

ESSS Outline

Adverse Childhood Experiences (ACEs): interventions in education

Dr Lauren Smith
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Introduction

This evidence summary seeks to address the following questions relating to adverse childhood experiences (ACEs) and interventions within the education system:

1. *How may ACEs impact young people's educational experiences?*
2. *How can schools best support young people with ACEs?*
3. *What kinds of approaches have been effective in creating the conditions for positive educational outcomes?*

About the evidence presented below

We drew on a wide range of evidence, including academic research in the fields of social work, healthcare, psychology, early years and education in relevant databases (e.g. ASSIA, ProQuest Public Health, SCIE Social Care Online, Social Services Abstracts) and recommendations from specialist organisations (e.g. CELCIS, Scottish Adverse Childhood Experiences Hub). We searched the academic databases, Google Scholar, search engines and key websites using a broad range of terms including variations on concepts including adverse childhood experiences, child behaviour, early life adversity, educational attainment, mental health, outcomes, wellbeing, and trauma informed approaches.

There is relatively little robust research into what works to support attainment, wellbeing and other educational outcomes for young people with ACEs. In an evidence summary of the role of health and wellbeing interventions in schools for NHS Health Scotland, [White \(2017\)](#) found a lack of research studies, conducted in the UK and Ireland, examining health and wellbeing interventions in a school setting that report educational outcomes. The research that has been conducted tends to focus on what works under particular circumstances, rather than what will reliably work anywhere ([Dyson et al. 2010](#)). [Howarth et al. \(2016\)](#) go further, suggesting that in

relation to psychoeducational interventions, “there is a need to pause the development of new interventions and to focus on the systematic evaluation of existing programmes” and to “explicitly identify and address the structural, practical and cultural barriers that may have hampered the development of the UK evidence base to date”.

The focus of this review was to identify evidence around ACEs and trauma-informed approaches to education and how ACEs can impact educational outcomes. Although we were unable to identify many studies that specifically identified ACEs as a reason for poor attainment and other educational outcomes, this may be due to the methodological difficulties associated with controlling for a wide range of variables in this context.

In our evaluation of the evidence we found that papers reporting on the impact of interventions tended not to rigorously establish causality between activities to support young people with ACEs and any positive outcomes identified. In some instances claims were made about the degree of confidence that researchers had in this connection, but overall there is a lack of ability to determine that existing programmes and activities based around ACEs and trauma-informed practice definitely do result in positive educational outcomes. However, we found qualitative studies that discussed positive student and teacher perceptions of interventions and evidence to suggest activities are well-regarded and do have an impact on the perceptions of the overall school environment.

Despite the limitations of the evidence presented below, a better understanding of what impact ACEs may have on children’s behaviour, social and emotional development, and physical and mental health can help people working with children in an educational context to address challenges appropriately and lead to more positive educational outcomes, regardless of whether or not individual children can be identified as ‘having’ ACEs.

Accessing resources

We have provided links to the materials referenced in the summary. Some of these materials are published in academic journals and are only available with a subscription through the [The Knowledge Network](#) with a NHSScotland OpenAthens username. The Knowledge Network offers accounts to everyone who helps provide health and social care in Scotland in conjunction with the NHS and Scottish Local Authorities, including many in the third and independent sectors. [You can register here.](#)

Background

There has been a recent interest in approaches to education that support young people with Adverse Childhood Experiences (ACEs), including trauma informed and attachment approaches. For example, the Welsh Government has recently announced that training to help children who face early childhood trauma is to be offered to all schools in Wales. Teachers will be taught how to support pupils who have adverse experiences such as family breakdown, bereavement or physical, sexual or substance abuse. Public Health Wales worked with Cymru Well Wales, Barnardo's Cymru and the NSPCC will create the training package. ([BBC News 12 March 2018](#)). Web of Science analytics indicate that between 2010 and 2017, references to adverse childhood experiences have increased tenfold at a steady pace, suggesting a significant growth in discourse around the concept.

Scottish context

Concerns around ACEs have been picked up by policymakers across education and social care in Scotland. [The University of Glasgow Adverse Childhood Experiences Research Centre](#) suggests that children who suffer difficult early experiences, such as illness, neurodevelopmental problems, neglect or abuse can develop mental health problems that can burden them

throughout their lives, holding them back in social development, family life, education, the workplace, and even their physical health. Similarly, [Health Scotland](#) argues that when children are exposed to adverse and stressful experiences, it can have long-lasting impact on their ability to think, interact with others and on their learning. [Dodds \(2017\)](#) provides a set of slides giving the context to the ‘ACEs journey’ in Scotland so far linking to key policy documents.

There is currently an evidence gap in the Scottish context, with a lack of clarity around the prevalence specifically of ACEs among the general population ([Fabiani 2018](#)) and a lack of evidence about the efficacy of interventions, the relationship between ACEs and poverty, and the social justice implications of applying the ACEs lens to individual and social disadvantage.

Scottish Government: Getting It Right For Every Child (GIRFEC)

A key policy or approach relating to ACEs in Scotland is Getting It Right For Every Child (GIRFEC) ([Scottish Government 2018](#)). It connects ACEs like parental drug and alcohol abuse, parental incarceration, physical or sexual abuse or neglect, to poorer physical and mental health in adulthood, risky health behaviours, violence and homelessness.

