were slightly more likely to experience bullying and bully others compared to those from high socio-economic backgrounds.³¹ On the other hand, in the LSYPE study, no relationships between socio-economic status or housing tenure were found.⁸ It is possible that children and young people's home and family environment, rather than their socio-economic background, is more important for their risk of being bullied or bullying others.^{29,31}

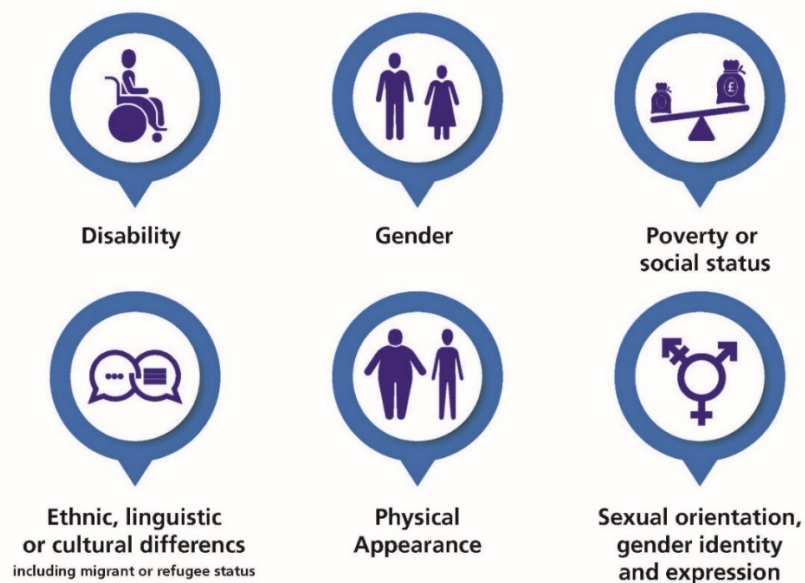
Additional risk factors

Bullying behaviour^{***} may be the result of prejudice that is linked with perceived or actual differences in others' characteristics or circumstances.¹⁵

^{***} It is important to make 'a clear distinction between bullying and criminal offences such as hate crime, child sexual exploitation and gender based violence such as domestic abuse and sexual assault. For instance, when someone is coerced or pressurised to do something sexual or is touched inappropriately, this is not bullying, this is sexual assault or abuse and a form of gender-based violence'.¹⁵ Page 12.

This includes children and young people with characteristics protected by the Equality Act 2010^{†††} as well as other aspects such as additional support needs and physical appearance. Children and young people who appear or are perceived as different from the general population are at particular risk of being bullied (Figure 2).^{1,4} Children and young people whose sexual orientation, gender identity or expression does not conform to traditional gender norms tend to be disproportionately affected.¹ For example, in the 2014/15 NHS Greater Glasgow & Clyde Health and Wellbeing Survey in secondary schools, pupils who identified as lesbian, gay or bisexual were more than twice as likely to report that they had been bullied in some way in the previous year compared to pupils who identified as heterosexual.³²

Figure 2: Additional risk factors for bullying. (Figure adapted from source.^{1†††})



^{†††} Disability, gender reassignment, pregnancy and maternity, race, religion or belief, sex, sexual orientation, age, and marriage and civil partnership are not protected characteristics within school education.¹⁵

^{‡‡‡} Page 16 of the source document.

School environment

The prevalence of bullying behaviour varies from school to school.⁶ For example, in the 2014/15 School Health and Wellbeing Survey in secondary schools in Glasgow City, pupils in the least deprived schools^{§§§} were more likely to report that they had been bullied in the previous year compared to those in the most deprived schools.³³ The social environment within a school is likely to be an important factor.³⁴ In a study, which linked information about bullying behaviour in 648 primary schools in England and demographic and school level information, Fink et al.¹¹ found that the extent to which pupils felt connected to the school was an independent predictor of bullying behaviour. Perceptions of a poor school climate^{****} were linked with more reports of bullying behaviours.¹¹ Similarly, in the 2016 Behaviour in Scottish Schools Research, school staff who reported that their school had a positive ethos tended to report lower levels of pupils disruptive behaviours.³⁵ However, it is not known whether undesirable behaviours led to perceptions of a poor school social environment or if a poor school climate led to the disruptive behaviours.^{11,35}

Section 4: What works to prevent or reduce school violence and bullying?

The following section starts by bringing together international review-level evidence about the general effectiveness of school-based programmes that aim to prevent or reduce school violence and bullying. This is followed by details of individual programmes that have been implemented and evaluated in the UK and Ireland. The focus is universal programmes that are delivered to the general school population rather than on interventions that are targeted at children who are displaying aggressive or bullying behaviours or those that have been bullied.

^{§§§} Eligibility for free school meals was used as a proxy measure of deprivation. The most deprived schools had the greatest proportion of pupils who were eligible and the least deprived had the least.

