School of Education, Communication and Language Sciences

Doctorate in Applied Educational Psychology

Professionals Working with Children and Families who have had Adverse Childhood Experiences

Victoria Tate

Date of Submission: 15th May, 2021

Declaration

This thesis is being submitted for the award of Doctorate in Applied Educational Psychology. I declare that it is my own work and does not include material that is the work of others without acknowledgement, that I have consulted all materials cited, and have not submitted this assignment for any other academic award.

Acknowledgements

There are so many people I would like to thank for their support and encouragement during this process. I have always known that I have incredible people in my life, yet these past four years have really shone a light on that, and I am forever grateful.

Firstly, thank you to my thesis supervisor, Richard Parker, for your patience, compassion, reassurance, and belief in me. We got there! And secondly, to my workplace supervisors, Alexia and Kathryn: thank you for all your practical support and guidance, being calming listeners and for providing the space I needed to find my way.

Thirdly, thank you to my fantastic project participants. Your enthusiasm and commitment in our sessions enabled us to be vulnerable and brave together, and my project would not be what it is without you.

Huge love and thanks to all my beautiful and powerful friends up and down the country (Newcastle, York, Leeds, Nottingham and Bristol), abroad (Belgium, Vietnam and Barbados), on land and in the sea, old and new. You're a constant source of joy, inspiration, and total solace in the madness. My brilliant course mates and work mates: you impress me no end, and I am humbled to have developed alongside you.

Finally, thank you to my amazing family, who I cannot express my love, pride, and gratitude for enough. To my mum, Janette, and stepdad, Tom, for your unending kindness, generosity, and thoughtfulness. To my brother, Laurence, and his partner, Becky, you have been absolute life savers. I have gained so much strength and hope from your love, validation, and care (not to mention the amazing dinners!). And to my wider family: thank you for all your encouragement, hugs, smiles, tasty treats and just generally being gorgeous.

Thank you all, so much. I am incredibly proud.

Overarching Abstract

UK professional networks and services have begun accommodating into their practices what is known about Adverse Childhood Experiences (ACEs). Including international research efforts, there is growing interest and awareness regarding their health and social impact. However, debate continues regarding the potentially reductionist and deterministic nature of the ACEs model, causing concern given growing public attention.

A systematic literature review was conducted exploring education- and community-based interventions aiming to mitigate ACEs' impact. The best available evidence was collated, synthesising eight empirical papers of varying research design and context. Papers were critically analysed, and results synthesised using their assessed quality and strength of findings. The findings mirror the depth and complexity of the ACEs model. Themes and differences across intervention content and impact are identified and discussed. Implications for the interpretation and use of the model are discussed, especially within education and connected services.

Arising from this literature exploration, an action research project took place in a primary school. Collaborating with a staff working party, this explored the way in which Continuing Professional Development (CPD) about ACEs could be facilitated in school. Group data were analysed using an abbreviated constructionist grounded theory approach and findings are situated alongside Hope Theory.

Further discussion focuses on the links between the two pieces of research and the personal decisions made regarding their significance. Ontological and theoretical underpinnings are explored, along with the impact of the complex positioning of the researcher when using an action research process and engaging in constructionist grounded theory analysis. Attention is also given to ethical issues.

Table of Contents

List of Tables

List of Figures

List of Appendices

Chapter One: Literature Review

What is known about the Effectiveness of Education and Community Interventions in Mitigating the Potential Negative Impact of Adverse Childhood Experiences?

Abstract

Schools and community services play an integral part in supporting social inclusion and community wellbeing. Adverse childhood experiences (ACEs) are one possible indicator of children and families whose wellbeing and social inclusion is at risk, though application of the model outside of the medical world may require cautious adaptation. A systematic literature review was conducted into the effectiveness of education- and community-based interventions aiming to mitigate the impact of ACEs. The best available evidence was collated, synthesising eight empirical papers of varying research design and context. The papers were critically analysed, and results synthesised using their assessed quality and strength of findings. The findings mirror the depth and complexity of the ACEs model, demonstrating that large intervention effects are difficult to achieve. Drawing on the papers with greater believability, early intervention, prevention, and a dynamic theory of resilience are found to be useful constructs. Themes and differences across intervention content and impact are identified and discussed, with consideration of realist mechanisms and intervention implementation issues. Implications for the interpretation and use of the ACEs model are discussed, especially considering the role of Educational Psychologists, and promoting inclusivity in interventions of this nature.

1.0 Introduction

Schools and community services play an integral part in the social inclusion of children and families, and are inextricably linked to community wellbeing (Roffey, 2013). Building awareness about and supporting mental health is part of the current national agenda. Since Future in Mind (Department for Health & NHS England, 2015), policy regarding schools' contribution to this agenda has been frequently proposed, published and updated (e.g., Department for Education, 2018; Greening & Hunt, 2017; HM Government, 2018), amplified more recently by the coronavirus pandemic and the Wellbeing for Education Return (Department for Education, 2020). Education and social justice are inseparable, where an impoverished education system is linked to impoverished community wellbeing (Roffey, 2013). This review focuses on adverse childhood experiences (ACEs) as one indicator of community wellbeing and explores the role of education and community interventions in promoting social justice.

1.1 Adverse Childhood Experiences

Felitti et al.'s (1998) and Dube, Felitti, Dong, Giles & Anda's (2003) early studies considered the impact of adverse experiences during childhood on long-term adult health outcomes. The researchers compared 17,337 participants' childhood experiences with their later adult health records. Using a cumulative stressor model, they enquired about the prevalence of ten different adverse life events in childhood (Table 1, left hand column), and findings demonstrated significant relationships with multiple public health and social welfare problems (right hand column).

Table 1: ACEs and long-term adult health outcomes studied in Felitti et al (1998) and Dube et al (2003)

ACEs		**Outcomes**
Physical abuse		Smoking
Emotional abuse		Severe obesity (BMI)
Sexual abuse		Physical inactivity
Physical neglect		Depressed mood
Emotional neglect		Suicide attempts
Parental separation		Alcohol abuse
Mother treated violently		Drug abuse
Mental illness in the household		High number of sexual partners
Substance abuse in the household		A history of having an STD
Incarcerated household member		Ischemic heart disease
		Cancer
		Chronic bronchitis or emphysema (COPD)
		Hepatitis
		Jaundice
		Skeletal fractures
		Liver disease
		Poor self-rated health

The adverse experiences were also found to be surprisingly common, 64% of the sample reporting at least one ACE, with 12.5% reporting four or more (Dube et al., 2003). A strong, graded relationship was claimed, as the number of ACEs reported correlated with the extent to which later health issues were present, as was an intergenerational impact (Woods-Jaeger, Cho, Sexton, Slagel, & Goggin, 2018).

The research clearly indicated a need to take note of the impact of these experiences. Extensive quantitative research has followed, exploring effective ways of measuring and screening for ACEs (e.g. Bethell et al., 2017; Finkelhor, Shattuck, Turner, & Hamby, 2013; Selvaraj et al., 2019). Further studies have examined ACEs prevalence within different populations (e.g. Wolff et al., 2020), effective support for adults (e.g. Larkin, Beckos, & Shields, 2012) and mothers (e.g. Kolomeyer, Renk, Cunningham, Lowell, & Khan, 2016) with a history of ACEs, and the impact of ACEs on wider aspects of people's health and wellbeing, such as parenting stress (Lange, Callinan, & Smith, 2019) and cognitive development and learning (Escueta, Whetten, Ostermann, & O'Donnell, 2014). I use the term 'ACEs model' to refer to the original cumulative stressor model (Table 1), supplemented by this subsequent research assessing relationships between experiences and outcomes. The model provides a basis for analysis rather than practical implications.

Despite no single model for practice having been developed, these studies have since begun to shape health, social, education and justice practice, policy and further research, across America and elsewhere. Studies in England (Bellis, Hughes, Leckenby, Perkins, & Lowey, 2014), Wales (Bellis et al., 2015) and Scotland (Couper & Mackie, 2016) have demonstrated ACEs prevalence in the United Kingdom (UK), replicating the original studies' methods, with comparable findings. In 2018, Scotland began their journey to become the world's first 'ACE-aware nation' (ACE-Aware Scotland, 2018). Within this review, I will refer to the research, practice and public conversation that emphasises the importance and usefulness of the ACEs research, as 'the ACEs movement'.

1.1.1 'The Problem with ACEs'

There are significant concerns regarding the ACEs movement, many captured in Edwards et al.'s (2017) response to the UK government regarding effective early years interventions: 'The Problem with ACEs'. Here, the ACEs movement is criticised for being deterministic, reductionist and non-generalisable, therefore generating over-simplistic, unsustainable, and ineffective solutions.

The ACEs movement has medical origins, and research has used quantitative measurement. If applied to the education and social psychology disciplines, where outcomes can exist outside of quantifiable measures (Burden, 1997, 2017), this approach may appear

reductionist. Awareness is needed of the possible adaptations necessary before the movement might be appropriately applied outside the medical world.

Research documenting positive life outcomes for individuals with high ACE prevalence demonstrates that their impact is not determined (Hornor, 2017). Stress can be described on three levels: positive stress as part of healthy development, tolerable stress which is of a greater degree yet buffered by supportive relationships, and toxic stress which is significant and prolonged in the absence of protective relationships (CDC, 2021). It is toxic stress that can be linked to the negative outcomes listed in Table 1. Using an ecobiodevelopmental framework, Shonkoff and Garner (2012) suggest that ACEs-related stress may be tolerable or toxic, depending on the presence or absence of protective factors. Therefore, I understand ACEs as potentially toxic. Links have been drawn between ACEs and trauma-informed care (Oral et al., 2016), and trauma-informed practice already exists in education and care services (Trauma Informed Schools UK, 2021). This suggests a narrative of possible mitigation of ACEs' negative impact.

1.2 Mitigating the Negative Impact of ACEs

From research measuring ACE prevalence and subsequent risk, suggestions about service response to reduce this risk and negative impact are emerging. Primary, secondary and tertiary interventions have repeatedly been advocated (Burke Harris, Silvério Marques, Oh, Bucci, & Cloutier, 2017; Felitti et al., 1998). However, research on the implementation and evaluation of these interventions and their effectiveness has been limited.

Marie-Mitchell and Kostolansky's (2019) systematic review of randomised controlled trials (RCTs) of ACEs interventions concluded that multicomponent interventions could reduce their negative impact. Smith's (2018) review of effective interventions in education drew on existing trauma-informed and attachment-aware practice that are applicable to the ACEs movement. However, most research on mitigating ACEs' potential negative impact has been within a quantitative and medical paradigm. As research demonstrating the wider potential impact of ACEs is growing, so is the demand for an exploration into holistic approaches to intervention (Asmussen, Fischer, Drayton, & McBride, 2020).

1.3 Education and Community Interventions

Exploring the concepts of education and community becomes important. Ellis and Dietz (2017) propose a model that integrates ACEs and community experiences, and Prilleltensky (2014) places community as central to emancipatory education. An educative approach driven by strengths, prevention, empowerment and community (SPEC, op. cit.), aims to cultivate and enhance both individual and community wellbeing (Roffey, 2013). However, political agendas drive the ethos of education (Stetsenko, 2014), and the current neo-liberal climate arguably drives a deficit-oriented, reactive, alienating and individualistic approach (DRAIN, Prilleltensky, 2014).

McMillan and Chavis' (1986) definition of a psychological sense of community suggests four components: membership, influence, integration and fulfilment of needs, and shared emotional connection. A strong sense of community may foster more effective communities of practice (CoPs), where development occurs within and across community boundaries (Wenger, 2010). Therefore, the community may have a pertinent role in cultivating additional adversity, or nurturing emancipatory buffers to that risk.

Educational Psychologists' (EPs') work is rooted in education and community wellbeing (Roffey, 2015), with intervention being a core function of the EP role (Scottish Executive Education Department, 2002). This means EPs may be well placed to influence the community factors that enable or disable risks associated with ACEs.

1.4. My Review Focus

Given current thinking and writing on ACEs, this review is motivated by my interest in how the movement is pertinent to the remit of EP Services, especially regarding the promotion of social justice (Prilleltensky, 2014) and how social change is achieved (Kelly, 2017). Despite a growing literature, bridging the medical research and implications for education communities has been limited and lacks consistent conceptualisation.

Alongside the growth in research in the last two decades, the movement has also captured growing international public interest, fuelled by the internet and social media. Consequently, much unwarranted literature and opinion is in circulation. Therefore, my review asks a question I believe to be meaningful, useful and pragmatic in the midst of this.

Pinpointing a focus also requires identifying and consulting with stakeholders in the interest area (Petticrew & Roberts, 2006). Discussions regarding the question focus took place with the Principal EP (PEP) and Deputy PEP of an EP Service in a north-east England Local Authority (LA). To inform both EP Service goals and the LA Children's Services planning strategy, a review of current literature regarding how to address ACEs in schools and the community was identified as important.

The question for this review is:

> *'What is Known about the Effectiveness of Education and Community Interventions in Mitigating the Potential Negative Impact of Adverse Childhood Experiences?'*

2.0 Method

My existing knowledge of the ACEs literature and initial scoping indicated a review and synthesis method accommodating quantitative research would be appropriate. Petticrew and Roberts (2006) detail seven stages within their broad framework for a systematic review (p. 27); see Table 2. These stages occur in sequential order, and therefore also provide a flow for the sections of this report.

Table 2: Petticrew and Roberts' (2006) systematic review process

Stage Number	Stage Description	Review Report Section
1	Clearly define the review question, in consultation with anticipated users	Introduction: My Review Focus
2	Determine the types of studies needed to answer the questions	Method: Identifying the Papers
3	Carry out a comprehensive literature search to locate these studies	Method: Identifying the Papers
4	Screen the studies found using inclusion criteria to identify studies for in-depth review	Method: Identifying the Papers
5	Describe the included studies to 'map' the field and critically appraise them for quality and relevance	Method: Mapping and Appraising the Identified Papers
6	Synthesise the studies and assess heterogeneity among the study findings	Synthesising the Evidence Discussion
7	Disseminate the findings of the review	Discussion (and process of writing this paper)

2.1 Identifying the Papers: Stages 2, 3 and 4

Petticrew and Roberts (2006) present the study typologies that best answer questions regarding intervention effectiveness (p. 58; p. 60). However, they go on to discuss the perception of systematic reviews as reductionist (p. 74). To maximise exploration of the full literature corpus and minimise premature reductionism, I refrained from specifying study design within my search strategy at this stage. Initial literature scoping suggested this was an immature field of research, and I wanted to allow the typology of studies emerging to guide the development of the search strategy, to capture the best available evidence in the field.

As part of the iterative search process, I developed search terms, inclusion and (later) exclusion criteria to ask my review question in a useful and pragmatic way. To ensure the search terms addressed the focus area, the question was broken down into parts. Booth and Fry-Smith (2004, referenced in Petticrew & Roberts, 2006) suggest the acronym PICO (population, intervention, comparison and outcomes) as a useful way of identifying the important components of a review question. Petticrew and Roberts (2006) make the addition of 'context'. Table 3 describes my review question focus for each component, and how this translated into my search strategy.

Table 3: Components of the review question

Review question component	Component description	Translation into search strategy
Population	Individuals and communities with ACEs	Focus on individuals and communities in which ACEs are present, where ACEs are defined as a single broad construct, as opposed to individual events/ experiences.
Intervention	Aiming to mitigate the negative impact of ACEs	Focus on an intervention with a primary focus of mitigating the potentially negative impact of ACEs. Details of intervention left un-specified as no evidence for any specific widely established interventions that fit this description.
Context	Within education and/ or community settings, i.e. settings in which EPs provide services	Articles to focus on interventions that take place within education and/ or community settings.
Comparison	Living with ACEs with/ without support for their potential impact	Articles to focus on the presence of an intervention as described above, as opposed to no intervention. However, the use of a controlled study design was not specified.
Outcomes	Improved community wellbeing	Due to the broad and varied aspects of community wellbeing associated with ACEs, along with the immature nature of the literature corpus this was left un-specified.

Through this process I developed and applied search terms for database Titles and Abstracts under three categories (Table 4).

Table 4: Key Search Terms

Question Component(s)	Search terms
Population/ comparison	"adverse childhood experiences"[i]
Context/ setting	*educat*[ii]; communit*; school**
The act of purposeful intervention	*interven*; treatment*; therap*; program*; strateg*; "best practice*"; management*

I conducted searches (from 27th September 2018 to 31st January 2019) in the following databases: British Education Index (BEI), Child Development and Adolescent Studies (CDAS), Education Resources Information Center (ERIC), PsycARTICLES, PsycINFO, Scopus, and Web of Science. Using the filtering tools provided, I applied Stage 1 of my inclusion criteria (Table 5) within each database, followed by the exclusion criteria (Table 6) through reading the titles and abstracts of each paper.