The document states that the Scottish Government will “embed a focus on preventing ACEs and supporting the resilience of children and adults in overcoming early life adversity across all areas of public service, including education, health, justice and social work”. There is a heavy emphasis on prevention of ACEs and mitigation of their impact. Interventions include:

- Measures to reduce parental incarceration by moving to a presumption against short sentences
- More support for children and families in the very earliest years, through expansion in Health Visitor numbers and roll-out of Family Nurse Partnerships

- The expansion of high quality early learning and childcare, including action to increase take-up of provision for 2 year olds
- Investment in projects and services which support parents and families to cope better, keep children safe and prevent children going into care
- Providing funding direct to schools to tackle the attainment gap

Scottish Adverse Childhood Experiences Hub (2017) Tackling the attainment gap by preventing and responding to Adverse Childhood Experiences (ACEs) ([pdf](#))

In this document, the Scottish ACEs Hub directly connects ACEs to the school context and argues that tackling ACEs will support educational attainment through improving the mental health and wellbeing of young people through schools' improved understanding of the behavioural outcomes of early adversity and resulting developments around learning to be a supportive and inclusive environment for learning. It emphasises the importance of understanding child development and how early childhood adversity can impact on biology, relationships and the ability to learn.

This review draws together some evidence around effective school-based interventions that have demonstrable impact on outcomes for children with ACEs.

Dartington Social Research Unit (2016) Transforming Children's Services Conference ([set of YouTube videos](#))

In this set of videos from the Transforming Children's Services Conference in 2016, several speakers provide their perspectives around and insights and lessons from case studies across Scotland. Speakers include John Swinney, Louise Morpeth, Michael Little, Kenneth Ferguson, Ian Miller and John Fyffe.

The origin of ACEs

The original ACE Study was conducted at Kaiser Permanente from 1995 to 1997. Around 17,000 mostly white, middle class college-educated people in Southern California completed surveys about their childhood experiences

and current health status and behaviours, and received physical exams ([Centers for Disease Control and Prevention \(CDC\) 2016](#)). The findings of this research resulted in the development of the ‘ACE Pyramid’, which represents the conceptual framework for the ACE Study and the study’s findings identify a link between childhood experiences, and adult health and wellbeing outcomes:

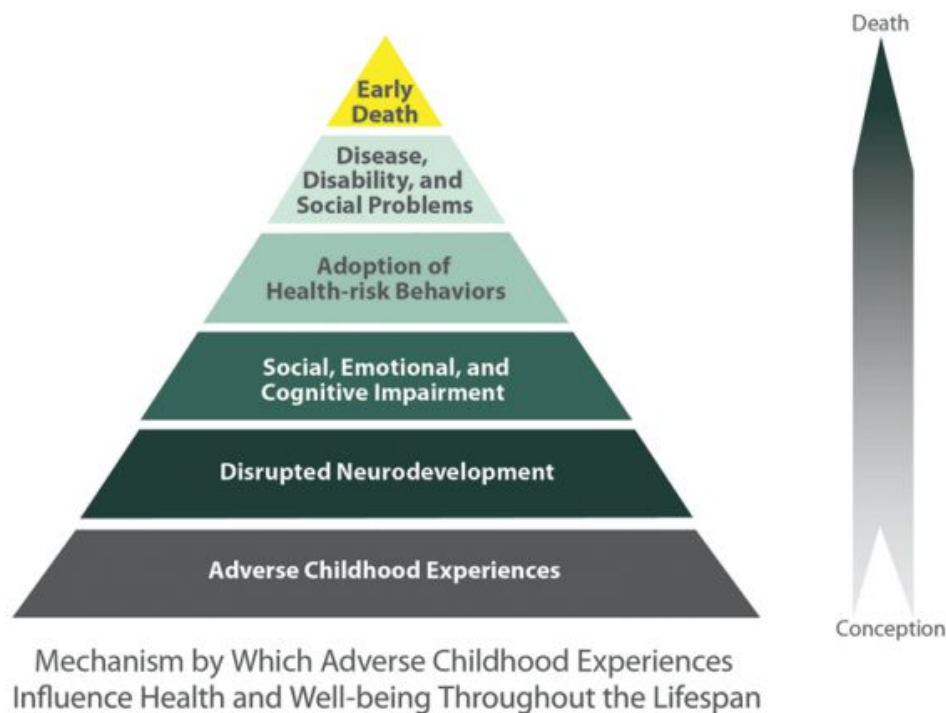


Image from [CDC \(2016\)](#)

Defining ACEs and trauma

According to [Corcoran and McNulty \(2018\)](#), adverse childhood experiences are “traumatic events (e.g., sexual abuse, physical abuse, emotional abuse) or chronic stressors (e.g., neglect, parental separation) that are uncontrollable to the child”.

The original ACE questionnaire used the following categories and refer to the respondent’s first 18 years of life, which fall under the wider categories of abuse, neglect, and household challenges:

Abuse

- Emotional abuse: A parent, stepparent, or adult living in your home swore at you, insulted you, put you down, or acted in a way that made you afraid that you might be physically hurt.
- Physical abuse: A parent, stepparent, or adult living in your home pushed, grabbed, slapped, threw something at you, or hit you so hard that you had marks or were injured.
- Sexual abuse: An adult, relative, family friend, or stranger who was at least 5 years older than you ever touched or fondled your body in a sexual way, made you touch his/her body in a sexual way, attempted to have any type of sexual intercourse with you.