^{****} The term is used to capture loosely related factors such as respectful and supportive relationships and feelings of safety, inclusiveness and fairness.⁹⁰

International reviews

The search strategy identified 39 reports of 34 systematic review, meta-analysis or review of review (umbrella review) studies. Their focus was a range of topics related to school-based interventions to prevent or reduce bullying or violence. Reviews that had a wider focus but included an examination of school-based interventions and reported outcomes for school-aged children and young people were also included. Reported outcomes included effects on four broad topic areas (Table 1). However, there was an overlap, which means that, in the table below, the number of review studies reporting particular topics adds up to more than the total number of review reports found. It is likely that many of the primary research studies^{†††} are included in more than one review. Only information about interventions implemented in a school setting with a school-aged population was included. The quality of the included reviews was variable, with 28 assessed as being of moderate or strong methodological quality.

Table 1: Numbers of studies reporting outcomes in topic areas

Outcomes reported	No. of studies	Moderate or strong quality
Bullying	13	12
Online bullying	5	2
Aggression and/or violence	10	10
Sexual or relationship violence	11	9

The following section brings together the findings of the identified reviews relating to each topic area.

Bullying

The search strategy identified 13 reviews that reported outcomes related to school-based programmes to prevent or reduce bullying.^{21,36–48} Overall, there was consistent evidence that anti-bullying programmes can have positive effects on bullying-related outcomes such as bullying behaviour, being bullied, bystander responses or attitudes and beliefs about bullying.

^{†††} i.e. an article that reports on the details and results of a research study conducted by the authors themselves.

Gaffney et al.⁴⁸ estimated that, on average, anti-bullying programmes were able to reduce bullying behaviours by 19–20% and rates of being bullied by 15–16%.

Similarly, even though Langford et al.⁴¹ found no evidence of effect for violence prevention programmes implemented as part of the Health Promoting Schools framework, anti-bullying programmes were found to reduce reports of being bullied by, on average, 17%. However, all of the reviews found that while some programmes were effective in some aspects of bullying prevention, others were not. For example, in a review of controlled trials^{****} of anti-bullying programmes in school settings, Evans et al.²¹ found that about half of the included studies reported positive effects on displays of bullying behaviour, while two-thirds described beneficial impacts on reports of being bullied. This means that it is difficult to say which programmes are the most effective.

School policy

School anti-bullying policies provide the framework for a consistent whole-school approach to prevent and respond to bullying.^{49,50} Policies influence the behaviours of pupils, teachers and other school staff as well as organisational practices such as reporting structures.³⁸ At international review level, schools with established rules and regulations against bullying tended to have lower levels of bullying behaviours.⁶ The content of a policy influences the expected outcomes. For example, a school policy which advocates for restorative approaches when pupils display bullying behaviours is likely to have different outcomes from a policy that encourages their suspension or exclusion.³⁸ Analyses of school anti-bullying policies in England⁵¹ and Northern Ireland⁴⁹ have found considerable variation in their content, in particular in their

^{****}Controlled trials test a specific intervention by using two (or more) groups of participants. The intervention group has the programme being tested. The comparison (or control) group has an alternative programme or no intervention (apart from 'usual practice'). The two groups are compared to see how effective the intervention was. If patients are randomly allocated to intervention and comparison groups, this is called a randomised controlled trial.

inclusion of specific prejudice-based bullying categories (e.g. disability related or faith/race related).

The search strategy identified one review of studies that examined whether or not the presence of a school anti-bullying policy was effective at reducing bullying behaviours.³⁸ In the main, consistent benefits for lesbian, gay, bisexual and transgender (LGBT) pupils were found. In schools that had a comprehensive anti-bullying policy, which explicitly prohibited bullying based on sexual orientation and gender identity, lower rates of being bullied were reported by LGBT pupils. In addition, school personnel were more likely to intervene when they encountered bullying behaviour and their response was more likely to be effective.³⁸ However, there was less evidence that the mere presence of a school anti-bullying policy was sufficient to reduce verbal and/or physical bullying. None of the included studies examined if the policies had been implemented as they had been intended.³⁸

While, as a standalone strategy, having a school policy may or may not be effective at reducing bullying, Lee et al.⁴² found that anti-bullying programmes that included the establishment of a school policy were more effective than those that did not. Likewise, having a whole-school anti-bullying policy was one element found by Ttofi and Farrington⁴⁵ to be associated with a greater reduction in bullying.

Peer support strategies

The behaviour of pupils who witness bullying behaviours could be key to reducing bullying incidents.^{24,43} Individuals who witness bullying behaviours can intervene by defending and comforting those experiencing bullying. Alternatively, they can reinforce the bullying behaviour by joining in or by laughing or cheering; or they can choose to withdraw from the situation by walking away.^{24,36,43,52} The search strategy found one review that looked specifically at school-based prevention programmes that aimed to change the actions of pupils who witnessed bullying behaviours.⁴³ Overall, pupils who had taken part in the programmes were more likely to indicate that they would intervene to stop bullying or report that they had tried to stop bullying behaviour than those who had not been involved. Greater effects were found

for programmes implemented with older pupils (14–18 years) only compared to those with younger pupils only (8–14 years).⁴³

Even though Polanin et al.⁴³ found positive effects of programmes that aim to change the actions of pupils who witness bullying behaviours, there is mixed evidence about interventions that include work with peers.^{42,45} Ttofi and Farrington⁴⁵ found that programmes that included work with peers such as peer mediation or mentoring, and encouragement of bystander intervention were associated with significantly increased reports of being bullied compared to programmes that did not include this element.⁴⁵ In contrast, Lee et al.⁴² found that programmes that included peer support mechanisms such as active listening and supportive communication were more effective in reducing rates of being bullied compared to programmes that did not include these elements.