Table 5: Two-Staged Search Process Inclusion Criteria

	Inclusion criteria	Description/ Reasoning
Stage 1	Written in English	For my access as a reader, and to increase likely applicability in a UK context.
	Peer-reviewed journal article	To ensure meaningful research questions are answered with warranted conclusions drawn.
Stage 2	Child-, family-(parent-) or whole community-centred intervention	To ensure relevance to stakeholders in applied educational psychology.
	Referenced original ACEs studies' authors	To eliminate articles that may coincidentally use the phrase 'adverse childhood experiences'.
	Focuses on the impact of an intervention	To eliminate studies regarding participant demographics and intervention planning.

[i] "__" indicates using the phrase as a whole search term, rather than the individual word components. Variations on this search term were explored to ensure fullest and most appropriate search yields.

[ii] * indicates a wildcard symbol to retrieve variations on a word stem.

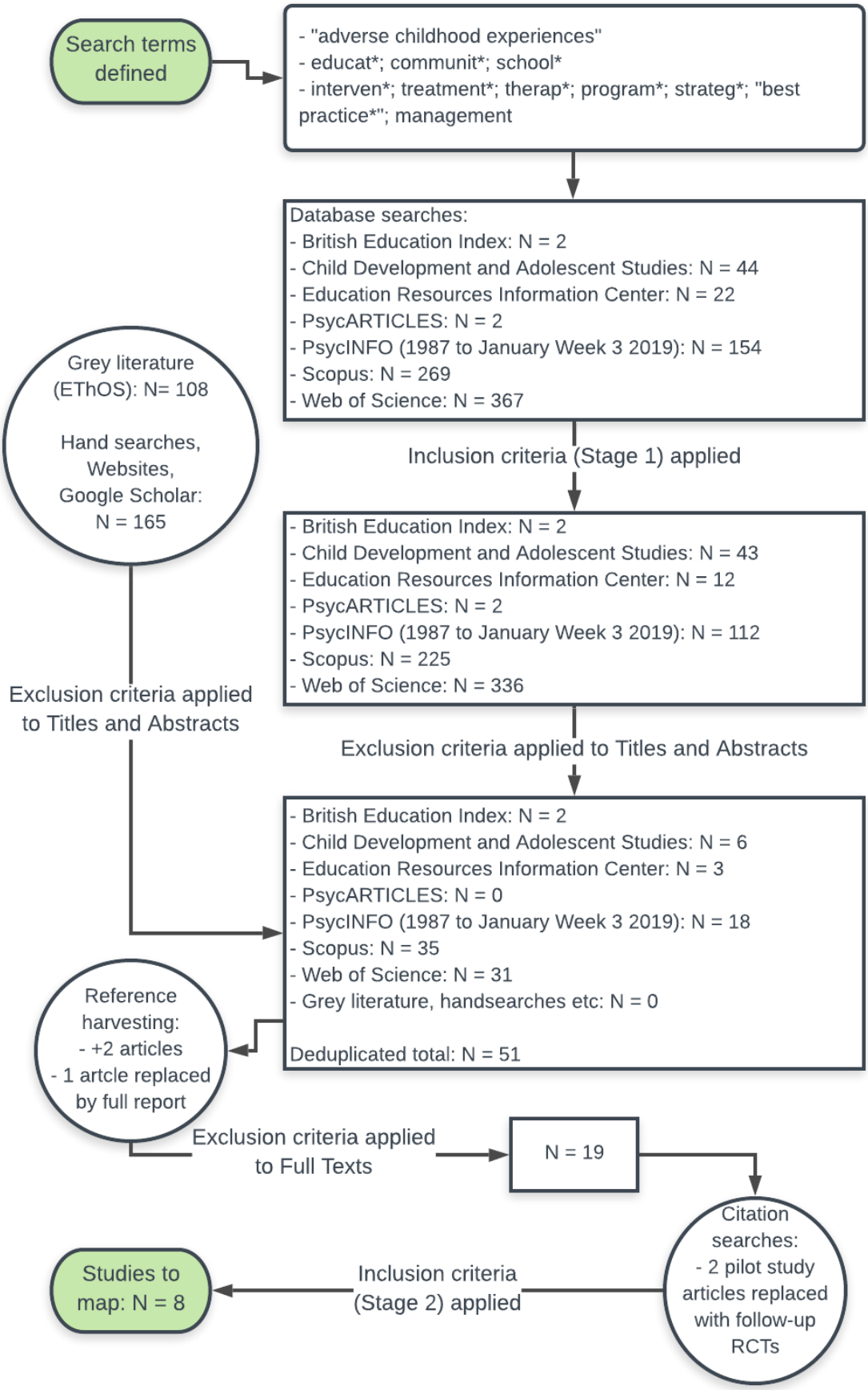
Table 6: Search Process Exclusion Criteria

Exclusion criteria	Description/ Reasoning
Inaccessible through Newcastle University library system	A pragmatic decision, due to time and resources available.
Not empirical	To exclude conceptual/ theoretical discussions regarding ACEs (although those deemed applicable to the wider review focus were saved) and include only primary evidence sources.
Adult(non-parent)-centred intervention	To increase applicability to educational psychology practice, where children and young people aged 0-25 are the primary clients.
Focus on pregnant females	To increase applicability to educational psychology practice, where children and young people aged 0-25 are the primary clients.

I conducted hand searches in the following areas: journal issues that search results had highlighted as themed topic editions for the focus area, systematic reviews, the original UK studies (Bellis et al., 2015; Bellis et al., 2014; Couper & Mackie, 2016), EThOS, and Google Scholar. My exclusion criteria (Table 6) were applied to the titles and abstracts of literature found through hand searching.

After deduplication, combining the refined results from the database and hand searches yielded 51 articles. I reapplied the exclusion criteria through reading the full texts, and harvested the references of these articles, leaving 19 papers. A citation search replaced two small pilot studies with follow-up RCTs. Finally, Stage 2 of the inclusion criteria (Table 5) was applied to the remaining papers, to produce eight papers for the in-depth review synthesis. The full search process is captured in Figure 1.

Figure 1: A flow chart of the literature searching process.



2.2 Mapping and Appraising the Identified Papers: Stage 5

To prepare the eight papers for synthesis I systematically analysed each. Petticrew and Roberts (2006) liken this process to 'assembling a jigsaw' (p. 125). Once the pieces have been found, they need to be carefully examined before seeing whether and how they fit together in the bigger picture.

Petticrew and Roberts (2006) describe the quality appraisal process as a means of assessing the impact of systematic error, or bias, of studies, within a wider data extraction process. A reviewer's pre-existing views and awareness may result in 'data-extraction bias' (Sacks et al, 1987 referenced in Wortman, 1994). To minimise this, I initially mapped the basis of each paper, focussing on descriptive information, then extracted in detail the pertinent data to interpret effect magnitudes. I then combined this with systematic judgements on the papers' reporting and methodological quality, to determine the weight that each paper may hold in answering my review question.

2.2.1 Data Extraction: Effect Magnitude

Table 7 provides an overview of the contextual information extracted for each study and orients the reader to the eight papers. Seven are American and one Australian, two interventions focused on the child or young person, one on the parent, three interventions focused on parent and child/ family, and two papers focused on whole-community level interventions. Six of the studies are quantitative and two employ mixed-methods. There are four RCT studies, three quasi-experimental studies (across two papers), and the two mixed-methods studies employed a range of descriptive or analytical statistical methods. The final column of Table 7 sets out the focus of each paper.

Table 7: Initial Mapping of the Reviewed Studies

Study	Context	Participants	Design (including follow up)	Purpose
Booshehri, Dugan, Patel, Bloom, and Chilton (2018)	Country: America – Philadelphia Intervention setting: financial empowerment classes and peer support groups in community assistance settings.	N = 103 (primary caregivers with child one child under age 6) Caregiver age: ≈ 25 Child age: ≈ 30 months	Quantitative Experimental RCT Data collected every three months for 25 months	To test the effectiveness of a programme that combines financial empowerment and trauma-informed peer support (The Building Wealth and Health Network) at helping families enrolled in the Temporary Assistance for Needy Families (TANF) programme to reach self-sufficiency.
Brody, Yu, Chen, and Miller (2017)	Country: America – Georgia Intervention setting: separate parent and youth skill-building curricula and family curriculum at community facilities.	N = 390 (youths) Followed from age 11 (pre-adolescence) to age 25 (young adulthood)	Quantitative Experimental RCT Data collected at age 11 (pre-test) to age 25 (post-test)	To advance understanding of the association between ACEs and subsequent health status by testing hypotheses involving prediabetes among African American young adults living in the rural southern United States.

Study	Context	Participants	Design (including follow up)	Purpose
Giovanelli, Reynolds, Mondi, and Ou (2016)Giovanelli et al, 2016	Country: America – Illinois Intervention setting: educational and family support services in and via preschool.	N = 1202 (young people) Followed from age 3-4 (age during intervention) to age 22-24	Quantitative Quasi-experimental Controlled Data collected at age 3-4 (pre-test) to age 22-24 (post-test)	To test whether a preschool preventative intervention moderates the association between ACEs and multidimensional well-being (educational attainment, SES, crime, mental health and health behaviour) in early adulthood for a low-income, urban cohort.
Hall, Porter, Longhi, Becker-Green, and Dreyfus (2012) **2 studies reported**	Country: America – Washington State Intervention setting: whole-community level networks	N = 39 (community networks)	Quantitative Quasi-experimental Controlled Data collected over a 10-year period	To assess the effectiveness of community networks in reducing chronic social problems over time.
	Country: America – Washington State Intervention setting: whole-community level networks	N = 4585 (18-34 year olds) 28 counties	Quantitative Quasi-experimental Controlled State-wide survey data collection	

Study	Context	Participants	Design (including follow up)	Purpose
McPherson, Gatwiri, Tucci, Mitchell, and Macnamara (2018)	Country: Australia Intervention setting: residential foster care setting	48 children's files 3 programme graduates 7 carer families 14 professionals in multi-agency focus group	Mixed-methods Data collected retrospectively	To report on aspects of a wider study which investigated the Treatment and Care for Kids programme response to children who have experienced trauma and are placed in out-of-home care.
Steele, Murphy, Bonuck, Meissner, and Steele (2019)	Country: America – New York Intervention setting: multifamily group-based maltreatment prevention intervention in a community clinic setting	N = 78 (pairs of mother and child) Caregiver age: unknown Child age: < age 3	Quantitative Experimental RCT Data collected pre- and post- test	To test the effectiveness of a Group Attachment-Based Intervention (GABI) to improve relationships of <3yo children and their mothers, who were at risk of maltreating their children (based on number of ACEs, Mental Health challenges and prior removal of a child)

Study	Context	Participants	Design (including follow up)	Purpose
Verbitsky-Savitz et al. (2016)	Country: America – Washington State Intervention setting: whole-community level initiatives and various specific activities in community settings	5 community sites 233 survey responses	Mixed-methods Controlled where possible Data collected developmentally and retrospectively	To examine the extent to which the ACEs Public-Private Initiative (APPI) sites developed effective coalitions and created collaborative cross-sector partnerships that introduced new programmes, policies, and practices at multiple levels to support their goals
Weiler and Taussig (2017)	Country: America – Colorado Intervention setting: weekly one-to-one mentoring and manualised skills groups in various community/ care settings	N = 144 (children age 9-11)	Quantitative Experimental RCT Data collected 2-3 months before intervention (pre-test) and six months after intervention (post-test)	To extend research on the 'Fostering Health Futures' programme, by examining whether the effect is moderated by numbers of ACEs.

Following initial mapping, I carried out a more detailed extraction of descriptive methodological information, assessing the study background, procedure and outcomes for each paper (see Appendix A). Appendix B provides further detail regarding literature used to support my interpretation of outcome magnitude across the papers. For outcomes relevant to the review, four papers reported effect sizes and four did not. The implications of this variation in reporting detail are addressed through quality appraisal, and in Appendix D. To aid comparison and synthesis, I attributed outcome magnitude labels of small, moderate and large. In summary, the range of effect magnitudes found was:

Booshehri et al. (2018)	Six outcomes	One moderate effect Five small effects
Brody et al. (2017)	One outcome	One small effect overall One moderate effect for sub-group
Giovanelli et al. (2016)	Nine outcomes	No effect
Hall et al. (2012)	Two outcomes	Two small effects
McPherson et al. (2018)	Four outcomes	Four small effects
Steele et al. (2019)	Four outcomes	Two small effects Two moderate effects (including small interaction effects)
Verbitsky-Savitz et al. (2016)	One (complex) outcome	Small effects (slight variation across two magnitude levels) across the five sites
Weiler and Taussig (2017)	Nine outcomes	Two small effects (including significant moderation effects) Seven no effect

2.2.2 Quality Appraisal: Weight of Evidence

Analysing a paper's reporting and methodological quality means assessing its internal validity, transparency, accuracy, purposivity, utility, and propriety (Petticrew & Roberts, 2006, p. 127). Interrogating the ethicality and generalisability/ transferability is important in determining the papers' capacity to answer my review question (Petticrew & Roberts, 2006). Reasonable judgements regarding the impact of identified bias and errors can be made by systematically attending to key aspects of the studies. Awareness of bias at this point can minimise the subsequent impact of bias on review outcomes and conclusions.

I understand freedom from bias to be impossible in the social sciences, so this process was used to search for 'evidential adequacy' (op. cit., p. 131), rather than perfection. Any approach taken to assessing quality is susceptible to bias also. However, employing the systematic and consistent use of a tool through which to conduct the appraisal optimised fair treatment of the review papers.

As my search method permitted, the papers employ a range of study designs. This has implications for any quality appraisal approach that might be applied across all eight papers. Assessment of quantitative and qualitative research requires distinct approaches. The Evidence for Policy and Practice Information (EPPI) tool (2010; Gough, 2007) is used for appraising quantitative research in education. However, despite no solely qualitative papers to be reviewed, the qualitative elements of the mixed-methods studies require appraisal also. The appropriateness of assessing quality of qualitative research is contested, and there is no accepted preferred method. However, establishing the weight that any study carries in answering the review question requires a thorough approach; a systematic, but not mechanistic, approach to appraising these qualitative elements is therefore important. The Critical Appraisal Skills Programme (CASP, 2018) provides a checklist of 10 questions and prompts for appraising qualitative research. These tools enable systematic scrutiny of individual methodological aspects of the studies, supported by the previous detailed examination of the papers.

It is appropriate to adjust checklists to fit the collective characteristics of review papers. I amalgamated the EPPI and the CASP to ensure that these could be applied fairly and equally across the papers (see Appendix C). While both reporting and methodological quality are

linked and important, they require distinctive appraisal processes (Huwiler-Müntener, Jüni, Junker, & Egger, 2002). Therefore, I used both applicable sections of the EPPI appraisal tool (Appendix D and Appendix E) in determining the weight of each paper. I also added an item regarding use of theory (Appendix E), to assess the papers' theoretical rationale for intervention and inform my interpretation of findings and their applicability (Hannes, 2011; Petticrew & Roberts, 2006).

I used this bespoke method to assess each paper as having low, medium, or high weight in their capacity to answer the review question. A summary of these judgements is captured in Table 8. Appendix D and Appendix E contain further detail regarding how I made these decisions. Four papers were weighted high overall, three medium, and one low.

Table 8: Weight of Evidence Appraisal Summary of the Eight Papers

Paper		A: Trustworthiness of Findings	B: Methodological Relevance	C: Topic Relevance	D: Overall judgement
Booshehri et al, 2018		HIGH	HIGH	MEDIUM	**HIGH**
Brody et al, 2017		MEDIUM	HIGH	MEDIUM	**MEDIUM**
Giovanelli et al, 2016		LOW	HIGH	HIGH	**MEDIUM**
Hall et al, 2012	Study 1	MEDIUM	HIGH	HIGH	**MEDIUM**
	Study 2	MEDIUM	HIGH	HIGH	**MEDIUM**
McPherson et al, 2018		LOW	MEDIUM	HIGH	**LOW**
Steele et al, 2019		HIGH	HIGH	MEDIUM	**HIGH**
Verbitsky-Savitz et al, 2016		MEDIUM	HIGH	HIGH	**HIGH**
Weiler and Taussig, 2017		HIGH	HIGH	MEDIUM	**HIGH**

3.0 Synthesising the Evidence: Stage 6

To visually represent the synthesis, I plotted the studies' efficacy (magnitude of effect) and assessed believability (weight of evidence) on the grid in Figure 2 (p. 22). The outcomes

represented cover a wide and varied range. ACEs are studied as a collective phenomenon due to their co-occurrence and the increased impact their accumulation has on health and social outcomes. Studying each in isolation would fail to capture the phenomenon of interest. The wide scope of the risk factors involved, means that a wide scope of outcomes is affected. Given the research field's immaturity, and the scope of this review, it is appropriate to attend to this wide outcome range, though this makes a review of efficacy difficult, and interpretation requires caution.

As Figure 2 shows, no large intervention effects were found. There were three moderately sized effects, and multiple small effects. Paper 4 (see Table 9 for the key), can be mostly eliminated from further discussion due to its low believability. Papers 2, 3 and 7 can be interpreted with caution due to their medium believability. Papers 1, 5, 6 and 8 can hold more weight in the synthesis and interpretation due to their high believability.