Household Challenges

- Mother treated violently: Your mother or stepmother was pushed, grabbed, slapped, had something thrown at her, kicked, bitten, hit with a fist, hit with something hard, repeatedly hit for over at least a few minutes, or ever threatened or hurt by a knife or gun by your father (or stepfather) or mother's boyfriend.
- Household substance abuse: A household member was a problem drinker or alcoholic or a household member used street drugs.
- Mental illness in household: A household member was depressed or mentally ill or a household member attempted suicide.
- Parental separation or divorce: Your parents were ever separated or divorced.
- Criminal household member: A household member went to prison.

Neglect (Collected during Wave 2 only)

- Emotional neglect: Someone in your family helped you feel important or special, you felt loved, people in your family looked out for each other and felt close to each other, and your family was a source of strength and support (Items were reverse-scored to reflect the framing of the question).

- Physical neglect: There was someone to take care of you, protect you, and take you to the doctor if you needed it (items were reverse-scored to reflect the framing of the question), you didn't have enough to eat, your parents were too drunk or too high to take care of you, and you had to wear dirty clothes.

A distinction is made between stressful life events and adverse childhood experiences. The former is associated with undesirable life events such as parental divorce or illness of a loved one whilst the latter to the experience of more severe very traumatic life events, such as being or seeing someone else physically or sexually abused or being caught in a fire, that can be associated with post traumatic stress disorder ([Parkinson 2012](#)).

However, there are some concerns with the categories selected for ACEs criteria, and authors such as [Mersky et al. \(2017\)](#) suggest the need for a more systematic approach to conceptualising and measuring ACEs. Similarly, there is no consensus on the use of terms associated with trauma in childhood, which makes efforts to both implement and study trauma-informed approaches to care challenging ([Maynard et al. 2017](#)). Some researchers have also challenged the validity of retrospective adult reporting of ACEs ([Hardt and Rutter 2004](#)), which is the method the original studies and many others since have been based on.

Impact of ACEs

The original ACE study ([CDC 2016](#)) found the following:

The ACE score, a total sum of the different categories of ACEs reported by participants, is used to assess cumulative childhood stress. Study findings repeatedly reveal a graded dose-response¹ relationship between ACEs and negative health and well-being outcomes across the life course. As the number of ACEs increases so does the risk for the following:

¹ Dose-response describes the change in an outcome (e.g., alcoholism) associated with differing levels of exposure (or doses) to a stressor (e.g. ACEs). A graded dose-response means that as the dose of the stressor increases the intensity of the outcome also increases.

- Alcoholism and alcohol abuse
- Chronic obstructive pulmonary disease
- Depression
- Fetal death
- Health-related quality of life
- Illicit drug use
- Ischemic heart disease
- Liver disease
- Poor work performance
- Financial stress
- Risk for intimate partner violence
- Multiple sexual partners
- Sexually transmitted diseases
- Smoking
- Suicide attempts
- Unintended pregnancies
- Early initiation of smoking
- Early initiation of sexual activity
- Adolescent pregnancy
- Risk for sexual violence
- Poor academic achievement

The theory behind ACEs is that adverse childhood experiences lead to neurobiological impacts and health risks, which in turn lead to long-term social and health problems. The greater the neurobiological impacts and health risks, the more serious the lifelong consequences to health and wellbeing. ([Kahn and Vezzuto 2015](#))

Impact of trauma on educational outcomes

In a systematic review of the effects of trauma-informed approaches in schools, [Maynard et al. \(2017\)](#) outline existing evidence of the impact of trauma on educational outcomes:

In a systematic review specifically examining school-related outcomes of traumatic event exposure, Perfect and colleagues (2016) identified 44 studies that examined cognitive functioning, 34 that examined academic functioning and 24 that examined social-emotional-behavioural functioning. Their findings suggest that youth who have experienced trauma are at significant risk for impairments across various cognitive functions, including IQ, memory, attention and language/verbal ability; poorer academic performance and school-related behaviours such as discipline, dropout and attendance; and higher rates of behavioural problems and internalizing symptoms.

Other studies suggest that ACEs increase the risk of behaviour and learning problems in children ([Burke et al. 2011](#); [Freeman 2014](#); [Hunt et al. 2017](#); [Iachini et al. 2016](#)), as well as physical and mental health outcomes in later life ([Crouch et al. 2018](#)).

Limitations and concerns

As discussed above, [Mersky et al. \(2017\)](#) and others have expressed concern about the definition of ACEs and the items identified within the ACEs framework. [Coyne \(2017\)](#) argues that the ACE checklist is “a collection of very diverse and ambiguous items that cannot be presumed to necessarily represent traumatic experiences”. He also argues that the methods used to research the impact of interventions are limited, suggesting that “claims about the efficacy of trauma-focused treatment are not borne out in actually examining effects observed in randomized controlled trials”.

Other researchers have raised the issue that the impact of ACEs is not necessarily the same across all young people. Although some research suggests that the higher the number of ACEs experienced, the worse the life outcomes [cite], some researchers suggest that this data is not reliable due to evidence to suggest, for example, that young BME people are less likely to report mental health problems than young white people ([Garland et al. 2005](#)).