Online bullying

The search strategy identified five reviews that examined school-based programmes that were designed specifically to prevent or reduce online bullying.^{24,53–56} Overall, there was evidence that these programmes can be effective. Gaffney et al.⁵⁶ found that, on average, programmes designed to prevent or reduce online bullying can reduce online bullying behaviours by 9–15% and rates of being bullied by 14–15%. However, some programmes were not effective. Of the nine programmes identified by Della Cioppa et al.,²⁴ only two reported beneficial effects in reducing online bullying behaviours **and** rates of being bullied by electronic means. The remainder described either mixed or no effects.

In general, it is difficult to draw firm conclusions about which online bullying programmes are the most effective from the reviews identified for this paper. The majority of the reviews were assessed as being of low quality. This may reflect that research evaluating interventions which aim to prevent or reduce online bullying is a relatively new field of inquiry. For example, a review published in 2012 found that there was very little empirical evidence about successful online bullying programmes,⁵⁴ whereas a review accepted for publication in 2018 identified 24 studies.⁵⁶

Aggression and violence

The search strategy identified 10 reviews that reported the effects of school-based programmes on aggressive and/or violent behaviours.^{12,37,40,41,44,57–61}

Overall, there was evidence that universal programmes can have beneficial effects on aggressive and violent behaviours in school settings. Although different aspects of school violence, including reports of physical or verbal aggression, were measured in the various studies, programmes that assessed attitudes and beliefs about violence were more likely to report positive effects.^{12,40} In addition, programmes were found to be more effective among adolescents who were displaying aggressive or violent behaviour, rather than the general school population.^{40,60} However, not all programmes included in the reviews were effective. Even though this meant that the majority of these did not find that there were any significant differences between the intervention and control groups, Gavine et al.¹² reported that one programme described a small but significant increase in self-reported physical aggression in the intervention group.

School environment approaches

School environment approaches aim to modify the physical, social and cultural environment within schools to promote health among children and young people.⁵⁷ There is review-level evidence that programmes that aim to improve the school environment have the potential to reduce violence and aggression.^{57,61} However, Langford et al.⁴¹ found no evidence that violence prevention programmes that had been implemented within World Health Organization's framework for Health Promoting Schools were effective at reducing violent behaviours. The majority of the programmes had been developed and evaluated in North America, where the school culture and environment as well as the experience of school violence is likely to be different from Scotland.

One pilot study of a whole-school programme implemented in the UK was included in a review by Bonell et al.⁵⁷ The findings suggested that pupils were significantly more likely to report feeling safe at a school by taking part in the programme compared to those who had not. In addition, there was a trend

towards reductions in self-reported teasing or hurting of others or being in a fight. However, there were no differences in self-reported experiences of being teased or threatened.⁵⁷ This programme has not been included in the description of individual programmes implemented in the UK and Ireland as it was published earlier than the inclusion criteria for the current review.

Adolescent relationship violence

The search strategy identified 11 reviews of school-based programmes that aimed to prevent physical, emotional or sexual violence within adolescents' intimate peer relationships.^{14,58,62–70} Overall, there was inconsistent evidence that adolescent relationship violence prevention programmes were effective in reducing the numbers of young people who reported being exposed to or instigating violence within an intimate partner relationship. At best, positive effects tended to be small to moderate.^{58,64,68} Studies that reported changes in knowledge of, or attitudes about, violence within relationships were more likely to report larger effects.⁶⁸ These effects tended to be weakened at follow-up.¹⁴ Two reviews described programmes that had reported an increase in sexual violence perpetration against dating partners in the intervention group.^{14,62}

Overall, it is difficult to draw firm conclusions about which, if any, adolescent relationship programmes included in the reviews identified for this paper would work in a Scottish context. The vast majority of the programmes had been developed and evaluated in North America, where school cultures and experiences of adolescent relationship violence are likely to be different to those in Scotland. In American studies, programmes tend to focus solely on preventing violence within adolescents' intimate peer relationships, whereas in the UK there is more emphasis on raising awareness and information about help-seeking strategies and support services for children and young people who are witnesses to violence in their parents' or carers' relationships.⁶⁸

UK and Ireland studies

The search strategy identified nine programmes implemented in schools in the UK or Ireland, with published outcome evaluations, that were designed to

prevent bullying or violence. Four reports were published in peer-reviewed journals,⁷¹⁻⁷⁴ with the remainder being published on various websites. Five programmes had been developed in the UK or Ireland (including one in Scotland), three in North America and one in Finland. Successful transfer of programmes developed in countries outside the UK and Ireland may depend on the degree that the programme is aligned to local educational approaches and context.⁷⁵ The topic areas of the programmes are outlined in Table 2.