Note that Hall et al. (2012) and Verbitsky-Savitz et al. (2016) have now been moved to sit together at the bottom of the list (7 and 8), rather than in alphabetical order. These two papers focused on whole-community level interventions, making comparison between them more useful than with individual person or family level interventions.

Figure 2: A visual representation of the critical appraisal of outcomes in each of the reviewed papers

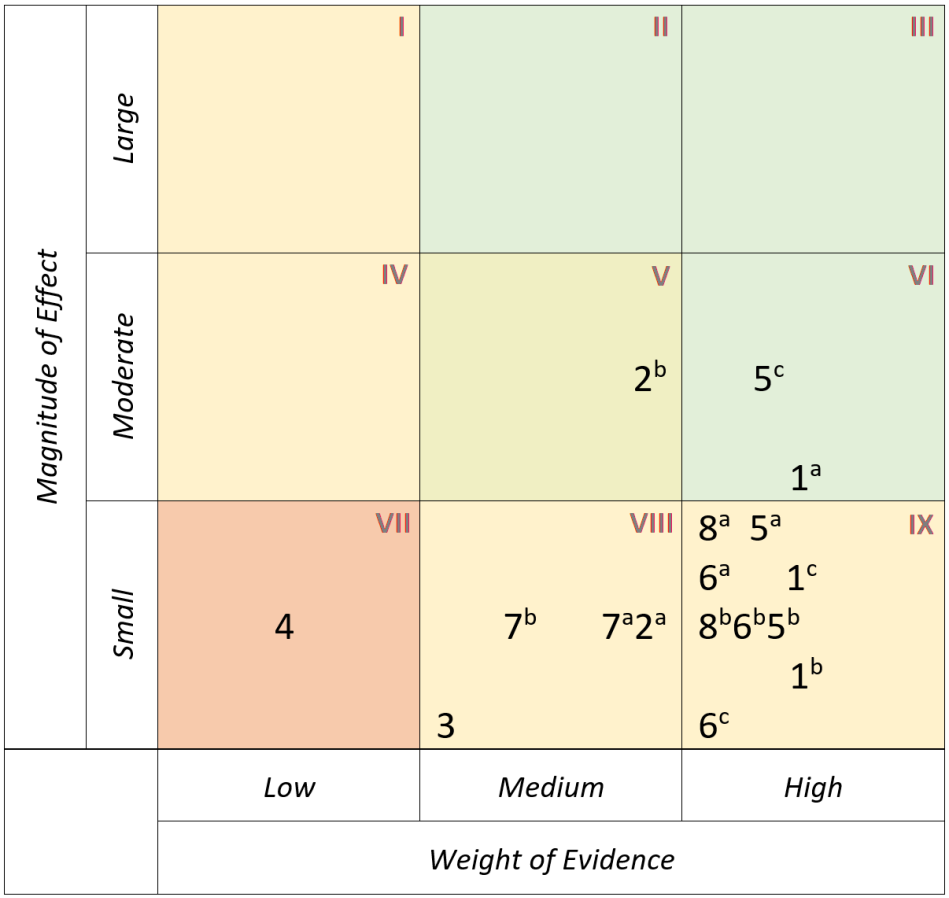


Table 9: Key for Figure 2

Paper	Outcome(s)	Grid Entry
Booshehri et al, 2018	Depressive symptoms	**1[a]**
	Self-efficacy; Child developmental risk; Employment status	**1[b]**
	Hardship; Hourly earnings	**1[c]**
Brody et al, 2017	Prediabetes status	**2[a]**
	Prediabetes status for participants with 3+ ACEs	**2[b]**
Giovanelli et al, 2016	Adult well-being (nine indicators)	**3**
McPherson et al, 2015	Stability (four indicators)	**4**
Steele et al, 2019	Maternal supportive presence	**5[a]**
	Maternal hostility	**5[b]**
	Dyadic constriction; Dyadic reciprocity	**5[c]**
Weiler and Taussig, 2017	Posttraumatic stress	**6[a]**
	Dissociation	**6[b]**
	Mental health functioning; Positive and negative coping skills; Social acceptance; Global self-worth; Social support; Quality of life	**6[c]**
Hall et al, 2012	Study 1: Network severity index	**7[a]**
	Study 2: Number of ACEs	**7[b]**
Verbitsky-Savitz et al, 2016	Three most successful sites (at building Community Capacity)	**8[a]**
	Two least successful sites	**8[b]**

4.0 Discussion: Stage 6

My synthesis has grouped the study outcomes by quality (and so, I suggest, by believability) and effect magnitude. I will use these groupings to frame my discussion, using the cell labels I-IX (see Figure 2). I will refer to particular grid plots used in this discussion by their grid label (e.g., 1a, 5c). I will discuss the two papers relating to community-level interventions (7 and 8) separately. Paper 4 (Giovanelli et al., 2016) is excluded from this discussion, due to its low believability, this being an important finding that should be noted by workers in the field.

Through this discussion, I will consider links between the review findings and pertinent literature. I will pay attention to interaction and differential effects where possible. The impact of interventions on different sub-groups of participants is important information (Petticrew & Roberts, 2006), although there is inconsistent emphasis in reporting this across the studies, indicating some need for caution.

4.1 Medium/ High Weight of Evidence, Moderate Effect: Cells V and VI

This section captures the strongest outcomes. Steele et al.'s (2019) experimental attachment-based intervention involved psychotherapist-supported and peer-supported parent-child interactions. Interactions were also videoed for reflection in what was described as a non-judgmental group context. For participants who accessed the experimental intervention, moderate improvements, compared to the usual intervention, were seen in the two interpersonal outcomes: increased turn-taking, coordination and shared emotional expressiveness, and decreased tension (5c). Steele et al. (2019) tentatively claim that this provides evidence of how to support the development of resilient functioning despite adverse experiences (Cicchetti, 2013; Feldman, 2010, 2015). They also claim that this may reduce the intergenerational cycle of adversity and its negative consequences.

Additionally, interaction analysis demonstrated that participant mothers who had higher ACE scores, did not experience the same improvement in the interpersonal outcomes, suggesting that the intervention may not be as effective for families who have experienced higher levels of adversity. Steele et al. (2019) claim that this may indicate that the intervention provided an 'insufficient dose' (p. 214) and that these parents may require more intensive services to 'work through' (Moran, Pederson, & Krupka, 2005; p. 214, Steele et al., 2019), rather than '…around' their own trauma. This also suggests an argument for

intervening early before higher levels of adversity accumulate. However, while intervention over 26 weeks may have contributed to a strong effect, there was also a high attrition rate, suggesting the commitment required was perhaps not sufficiently inclusive (Davis, McDonald, & Axford, 2012) and increasing the time may exclude further participants.

The key experimental aspect of Booshehri et al.'s (2018) parent intervention was participation in collaborative, trauma-informed, psychoeducation 'Self-Empowerment Groups' (p. 1597). The intervention aimed to strengthen parenting practices through the interaction between improved social support and promoting resilience (Larkin, Felitti, & Anda, 2014). The groups focused on creating physical, psychological, social and moral Safety, processing and managing Emotions, recognising Loss and letting go, and developing goals for a sense of Future (S.E.L.F., Bloom & Sreedhar, 2008). Compared to the usual intervention and the partial intervention condition, participants in the experimental intervention experienced moderate improvements in depressive symptoms (1a). Booshehri et al. (2018) claim that this potentiates intergenerational impact through the improved parenting associated with improved depressive symptoms (Shonkoff & Fisher, 2013). However, this was found eight months after the intervention concluded, suggesting the length of time needed for improvements in mental health to occur, with possible impact from unknown factors in the interim. Booshehri et al. (2018) also acknowledge that despite this promising result, low attendance numbers and attrition levels over the 28 weeks suggest that the curriculum may have been too demanding to be sufficiently inclusive.

Brody et al.'s (2017) intervention involved separate parent and youth skill-building and family curricula, based on an understanding that supportive parenting during childhood and adolescence buffers the negative impact of stress across the lifespan. Intervention participants experienced moderately reduced risk of prediabetes status (2b), compared to the control condition. Though not explicitly stated, a biopsychosocial perspective can be assumed, where a psychosocial intervention is associated with biological impact. However, interpretation of 2b requires more caution than 5c and 1a, due to poorer research quality (Appendix E). Additionally, the impact of the intervention for participants with lower ACEs scores was less pronounced (2a, discussed below), suggesting the intervention is more effective for individuals who have experienced more adversity, unlike Steele et al. (2019). Therefore, this intervention may not be as suitable for early intervention. There may too be

differences between the processes involved in improving biological and psychosocial outcomes.

Commonalities among these interventions with the strongest outcomes provide practical and theoretical suggestions for what works well. The positive impact of thinking systemically (Fox, 2009; Pellegrini, 2009) and supporting responsive relationships (S. Cohen, 2017) is demonstrated, through the positive effects associated with improving caregivers' mental health and strengthening parenting interactions. Social-learning theory (Bandura & Walters, 1977; Wenger, 1998) and experiential learning (Kolb, 2015) can be considered as helpful learning principles due to the group context, working alongside peers and trained facilitators, and the learning through doing and reflecting that was present in these interventions. A focus on building social support networks of peers and services, as well promoting the development of core life skills, indicates the relevance of building social capital (Davis et al., 2012; Putnam, 2000). These suggestions may be coordinated through assuming a biopsychosocial perspective on adversity and developing resilience (Larkin et al., 2012).

However, reasons why no larger effects were found should be considered. Davis et al. (2012) highlight the need for accessibility when considering the inclusivity of interventions. Interaction effects demonstrate that something more, or different, may be needed for parents with more ACEs. Attrition rates also demonstrate that having an intervention that lasts longer does not necessarily increase impact. These studies also highlight that improvements in mental health can take a long time, and that possible differences between biological and psychosocial outcomes should be considered.

4.2 High Weight of Evidence, Small (or No) Effect: Cell IX

In this section, studies are of assessed high believability, so their outcomes can be trusted. Effect sizes for these studies were small, with one study demonstrating no effect on some outcomes.

In comparison to the interpersonal outcomes discussed above (5c), participants in Steele et al.'s (2019) intervention experienced smaller improvements in the mother-centred outcomes: i.e. increased supportive presence (5a), and reduced hostility (5b). Authors suggest this is a demonstration of the cohesive attachment theoretical underpinnings

between the intervention and outcome measure. While not addressed in the report, this difference in effect magnitudes could be explained by the intervention's group context and interaction focus being more appropriate to cultivate interpersonal change, rather than intrapersonal.

A small reduction in hardship ratings and increase in hourly earnings (1c) were seen for participants in Booshehri et al.'s (2018) full intervention. A marginal increase in participants' self-efficacy ratings and employment status was also seen (1b), though this increase was larger for those with higher attendance. Child development risk measures remained the same for full intervention participants but deteriorated in the control and partial-intervention conditions, suggesting possible prevention of further risk. Additionally, improvements in self-efficacy declined somewhat after nine months.

These results suggest that while larger and longer-term improvements in depression were seen (1a), positive change in other outcomes was small and not sustainable, suggesting that the long-term impact of the intervention was narrower than the goal of self-sufficiency. This could reflect the ongoing adverse influence of factors beyond the scope of the intervention that prevented larger, sustainable change. It may also reflect the lack of support and protective factors available after the intervention completion, and could also be indicative of how difficult it is to sustain behaviour change beyond the context in which it was learnt (Bouton, 2014).

Weiler and Taussig's (2017) child-focused intervention was informed by theory on risk and resilience, grounded in a Positive Youth Development Approach (Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2004; Lerner et al., 2005). Through one to one mentoring and manualised groups the aim was to promote positive mental health and psychosocial functioning. Attendance was relatively high over the nine months, suggesting good accessibility. However, only a small reduction in post-traumatic stress symptoms was seen in participants who had low levels of baseline risk (6a), with no reduction for those with moderate or high levels. A marginal reduction in participants' dissociation symptoms was also found (6b), though only for participants with low or moderate levels of baseline risk, and not for those with high levels. Additionally, no change was seen in the other outcomes measured: mental functioning, positive and negative coping skills, social acceptance, global self-worth, social support, and quality of life (6c).

As in Steele et al.'s (2019) study, Weiler and Taussig's (2017) findings suggest that individuals who have experienced high levels of adversity would benefit from different interventions. These findings also reiterate the argument for intervening earlier and for preventing an accumulation of adversity. Through being individual child-focused and manualised, the intervention may have had potential for wider and more efficient spread, but lacked the systemic thinking, flexibility and social context of interventions with larger effects, jeopardising impact. The impact found was small and narrower than the broad scope of the intervention aims, suggesting the ongoing adverse influence of factors beyond the scope of the intervention.

4.3 Medium Weight of Evidence, Small (or No) Effect: Cell VIII

The reduction in risk of prediabetes status seen in Brody et al.'s (2017) intervention, was small for participants with lower ACEs scores (2a). As discussed above, this suggests less suitability for these individuals and for early intervention and indicates possible differences in the processes involved in improving biological and psychosocial outcomes. However, interpretation of 2c requires caution due to poorer research quality (Appendix E).

Giovanelli et al.'s (2016) intervention provided educational and family support services, through low student-to-staff ratios, a literacy-focused curriculum, a parent involvement and education programme, and home visits and health services. They hoped to broaden focus on wellbeing, beyond physical and mental health, to include social factors, meaning a bioecological perspective can be assumed. The intervention was found to have no impact on the nine outcomes measured. However, Giovanelli et al. (2016) refer to other studies demonstrating better outcomes for the same intervention, suggesting that there is evidence that the intervention may be effective, but further work is required to determine the range of this efficacy (De Los Reyes & Kazdin, 2008). Additionally, the believability of Giovanelli et al.'s (2016) study is jeopardised by both reporting and methodological issues (Appendix D and Appendix E) meaning the conclusions drawn are possibly unwarranted.

4.4 Whole-Community Level Intervention Studies

Hall et al. (2012) and Verbitsky-Savitz et al. (2016) both report on quasi-experimental studies of large-scale whole-community interventions. The studies are linked, with Verbitsky-Savitz et al. (2016) documenting subsequent progress of the same project(s) as Hall et al. (2012).

Hall et al. (2012) found significant improvements in the Severity Index (p. 328), that is a reduction in multiple inter-related health and safety problems, in the funded community-level networks. This was different from the networks which had lost funding due to insufficient demonstration of community capacity (CC). The size of this effect was not reported, and so was deemed to be small (7a). Hall et al. (2012) reference the impact of trauma on social, emotional and cognitive outcomes through citing Felitti et al. (1998). The system-level intervention was grounded in literature on community capacity (Chaskin, 1999; Porter, 2010, in Hall et al., 2012), promoting the importance of a shared focus, collaborative leadership, continuous learning and improvement, and a system-wide focus on results. Similarly, Hall et al. (2012) used a participatory action research and learning approach (Patton, 2010) for their study. The authors also report a lower number of ACEs in young adults in networks rated high in community capacity. Again, the size of this effect was not reported, and so was deemed to be small (7b). The two studies reported within the article employed different measures of network community capacity and the believability of Hall et al. (2012) is jeopardised by poor reporting and methodological quality.

Also using a community capacity-building approach, Verbitsky-Savitz et al. (2016) drew on theory regarding community, intergenerational and individual resilience (e.g. Ungar, 2011), community-centred system change (e.g. Butterfoss, 2007), and trauma prevention and alleviation (Robert Wood Johnson Foundation, 2015, in Verbitsky-Savitz et al., 2016). Of the five sites where multi-faceted community-based systemic initiatives were created, three were deemed to be the most successful at building community capacity in efforts to prevent and mitigate the effects of ACEs. Considering the complex range of data provided, in the absence of an effect size this was deemed to be a small effect (8a). This success was understood to be through the alignment of three factors: collective community capacity, community network characteristics and effective community change strategies. However, there were differing models of success within this. Additionally, across the eleven domains focused on the in the ARC^3 survey, five domains were found to be more consistently improvable, and so may provide information regarding where best to focus resources moving forward. Two sites were deemed to be less successful in their community-capacity building (8b). Verbitsky-Savitz et al. (2016) report sustainability challenges across all sites, though reasons for the reduced success in these sites are not clear.

These two studies explored interventions operating within large open systems, consisting of highly complex and nonlinear causal relationships (Robson & McCartan, 2016). This means that there are likely to be multiple mechanisms at play (Robson & McCartan, 2016) influencing the outcomes in ways that are not captured by the research. Research explaining some of the barriers to sustaining interventions (Davis et al., 2012) and behaviour change (Bouton, 2014) may provide additional insight into why larger and longer impact was not seen.

4.5 Overarching Discussion

Drawing on the papers with greater believability, this review suggests that early intervention and prevention of the accumulation of adversity should be prioritised within efforts to mitigate the potential negative impact of ACEs. A dynamic theory of resilience provides a helpful lens for interventions, acknowledging the complex interplay between individuals and their environment (Rutter, 2006, 2012), where resilience can be developed at both individual and community levels (Ellis & Dietz, 2017; Ungar, 2011). The review suggests that underpinning intervention planning and delivery with social-learning principles (Bandura & Walters, 1977; Wenger, 1998) may improve outcomes, and that building social capital (Putnam, 2000) and supporting responsive relationships (S. Cohen, 2017) should be an intervention priority.