Additionally, girls are more likely to demonstrate mental health problems than boys ([Cauffman et al. 2007](#)). Furthermore, there is a lack of clarity around the specific impacts of specific ACE categories on young people. For example, [Murray et al. \(2012\)](#) found that “[t]he most rigorous studies showed that parental incarceration is associated with higher risk for children's antisocial behavior, but not for mental health problems, drug use, or poor educational performance.” This indicates a potential need for a better understanding of what challenges young people with different ACEs are more likely to experience in order to effectively design programmes of support in schools.

Evidence

A significant body of research exists causally connecting adverse childhood experiences to poor educational outcomes. For example, [Cook et al \(2005\)](#) suggest:

By early elementary school, maltreated children are more frequently referred for special education services. A history of maltreatment is associated with lower grades and poorer scores on standardized tests and other indices of academic achievement. Maltreated children have three times the dropout rate of the general population. These findings have been demonstrated across a variety of trauma exposures (eg, physical abuse, sexual abuse, neglect, exposure to domestic violence) and cannot be accounted for by the effects of other psychosocial stressors such as poverty.

Recent doctoral research by [McDowell \(2017\)](#) identified that young people who had multiple ACEs were less likely to care about doing well in school and less likely to do all required homework than children who had no ACEs.

However, a significant amount of research fails to demonstrate that ACEs are the cause of negative educational outcomes and therefore are not able to demonstrate that these experiences are not confounders of an underlying causal element such as poverty [explain this better]. The studies presented below demonstrate a causal link between ACEs and impacts including educational outcomes.

Studies measuring the effectiveness of interventions to mitigate against ACEs

The interventions summarised below include trauma-informed, attachment aware and ACE approaches to interventions to support young people in the school environment and with educational attainment.

Bartlett, JD et al. (2018) The impact of a statewide trauma-informed care initiative in child welfare on the well-being of children and youth with complex trauma. *Children and Youth Services Review*, 84(1), pp.110-117 ([Open Access](#))

This study examines the effectiveness of three community-based trauma treatments with 842 child welfare involved children and young people to assess whether participation in treatment predicted positive child outcomes for the different models. Key findings include that trauma treatment was associated with significant improvements in child behaviour problems, post-traumatic stress symptoms, strengths and needs; results differed by treatment model, with optimal outcomes for children receiving Attachment, Self-Regulation and Competency (ARC) and Trauma-Focused Cognitive Behavioural Therapy (TF-CBT).

Dingwall, N and Sebba, J (2018) Evaluation of the attachment aware schools programme: final report. Rees Centre, University of Oxford ([pdf](#))

This mixed-methods study looks at the impact of an Attachment Aware Schools Programme run by Bath and NE Somerset Council, Bath Spa University and Kate Cairns Associates between October 2015-July 2016. The

training included part-time continuing professional development with sessions at Bath Spa University, e-learning, consultant support for planning and evaluation and completing a practical project. Participants in the training were 25 participants from 16 schools (6 secondary, 7 primary, 1 middle and two special schools), who were mainly teachers, with two teaching assistants and two family support workers (with a social work background). In addition to impacts on the recipients of the training, the study aimed to identify any improvement in children's educational progress, well-being, and attendance (including exclusions).

Using surveys, documentary analysis, data analysis, observation and interviews, the researchers found evidence to suggest that the training had an impact on whole staff understanding of attachment, the meaning behind behaviour and emotional well-being.

The authors report that attainment in the schools for the 'vulnerable students' targeted by the scheme increased in the year since the programme ended. However, only six of the ten schools provided attainment data for these students which means the extent of the impact is unclear. Additionally, it is not clear if the change in attainment can be attributed to this specific programme or if these six schools were also investing in other activities that may have supported student attainment, for example. The authors argue that the general attainment data for all the schools in the programme supports a positive trend in increasing attainment. However, due to changes in measuring attainment across the years included in the data, it is not clear whether the schools have seen an increase in attainment, and if this potential impact is due to the Attachment Aware Schools programme. The authors identify several other Programmes running alongside the Attachment Aware Programme, such as Thrive, Place 2B, ELSA and Mindfulness.

Students and teachers reported positive changes to the school environment, student behaviour and student well-being, which were viewed as interconnected. The pre- and post-intervention surveys of teachers from the six out of 16 returned sets of data indicated reductions in emotional

problems, conduct problems, hyperactivity and peer problems. Pro-social behaviour scores increased.

Attendance data indicates a reduction in attendance across 10 of the 16 schools. However, the authors suggest some schools also saw reductions in persistent absences. There is also a lack of a clear picture about attendance of looked after children, and the proportion of unauthorised absences within the attendance data.

Despite the limitations of the methodology and analysis of the data available, this report is an example of the potential impact of attachment informed schools in the UK and connects qualitative evidence from participants to quantitative findings which may provide useful insights.