Table 2: Topic areas and countries of development

Topic area	Developed in UK or Ireland	Developed elsewhere
Bullying	2	1
Online bullying	0	0
Aggressive and/or violent behaviour	0	3
Adolescent relationship violence	3	0

In addition, a systematic review of bullying studies that had been carried out in the Republic of Ireland and Northern Ireland was found.⁷⁶ The majority of the studies looked at the prevalence of bullying and the psychological impacts.⁷⁶ Seven reports of evaluations of programmes to prevent or reduce bullying in schools were included; five reported outcomes relevant to this current review. Overall, with the exception of one study, there were positive outcomes reported, including increased feelings of safety and reduced prevalence of bullying.⁷⁶ The publication dates of the study reports were, in the main, earlier than the inclusion criteria for this current review. As a result, they are not discussed further here. One study met the inclusion criteria and is described in the next section.

Bullying

Bullying Intervention Training

The 'Bullying Intervention Training' (BIT) programme was developed by [Kidscape](#), a UK anti-bullying charity, to support teachers and other school staff to identify bullying and teach assertive techniques to children to help them combat bullying. Implemented in 54 schools in London, the programme comprised a half-day training for school professionals, a set of five 45-minute

lessons delivered to Year 4 and 5 pupils along with a half-day of support offered by Kidscape to help schools develop anti-bullying systems and policies. In the final evaluation, schools were asked about changes in bullying rates and behaviour since the start of the programme. At a school level, about one-third considered that there had been fewer reports of bullying and about one-third thought that behaviour had improved at lunchtime with less conflict observed. However, this seemed to be based on the perceptions of school staff and teachers rather than an objective measure of bullying and/or behaviour before and after the implementation of the programme. A number of anti-bullying programmes were in place before and during the BIT programme so it is difficult to link any of the perceived changes directly with this intervention.⁷⁷

KiVa

KiVa is a whole-school anti-bullying programme developed in Finland for children and young people (7–15 years) attending schools within their comprehensive school system. It is a comprehensive programme that comprises universal actions at classroom and school level, and indicated actions to address confirmed cases of bullying. The programme provides training resources, class lessons, online activities and parental advice. Topics of the 10 structured lessons includes exploration of types of bullying and how they are influenced by bystanders. The lessons are interactive with videos, group work and role play. The universal programme consists of three modules targeting different age groups: 7–9 years, 10–12 years and 13–15 years.⁷⁴

In a randomised controlled trial in Finland, KiVa was found to significantly reduce rates of being bullied and bullying behaviour in children aged 10–12 years old.⁷⁸ Similar positive effects were demonstrated in an Italian randomised controlled trial.⁷⁹ In a pilot study in Wales, 17 schools implemented the second module (10–12 years) of the KiVa programme. Pupils completed the KiVa online annual survey before and after the programme. Overall, at a school level, there was significant reduction in reports of being bullied and bullying others for girls and a significant reduction

in bullying others in boys. Using this measurement instrument meant that it was not possible to link before and after information at an individual level.⁷⁴

Erris Anti-Bullying Initiative

Erris Anti-Bullying Initiative was a whole-school approach developed and implemented in collaboration with a community development project in Ireland. It aimed to create a culture of zero tolerance towards bullying in the whole community. The school-based programme included teacher training and a structured programme of activities about anti-bullying. It was delivered by teachers, supported by the local community development organisation, between October 2010 and March 2011. Primary and secondary school pupils attending schools that agreed to take part in the evaluation were surveyed about their experiences of having been bullied or bullying others in May 2010 and again in May 2011. In the second survey, the rates of reports of being bullied and bullying behaviour had decreased, although these were not statistically significant. There was an increase in reports of positive responses from teachers and peers to bullying incidents.⁷²

Aggression and violence

Mentors in Violence Prevention

The [Mentor in Violence Prevention](#) (MVP) programme was developed in the USA to address gender-based violence. The programme aims to encourage non-violent bystander intervention to prevent or reduce violence, with an emphasis on gender-based violence. It is designed to provide bystanders with the tools to intervene safely so that it is more likely they will prevent or stop violence incidents. In group sessions, after realistic scenarios have been presented and role played, peer mentors facilitate discussions.⁷¹ In the USA, MVP has been found to be effective in raising awareness and changing attitudes about gender-based violence.^{69,71}

MVP was introduced in schools in Scotland in 2012. Adaptations to the programme have been made so that it is relevant to the culture of Scotland, while retaining the core features of the programme. A strong emphasis has been placed on building healthy, respectful relationships both in school and in

the community. In a pilot qualitative evaluation of MVP in three Scottish secondary schools, the programme was generally well received. For mentors, who were aged between 15 and 18 years, involvement in the programme had increased their awareness of gender-based violence and changed their attitudes to intervening if they witnessed any episodes. Some of the mentees, who were 11–14 years, felt that their behaviour had changed, particularly about the spread of rumours and gossip. Male mentees reported that they thought they treated females with more respect. However, the female mentees reported they were not aware of any changes. Teaching staff reported instances where mentors had been observed intervening in conflicts and noticed changes in mentees' attitudes to conflict resolution and use of violence.⁷¹