These concepts are interactive, non-linear and complex like the ACEs model, which is reflected in the wide range of outcomes explored in this review. They reflect dynamic responses to dynamic issues. However, effects are often small and die away in time, and what works in one place at one time for some people, won't necessarily work somewhere else, at another time for other people. Realist mechanisms are helpful to explain the complexities at play within the vast open systems being studied (Robson & McCartan, 2016), providing some justification regarding why no large effects were found, and why accurate predictions are hard to make. Using a realist explanation, this review presents some mechanisms that are flexible and responsive to varying contexts and may be supportive when considering adversity in the social world. This may offer some practical theory against which interventions might be monitored, assessed, and reviewed.

5.0 Limitations

A limitation of this review relates to the locations of the studies; for application to assessing interventions in the UK, the cultural and organisational differences of these American and Australian studies should be considered. This review is also limited by the impact of bias and my personal judgements as a solo researcher. The heterogeneity of the synthesised studies' context and design presented additional challenges for synthesis, along with inconsistent data reporting meaning the reliance on my own judgment was increased. However, I have tried to reduce any unfair impact of this by being systematic and stringent in process (Petticrew & Roberts, 2006) and through providing evidence of a transparent audit trail (Halcomb & Fernandez, 2015).

The nature of a literature review also means that the data manipulation, and subsequent interpretations and implications become increasingly distant from the original data source. Not only may this skew the message of the data, but it makes use of the data in ways that the participants did not consent to, both of which are issues of ethicality.

6.0 Closing Comments and Implications

Building on an existing and expanding body of research regarding the impact of childhood adversity (e.g. Van der Kolk, 1994), the ACEs movement asserts a cumulative model of adversity, applicable at the societal or population level. As suggested by the original authors, the research 'illustrate[d] the need for an overview of the net effects of a group of complex interactions on a wide range of health [and social issues]' (Felitti et al., 1998, p. 251). Caution should be exercised when applying this model at an individual and small community level, and there is a need to be aware of the possible adaptations necessary to apply the model across health, social, education and justice systems.

This review has synthesised the best available evidence in the field regarding what is known about community and education interventions aiming to tackle this issue. Considering the wide range and complexity of factors, mechanisms and outcomes involved in the contexts being studied, large sustainable change is difficult to affect. A combination of approaches that develop understanding and awareness at the macro-level, with focused intervention at the micro-level (Thase, 2006) is helpful to consider, and compliments a holistic view of

resilience, where personal and environmental factors interact (Ellis & Dietz, 2017). EP work is political and Political, especially when underpinned by social justice aspirations (Prilleltensky, 2014; Stetsenko, 2014) and is rooted in education and community wellbeing (Roffey, 2015). Our capacity to work systemically across systems (Fox, 2009) means the outcomes of this review are applicable to our skills and expertise.

We can draw on implementation science (Kelly, 2017) to evaluate and develop local and individual level interventions that have clear aims, enabling appropriate focus and flexibility to a community's needs. This approach takes context, theory and political circumstance into account, exploring setting preparation, supporting and authorising systems, readiness, necessary and helpful adjustments, and review. Time is needed to provide appropriate experiential learning (Kolb, 2015), with attention to transferability and sustainability (Bouton, 2014) that enables 'individual and community qualities [to] work together to empower a person to move forward in life with a sense of hope, capability, mastery and expectation' (Larkin et al., 2012, p. 338). EPs and other professionals working in this field should be clear about the unique needs, hopes and goals of the systems they are operating within. The principles outlined by Davis et al. (2012) also provide a suitable framework through which to plan and evaluate interventions of this nature, focusing on the need to be accessible, culturally sensitive, sustainable, and to build social capital.

Chapter Two: Bridging Document

Moving from Systematic Review to Empirical Research: My Journey as a Researcher

1.0 Introduction

In this chapter, I explore the rationale behind my research choices, and how the two pieces link together. I tentatively explore my onto-epistemology, or world view, and how this influenced my research decisions, as well as how this relates to the core underpinning theories. Constructs and concepts that posed challenges during the research journey are discussed, followed by attention to ethical issues. Finally, I explore how my beliefs and assumptions may have influenced this research, and how this research may have changed them.

2.0 Personal Rationale

It can be argued that it is a metaphysical truth that Educational Psychologists (EPs) are motivated to strive for social justice and social inclusion. My research was strongly underpinned by aspirations of this nature, driven by my natural and professional capacity for empathy and compassion. With an interest in community psychology, ideas of school-community partnerships as sources of wellbeing in education were appealing. My frustrations with competitive education, fuelled by international league tables and gross domestic product (GDP) comparisons, led me to the Capability Approach to wellbeing economics (e.g. Nussbaum, 2011), where individual freedoms and opportunities are seen as the source of human flourishing. This places my focus in relationships and nuance. However, colleagues and well-known professionals in the field (B. Perry, 2021; Siegel, 2021; Zeedyk, 2021), whose views and practice I valued, held opposing views in the buzzing conversation on Adverse Childhood Experiences. Some people argued that it was reductionist, stigmatising and dangerous. Whereas others were championing progressive work using the model, and exciting multi-disciplinary conversations were being sparked. I wanted to deepen my understanding of this phenomenon.

3.0 Research Rationale

Across the North of England and Scotland, the ACEs movement was gaining a lot of interest, complemented by an ongoing government national agenda to support mental health and wellbeing. There was an incentive, driven by an EP, in the Local Authority in which I was on

placement, to incorporate ACEs-informed understanding and practice into the strategic plan for children's services. However, a somewhat polarised view regarding the model's utility was still evident, especially in relation to the 'Resilience' film (Redford, 2016) that was being aired in schools and community settings. In agreement with the Principal and Deputy Principal EPs, I chose to delve into what seems to be helpful about the model, to then see if any of this can translate into an emancipatory school or community setting, where EPs work and can provide support and advice.

4.0 Moving from the Literature Review to the Empirical Project

Through conducting my literature review on interventions aiming to mitigate the negative impact of ACEs, a need for increased focus on the process and implementation of these interventions was identified, as contextual and accessibility factors emerged as being important. Despite searching for interventions in both education and community settings, there was a lack of school-based interventions in my search. Through my scoping period, I also came across emerging research on the prevalence of ACEs in helping professionals, and some indication of the possible negative impact that working with this information and can have, i.e. vicarious trauma. This mirrored my real world experience of seeing strong emotional reactions to the film, and when professionals debated the ethicality and usefulness of the model. Implications for professionals being asked to incorporate this model into their practice seemed pertinent.

EPs are skilled in the implementation of interventions (Scottish Executive Education Department, 2002), with a focus on meeting individual needs in inclusive and accessible ways. EPs also work across multiple schools, and often work through a consultation model, meaning their primary contacts are often the adults around children, rather than the children themselves. These factors, along with the skills and expertise to work systemically across systems and the psychological knowledge to support positive wellbeing outcomes, place the above literature review outcomes within the role and responsibilities of an EP.

In developing the focus of my project, a primary aim was to carry out research that would be mutually beneficial for the participants and me, as well as for the LA and with implications applicable to the role of the EP. Therefore, it was appropriate to plan a

collaborative project, that moved away from typical notions of expert intervention, to new informed ways of being in practice, where participants' agency and empowerment would be prioritised. Throughout my training, Pragmatist and Transformative world views and approach to practice and research had resonated, with both Prilleltensky's (2014) and Stetsenko's (2014) discussions on transformative education providing sources of inspiration.

5.0 My World View and Theoretical Underpinnings: My Stance as Researcher-Practitioner

My stance as a researcher is linked to my ontological and epistemological views of the world (Grix, 2002). At this point, I tentatively present the notion of my views aligning with a realist social constructionism, or moderate social constructionism, where real mechanisms may be identified as existing, and therefore used in research and practice, in a socially constructed social reality (Elder-Vass, 2012). Employing the principles of Action Research are coherent with social construction, through the focus on collaboration and partnership across a 'diverse ecology of inquiry' (Bradbury, 2015, p. 4) to promote sustainable and resilient change, also complementing a transformative activist stance (TAS, Stetsenko, 2014).

Considering notions of working together, I understand collaboration as intra-organisational, i.e. between the participants, and partnership as inter-organisational, i.e. with me as an insider/ outsider. EPs in this particular LA have an increased level of 'insider status' due to the regularity of contact with their comparatively few schools. Through my ongoing input into the co-construction of the project, my values, beliefs and assumptions had explicit influence (see 5.1 also). Using Bradbury's (2015) discussion of the challenges of insider action research, this presented with the challenges of preunderstanding, having a dual role, and organizational politics at the level of first, second and third person (p. 48). However, as an outsider researcher, I made most of the research decisions, was the main curator of the project process, and am a recurring yet transient member of the school community. This brings the benefit of being a co-learner, with agentic participants, yet with built-in support and challenge (Cordingley et al., 2015). Through the process, I certainly felt to be a co-learner, as well as experiencing my own individual learning regarding ways of being an action researcher, and ways of facilitating safe and hopeful risky CPD (see sections 7.0 and

8.0). This was additionally powerful when coupled with a belief that every question is an intervention (Beaver, 2011), meaning that within the power of relationships and safe reflective discussion, I, as a psychologically informed co-learner, was well-placed to ask catalytic questions.

While the research element of this project was collaborative and exploratory, I believed I had a professional responsibility to ensure that my delivery of the CPD was underpinned by principles of bioecological and dynamic resilience, capability, and hope, to minimise the risk of disseminating reductionist and stigmatising information. However, these concepts are consistent with a TAS, and therefore inherently work well in situations of exploratory and collaborative learning, as can be seen in Table 10 and Table 12 of my empirical report, making use of Fraser et al.'s (2007) Triple Lens Framework for teacher's CPD. The balance between collaboration and managing the amount of responsibility placed on the school was also important, as they didn't believe they had the resources to commit to any time or thinking outside of the sessions I facilitated. This is often an important consideration for the accessibility of CPD for school staff.

Complementary to this, my stance is underpinned by a belief that relational and emotional support is most effective when those who are doing the supporting, have their own wellbeing supported. There are many parallel processes and levels of relationship to think about here, considering the children, families, parents, school staff and me, in the current context of significant stress and burnout in education professionals.

5.1 Using Constructivist (Constructionist) Grounded Theory (GT)

> *"We are part of the world we study, the data we collect, and the analysis we produce. We construct our grounded theories through our past and present involvements and interactions with people, perspectives, and research practices" (Charmaz, 2014, p. 17).*

It was important to me that I used Charmaz's constructivist version of GT, as this made explicit acknowledgement and celebration of the impact of my own beliefs and assumptions, which I thought to be integral to this collaborative project. While 'constructivist' refers to this intrapersonal/ individual construction, this approach is also coherent with my tentative constructionist onto-epistemology, and group construction.

In constructivist GT, the researcher interprets the data, rather than discovering information that existed before. Therefore, my engagement and analysis with the data changes it. From a constructionist perspective, I think this is both inevitable and beneficial. It is valuable for me to acknowledge the influence my identity and assumptions have on this process. There are parallels between the participants and me, as we re-evaluated our assumptions, bringing them to the forefront of our awareness of how we go about interpreting children and families in our work.

However, what then becomes difficult to decipher is whether interpretation becomes manipulation becomes engineering becomes falsification. Did I engineer the hope in my model? Or is the project inherently hopeful because of its ongoing, dynamic learning principles, where learning = growth = hope? The thorough coding and category audit, along with documenting reflections and memos provide some transparency regarding this. Additionally, reflexivity is integral to the project at various levels and is recognised more so within the constructivist approach, presenting another argument for my use of it here (see section 8.0).

6.0 Problematising Constructs: Levels of Hope 'out there' and 'in here'

Throughout my experience of carrying out doctoral level research for the first time, I faced the challenges of conducting research on such an emotionally risky topic while trying to maintain my own emotional and cognitive resilience. This was in addition to managing the challenges of EP training, the job and life in this current complex context, with the persistent threats to my own feelings of hopefulness that all of that brings.

6.1 Grappling with the Usefulness of the ACEs Concept

I understood the ACEs model as facilitating a contemporary cross-disciplinary conversation consistent with promoting an approach to relationships that is founded in an ecological theory of human development; ACEs being one group of (potentially traumatic) experiences that have significant impact on people's lives.

However, I experienced first-hand the difficulties in disseminating the model and its message out in my current LA, in a way that allows the hopeful side of the message to be heard through the noise of the scary statistics. Negativity bias seems pertinent here, and the

painful reactions that many people had to the Resilience film and the ACEs model implied that for some people the message of hope and resilience was lost. In this sense, there are different levels of possible trauma at play here. First, the subjective trauma response to the adverse experiences that some children experience, the intergenerational adversity and trauma in families, and the community trauma through chronic adversity in the community. Second, possible vicarious trauma though learning about the model as a professional with one's own painful experience of adversity and trauma. Third, further vicarious trauma as I consider the potential negative impact of my dissemination of the information. The debate and risk around the model are particularly sensitive.

However, tension and contradictions are a catalyst for change and development. Therefore, perhaps it is the case that as long as the jarring impact of the ACEs model can be facilitated in a safe and protected way, with time and resources to engage in the full iterations of my grounded theory model or similar, then this is something to celebrate and capitalise on. In this way, as championed by proponents of the ACEs movement, does this provide a shared language for engaging people in their own solutions and own social improvement? Can this facilitate human flourishing, where diverse people work together across boundaries, for greater understanding and generosity of thought, and mutually beneficial growth across society? The ACEs movement perhaps presents a strategy through which education and community organisations can increase awareness, empathy and agentic skill development, that is forward-thinking and capacity-building. While the ACEs model may have originally been a scary warning drawing our attention to the cumulative effect of these unpleasant experiences, once you are aware of a problem you can define a goal, and that is one source of hope. Though I do believe the specific list of 10 should be moved away from, so as not to caricature and stigmatise certain sub-groups of society, and maintain a more critical and nuanced definition of adversity that doesn't rely on quantitative measures. In this sense, it is the evolved and holistic 'ACEs movement', rather than the original 'ACEs model' that I believe to be more hopeful.

6.2 Adversity in the context of 2020/ 2021

The notion of indexicality, the fact that the world changes around a researcher as they work and write, has been especially pertinent during this project. This report has been written during the coronavirus pandemic and heightened awareness of systemic racism,

BlackLivesMatter and all it stands for, to name just two of the significant global traumas of particular salience at this time. These two injustices have implicated and amplified the impact of one another, as well as compounding the effects of further existing systemic adversity and injustice. The complexity of intersectionality and health in the current context has been highlighted prominently. Additionally, issues such as the government's use of knowledge of the impact of disadvantage to create and/ or perpetuate that disadvantage presents difficult ethical and political debate. Yet contrast this to the narrative of a need to 'catch up' on the return to school, despite having endured such adversity. It is frustrations such as these that have contributed to the difficult maintenance of a hopeful outlook.

7.0 Ethical Issues

Perceptions of ethicality are also informed by one's ontology and epistemology (Grix, 2002). Understanding humans as relational, agentic beings, with social and emotional needs, impacts on what I see as my ethical responsibility as a researcher, in terms of how I behave with the participants. This goes beyond completing a university ethics form and asking for consent from my participants. Issues of trust and safety are particularly relevant here, considering the topic of ACEs, and the risk that participants are likely to have painful personal resonance with the model. Ethical issues here are similar to those in my empirical discussion, due to the integral nature of ethics to collaborative research and interpersonal relationships. Aftercare was also an important ethical consideration, safeguarding the ongoing wellbeing of the participants, after I had received what I needed for my research and left their community.

The interpretive and constructivist element of the research means that my engagement with the data and dissemination of my findings needed to be done ethically, and I believe the use of Hope Theory supported this, as well as having the protection of anonymity.

These issues are all important considerations for principles and values by which to practice as an EP in both research and fieldwork settings.

8.0 Reflexivity

> *"[In] social constructionist versions of grounded theory… the researcher is more than a witness; (s)he actively constructs a particular understanding of the phenomenon under investigation. From a social constructionist perspective, grounded theory does not capture social reality; instead it is itself a social construction of reality" (Willig, 2013, p. 80).*

I believe that there has been a bi-directional flow of influence between me and the elements of this project. As I have influenced it, it has influenced me too. This is especially so in that it has facilitated my engagement in various disciplines and research, beyond the psychological sphere, such as sociology, education and medicine. My understanding of collaborative working has been influenced, as well as the links between hope and resilience being theoretically and experientially demonstrated to me, in the importance of how we perceive and frame our emotional and cognitive reservoirs, in the giving and receiving of support with others.

Chapter Three: Empirical Research Project

Creating Reservoirs of Resilience: How Can ACEs Continuing Professional Development be Facilitated in a Primary School in a Hopeful Way?