Fancourt, N and Sebba, J (2018) The Leicestershire virtual school's Attachment Aware Schools Programme: evaluation report ([pdf](#))

This evaluation aims to: provide an independent assessment of the outcomes of the Attachment Aware Schools Programme in developing knowledge and understanding of the effects of trauma and neglect on attachment and learning and attitudes towards practices for vulnerable pupils in schools. Findings indicate that the programme contributed to staff understanding of attachment theory and emotion coaching. As with Dingwall and Sebba's report described above, any improvements in educational outcomes and pupil attendance cannot definitely be attributed to the programme under study. However, the report includes feedback from pupils about their perceptions of the school environment following intervention that may be of relevance.

Howarth, E et al. (2016) IMPROving Outcomes for children exposed to domestic Violence (IMPROVE): an evidence synthesis. *Public Health Research*, 4(10) ([Open Access](#))

This evidence synthesis focuses on programmes or intervention with the aim of improving behavioural, mental health or social and educational outcomes for children exposed to domestic violence and abuse. The authors state:

The evidence for clinical effectiveness of the studies included in the review was limited, and where an effect was found there were improvements in behavioural or mental health outcomes, with modest effect sizes but significant heterogeneity and high or unclear risk of bias. Psychoeducational group-based interventions delivered to the child were found to be more effective for improving mental health outcomes than other types of intervention. Interventions delivered to (non-abusive) parents and to children were most likely to be effective for improving behavioural outcomes. However, there is a large degree of uncertainty around comparisons, particularly with regard to mental health outcomes...

There is limited evidence for the acceptability of other types of intervention. In terms of the UK evidence base and service delivery landscape, there were no UK-based trials, few qualitative studies and little widespread service evaluation. Most programmes are group-based psychoeducational interventions. However, the funding crisis in the DVA sector is significantly undermining programme delivery.

Larkin, H et al. (2014) Social work and adverse childhood experiences research: implications for practice and health policy. *Journal of Prevention & Intervention in the Community*, 40(4), pp.263-70 ([Author manuscript](#))

This article explores the relationship between the extent of childhood adversity, adult health risk behaviors, and principal causes of death in the United States. It provides a selective review of the ACE Study and related social science research to describe how effective social work practice that prevents ACEs and mobilizes resilience and recovery from childhood adversity could support the achievement of national health policy goals.

The authors argue that social work responses to adverse childhood experiences may contribute to improvement in overall health. They outline prevention and intervention response strategies with individuals, families, communities, and the larger society.

Rose, J et al. (2015) Emotion coaching - a strategy for promoting behavioural self-regulation in children/young people in schools: a pilot study. *The European Journal of Social and Behavioural Sciences*, 13(1) pp.1767-1790 ([Open Access](#))

This study explores the effectiveness of using emotion coaching in professional practice within community settings. emotion coaching techniques to promote a more relational and skills-based approach to supporting children's behaviour.

Two year pilot used mixed methods. Participating institutions included 1 secondary, 4 primary schools, 4 children's centres and 1 youth centre for Part 1 of the pilot (year 1) and 1 secondary school and 5 primary schools for Part 2 of the pilot (year 2).

Participants included senior and junior teaching staff, teaching assistants, school support staff, Children's Service staff including health and social care services, early years practitioners, youth workers and youth mentors, and some parents. Participants were trained in emotion coaching techniques (the training phase) and supported via four network/booster meetings (the action research phase) to adopt, adapt and sustain emotion coaching into their practice over a period of one year for each setting pre- and post-impact psychometric questionnaires with all participants, exit questionnaires with all participants, pre- and post- training behaviour indices and oral recordings of the network/booster meetings and focus group discussions.

Findings focus on the emotion coaching in schools and report changes in behavioural and socialisation practices. Quantitative analysis identifies a reduction in the number of call-outs (incidents where children are called out of the classroom), exclusions (external exclusion from school), and

consequences (sanction applied), and an increase in rewards for pro-social behaviour. Results indicate a positive impact on professional practice, adult self-regulation and improvements in children/young people's self-regulation and behaviour. The authors suggest that emotion coaching promotes children's self-awareness of their emotions, positive self-regulation of their behaviour and generates nurturing relationships. However, the paper does not indicate that children's perspectives were included in analysis and findings are therefore limited to teachers' self-reporting of their behaviour before and after the training. It is also not clear if the training was the causal factor for the improved quantitative outcome measures.

Verbitsky-Savitz, N (2016) Preventing and mitigating the effects of ACEs by building community capacity and resilience: APPI cross-site evaluation findings. Mathematica Policy Research ([pdf](#))

This report summarizes the final findings of an evaluation of community-based initiatives in Washington State that were intended to prevent child maltreatment and exposure to toxic stress, mitigate their effects, and improve several child and youth development outcomes.

The study focused on outcomes identified by the initiatives that were believed to be successful, and sought to validate sites' perceptions of effectiveness by examining changes in related outcomes with rigorous evaluation methods.

The study found that 6 (of the 11) evaluated activities were associated with positive and statistically significant changes in targeted outcomes. The remaining five activities either had inconsistent findings or had limited or no outcomes data available. Where positive changes were identified, these related to the following outcomes:

- Resolving barriers to regular school attendance
- Reduction of in-school suspension
- Increase of school rewards for pro-social involvement
- Decrease in student reporting of low commitment to school

- Improvements in reading proficiency in some year groups
 - Reducing teenage drinking
 - Reduction in “negative maternal behaviors”
-

Examples and recommended practice

This section focuses on examples of trauma, attachment and ACEs informed approaches to education and documents that make good practice recommendations.