By the end of the school year 2016/17, 129 schools in Scotland across 19 local authorities had staff trained in MVP.⁸⁰ After training, qualitative feedback suggested that staff had felt more able to teach others about gender-based violence as well as challenge gender-based violence-related behaviours. In addition, there was a perception that the programme had contributed to a more positive ethos within the school.⁸⁰ The evaluation plan includes attitudinal questionnaires to be completed by children and young people before and after taking part in the programme.⁸⁰ In 2015/16 only 19 schools (out of 91 schools with trained staff) returned these completed; 553 had been filled in before taking part in the programme and 157 afterwards.⁸¹ There was a reported positive change in attitudes to intervening in situations that bullying behaviour was observed. In addition, there was a perception that the school social environment had improved with more connections made between younger and older pupils.⁸¹ However, it is uncertain from the report whether the same individuals had completed the questionnaire before and after taking part in the programme. Therefore, it is difficult to determine whether or not the reported changes were the direct result of taking part in the programme. The low response rate means it is not possible to determine the representativeness of the report's findings.

Roots of Empathy

Roots of Empathy is a universal classroom-based social and emotional programme, developed in Canada, for primary school-aged children. It aims to develop self-awareness and self-management of emotions leading to positive relationship skills. Nine themes are delivered by a trained facilitator throughout the school year. Each theme consists of three sessions: a family visit when a mother and baby visit the classroom, a preparatory session a week before and a follow-up session a week after. The baby is considered to be the teacher.⁸² A recent meta-analysis of Roots of Empathy evaluations found that there was evidence that the programme was effective in improving teacher-rated pro-social behaviours and reducing aggressive behaviours. However, improvements were not maintained at follow up. Insufficient evidence was found to say if the programme improved child-rated empathy or emotional regulation.⁸³ Two evaluations of the Roots of Empathy programme conducted in Scotland^{82,84} were included in the meta-analysis. These are discussed in the following paragraphs, along with the findings from a cluster randomised controlled trial undertaken in Northern Ireland.⁸³

In the two Scottish studies, children who took part in the programme demonstrated statistically significant improvements in measures of emotional empathy (the extent to which they felt the same feelings as others), whereas children in the non-intervention comparison group either showed no improvement⁸⁴ or had deteriorated.⁸² Reported effects on measures of cognitive empathy (the extent to which children understood why other people feel the way they do) were inconsistent. MacDonald et al.⁸² reported improvements in the children taking part and detected a deterioration in the non-intervention comparison group of children. In contrast, Wrigley et al.⁸⁴ detected no change in either group.

Both studies found that teacher-rated pro-social behaviours of children who had taken part in the Roots of Empathy programme increased more than for children in the comparison groups.^{82,84} Younger children tended to benefit more than older pupils and the impact on pro-social behaviours was greater for boys than girls.^{82,84} In addition, a greater effect was detected in schools

located in areas of high deprivation.⁸² Only the evaluation by Wrigley et al.⁸⁴ reported measures of teacher-report aggression. The scores of the intervention group decreased over time, while non-intervention groups increased.

In the Irish trial, immediately after completing a Roots of Empathy programme, a positive improvement in children's teacher-rated pro-social behaviour was found and there was a trend towards lower teacher-rated difficult behaviour. However, these improvements were not maintained when the children were followed up one year, two years and three years later. No differences were found between children who had taken part in the programme and those who had not for secondary outcome measures including bullying and aggression. This suggests that, for these outcomes, the Roots of Empathy was no better than existing curriculum activities. In contrast to the Scottish evaluations, no differences in effect based on gender or socio-economic background were found.⁸³

Good Behaviour Game

The Good Behaviour Game (GBG) aims to improve pupil behaviour using a universal classroom behaviour management system with core elements: classroom rules, team membership, monitoring of behaviour and positive reinforcement.⁸⁵ International review evidence suggests that the GBG can have modest effects on pupil aggression.⁸⁶ However, in a randomised controlled trial in Manchester, England, when the programme was implemented for two years in 38 schools, no evidence was found that GBG improved pupil behaviour. For boys who were assessed as being at risk of developing conduct problems, there was a small positive effect on disruptive behaviour. Only three-quarters of the implementation schools continued with the programme for the whole study period. Feedback from teachers suggested that any observed benefits were not worth the time and effort required to implement the game, and that the 'game' did not complement the curriculum activities.⁸⁵

Adolescent relationship violence

Sexual Violence Prevention programme

Rape Crisis Scotland has developed the National [Sexual Violence Prevention programme](#). The programme consists of seven themed sessions, which can be adapted and delivered to four different age groups; Secondary 1–2, Secondary 3–4, Secondary 5–6 and 18–25 years. The sessions are facilitated by prevention workers who are based in Rape Crisis centres throughout Scotland. Provision is designed to be flexible, with schools being able to choose the number and topics of the sessions that children and young people take part in.