Abstract

Adverse Childhood Experiences (ACEs) and the model of their social impact are contentious topics, being debated across health, social care, the justice system and education. Transformative education is linked to the promotion of social justice, making exploration of the ACEs model in schools worthwhile. While ACEs are often discussed within a narrative of resilience, there remains a risk of deterministic understanding, and vicarious trauma in staff. In the context of a Local Authority where all schools were in the process of receiving Continuing Professional Development (CPD) about ACEs, I explored whether this could be done in a hopeful way. To support a narrative of hope and change, I framed my understanding of ACEs through a bioecological lens, along with exploring notions of capability and Hope Theory. Using a collaborative research design, I facilitated three sessions of CPD and three working party sessions in a primary school, broadly linked to a Community of Practice model. During the working party sessions, participants reflected together on the preceding CPD session and supported planning for the next. The final working party session enabled reflection on the content and process of the project. Abbreviated grounded theory process was used for the analysis. A model was constructed suggesting seven concepts important to the participants' hopefulness during the CPD project. The mechanisms operating within these constructs are explored alongside key elements of Hope Theory. Project limitations and implications for how educational psychologists can facilitate hopeful CPD on risky topics are discussed.

1.0 Introduction

This report provides an account of a research project exploring the provision of Continuing Professional Development (CPD) in a primary school regarding Adverse Childhood Experiences (ACEs). The project aims were to influence education and educational psychology practice, in the context of a Local Authority (LA) strategy to develop ACE-aware provision in local schools and children's services.

1.1 Adverse Childhood Experiences (ACEs)

ACEs as a combined phenomenon were first studied by health professionals, demonstrating a link between their prevalence and adult health and social outcomes (Dube et al., 2003; Felitti et al., 1998). Awareness of the studies and subsequent research has grown

internationally across health, social care, education and justice systems, recognising ACEs as 'some of the most intensive and frequently occurring sources of stress that children may suffer in early life' (World Health Organization, 2021). Links have also been drawn between ACEs and a trauma response (Oral et al., 2016).

Understanding the relationship between ACEs, wellbeing, and social justice aligns with the work of educational psychologists (EPs) , who can promote wellbeing and social justice through supporting children, families, and education systems (Prilleltensky, 2014). Yet there is an ongoing debate regarding the ethicality of the ACEs model's implications and its potential to be conceptualised as reductionist, deterministic, and stigmatising (Asmussen et al., 2020; Edwards et al., 2017). Additional concerns relate to the potential for professionals and practitioners to experience threats to their own wellbeing through being exposed to the ACEs model. This echoes trauma-informed practice (Thomas, Crosby, & Vanderhaar, 2019). These concerns, alongside the scale and commonality of ACEs in the United Kingdom (UK) (Bellis et al., 2015; Bellis et al., 2014; Couper & Mackie, 2016), make the debate particularly sensitive.

As integrated ACEs networks (e.g. ACE Network North East, 2021) and services (ACE-Aware Scotland, 2018; British Psychological Society, 2019) develop in the UK, criticality is required to ensure these efforts are proactive, hopeful, and promote positive change. This project explores these possibilities within a staff development context in one primary school.

1.2 Continuing Professional Development in Education

Professional development through partnership and collaboration is now firmly represented in education guidance (Department for Education, 2016; Ofsted, 2019). However, barriers to enacting positive collaborative learning principles (Eraut, 1994) still remain (Cordingley et al., 2015; Kennedy, 2011). Opportunities for genuinely transformative professional development are rare (E. Perry, Boylan, & Booth, 2019) with a top-down, centralised education system risking de-professionalisation (Whitty, 2000).

Given the need for frugality in schools, knowledge of effective, quality CPD has evolved rapidly in recent years (Cordingley et al., 2015; Kennedy, 2016; E. Perry et al., 2019), and is ongoing (Education Endowment Fund, 2020). Though uncertainty regarding effective CPD remains, various frameworks by which to analyse CPD models have been generated. Fraser,

Kennedy, Reid and Mckinney's (2007) Triple Lens Framework draws three of these together (Table 10), focusing on the attendees' holistic needs in ways that are relevant to the broad scope of ACEs, social justice, wellbeing, and transformative aims.

Table 10: Fraser et al.'s (2007) Triple Lens Framework of Teacher's CPD

Framework	Focus of categorisation	Categories	Description
Bell and Gilbert's (1996) aspects of professional learning (amended)	*Domain of influence* of professional learning	Personal	Teachers' beliefs, values and attitudes are important considerations. Interest and motivation need to be addressed. Individual staff learning needs and starting points are taken into consideration.
		Social	Relationships between individuals and groups need nurturing. Contexts need to be supportive to allow enactment and risk-taking. Learning happens in relation to implicated social systems.
		Occupational	Links between theory and practice need to be strong and applied iteratively. Intellectual stimulation and professional relevance are required.
Kennedy's (2005) framework for analysing CPD	*Capacity for professional autonomy and transformative practice* supported by the professional learning (*Increasing capacity for autonomy* ↓)	Transmission	Externally delivered expert tuition. A focus on technical aspects. Replication of and compliance to standards. Tends to focus on individual development.
		Transitional	Collaborative. May be transmissive, or transformative. May be conservative, or progressive. Often sanctioned externally.
		Transformation	Strong links between theory and practice (combines transmission and enactment) Reflective and exploratory. Awareness of socio-cultural context. Internalisation of concepts and professional autonomy.
Reid's (see Fraser et al., 2007) quadrants of teacher learning: two intersecting spectra	*Sphere of action* in which the professional learning takes place	Formal-informal	Explicitly established by an agent other than the teacher.
			Sought and established by the teacher/ participant.
		Planned-incidental	Pre-arranged.
			Spontaneous and unpredictable.

1.3 Resilience, Capability and Hope

Table 10 highlights the importance of collaboration and contextual relevance in transformative CPD, with an emphasis on professional autonomy. Applying theories of resilience, capability and hope to this process may enhance the transformative potential of the CPD and its application in practice with children and young people (CYPs) and their families. While the research element of this project is exploratory, I felt a professional responsibility to underpin my delivery of the CPD with these principles. This seems especially pertinent when considering the contentious ACEs model.

A dynamic theory of resilience (Rutter, 2006, 2012) suggests that while adversities, of which ACEs are examples, may contribute to poorer wellbeing, this is not always so. Experiences and processes across an individuals' lifespan and within their bioecological context interact and accumulate (Bronfenbrenner & Morris, 2006; Williford, Carter, & Pianta, 2018). This means that in the presence of adversity, coping and opportunities for improved wellbeing can still occur, meaning the impact of ACEs, and adversity more broadly, is not determined.

ACEs and ways of mitigating their harmful impact might better be viewed within a broad social and political context. While certain social conditions may increase the likelihood of ACEs and subsequent poorer wellbeing (Ellis & Dietz, 2017), schools are well placed to provide freedoms and opportunities for improved wellbeing (Nussbaum, 2011; Roffey, 2008). Scaffolding school staff awareness and hopefulness regarding ACEs, may present worthwhile efforts to cultivate fertile capability and wellbeing in the face of adversity (McGeer, 2004, 2008; Nussbaum, 2011).

Hope Theory presents a method of operationalising this (Cox & Lumsdon, 2020; Snyder, 1994). Snyder (2002) suggests that we draw on two things when aiming for a goal: pathway thoughts regarding evidence of what we've seen to be effective out in the world, and agency thoughts regarding our experiences of what we've been able to achieve in the past. Our efforts and thoughts are also emotion-laden, which implicates how hopeful we may feel about achieving our goals. McGeer (2004) argues that a process of finding hope can be scaffolded, through caregiver emotional support and external resources. EPs are well-placed to provide this support and access these resources (Cox & Lumsdon, 2020) and I made methodological decisions with the aim of facilitating this (see section 2.4 in particular).

1.4 Research Aims

This empirical research project aimed to consolidate some of the tensions described above and explore these with school staff who work directly with children and families, by asking:

'How can ACEs CPD be delivered in a primary school in a hopeful way?'.

2.0 Method

2.1 Participants and their Context

The research took place in a small north-east England LA. Statistics regarding long-term social outcomes and early indicators of health behaviours in children and young people suggest some of the highest ACE prevalence in the country (Thorley, Whiteside, & Chapple, 2019).

In response to a LA-wide strategy to develop ACE-aware provision, local schools were receiving input regarding ACEs from the EPS. This input provided local schools and Children's Services Teams with the opportunity to view and discuss the film 'Resilience' (Redford, 2016), which provides a concise and dramatic description of ACEs, toxic stress, the implications for children and families, and some ideas for multi-disciplinary action. The sessions mirrored incentives in other areas of the country hoping to build awareness of ACEs. Following their request for this input, I approached a local primary school to ask if they would be interested in enhancing their CPD into a research project. I shall call the school 'Hillmount' to preserve anonymity. Through negotiation with the new Headteacher, it was agreed that the project would provide an opportunity for the staff to engage collaboratively on an important local issue in a creative and hopeful way.

All 25 teachers, teaching assistants and the school Parent Support Advisor (PSA) took part in the CPD. Seven members of staff agreed to participate in a working party (WP), though attendance varied across the three WP sessions. The seven WP members included: five teachers, including two phase leaders and the Special Educational Needs and Disabilities Coordinator (SENDCo); the Parent Support Advisor (PSA); and one teaching assistant/ parent. All sessions took place on the school site (see section 2.3).

2.2 Research through Partnership

This project required a research design befitting a mutual purpose: school CPD and my research. Principles of action research (AR) advocate collaboration and partnership across a 'diverse ecology of inquiry' (Bradbury, 2015, p. 4) to promote sustainable and resilient change. This matches my social constructionist stance and transformative activist aspirations, underpinned by the thinking provided in sections 1.2 and 1.3.

AR broadly entails four non-linear stages in a cyclical process: planning, acting, observing, reflecting (Robson & McCartan, 2016). Table 11 presents the way in which these stages were present in the project.

Table 11: Action Research Stages as present in the project

Project Members	Planning	Acting	Observing	Reflecting
All Staff	✓			✓
WP Members	✓	✓	✓	✓
Me, the researcher	✓	✓	✓	✓

Using Bradbury's (2015) discussion of situating and defining AR, this project sits in the space between 'Applied Research/ Consulting' and 'AR' (p. 2). Robson and McCartan (2016), however, suggest that a collaborative style outweighs the importance of the cyclical stages. The participants in this project were not co-analysts, yet our active collaboration on iterative generation and review of the data (see section 2.4) places the process on the 'partnership and participation… continuum' (Bradbury, 2015, p. 8) of AR.

Table 12 presents Fraser's (2007) Triple Lens Framework again, demonstrating elements of this project across most of the categories.

Table 12: Elements of Fraser et al.'s (2007) Triple Lens Framework (refer back to Table 10) as present in the project.

Framework	Focus of categorisation	Categories	Elements present in this project	
Bell and Gilbert's (1996) aspects of professional learning (amended)	*Domain of influence* of professional learning	Personal	Voluntary participation of WP. Time and space were facilitated to discuss personal feelings, reactions, and experiences.	Particularly relevant in the ACEs field.
		Social	Group discussions were facilitated, though more in-depth in the WP. The project was endorsed by the Headteacher and by the LA more widely. Explicit discussion of the socio-political context was interwoven.	
		Occupational	Prompts were given to think in practical terms. I encouraged the staff to think/ reflect/ act in between the sessions, though systematic enactment was not required and therefore limited. Explicit reflection on practice and attitudes was interwoven in the sessions.	
Kennedy's (2005) framework for analysing CPD	*Capacity for professional autonomy and transformative practice* supported by the professional learning ↓ *Increasing capacity for autonomy*	Transmission	Initial CPD sessions consisted of content input delivered by me. This was also driven by a LA-/ EPS-led agenda. The project process was largely driven by me.	Broadly relevant to the analysis of CPD.
		Transitional	The WP model facilitated iterative collaborative working. The WP model had close links to a Communities of Practice model (see first paragraph below table).	
		Transformation	The CPD was requested by school Headteacher. Membership of the WP was voluntary. An exploratory process was used in the WP sessions. WP members drove the reflection content. Reflections on practice, experience and context were explicitly interwoven. Action plan content was constructed by the WP. The process was informed by principles of AR.	
Reid's (see Fraser et al., 2007) quadrants of teacher learning: two intersecting spectra	*Sphere of action* in which the professional learning takes place	Formal-informal	The impetus for the enhanced project and the process came from me. The school Headteacher and SENDCo agreed on behalf of the staff.	Particularly relevant in AR/ the WP model.
			The CPD was requested internally, from the school Headteacher. WP participation was voluntary.	
		Planned-incidental	The project was pre-arranged and planned.	
			N/A, *though incidental discussions surrounding planned activities did appear to possibly enrich the planned project experience.*	

Kennedy (2005) presents a Community of Practice (CoP) model under the transitional category, indicating either transmissive or transformative potential. The term 'community' is variously used when describing groups engaging in collaborative learning (Kennedy, 2016). A sense of community (McMillan & Chavis, 1986) may explain the collective competence (Boreham, 2004) and learning present in more effective CoPs (Mittendorff, Geijsel, Hoeve, de Laat, & Nieuwenhuis, 2006), supporting the shared sense of purpose required for effective CPD (Cordingley et al., 2015).

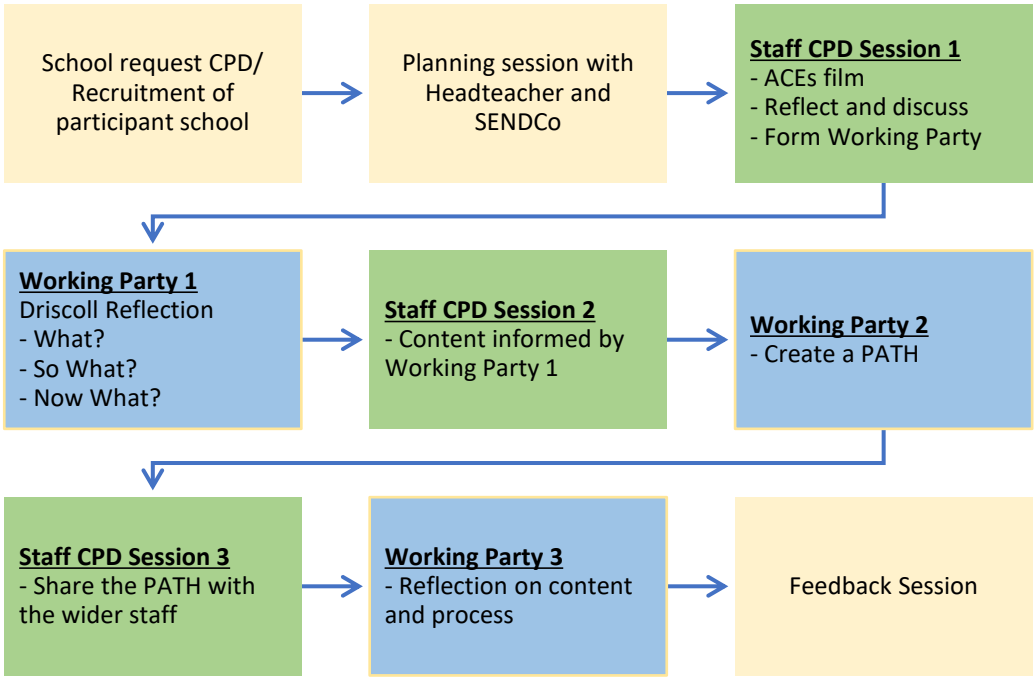
Blankenship and Ruona (2007) provide a comparison of Communities of Practice (CoP), a discrete group of individuals within an organisation, and Professional Learning Communities (PLCs), referring to whole organisations. It is possible to argue that the WP element of this project fits a CoP model with additional focus on reflection and attitudes, and aspires to feed into a PLC, though a cultural shift at an organisation level is beyond the scope of this project.

While there may be limitations to the transformative capacity of the CoP model (Roberts, 2006), working in partnership with me as a trainee educational psychologist may go some way towards application and enactment of transformative theory and principles (as described in 1.2 and 1.3) through use of psychological tools and expertise (see sections 2.3 and 2.4). The content of the CPD had a focus on resilience, capability and hope for CYP and families, while the process of the project aimed to cultivate these within the WP through reflection, reflexivity and hopeful planning, forming a fertile resource for the school.

2.3 The Research Process

The main elements of the project were three CPD sessions which took place in a classroom during twilight sessions, each followed by a WP reflection and planning session in the school meeting room during the school day. See Figure 3, where the green boxes represent the CPD sessions attended by all staff (see Appendix F for the PowerPoint slides). The first CPD session mirrored input being received across the LA, while the remaining sessions were shaped by the WP. The blue boxes represent the WP sessions, where the study data was generated. Appendix G gives a more detailed account of the research process and timeline, including consent procedure. Appendix H provides copies of the participant information documents, including the consent form.

Figure 3: A visual representation of the empirical research process



2.4 Data Generation

A large template was prepared for each WP session and displayed on the wall of the meeting room (see Appendix I for a completed example). Group data were generated through the collaborative discussion and scribed on the displayed template. Following each session I typed up all flipchart, wall template and personal reflection content to inform my planning for the next session, and to bring copies of for the WP participants.