The quality of school attended is important for young people’s health and wellbeing, and schools play a critical role in the development of children and young people’s social networks and their experiences of social relationships ([Dodds 2016](#)). Research indicates that the school setting can offer protection against adversities ([McPherson 2013 in Dodds 2016](#)).

The six key principles of a trauma-informed approach include safety; trustworthiness and transparency; peer support; collaboration and mutuality; empowerment, voice and choice; and cultural, historical and gender issues ([SAMHSA, 2014 in Maynard et al. 2017](#)). [Maynard et al. \(2017\)](#) emphasise that A trauma-informed approach “can include trauma-specific interventions, but trauma-specific interventions alone are not seen as sufficient for achieving optimal outcomes or to influence service systems”.

The ACEs lens can be applied in different ways, including primary prevention and through ‘ACE-aware/informed’ services. In the context of this review, educational interventions are conceptualised as secondary interventions rather than primary prevention.

Depending on the severity of ACEs they could be conceptualised as traumatic. We have therefore also provided resources relevant to trauma-informed education.

Bath Spa University (no date) Attachment aware schools project **([website](#))**

This website has a list of resources including videos and journal articles that may have useful information.

The attachment aware approach is based on the idea that “[e]ducators must establish attachment-like relationships with their students, particularly with challenging and vulnerable children and young people, in order to improve their chances of learning and achieving.” The Bath Spa website provides information about how the approach has been used in schools, including its use by teachers dealing with behavioural, academic and truancy issues, case reports.

Key research findings from the project include:

- Nurturing adult attachments provide children with protective, safe havens and secure bases from which to explore and engage with others and their environment (Bowlby 1988)
- Early care-giving has a long-lasting impact on development, the ability to learn, capacity to regulate emotions and form satisfying relationships (Siegel 2012)
- Attachment is crucial to children’s psychological welfare and forms the basis of personality development and socialisation (Bowlby 1988)
- Teachers, youth workers and significant adults in a child’s life can provide important attachments for children (Bergin and Bergin 2009, Riley 2010)
- The National Institute for Health and Care Excellence (NICE) 2015 guidelines on children's attachment indicate the importance of attachment issues in schools.

Potentially relevant videos about attachment aware schools include:

Why do we need attachment aware schools?

- Introduction - [A scripted piece which can be used from early years to secondary settings, showing an early years aged child/children](#)
- Maggie Atkinson (Children's Commissioner for England) - [Outlines why it is important for teachers to know about attachment issues](#)
- Robin Balbernie (Clinical Psychologist) - [Introduction to attachment theory and spectrum of needs](#)
- Mike Gorman - [Outlines why it is important for teachers to know about attachment issues](#)
- Louise Bomber (Attachment disorder specialist) - [Impact of trauma on children in schools, why schools need to be attachment aware](#)
- Jeremy Holmes - [The neuroscience of attachment \(including the amygdala/frontal lobe development, mirror neurons and vagal tone\)](#)

How do we create an attachment aware school?

- Keith Ford (Primary Head Teacher) - [A whole school approach - the nurturing school](#)
- Peter Elfer - [Early Years attachment and the Key Adult, including why nursery and early years settings need to be attachment aware](#)
- Louise Bomber - [Key features of an attachment aware school](#)
- Felicia Wood (Secondary School Teacher) - [The importance of consistency in the school's approach](#)

Making a difference through everyday practice

- Clare Langhorn (Head teacher of Special Educational Needs school) - [A whole school approach, the difference in her school when it became attachment aware for her staff and students](#)
- Adam Crockett - [The child/young person's insights \(the need for attachment-like relationships\)](#)
- Paul and Caroline Hicks - [How parents and carers can be involved and supported](#)
- Felicia Wood - [The Key Adult/Attachment Lead](#)

- Peter Elfer - [The Key Adult approach, an overview of how it promotes attachment](#)
- James Beattie (Play specialist) - [How specialist agencies can work with schools](#)
- Heidi Limbert (Health Visitor/Children's Centre Manager, Somer Valley) - [How can partner agencies work with schools, particularly Health Visitors and Children's Centres](#)
- Niki Smith (Senior Social Work Practitioner) - [How specialist agencies can work with schools](#)

**Department for Education (2016) Mental health and behaviour in schools
Departmental advice for school staff ([pdf](#))**

This non-statutory advice clarifies the responsibility of the school, outlines what they can do and how to support a child or young person whose behaviour - whether it is disruptive, withdrawn, anxious, depressed or otherwise - may be related to an unmet mental health need. It includes recommendations for practice including positive classroom management and small group work, social skills development, peer mentoring and support from external bodies.

Forster, M et al. (2017) Associations between adverse childhood experiences, student-teacher relationships, and non-medical use of prescription medications among adolescents. *Addictive Behaviors*, 68(1), pp.30-34 ([Available with NHS Scotland OpenAthens username](#) or [author copy](#))

This study explores whether student-teacher relationships can help prevent the use of nonmedical use of prescription medication by young people with ACEs. Using a survey of 104,332 8th, 9th and 11th grade students in Minnesota in 2013, the research suggests that cultivating strong student-teacher relationships are important considerations for future school-based substance use prevention initiatives. However, this is not based on a causal relationship between student-teacher relationships and drug (non)use. Although there is evidence to suggest that caring bonds with adults

support healthy development, the authors acknowledge that there is “scant research investigating whether positive, caring student-teacher relationships have compensatory effects for youth raised in dysfunctional familial environments”.