In 2014–15, the programme was evaluated by asking children and young people to complete a questionnaire about attitudes to sex and relationships as well as an analysis of session feedback forms and qualitative interviews. The questionnaire was filled in before the participants attended any workshop, and again after they had taken part in any three workshops. After attending three sessions, children and young people reported having more knowledge of the relevant law and of sources of support for those affected. In general, the attitudes expressed were less supportive of sexual violence. It is not known if a particular session or combination of sessions were more or less likely to encourage a change in attitudes and whether any changes were retained in the longer term. Qualitative feedback from the feedback forms and interviews suggested that the sessions had been well received by the children and young people who took part.⁸⁷

Relationships without Fear

[Relationships without Fear](#) was a healthy relationship and domestic abuse prevention programme developed in England. The programme was delivered one hour per week for six weeks with children and young people who were in Year 4 to Year 11.^{§§§§} The content and activities were tailored to each age group. The programme was designed to be interactive with real life stories, role play and videos to stimulate discussions among the children and young

^{§§§§} Equivalent to S5 in Scotland.

people. At younger ages, the focus was on friendship and peer group relationships.⁷³

The programme delivered to Year 9^{****} has been evaluated. Seven schools where children and young people had taken part in the programme were matched with schools by size and the number of children eligible for free school meals. Pupils in both groups of schools were asked to complete an 'attitudes to domestic violence' questionnaire before the programme started and when it finished. In addition, they were asked about their experience and exposure to domestic abuse as well as questions about help-seeking. The group that had received the programme were asked to complete the questionnaire three months after the programme finished.⁷³

Before the programme, boys and those who had experienced or had witnessed domestic abuse were more likely to express attitudes that were more accepting of domestic abuse. Afterwards, the children and young people who had taken part in the programme were more likely to express attitudes that were less accepting of domestic abuse compared to those who had not been involved. While knowing about how and where to seek help increased after the programme, this was not maintained at the three-month follow-up. However, in part, the programme was not implemented as the developers intended, with almost half of the classes having a shortened version. It is not known how many children and young people completed the full programme. Those who indicated that they had previously been victims of domestic violence were significantly less likely to complete the second questionnaire.⁷³

Tender Healthy Relationships project

The Tender⁺⁺⁺⁺ Healthy Relationships project aimed to prevent violence in relationships. The programme used a drama-based model of healthy relationship education, which included teacher training, practical workshops for pupils and peer-to-peer education. Young people in Years 9 to 11, living in five areas of England, were invited to take part in drama-based workshops

^{****} Equivalent to S3 in Scotland.

⁺⁺⁺⁺ Tender is a third sector organisation which works to promote healthy relationships based on equality and respects

which focused on issues related to violence in relationships. Those who took part in the workshops went on to present a drama presentation about healthy relationships to their peer group in school. After taking part, pupils reported increased awareness of domestic violence and abuse, as well as the early warning signs such as pressure to drink alcohol or having feelings ignored. In addition, they described an increased knowledge of what to do if they experienced violence in their relationships and where to go for support.⁸⁸

Section 5: Discussion

This paper has examined evaluations of school-based programmes, published in academic and grey literature, that aim to prevent school violence and bullying. In general, there was evidence at international review level that school-based programmes can help prevent and reduce school violence and bullying. However, while some programmes were effective, others were not. There was a lack of outcome evaluations of programmes implemented in the UK and Ireland. This means it is difficult to draw firm conclusions about what programmes would work best in Scottish schools. It is possible that what works well in one school may not work as well in another.

School violence and bullying are complex and multi-factorial behaviours.⁸⁹ Children's behaviours are often determined by their early experiences. Displays of bullying, aggressive or violent behaviours may be communicating that something adverse is going on or has happened in a child or young person's life. This means that implementing a single strategy, such as social skills training, in isolation is unlikely to tackle the problem in the longer term.⁸⁹ Trauma-informed and nurturing approaches are ways that schools can respond to these behaviours.

The available evidence suggests that whole-school approaches can be effective in preventing and reducing school violence and bullying.^{12,36,42,68} These strategies usually include a range of complementary approaches such as promotion of a positive school climate, playground supervision and

curriculum-based elements underpinned by a robust anti-bullying policy.¹⁶ Embedding such an approach requires long-term investment.⁶⁶

The quality of programme implementation is important for positive outcomes. Organising delivery of a programme in the context of a busy school timetable with multiple competing priorities can be challenging. Teachers in the 2016 Behaviour in Scottish Schools survey highlighted the negative impact that a lack of resources had on their capacity to manage pupils' behaviour in positive ways.³⁵ Programmes that fit the needs and context of the class or school and are easy to carry out are more likely to be implemented well.