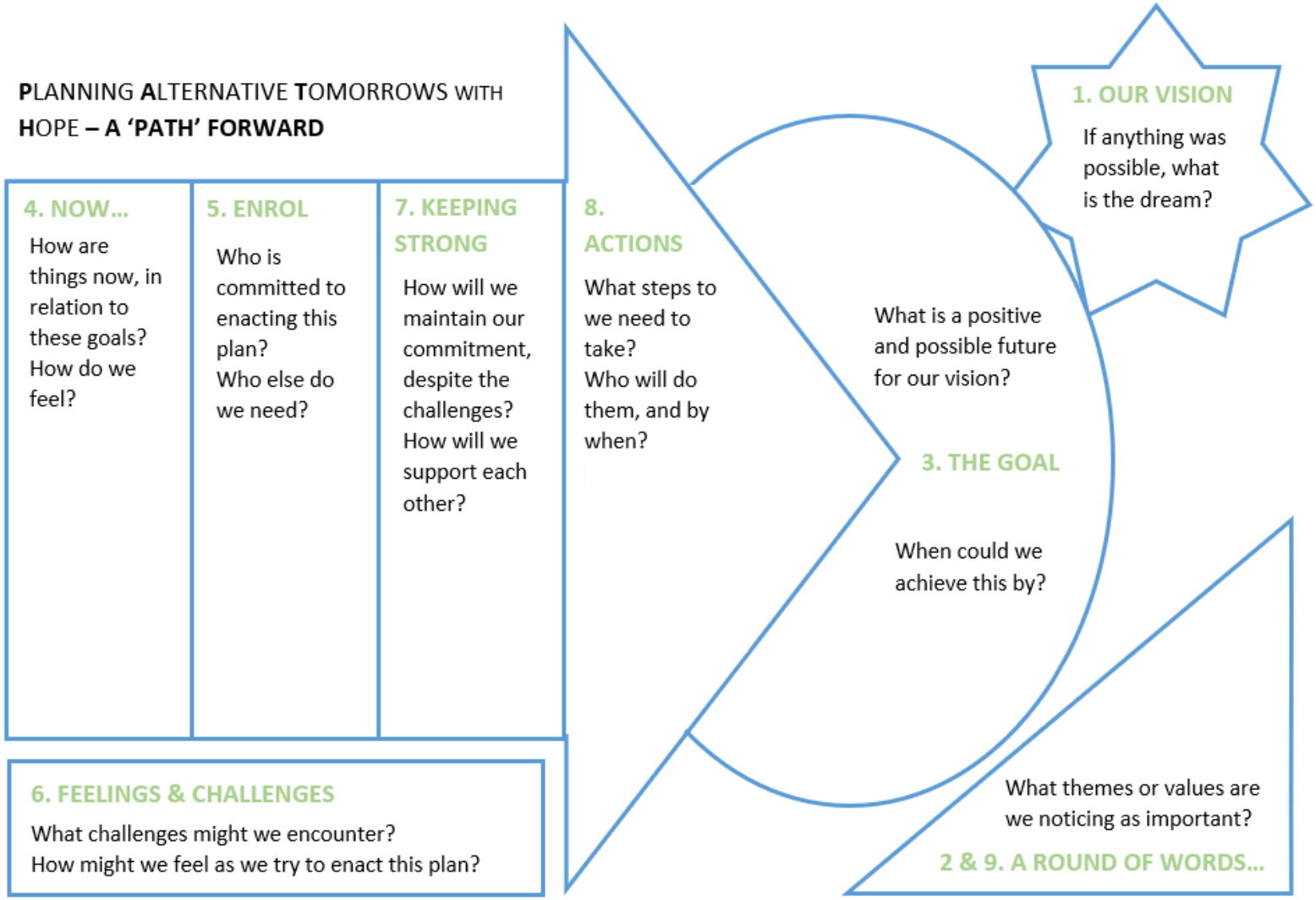
In WP1, I used Driscoll's (1994) model of reflection (see Table 13, including example prompts) to facilitate collaborative discussion regarding initial reactions to CPD1 and reflections since. This provided the opportunity to start to explore the WP members' pathway and agency thoughts (Snyder, 2002) relating to the CPD input so far.

Table 13: Driscoll's (1994) Model of Reflection as used in CPD1

WHAT? **What happened? How *did* it feel?**	**SO WHAT?** **What does this *now* mean/ feel for us/ you?**	**NOW WHAT?** **What should we do next?**
○ *Recap of the first whole-staff session* ○ *Thoughts since* ○ *Pull out information from learning tree (and film slip) responses*	○ *New learning* ○ *How does this fit with/ feel in Hillmount?* ○ *What's already going well?* ○ *What's missing?* ○ *What's happening that isn't helpful?*	○ *What should we do next?* ○ *What else do we need to think about?*

I used WP1 to support my development and delivery of CPD2 (Appendix F contains the PowerPoint slides). In WP2, I used a modified version of Pearpoint, O'brien and Forest's (1998) Planning Alternative Tomorrows with Hope (PATH) framework (Figure 4). Working through the stages as numbered, the WP identified a dream vision for their school, following the CPD received so far, and then formulated a tangible plan towards a positive and possible future for their setting. The PATH framework provided a way of collaboratively defining a meaningful goal, exploring steps towards that goal, including pathways and agency, and possible challenges that may arise along the way. These are all key elements of Hope Theory (Snyder, 2002).

Figure 4: Pearpoint et al.'s (1998) PATH Framework, as used in WP2



The PATH created in WP2 was presented to all staff in CPD3 and discussed. WP3 then provided an opportunity for the WP members to reflect on the content and process of the whole project, consolidating their development so far. This facilitated thinking regarding the pathways and staff agency (Snyder, 2002) that had been explored during the project. For this, I used a bespoke framework (Table 14), incorporating common review questions from EP practice. WP members considered their thoughts on individual copies of the framework, before group discussion and scribing.

Table 14: Bespoke Reflection Framework, used in WP3

	What Worked Well?	What Didn't Work Well?	What Have I/ We Learnt?
Content			
Process			

The PATH was left with the school for their future reference, as an artefact to support their reflection and development over time. The WP members also kept copies of their individual notes from WP3. All staff also contributed to a Learning Tree (Appendix I) at the end of each CPD session. Each WP member also completed an individual hopefulness questionnaire (Appendix I) at the end of each WP session. I also wrote my own short reflections after each session. These additional data sources were used to support my thinking through the analysis process.

I facilitated each session, supported by the school EP who also scribed (though I scribed in WP3). Underpinning our facilitation were skills in consultation and facilitating collaboration which are core to EP practice, where understanding how social change is achieved is central (Kelly, 2017). Through my responsibility as a practising TEP, my contributions were underpinned by theories of resilience, capability, and how to scaffold hope, though I maintained a non-expert stance (Gillham, 1978; Wagner, 2017) and supplemented the

frameworks with narrative therapy style questions (Morgan, 2002; White, 1990). Anything written was checked back with the speaker, and there was focused time during and at the end of each WP for the participants to check over the written data for any omissions or perceived inaccuracies.

2.5 Approach to Analysis

I used a constructivist grounded theory (GT) process (Charmaz, 2014) to analyse my data. Due to time and resource limitations, I conducted most stages of analysis after data generation was complete, using an abbreviated GT approach (Willig, 2013). Table 15 presents a summary of the analysis process.

Table 15: Grounded Theory analysis process (Charmaz, 2014)

<table>
<tr><th>Step</th><th colspan="3">Description</th></tr>
<tr><td>1</td><td colspan="3">Hand-written, then typed personal reflection after each session (CPD and WP) (see Appendix J for an example).
Typed CPD and WP session content to support own processing of the data and to share at the next session, as appropriate.</td></tr>
<tr><td></td><td colspan="3">Steps 2 onwards were completed after the series of project sessions had come to an end.</td></tr>
<tr><td>2</td><td rowspan="6">Iterative stages</td><td>Initial line-by-line coding</td><td rowspan="5">Memo-writing throughout (see Appendix J).</td></tr>
<tr><td>3</td><td>Focused coding</td></tr>
<tr><td>4</td><td>Theoretical coding</td></tr>
<tr><td></td><td>Steps 1-4 were carried out on the data from each WP session separately, before bringing the data and codes together for comparison and to build an overall theoretical understanding through steps 5 onward.</td></tr>
<tr><td>5</td><td>Theory building through integration of memos and theoretical codes and categories, and the relationships between them, supported by the use of diagramming.</td></tr>
<tr><td>6</td><td colspan="2">Writing drafts and finalising the process outcomes for dissemination, including use of verbatim data, and making interpretations in comparison with literature.</td></tr>
<tr><td>7</td><td colspan="3">Reflecting on the process</td></tr>
</table>

Analysis stages were iterative and dynamic, typical of a GT approach. Writing personal reflections and typing up the data between each session, along with memo-writing throughout the analysis process facilitated an ongoing ‘interactive space’ (Charmaz, 2014, p.

162) between the data and me, despite the abbreviated approach. The study of action, processes and sequence is central to the analysis, further supported by using gerunds[iii] (Charmaz, 2014).

3.0 Constructing a Model from the Data

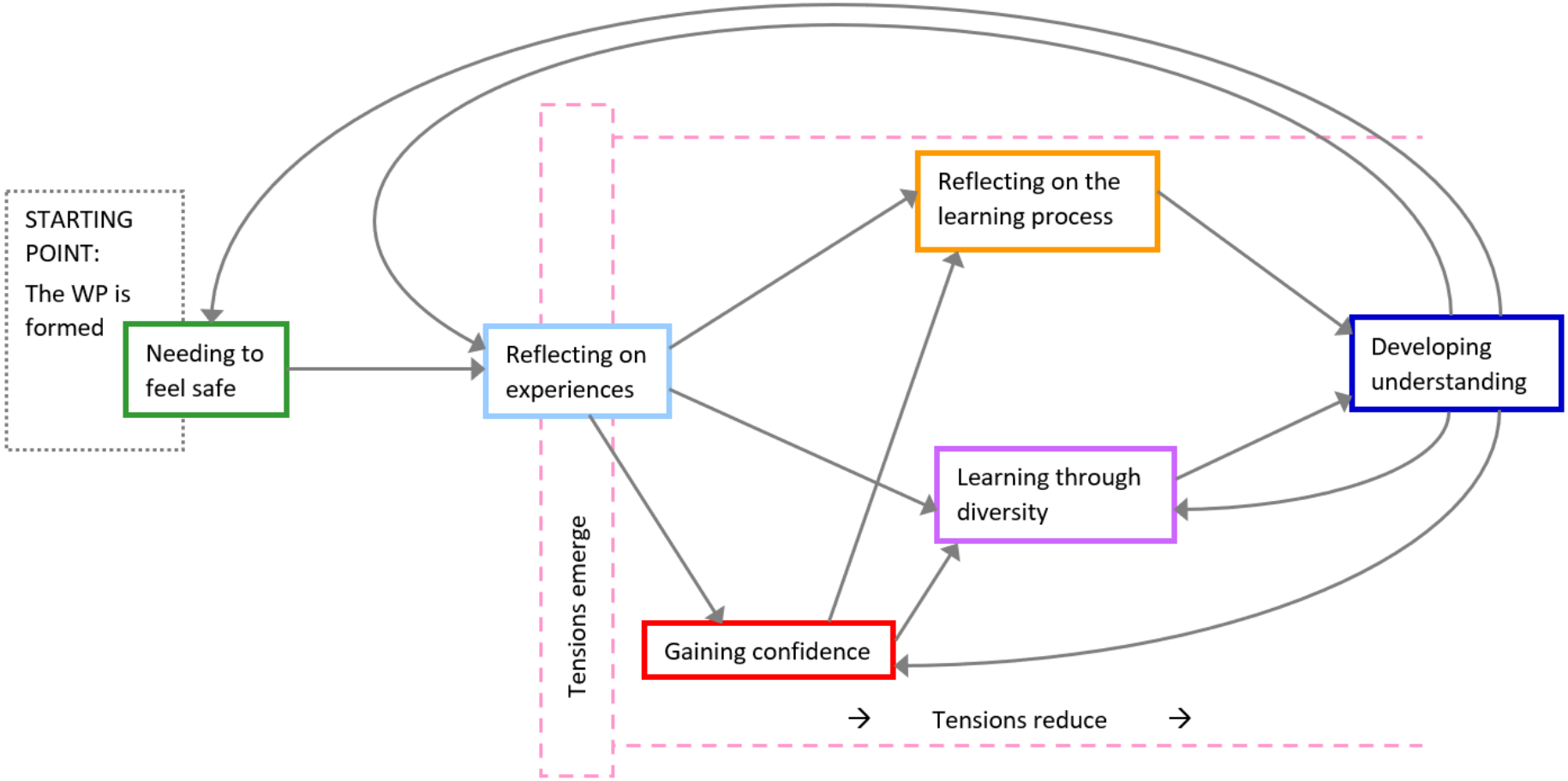
Here, I present a model of interlinking theoretical concepts constructed from the participants' reflections on the overall content and process of the CPD (Figure 5). In answer to my research question this model suggests some tentative concepts key in supporting the WP participants to feel hopeful as they engaged with the CPD project. As depicted by the arrows, there is a progression from 'needing to feel safe' as the WP is formed, to 'developing understanding' through four other categories: reflecting on experiences, gaining confidence, reflecting on the learning process, and learning through diversity, with iterative loops back through some of these categories.

Woven through the process is the emergence and subsequent reduction of tensions (pink dashed box). Here, I define tension as a strained relationship between competing ideas, rather than between the WP members. These tensions emerged in the 'reflecting on experiences' and reduced through the subsequent processes (see Table 16, Table 17 and Section 4.4 below for further explanation). The open right-hand side of the pink box demonstrates the ongoing nature of the tensions, fluctuating through the iterative cycle. The model provides a simplified visual representation of complex relationships between these concepts, that will be elucidated in the discussion below. I have continued to use the colours from this model in following Tables and Figures for continuity.

[iii] Oxford definition: a verb form which functions as a noun. 'Glaser (1978) shows how coding with gerunds helps you detect processes and stick to the data… We gain a strong sense of action and sequence with gerunds… nouns turn these actions into topics. Staying close to the data and, when possible, starting from the words and actions of your respondents, preserves the fluidity of their experience and gives you new ways of looking at it. These steps encourage you to begin analysis from their perspective' (Charmaz, 2014, p. 120-121).

Figure 5: A grounded theory model of the concepts and their relationships involved in supporting hopefulness in the ACEs CPD

[iv]



[iv] The arrows in this model are presented as uni-directional. However, at each stage there is an element of feedback to the pre-ceding concept, though I've not included that here for presentation clarity.

Table 16 presents examples of verbatim data from WP3 and subsequent codes used to the build the final categories in the model (see Appendix J for further diagramming of the links between WP3 theoretical codes and categories). Data were often coded into multiple categories, e.g., "Focussing on what we can do…" is presented in the Table in 'Reflecting on professional experiences', though was also coded in 'holding uncertainty', 'having a systematic approach', and 'wanting validation/ reassurance'.

Table 16: Examples from the WP3 data and codes used to build the final concepts in the model

Data segment	Initial/ Focused Codes	Focused/ Theoretical Codes/ Categories	Final Theoretical Concept
Cycles of being a whole group and WP	*Working in cycles between the whole group and the working party*	Wanting validation/ authorisation/ reassurance from wider systems	Needing to feel safe
Business of school → difficult	*Feeling unable to affect school business*		
First sessions (film) very (too) hard hitting for some	*Finding the film content too hard hitting*	Feeling emotionally cautious	
Sensitive delivery of content	*Appreciating the sensitive delivery of the content*		
To reflect on own window of tolerance, and others' (staff and kids)	*Reflecting on own and others' window of tolerance*	Reflecting on personal experiences	Reflecting on experiences
Space to explore own experience of ACEs	*Exploring one's own experience of ACEs*		
To reflect on own window of tolerance, and others' (staff and kids)	*Reflecting on own and others' window of tolerance*	Reflecting on professional experiences	

Data segment	Initial/ Focused Codes	Focused/ Theoretical Codes/ Categories	Final Theoretical Concept
Focussing on what we <u>can</u> do – perfect life doesn't exist	*Focusing on what can be done*		*(Reflecting on experiences continued)*
Greater depth – more productive/ enthusiasm	*Working at greater depth increasing productivity and enthusiasm*	Valuing time and space to reflect	
Needing time and space to reflect on practice	*Valuing the need to create time and space to reflect on practice*		
Final output is bigger than ACEs	*Producing something bigger than ACEs*	Overcoming challenge	Gaining confidence
Despite difficulties – still worked!	*Succeeding despite difficulties*		
The staff are already support children with ACEs very well	*Supporting children with ACEs well already*	Recognising strengths	
"priceless" – wouldn't have got to the point we're at without the steps of the process	*Viewing the process as priceless*		
as a school to see ideas brought together – all on same page	*Bringing ideas together on the same page*	Experiencing a beneficial process for learning/ development	Reflecting on the learning process
"priceless" – wouldn't have got to the point we're at without the steps of the process	*Viewing the process as priceless*		
Focussing on what we <u>can</u> do – perfect life doesn't exist	*Focusing on what can be done*	Having a systematic approach	
The PATH – helpful and handy	*Using the helpful PATH tool*		

Data segment	Initial/ Focused Codes	Focused/ Theoretical Codes/ Categories	Final Theoretical Concept
The Learning Tree – useful	*Using the useful Learning Tree tool*		*(Reflecting on the learning process continued)*
Visual learning	*Learning through visual means*	Reflecting on approach to learning	
Need to want to be part of it – asking to volunteer/ be part	*Noticing the value in volunteering/ wanting to take part*		
Ability to see situations differently (window of tolerance)	*Having a new perspective*	Exploring another perspective	Learning through diversity
Non-WP members feeling they've missed out?	*Wondering whether other staff feel they've missed out*		
Some people's views never heard	*Noticing the absence of some staff members' voices*	Acknowledging boundaries on collaboration	
Small groups – more pragmatic	*Working well in a small pragmatic group*		
Enjoyed debate/ discussion	*Enjoying debate and discussion*	Learning through relationships	
Small group – learn about each other	*Learning about each other in a small group*		
Relook at list	*Thinking the list isn't appropriate*	Evaluating the content/ Exercising criticality	Developing understanding
Localised to current context needed – across country	*Needing a current local context*		
No quick fixes – no catch all solutions	*Frustration at the complexity*	Holding uncertainty	
Focusing on what we can do – perfect life doesn't exist	*Focusing on what can be done*		

Data segment	Initial/ Focused Codes	Focused/ Theoretical Codes/ Categories	Final Theoretical Concept
You can have ACEs, but with emotional intelligence and/ or support network, you can be ok	*Understanding emotional intelligence and/ or a support network can mitigate ACEs*	Moving thinking on	*(Developing understanding continued)*
Developed understanding of original film content	*Developing understanding of the original film content*		
Developed understanding of original film content	*Developing understanding of the original film content*	Valuing time and space to reflect Developing understanding Reflecting on approach to learning	Tensions reduce
(and unprofessional! – had a laugh!)	*Having a laugh*	Needing to feel safe Reflecting on approach to learning Learning through relationships	

Examples of verbatim data and their codes (in italics) from both WP1 and WP2 are provided in Table 17, showing how they contributed to building two of the final model concepts: needing to feel safe, and developing understanding (see Appendix J for a version of this Table that includes all the model concepts, and a full complicated schematic of this). Verbatim data are shown in black standard font (capitals represent data that were scribed in capitals during data collection). Black italics represent initial and some focused codes. Coloured italics represent focused and theoretical codes, linked to the theoretical categories.