Holmes, P and Farnfield, S (2014) The Routledge handbook of attachment: implications and interventions ([ebook available through NHS Scotland](#))

This book offers an introduction to therapies produced as a result of the popularity of attachment studies. These therapies can be divided into two categories: those that are 'attachment-based', in that they use evidence-based attachment assessments in their development, or 'attachment-informed', in that the theories of attachment have been integrated into the practice of existing schools of therapy. The book reviews the field and provides a range of interventions for children, adults and parents.

Kahn, P and Vezzuto, L (2015) Understanding and responding to adverse childhood experiences in the school setting. Orange County Department of Education Center for Healthy Kids and Schools ([pdf](#))

This presentation provides a clear overview of the types of childhood trauma and the background theory to the recommendations around how educators can create a trauma-informed school with a multi-tiered system of support services.

Maynard, BR et al. (2017) Effects of trauma-informed approaches in schools. Campbell Collaboration review ([pdf](#))

This background and plan for a systematic review into the impact of trauma-informed approaches in schools includes several excerpts that may be of relevance, including:

A trauma-informed approach in schools is designed to create a systematic model for schools to decrease the impact of trauma on students (Wiest-Stevenson & Lee, 2016) and more appropriately address academic, behavioral and socio-emotional problems by recognizing and responding to student behavior from a trauma-informed perspective. This is done through a multi-level approach intended to improve the school environment through implementing trauma-informed policies and procedures; increase the ability of school staff to recognize and more effectively respond to students through professional development; and prevent, mitigate and reduce trauma-associated symptoms through evidence-informed practices, leading to improved student academic, behavioral, and socio-emotional outcomes.

While schools may be implementing trauma-informed approaches, it is unclear to what extent or how much variation there is in what schools are implementing, how much emphasis they are putting on various components (e.g., workforce development versus organizational change versus practice changes) and whether schools may implement trauma-informed approaches differently based on the characteristics of their students, neighbourhood, country or other contextual factors.

The results of this systematic review have not yet been published, but will be shared on the Campbell Collaboration [webpage for the study](#) when they are available.

A limitation of the systematic review is that it does not intend to include qualitative research, which means that impact that cannot be recorded using quantitative measures will not be captured.

Mendelson, T et al. (2015) Brief report: Moving prevention into schools: the impact of a trauma-informed school-based intervention
([Available with NHS Scotland OpenAthens username](#))

This study of 29 students in seventh and eighth grade in the US examined the impact of the RAP Club, sessions led by teachers that incorporate psychoeducation, cognitive behavioral (CBT), and mindfulness strategies to focus on several areas:

- Identifying stress
- Awareness of emotional states
- Using a mindful approach
- Communication skills
- Problem solving skills
- Distress tolerance skills

The research found that the trauma-informed group activity improved teacher-rated emotion regulation, social and academic competence, classroom behavior, and discipline, but that student self-report outcomes did not differ between students who attended the sessions and the control group.

Methodological limitations of this pilot study include small sample size, a volunteer sample, limitations to the randomization process, and no long-term follow-ups. The teachers who rated the children's changed behaviour were also aware of the intervention taking place (but had limited knowledge of what the programme entailed).

National Institute for Health and Care Excellence (2015) Children's attachment: attachment in children and young people who are adopted from care, in care or at high risk of going into care. NICE Guideline 26
([pdf](#))

This guideline covers the identification, assessment and treatment of attachment difficulties in children and young people up to age 18 who are

adopted from care, in special guardianship, looked after by local authorities in foster homes (including kinship foster care), residential settings and other accommodation, or on the edge of care. It aims to address the many emotional and psychological needs of children and young people in these situations, including those resulting from maltreatment.

Recommendations include:

- Schools and other education providers should ensure that all staff who may come into contact with children and young people with attachment difficulties receive appropriate training on attachment difficulties
- Health and social care provider organisations should train key workers, social care workers, personal advisers and post-adoption support social workers in the care system, as well as workers involved with children and young people on the edge of care, in:
 - Recognising and assessing attachment difficulties and parenting quality, including parental sensitivity
 - Recognising and assessing multiple socioeconomic factors (for example, low income, single or teenage parents) that together are associated with an increased risk of attachment difficulties
 - Recognising and assessing other difficulties, including coexisting mental health problems and the consequences of maltreatment, including trauma
 - Knowing when and how to refer for evidence-based interventions for attachment difficulties

The guidelines also provide recommendations for attachment-focused interventions and effective methodologies for designing and evaluating the impact of these interventions. Specific recommendations are provided for designing and evaluating interventions in a school setting.