A school anti-bullying policy, which is communicated and promoted to children and young people along with their carers and all school personnel, underpins a consistent approach.⁵⁰ Comprehensive policies include a clear definition of bullying, with specific mention of the different categories of prejudiced-based bullying. Children and young people and their carers need to know how they can report bullying incidents and what the school will do in response. Pupils are more likely to feel confident that bullying incidents will be taken seriously and actions will be taken when a school policy is put into practice as it is intended.³⁸ Guidance for Scottish schools about the development of anti-bullying policies is available from [respectme](#).

Limitations

The findings of this paper should be interpreted in the light of following limitations. Studies from North America pre-dominated, particularly in reviews about adolescent relationship violence, which makes generalising their findings to the Scottish context uncertain. Nevertheless, two reviews found that studies of anti-bullying programmes developed and evaluated in Europe seemed to work better.^{21,45} In general, the follow-up period of studies was relatively short, so little is known about the longer-term effects. It is possible that taking part in an anti-bullying or violence prevention programme will raise awareness of the issues and, hence, make reporting of bullying behaviours more likely in the short term. The methodology and measures used to evaluate a programme tended to make a difference to how effective the

intervention was found to be. Effects tended to be lower in the more robust evaluation designs,^{45,57} and greater when changes in knowledge and attitudes were measured.^{39,40} However, it is not known whether or not changes in attitudes and beliefs are likely to make a difference to an individual's behaviour.^{14,44}

It is surprising that, even though many schools have anti-bullying programmes in place^{35,74} and there are many examples of school-based violence prevention programmes,^{####} only a small number of outcome evaluations of programmes to prevent school violence and bullying that had been carried out in the UK and Ireland were found. Similarly, Hutchings and Clarke noted the relative lack of systematic evaluation of anti-bullying programmes in the UK.⁷⁴ While it is possible that the search strategy for this current paper missed some, the reference lists of the included international reviews were searched and any UK-based studies (where the study's country was detailed) that met the publication date inclusion criteria were retrieved for potential inclusion.

Section 6: Conclusion

This review has highlighted a lack of outcome evaluations, undertaken in the UK or Ireland, of school-based programmes that aimed to prevent school violence and bullying. International review literature suggests that while some programmes are effective, others are not. Therefore it is difficult to draw firm conclusions about which might work best in Scotland. Whole-school approaches, which promote a positive school culture underpinned by a comprehensive school anti-bullying policy while at the same time implementing approaches that boost protective factors, may warrant further investigation.

See Arnot J. [Examples of projects to prevent and reduce violence in Scotland](#) Glasgow: ScotPHN; 2018.

Key findings

- School violence and bullying can have both short- and long-term consequences for children and young people's health and wellbeing.
- Bullying among school-aged children and young people can take place in and outside the classroom, on the way to and from school, as well as online. Children and young people who appear or are perceived as different from the general school population, such as those with characteristics protected by the Equality Act 2010, are at particular risk from bullying.
- Estimates of the number of school-aged children who experience bullying vary. In Scotland, 30% of children who responded to the 2014 respectme survey reported that they had been bullied since the start of the school year. In the 2014 Health Behaviour in School-aged Children survey in Scotland, almost one-quarter of 13-year-old girls reported being bullied via electronic media at least once in the previous two months.
- There is international review-level evidence that universal school-based programmes can have beneficial effects on violence and bullying in school settings. However, it is difficult to draw firm conclusions about which programmes or components are the most effective, as all the reviews found that while some programmes were effective in some aspects of bullying prevention, others were not.
- Published outcome evaluations of school-based programmes to prevent violence and bullying conducted in the UK or Ireland are scarce. Robust evaluations of programmes are necessary to increase our knowledge of what works in a Scottish context. It is possible that what works well in one school may not work as well in another.
- Whole-school strategies that implement a range of complementary approaches to prevent as well as respond to bullying behaviours, tailored to the context of the school, and integrated into existing systems, are likely to be more effective than approaches delivered in isolation.

- School anti-bullying policies provide the framework for a consistent whole-school approach to prevent and respond to bullying. Programmes that include the establishment of a comprehensive policy have been found to more effective than those without.

Section 7: Sources of further information and support for schools

Bullying

- Scottish Government (2017). [Respect for All: The National Approach to Anti-bullying for Scotland's Children and Young People](#).

This report provides the overarching framework for all anti-bullying work that is undertaken in Scotland. The approach aims to build capacity, resilience and skills in children and young people, and all those who play a role in their lives, to prevent and deal with bullying.

- Scottish Government (2018). [Respect for All: Supplementary Guidance on Recording and Monitoring of Bullying Incidents in Schools](#).
- LGBT Youth Scotland. [Addressing Inclusion Effectively Challenging Homophobia, Biphobia and Transphobia](#).
- LGBT Youth Scotland. Supporting [Transgender Young People: Guidance for Schools in Scotland](#).
- [respectme](#) – Scotland's Anti-Bullying Service. The website has resources for school staff, parents and carers as well as children and young people, including information about internet safety.
- [respectme](#). [Policy through to Practice – Getting it Right. Anti-Bullying Policy Guidance for Schools and Children & Young People's Services](#)
- [respectme #respectmeans](#). This learning resource contains practical activities that can be used with children and young people as part of wider learning around positive relationships and bullying behaviour.
- [respectme](#). [Responding to Bullying - What are my options?](#)
- [Bullying – what can I do?](#) [YouTube video]. This learning resource contains practical activities which can help children and young people

explore the options open to them if they or someone they know is being bullied.