Some theoretical codes are built from data in WP1 that seems incongruent yet are changed and evolved through the process, e.g., 'How are we going to fix parents?' in WP1 suggests that staff need to do something *to* parents, whereas the suggestion of a 'parents' vision day' in WP2 suggests listening to parents, working with them, and 'learning through relationships'. However, some theoretical codes are constructed from data that seems congruent across the WPs and is reiterated in each session, e.g. wanting 'clear guidelines' in WP1 is coherent with wanting support from 'other services' in WP2 and 'needing to feel safe'.

Table 17: Examples of concept development and progression through the WPs

Evidence in Data from WP1	Evidence in Data from WP2	Final Theoretical Concept
Do the best we can when they (the children) are with us *Containing the scope of change possible* *Feeling stuck/ loss of hope* *Providing effective support* *Tension: huge issues yet feeling helpless*		
Staff experiences – previous? Current/ *Feeling connected to the content* *Personal resonance* *Tension: resonance versus threat*	HAVE EACH OTHER'S BACKS *Having each other's backs* *Feeling emotionally cautious* *Tensions reduce* *Learning through relationships*	
Talking to each other about the experiences some children in school have *Talking about children's experiences* *Exploring another perspective*		
massive and constant *Working hard and long-term* *Believing/ finding hope…*		**Needing to feel safe**
Outside agencies say children 'deserve' to come to Hillmount *Feeling affirmed by external agencies* *Wanting reassurance*	OTHER SERVICES – EPs *Being supported by external agencies* *Togetherness* *Reaching out* *Wanting validation* *Tensions reduce* *Exploring another perspective* *Learning through relationships* *Developing understanding*	
ACEs are not always extreme – Normal/ regular/ common experiences *Realising adversity is common* *Feeling overwhelmed*		
Clear guidelines for staff in school about how to support children *Having clear support guidelines* *Providing effective support* *Wanting reassurance*		

Evidence in Data from WP1	Evidence in Data from WP2	Final Theoretical Concept
Are we supporting them to build/ develop resilience? *Wondering whether staff are promoting resilience* *Jeopardising CYP's future development* *(reflecting on practice)* *Tension: CYP independence versus CYP safety and wellbeing*	RAISING PARENT AWARENESS *Raising parent awareness* *Evaluating the content/ exercising criticality* *Moving thinking on* *Tensions reduce* *Valuing time and space to reflect*	**Developing understanding**
'The parents are never going to change' *Assuming parents can't change* *Assuming parental capacity* *Feeling stuck/ loss of hope* *Tension: 'fix' others versus working together*		
Overwhelming *Feeling overwhelmed* *Describing gaining new knowledge*	OTHER SERVICES – EPs *Being supported by external agencies* *Togetherness* *Reaching out* *Moving thinking on* *Developing understanding* *Tensions reduce* *Wanting validation* *Exploring another perspective* *Learning through relationships*	
Obvious – why have we not recognised this before? *Feeling guilty that this hasn't been recognised before* *Describing gaining new knowledge* *Feeling underwhelmed* *(feeling stuck/ loss of hope)* *Tension: nothing new VS new thinking*		
Who says 'well done' to us? *Wanting acknowledgement and appreciation* *Wanting reassurance* *(reflecting on practice)*	BE EACH OTHER'S BUFFERS *Buffering each other* *Connection* *Understanding* *Developing understanding* *Feeling emotionally cautious* *Tensions reduce*	
A mountain we need to climb *Climbing a (metaphorical) mountain* *Starting a difficult task* *Feeling overwhelmed* *Feeling stuck/ Loss of hope*		

4.0 Discussion of Concepts

Here I will discuss my model concepts and their links in turn. I will move from left on Figure 5, where the WP group was formed, to right. Maintaining focus on my research question I will explore relationships between my model concepts and key principles of Hope Theory (McGeer, 2004; Snyder, 2002; Snyder, Lopez, Shorey, Rand, & Feldman, 2003). I will draw on alternative theories to elucidate similarities and differences to try and better understand possible mechanisms operating within the concepts, and how these may support a group to feel hopeful when engaging with emotionally risky and controversial information.

4.1 The Working Party (WP) is Formed

As the project took place in a group and the model built from group data, interpersonal and collective mechanisms within the concepts are of interest. Using McGeer's (2004) exploration of how to hope well, interpersonal working may cultivate possibilities for scaffolding hope that is responsive, collective and robust. Griffin and Tyrrell (2003) suggest purpose and belonging are two given emotional needs (Table 18). The group's initial purpose was negotiated with the school's Headteacher and SENDCo, which was revisited as part of the WP sessions. Wenger (1998, 2010) proposes that engagement, imagination and alignment are 'modes of identification' (p. 184) in the becoming and belonging of social learning. The voluntary participation may have supported the members' ownership over their engagement, while their capacity to imagine, or see, themselves as a member of an aligned group would be negotiated through and after the project process, beyond the scope of this research.

Table 18: Griffin and Tyrrell's (2003) Nine Essential Emotional Needs

Emotional Need	Description
Security	A sense of being in safe territory without experiencing excessive fear or threats, and an environment which allows us to develop fully.
Autonomy and control	Having volition to make responsible choices about our lives.
Status	Being accepted and valued in the various social groups we belong to.
Privacy	Time and space enough to reflect on and consolidate our lived experiences.
Attention	Receiving attention from others, but also giving it; a form of essential nutrition that fuels our development.
Connection to the wider community	Interaction with a larger group of people and a sense of being part of the group. *Sometimes termed 'belonging'.*
Intimacy or emotional connection	Friendship, love, intimacy, fun with others. To know that at least one other person accepts us totally for who we are.
Competence and achievement	Feeling that we are developing skills to meet life's demands.
Meaning and purpose	Stretching oneself in what we do and think to achieve meaningful goals.

4.2 A Hopeful Approach

The following sections explore the concepts that form the iterative cycle depicted in my proposed model (Figure 5, p. 57). Within each stage, pathway and agency thinking (Snyder, 2002) were explored by the WP members and me, facilitating an energy of hope (McGeer, 2004) that moved thinking on towards how they may achieve their goal. A further catalyst for this energy came from the safe yet critical exploration of ideas held in tension, providing momentum to spur thinking on, and move through the arrows and concepts of my model. This ongoing iterative cycle of thinking, reflecting and exploring ideas fits well with an approach that is future-oriented, supported by the principles of hoping well (McGeer, 2004; Snyder, 2002).

4.3 Needing to Feel Safe

The WP members' need to feel safe was apparent in two ways; through emotional caution, and through wanting validation and reassurance from the wider school system. WP members described feeling "overwhelmed" in WP1, and unanswerable questions dominated the data at this point, suggesting the presence of frustrations and emotional threat. In WP3 "apprehension" was described when reflecting on feeding back their work to the wider group, as well as noting that non-WP members' "views [were] never heard". In WP2, the group noted "unity" as an underpinning value of their planning.

A need for relational safety arguably represents the way in which hope can only be developed and maintained through having trust in the predictability and scaffolding of supportive others, especially in the face of frustrations, limitations and threat (McGeer, 2004; Snyder et al., 2003). Griffin and Tyrrell's (2003) model could suggest that this is an expression of the emotional need for security, belonging, and intimacy (Table 18).

While feeling emotionally cautious about the ACEs model, from early on and throughout the process the WP members shared reflections on their own personal and professional experiences in relation to the content. A sense of community is partly defined by having a shared emotional connection, and the integration and fulfilment of needs (McMillan & Chavis, 1986), while relatedness is also suggested as a prerequisite for motivation (Ryan & Deci, 2000). These open reflections could represent the group's implicit negotiation of the modes of identification (Wenger, 2010) as a strategy to strengthen themselves as a safe community.

4.4 Reflecting on Experiences

Snyder (2002) suggests that we enter all goal pursuits with a 'learning history' (p. 253-254), containing pathway thoughts, regarding what does and doesn't work, and agency thoughts, what we've been able to achieve or not achieve in the past. While the WP members readily initiated questioning and reflecting on their personal and professional experiences, further explicit exploration of this was facilitated by the frameworks and questions. Just as emotional responses to the content itself were triggered (discussed above), Snyder (2002) suggests that a learning history is accompanied by emotions which together influence levels of hope.

Critics of the ACEs model highlight the potential for individuals to be re-traumatised by this process, considering the commonality of adversity, where 'reservoir[s] of negative… feelings' (Snyder, 2002, p. 253) are tapped into. WP reflections on wider staff members being "'hung up' on (potential [negative]) outcomes" demonstrate the reality of this risk. Alternatively, reservoirs of coping and thriving despite, or even because of, adversity may be activated. In WP1, "how much we already do in school" demonstrated access to hopeful reflections early in the process. Rutter (2012) emphasises self-reflection as an important process involved in fostering resilience, meaning these reservoirs may provide the foundations for creating reservoirs of resilience.

Despite conceptualising hope as a fixed trait, Snyder et al. (2003) suggests ways in which hope can be enhanced. McGeer (2004) also proposes Bruner's (1983) concept of scaffolding as the mechanism through which hope is developed. Scaffolding typically operates in action, though this project was more reflective than active (section 2.2, Table 11). Narrative psychology offers strategies to re-frame, re-story and re-author experiences through discussion and reflection (Morgan, 2002; White, 1990). Working in a group over the course of multiple sessions facilitated by positive psychological frameworks and questions, provided opportunities for deeper self-reflection that contributed to a positive view of historical agency, meaning the group gained confidence (section 4.5).

The WP members were also able to "learn about each other", as they listened to each other reflecting on their individual learning histories (Snyder, 2002). Not only could this meet the emotional needs of attention and status (Table 18), but reflecting on experiences in a group context facilitated learning through diversity (section 4.6). Through wanting to "be aware of other people's window of tolerance" the WP gained some 'clarity about the limitations of self and others' (McGeer, 2004, p. 124). This shared reflective attention to one's own history and others' can cultivate responsive hope, with potential to build a community of self-sustaining collective hope (McGeer, 2004). Continuing the trajectory of reflecting on pre-project experiences also provided a firm basis for reflecting on the project experience, i.e. reflecting on the learning process (section 4.7).

However, emerging through reflections on personal and professional experiences were further 'emotional reactions to this "getting started" process' (Snyder, 2002, p. 254),

presenting as conceptual tensions held in balance. This initially caused a 'stuckness' as the WP felt caught between ideas and ways forward.

4.5 Emergence of (and Reduction in) Tensions

As the WP members engaged with the ACEs information, positioning it alongside their own experiences, competing ideas emerged, causing tensions in that conflicting emotions were being experienced, and contradictory routes forward emerged (see Appendix I for example tension themes).

"Are we here to help the parents or the children?"

"How are we going to fix parents?" "Do the parents want to change?"

The nature of these emotional reactions and feedback loops can affect the motivation to continue with the task (Snyder, 2002). McGeer (2004) suggests that fearful prediction of negative consequences if the wrong route is chosen is an example of wilful hope. The WP1 quotes above demonstrate possible fear-based reactions, linking back to needing to feel safe, and a sense of being confronted by an unfeasible task, therefore threatening motivation.

Support from others is important here to focus on effort over outcome, similar to Dweck's (2008) growth mindset, and to maintain engagement despite frustrations and limitations (McGeer, 2004). Scaffolding can provide emotional comfort to regulate and transformative modelling followed by learning of new direction and determination (McGeer, 2004). Exploring values, feelings, challenges, and how to keep strong through the PATH framework (Figure 4) provided strategies to mediate the potential risks associated with wilful hope. Ongoing support like this cultivates responsive hope (McGeer, 2004).

However, having a range of goals and routes towards them can be indicative of high hope (Snyder, 2002), though feeling stuck when needing to choose may suggest a poorly defined goal, a need to adjust the goal, or a need to explore the cognitions and emotions involved to better define the goal (Snyder, 2002). Conflicting pathways (Snyder, 2002) are similar to action-based cognitive dissonance (Harmon-Jones & Mills, 2019). This can be reduced through re-engaging with goal definition and bolstering its value to support the choosing of

the best route (Harmon-Jones & Mills, 2019), therefore reinforcing feelings of agency, motivation, and the energy of hope (McGeer, 2004). By asking "What is adversity?" in WP1, the WP members demonstrated a critical and evaluative stance to defining and interpreting the constructs involved.

The catalytic power of examining contradictions is central to an Activity Theory perspective on individuals learning in systems (Leadbetter, 2017). As these contradictions emerge within and between systems, they are sources of tension and disturbance which lead to change and development (Leadbetter, 2017). Through the reflective discussions in the WP, the members explored their own activity systems, as well as those of parents, other staff, and the pupils. Reflecting any contradictions back to them then supported their autonomous examination of them. Through recognising that "the staff are already supporting children with ACEs very well" the WP extended their focus in WP2 to "positive relationships with parents", with ideas such as a "parents' vision day".

4.6 Gaining Confidence

The confidence gains seen in the WP can be likened to an increased energy of hope, as described by Snyder (2002) and McGeer (2004). Though Snyder (2002) highlights some differences between hope theory and Bandura and Walters' (1977) theory of self-efficacy, both theories emphasise agency as an important affective element in the energy needed to enact goal pursuits. Bandura (2006) also highlights intention and motivation as key driving processes linked to developing agency, also like hope theory (McGeer, 2004; Snyder, 2002).

Ryan and Deci (2000) theorise that motivation, or self-determination, is founded on three needs: competence, relatedness and autonomy, echoing three needs from Table 18. By gaining confidence together through the processes discussed so far, the WP members were collectively motivated to engage in further collaborative learning, enhancing the process of 'learning through diversity' (section 4.6). Through reflecting on previous successful practice and experiences together, feeling confident in that process also arguably motivated the WP to reflect on what it was about this process that got them there (section 4.7).

4.7 Learning Through Diversity

The shared and open reflection on experiences provided opportunities for the WP members to hear about the ways in which others have coped and thrived in their lives, presenting

examples of agentic pursuit of alternative pathways towards goals. This may not only broaden pathway thinking (Snyder, 2002), but having mutual awareness of others' learning history within your community builds reciprocal support for each other's hopes. This can cultivate responsive hope, or a community of good hopefulness, and ultimately form the foundations for robust collective hope (McGeer, 2004).

Working with difference can be a source of learning and developing deeper, more critical, and therefore more inclusive understanding (Rosenthal, 2001). This was explored above, in the catalytic developmental power of the tensions between competing ideas. Here though, it presents in the relationships between the WP members themselves, and their differing perspectives and experiences. During their reflections in WP3, as well as learning about each other, the WP members said they had "enjoyed debate/ discussion". In WP2, they incorporated "a 'sounding board'" into their future plans, demonstrating an appreciation for the value in sharing thoughts and ideas with another person. Difference and diversity were explored further through engaging with the different perspectives of others who weren't present, such as other staff, parents, and the children, while comparing this to their own experiences (section 4.3).