Nead, K (2016) Adverse Childhood Experiences (ACEs) and Trauma-Informed Care (TIC): critical insights for navigating school health. Thriving Schools ([website](#))

This website discusses the role of schools and strategies for trauma-informed care in schools. It provides examples, including

UCSF Healthy Environments and Response to Trauma in Schools (HEARTS) project, which recommends the following strategies for teachers:

1. **Recognize that a child is going into survival mode and respond in a kind, compassionate way.** When you notice that a child might be having a difficult time, start by asking yourself, “What’s happening here?” rather than “What’s wrong with this child?” This simple mental switch can help you realize that the student has been triggered into a fear response, which can take many forms.
2. **Create calm, predictable transitions.** Transitions between activities can easily trigger a student into survival mode. Some teachers will play music, ring a meditation bell or blow a harmonica to signal it’s time to transition. The important thing is to build a routine around transitions so that children know: a) what the transition is going to look like, b) what they’re supposed to be doing, and c) what’s next.
3. **Praise publicly and criticize privately.** For children who have experienced complex trauma, getting in trouble can sometimes mean either they or a parent will get hit. And for others, “I made a mistake” can mean “I’m entirely unlovable.” Hence, teachers need to be particularly sensitive when reprimanding these students.
4. **Adapt your classroom’s mindfulness practice.** Mindfulness is a fabulous tool for counteracting the impact of trauma. However, it can also be threatening for children who have experienced trauma, as the practice may bring up scary and painful emotions and body sensations.

NYSUT and Co-Ordinated Care Services Inc (2015) Webinar: Trauma Sensitive Schools: transformational school climate change ([YouTube video](#))

This 1-hour webinar produced by NYSUT looks at the latest research on trauma among school children, exploring trauma's prevalence and impact on children's behavior, relationships, and learning. Elements of a trauma sensitive school approach are offered along with resources for implementation.

Public Health Wales (2018) Sources of resilience and their moderating relationships with harms from adverse childhood experiences. Report 1: mental illness ([pdf](#))

Findings in this report aim to inform the potential benefits to mental health in Wales of developing resilience both in children and adults to mitigate at least some of the detrimental impacts of experiencing ACEs. It includes recommendations of actions that can be taken to support young people to develop resilience.

Rossen, E and Cowan, KC (2013) The role of schools in supporting traumatized students. *Principal's Research Review*, 8(6), pp.1-7 ([pdf](#))

This short report provides a potentially useful and clear outline defining trauma, identifying the potential impact of trauma and considering the benefits of multilayered systems of support (MTSS). The authors emphasise the potential benefits of an MTSS approach for all students:

Schools have an opportunity to provide a range of supports to students who experience stress or trauma through an MTSS approach. More specifically, these approaches can help all students feel safe, supported, and connected, including those with undisclosed trauma histories.

Scottish Adverse Childhood Experiences Hub (2017) Tackling the attainment gap by preventing and responding to Adverse Childhood Experiences (ACEs) ([pdf](#))

This paper has been produced to inform thinking about the impact of adverse childhood experiences and how to use the Pupil Equity Funding to reduce the attainment gap. It highlights key factors that play a role in children achieving their potential.

Steele, H and Steele, M (2018) *Handbook of attachment-based interventions*. London: Guilford Press

This book examines science-based interventions that have been effective in promoting attachment security. Focuses on strengthening caregiving relationships in early childhood and working with children and parents who have been exposed to trauma and other adverse experiences. Includes interventions for school-age children, at-risk adolescents and couples, with an emphasis on father involvement in parenting. Describes the approaches and how they are informed by attachment theory and research, how sessions are structured and conducted, special techniques used, the empirical evidence base for the approach, and training requirements. Includes illustrative case material. (Summary from NSPCC)

Trauma and Learning Policy Initiative (no date) Trauma sensitive schools ([website](#))

The Trauma and Learning Policy Initiative argues that trauma-sensitive schools help children feel safe to learn. They define the core attributes of a trauma sensitive school to include:

- A shared understanding among all staff
- The school supports all children to feel safe physically, socially, emotionally, and academically

- The school addresses students needs in holistic ways, taking into account their relationships, self-regulation, academic competence, and physical and emotional well-being
- The school explicitly connects students to the school community and provides multiple opportunities to practice newly developing skills
- The school embraces teamwork and staff share responsibility for all students
- Leadership and staff anticipate and adapt to the ever-changing needs of students

The website provides several reports, research outputs and other potentially relevant resources.

White, J (2017) Rapid evidence review: reducing the attainment gap – the role of health and wellbeing interventions in schools ([pdf](#))

This evidence briefing conducted for NHS Health Scotland and Education Scotland examines the effectiveness of health and wellbeing interventions in a school setting to potentially reduce inequalities in educational outcomes.

Several potentially effective types of intervention are identified and the methods of delivery that have been found to work well are highlighted. Key findings include:

- 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
- The quality of implementation of social and emotional learning programmes was important for positive outcomes
- International review-level evidence suggests that universal social and emotional learning programmes can have positive impacts on wellbeing and educational outcomes. However, findings from studies conducted in the UK and Ireland were mixed.
- Offering healthy, nutritious lunches at school tended to have beneficial effects on educational outcomes.

- There was inconsistent evidence that breakfast clubs, where children were provided with a nutritious breakfast at school, have an impact on educational outcomes.
- A number of studies reported beneficial effects such as lower anxiety levels and improved concentration which have been linked to positive learning-related behaviours

However, a limitation of the studies included in the review is that there is a lack of evidence around the effect of interventions on children and young people from different socio-economic or ethnic backgrounds. There is also a general lack of longitudinal research so it is not clear if the effectiveness of the interventions is long-lasting.

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