- UNESCO. [School Violence and Bullying Global Status Report](#). Paris; United Nations Educational, Scientific and Cultural Organization; 2017.

Online bullying

- Childnet International. Cyberbullying: [Prevent Understand, and Respond Guidance for Schools](#).
- Childnet International. [Crossing the Line: PSHE toolkit](#).

Internet safety

- Scottish Government (2017). [National Action Plan on Internet Safety for Children and Young People](#).
- The [360 degree safe self-review tool](#) is free to use and is intended to help schools review their e-safety policy and practice. It provides:
 - information that can influence the production or review of e-safety policies and develop good practice
 - a process for identifying strengths and weaknesses.
 - opportunities for commitment and involvement from the whole school.
 - a continuum for schools to discuss how they might move from a basic-level provision for online safety to practice that is aspirational and innovative.

Sexual violence

- Scottish Government (2018). [Equally Safe. Scotland's Strategy for Preventing and Eradicating Violence Against Women and Girls](#).
- Scottish Government (2017). [Equally Safe. A Delivery Plan for Scotland's Strategy to Prevent and Eradicate Violence Against Women and Girls 2017-21](#).
- [RSHP Scotland](#) is a resource currently under development to support schools delivering Relationships, Sexual Health and Parenthood (RSHP) education to children and young people.

School climate

- Scottish Government (2018). [Developing a positive whole-school ethos and culture – Relationships, Learning and Behaviour](#)
- *respectme*. [Creating the right environment](#)

Appendix 1: Method

Research question: What is the effectiveness of school-based programmes that aim to prevent or reduce school violence and bullying?

Search strategy: The search strategy was developed in discussion with NHS Health Scotland's Knowledge Services:

- #1. Child/
- #2. Students/
- #3. Adolescent/
- #4. school-child* OR "school child*" OR youth* OR "young people" OR "young person" OR student* OR adolescent* OR pupil* OR child*
- #5. Bullying/
- #6. Violence/
- #7. bully* OR anti-bully* OR "anti bully*" OR violen* OR aggress* OR peer victimisation OR peer victim*
- #8. intervention* OR program* OR outcome OR evaluation OR effect* OR preventi* OR tackl*
- #9. #1 OR #2 OR #3 OR 4
- #10. #5 OR #6 OR #7
- #11. #8 AND #9 AND #10

In order to make sure that the volume of literature identified was manageable in the time frame available for this review, the search was limited to finding the terms in the title and abstract and subject. In the first instance, the search terms were used in conjunction with the terms designed to find systematic reviews. A systematic review is a form of research that attempts to collect all the relevant evidence to address a specific question or topic. Researchers use explicit and transparent methods to perform a thorough literature search and appraisal of the quality of individual studies. The findings are brought together so that conclusions about what is known and not known about a given question or topic can be drawn. Using evidence from systematic reviews reduces the risk that findings from individual studies are atypical and/or biased. Thus, when review-level evidence is available, and has been

carried out well, we can have greater confidence about the reliability of the findings. Searches were limited to papers published in English from 2010 onwards. In order to find studies that had been carried out in the UK or Ireland the search was re-run without the review 'filter'. In this case, the searches were limited to papers published in English from 2013 onwards so that the volume of literature was manageable.

Using the search terms, the following health and education electronic databases were searched in May 2018:

Medline, Embase, ASSIA, IBSS, Psych Articles, Public Health Database, PsychINFO, Psychology and Behavioral Sciences Collection, Sociological Abstracts, ERIC, British Education Index, Child Development & Adolescent Studies, Education Abstracts, Professional Development Collection, Teacher Reference Center, Australian Education Index.

In addition, the search terms were used in 'Google Advanced' search engine to find any potentially relevant reports not published in the peer-reviewed literature. In addition websites of UK-based anti-bullying organisations were searched to find any programme evaluation reports. Further studies and papers were identified by examining the reference lists of relevant articles identified by the search.

Selection process

The titles and abstracts were screened for potential inclusion. Studies were included if they reported

- School-based interventions (must have differentiated if not focus)
- Aimed to prevent or reduce bullying or violence (including cyber-bullying and sexual violence)
- Reported measure of bullying or violence
- Targeted at the general school population
- A systematic review, meta-analysis or intervention evaluated in UK or Ireland
- Published in English language.

Studies were excluded if they reported:

- Treatment for victims
- Literature reviews with no methodology section
- Published before 2010 for reviews and before 2013 for studies in UK or Ireland
- Programmes in schools for children with special education needs
- Discussion or commentary papers.

This screening identified 183 articles and reports for further consideration.

The full text of each paper was assessed for inclusion and 50 were included in the synthesis. Of these, 39 were review-level papers and 11 were primary studies. Further details of the selection process are available from the author of this report.

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