Vygotskian social learning theory (1978) seems appropriate here, as the WP members learned through their interactions with each other, each of them a more knowledgeable other considering their own ecologies and learning history. Within the safe and reflective space, they were able to provide appropriate challenge to stretch and move their thinking on (section 4.8). Wenger's (2000) concept of community boundaries suggests that learning takes place within boundaries through sharing competence and experience, reflected in the togetherness of the WP members saying they could "be each other's buffers". However, Wenger (2000) suggests that the difference in competence and experience at and across community boundaries provides another learning opportunity. My presence in the group as an insider-outsider, bringing psychological expertise and resources provided this opportunity, as did engaging with the various other perspectives of non-community members. The WP members recognised this new thinking in that they felt more able "to see situations differently". It is perhaps learning within and across diverse boundaries that can contribute to the sustainable nature of good, responsive collective hope (McGeer, 2004; Rosenthal, 2001), feeding back into gaining confidence and the energy of hope (section 4.5).

4.8 Reflecting on the Learning Process

In WP3, the framework facilitated reflecting on the project process. The WP members' engagement with that meant that they explored both their agency and pathways (Snyder, 2002) with respect to their experience of the CPD process. In terms of pathways, the WP members reflected on the strategies, resources, suggestions and new ideas that they had engaged with through the CPD. While the enactment of new practice with children and families was beyond the scope of this project, the shared experience of doing and experiencing the learning together (Wenger, 1998) provided a basis for group knowledge and strategies that may be taken forward for future goals.

""priceless" – wouldn't have got to the point we're at without the steps of the process"

The group found the systematic approach beneficial, as captured in the quote above, in particular the PATH framework (Pearpoint et al., 1998) and the learning tree (Appendix I). Both the Driscoll (1994) framework in WP1, and the PATH framework in WP2 involved imagining and setting meaningful hopes and goals. Goal definition is key in both hope theory and self-efficacy (Bandura & Walters, 1977; Snyder, 2002), with the perceived importance of the goal influencing efforts towards it. This makes revisiting and re-evaluating the goal beneficial. To support this re-evaluation, the WP session discussions, frameworks and accompanying learning tree and questionnaires provided emotional and psychological check-ins for the WP members, giving pause to establish how the content and process is resonating. Attention to emotions and their influence on goal pursuits is included in self-efficacy theory (Bandura & Walters, 1977), but is more integral to hope theory (Snyder, 2002).

The WP members' reflection on their agency within this process can be linked to the emotional needs of competence and autonomy (Griffin & Tyrrell, 2003). Along with the pathways in the process, they reflected on the helpful skills they enacted and interactions they engaged in that contributed to the way the project unfolded. The combination of bringing explicit awareness to both the pathways and agency involved in the project lead to the WP members developing their understanding at a deeper, more critical and personal level, again feeding back into gaining confidence and hopeful energy (section 4.5).

4.9 Developing Understanding

Through the reflective mechanisms discussed in the preceding concepts, over the three WP sessions the WP members developed and deepened their understanding of the CPD content and their personal relationship with it. Both pathways and agency (Snyder, 2002) regarding the ACEs model and the CPD process were explicitly explored, using hopeful aspects of each members' experience to form a strong basis to strengthen and add value to existing understanding, such as the value the WP members placed on a nurturing approach to supporting children. Working in a group meant that they could support each other to move their thinking on, also prompted by my questions, frameworks and content input. In WP1, the WP members saw "a vicious circle", wondering "which bit [school can] tackle/ chip in to", whereas in WP3 they described learning that "you can have ACEs, but with emotional intelligence and/ or support network, you can be ok".

A hopeful learning momentum was cultivated, that was dynamic and responsive (McGeer, 2004) not only to each other, but to the catalytic tensions and emotions that emerged. While tensions and emotions contributed to the group's developing understanding, further cognitive and emotional feedback loops (Snyder, 2002) were also triggered by this deeper understanding. Further reflection accompanied by new understanding and emotional momentum, initiated working back through the mechanisms of each model concept with new thinking, new emotion, and new experiences, potentiating iterative double-loop learning (Argyris & Schön, 1974). The iterative and cyclical nature of my model could suggest that the WP members were cultivating reflective competence, an important next step beyond the commonly understood fourth stage of 'unconscious competence' (unattributable), which is potentially habitual behaviour.

Elements in the project were present across all three domains of influence in Bell and Gilbert's (1996) aspects of professional learning due to the nature of the content and the process (Section 2.2, Table 12). Exploring the influence of ourselves and our assumptions, fuelled by ongoing uncertainty and curiosity (section 4.4), arguably cultivates reflexive competency, a possible further stage beyond reflective competency. The WP members demonstrated this criticality in WP3, discussing the need for a localised version of the ACEs model, possible different terms to use, and the need for ongoing reflection on their practice and the emotional needs of their community. This suggests a process that has the potential

to be dynamic and robust, with the flexibility to respond to contextual and individual needs. Evaluating the sustainability and transferability of the skills and knowledge developed is beyond the scope of this project, though this discussion and the elements captured in Table 12, suggest that a process was facilitated that could have transformative capacity over time with characteristics of collective hope (McGeer, 2004).

4.10 An Integrated Model

Through this discussion, I have explored some of the possible iterative and interactive mechanisms evident in my model (Figure 5, p. 57), particularly in relation to Hope Theory. There is a close relationship with both Snyder's (2002) and McGeer's (2004) Hope Theory, where a more hopeful interpretation of the risky ACEs model was achieved through reflective group working supported by attention to emotional needs, and narrative and strength-based psychology.

While the process was underpinned by transformative principles, it is beyond the scope of this research to know whether the CPD has had any lasting transformative impact for the WP members. A next step for me as researcher will be to revisit the setting and discuss my model and findings with the WP members as an opportunity to evaluate and consolidate this impact together.

5.0 Limitations

While the shared and collective nature of this project was important, using group data meant that I cannot know whether my model is reflective of the individual WP members' experience. It may be that different WP members had quite varying views regarding both the content and process of the CPD. With more time and resources available, a project like this may benefit from semi-structured interviews with the WP members to explore this further. The impact of the CPD on the wider staff is also unknown, consistent with known limitations of a CoP model to affect organisational learning (Mittendorff et al., 2006; Roberts, 2006). Without the shared experience of the in-depth reflection and discussion, a disconnect between the WP and the wider staff group was identified early on and may require additional thought regarding how to disseminate learning that requires such depth and intimacy. Additionally, the sustainability of the learning beyond the end of the project is

unknown, which is a common problem for EPs delivering training, in what Chidley and Stringer (2020) name as 'the transfer problem' (p. 444).

Despite these limitations, Table 10 and Table 12 highlight the elements involved in the project that enable transformative potential in the process. Revisiting the school and the WP members will shed some light on how the CPD has continued to influence the staff. Any future influence will remain in the hands and experience of the school staff themselves, with opportunities to seek further EP input. As detailed in section 2.2, Table 11, there was minimal 'acting' present in this process. 'Knowledge in action' (Bradbury, 2015, p. 7) is a core characteristic of Action Research and integral to its transformative potential. Further work of this nature may consider giving greater attention to this element to increase the transformative possibilities for staff and provide more opportunities to strengthen the modes of identification that characterise strong CoPs (Wenger, 1998, 2000).

6.0 Implications

Considering my proposed model concepts, my discussion of the mechanisms involved and possible limitations of the project, I suggest a number of implications for EPs facilitating CPD on ACEs or similarly risky topics:

- Create emotional safety and facilitate the support and engagement of the wider system. This may include careful consideration of group size to support feelings of safety and intimacy, while including appropriate members of staff with strategic responsibilities. However, there is further work to do to understand how this small group model can have wider community impact.
- Allow sufficient time and space, over multiple sessions, to share and explore experiences from before and during the learning, including pausing to take stock of confidence building moments. Build reservoirs of resilience, including transferable knowledge and skills, by employing strategies based in double-loop, reflexive learning (Argyris & Schön, 1974; Driscoll, 1994), non-expert collaboration and consultation (Kelly, 2017; Wagner, 2017), narrative psychology (Morgan, 2002; White, 1990) and the cultivation of responsive hope (McGeer, 2004; Pearpoint et al., 1998).

- Sit with tensions that emerge, returning to them, exploring them, letting them facilitate re-evaluation of the goal and provide the energy for hopeful change. Learning in a group also provides opportunities to appreciate similarities, difference and diversity as a source of rich, inclusive understanding (Rosenthal, 2001).

However, system-level barriers to these implications do still exist, as opportunities for genuinely transformative professional development are rare (E. Perry et al., 2019), further jeopardised by the current top-down centralised education system (Whitty, 2000).

7.0 Closing Comments

This paper reports on a project exploring the facilitation of CPD in a primary school, focusing on Adverse Childhood Experiences. The model generated from the data, suggests that extended reflection, in a group context where emotional needs and social learning processes are carefully attended to, is beneficial to enable this process to be hopeful. The model concepts suggest some key considerations for delivering CPD in a school, especially if the content is emotionally and psychologically risky, such as relating to adversity or trauma. The knowledge and skills of EPs are well-placed to facilitate a transformative process with attention to the wellbeing of children, families, staff and communities (Roffey, 2015).

References

Note to reader: all referenced weblinks were accurate at the time of use

ACE-Aware Scotland. (2018). ACE-Aware Scotland: Increasing awareness of Adverse Childhood Experiences. Retrieved from http://aceawarescotland.com/

ACE Network North East. (2021). ACE Network North East. Retrieved from https://www.facebook.com/ACENetworkNorthEast/

Argyris, C., & Schön, D. (1974). *Theory in practice: Increasing professional effectiveness*. San Francisco: Jossey Bass.

Asmussen, K., Fischer, F., Drayton, E., & McBride, T. (2020). Adverse childhood experiences: What we know, what we don't know, and what should happen next. In: London: Early Intervention Foundation.

Baguley, T. (2009). Standardized or simple effect size: What should be reported? *The British journal of psychology, 100*(3), 603-617. doi:10.1348/000712608X377117

Bandura, A. (2006). Toward a Psychology of Human Agency. *Perspectives on psychological science, 1*(2), 164-180. doi:10.1111/j.1745-6916.2006.00011.x

Bandura, A., & Walters, R. H. (1977). *Social learning theory* (Vol. 1): Prentice-hall Englewood Cliffs, NJ.

Beaver, R. (2011). *Educational psychology casework: a practice guide* (2nd ed.). London; Philadelphia: Jessica Kingsley Publishers.

Bell, B., & Gilbert, J. (1996). *Teacher development: a model from science education*. London: Falmer Press.

Bellis, M. A., Ashton, K., Hughes, K., Ford, K., Bishop, J., & Paranjothy, S. (2015). *Adverse Childhood Experiences and their impact on health-harming behaviours in the Welsh adult population*. Retrieved from Cardiff:

Bellis, M. A., Hughes, K., Leckenby, N., Perkins, C., & Lowey, H. (2014). National household survey of adverse childhood experiences and their relationship with resilience to health-harming behaviors in England. *BMC medicine, 12*(1), 72-72. doi:10.1186/1741-7015-12-72

Bethell, C. D., Carle, A., Hudziak, J., Gombojav, N., Powers, K., Wade, R., & Braveman, P. (2017). Methods to Assess Adverse Childhood Experiences of Children and Families: Toward Approaches to Promote Child Well-being in Policy and Practice. *Academic Pediatrics, 17*(7), S51-S69. doi:10.1016/j.acap.2017.04.161

Blankenship, S. S., & Ruona, W. E. (2007). Professional Learning Communities and Communities of Practice: A Comparison of Models, Literature Review. *Online submission*.

Bloom, S. L., & Sreedhar, S. Y. (2008). The sanctuary model of trauma-informed organizational change. *Reclaiming Children and Youth, 17*(3), 48.

Booshehri, L. G., Dugan, J., Patel, F., Bloom, S., & Chilton, M. (2018). Trauma-informed Temporary Assistance for Needy Families (TANF): A Randomized Controlled Trial with a Two-Generation Impact. *Journal of Child and Family Studies, 27*(5), 1594-1604. doi:10.1007/s10826-017-0987-y

Boreham, N. (2004). A Theory of Collective Competence: Challenging The Neo-Liberal Individualisation of Performance at Work. *British Journal of Educational Studies, 52*(1), 5-17. doi:10.1111/j.1467-8527.2004.00251.x

Bouton, M. E. (2014). Why behavior change is difficult to sustain. *Preventive Medicine, 68*, 29-36. doi:10.1016/j.ypmed.2014.06.010

Bradbury, H. (2015). *The SAGE handbook of action research* (Third ed.). Los Angeles: SAGE.

British Psychological Society. (2019). Evidence Briefing: Adverse Childhood Experiences (ACEs). In. www.bps.org.uk: The British Psychological Society.

Brody, G. H., Yu, T., Chen, E., & Miller, G. E. (2017). Family-centered prevention ameliorates the association between adverse childhood experiences and prediabetes status in young black adults. *Preventive Medicine, 100*, 117-122. doi:10.1016/j.ypmed.2017.04.017

Bronfenbrenner, U., & Morris, P. A. (2006). The bioecological model of human development. In *Handbook of child psychology*.

Bruner, J. S. (1983). *Child's talk: learning to use language*. Oxford: Oxford University Press.

Burden, R. (1997). An evaluation model for use by applied educational psychologists. *Educational Psychology in Practice, 13*(1), 13-20.

Burden, R. (2017). Illuminative Evaluation. In B. Kelly, L. Woolfson, & J. T. Boyle (Eds.), *Frameworks for Practice in Educational Psychology: A Textbook for Trainees and Practitioners* (2nd ed., pp. 291-308). London: Jessica Kingsley Publishers.

Burke Harris, N., Silvério Marques, S., Oh, D., Bucci, M., & Cloutier, M. (2017). Prevent, Screen, Heal: Collective Action to Fight the Toxic Effects of Early Life Adversity. *Academic Pediatrics, 17*(7), S14-S15. doi:10.1016/j.acap.2016.11.015

Butterfoss, F. D. (2007). *Coalitions and partnerships in community health*: John Wiley & Sons.

Catalano, R., F. , Berglund, M. L., Ryan, J., A. M., Lonczak, H., S., & Hawkins, J. D. (2004). Positive Youth Development in the United States: Research Findings on Evaluations of Positive Youth Development Programs. *The Annals of the American Academy of Political and Social Science, 591*(1), 98-124. doi:10.1177/0002716203260102

Charmaz, K. (2014). *Constructing grounded theory* (2nd ed.). London; Thousand Oaks, California: Sage.

Chaskin, R. J. (1999). *Defining community capacity: A framework and implications from a comprehensive community initiative*: Chapin Hall Center for Children at the University of Chicago Chicago, IL.

Chen, H., Cohen, P., & Chen, S. (2010). How Big is a Big Odds Ratio? Interpreting the Magnitudes of Odds Ratios in Epidemiological Studies. *Communications in statistics. Simulation and computation, 39*(4), 860-864. doi:10.1080/03610911003650383

Chidley, S., & Stringer, P. (2020). Addressing barriers to implementation: an Implementation Framework to help educational psychologists plan work with schools. *Educational Psychology in Practice, 36*(4), 443-457. doi:10.1080/02667363.2020.1838448

Cicchetti, D. (2013). Annual Research Review: Resilient functioning in maltreated children – past, present, and future perspectives. *Journal of child psychology and psychiatry, 54*(4), 402-422. doi:10.1111/j.1469-7610.2012.02608.x

Coe, R. (2002). *It's the effect size, stupid.* Paper presented at the Paper presented at the British Educational Research Association annual conference.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, N.J.: L. Erlbaum Associates.

Cohen, S. (2017). Three Principles to Improve Outcomes for Children and Families. Science to Policy and Practice. *Center on the Developing Child at Harvard University*.

Cordingley, P., Higgins, S., Greany, T., Buckler, N., Coles-Jordan, D., Crisp, B., . . . Coe, R. (2015). Developing great teaching: lessons from the international reviews into effective professional development.

Couper, S., & Mackie, P. (2016). *'Polishing the Diamonds': Addressing Adverse Childhood Experiences in Scotland*. Retrieved from Glasgow:

Cox, T., & Lumsdon, D. (2020). Agents of hope: The utility and pragmatism of hope in applied educational psychology practice. *DECP Debate, 174*.

Critical Appraisal Skills Programme. (2018). CASP Qualitative Checklist. Retrieved from https://casp-uk.net/wp-content/uploads/2018/01/CASP-Qualitative-Checklist-2018.pdf

Davis, F., McDonald, L., & Axford, N. (2012). Re: Technique is not enough: a framework for ensuring that evidence based parenting programmes are socially inclusive. Message posted to https://www.researchgate.net/publication/268202768_Technique_Is_Not_Enough_-

_A_Framework_for_ensuring_Evidence_Based_Parenting_Programmes_are_Socially_Inclusive

De Los Reyes, A., & Kazdin, A. E. (2008). When the Evidence Says, "Yes, No, and Maybe So": Attending to and Interpreting Inconsistent Findings Among Evidence-Based Interventions. *Current Directions in Psychological Science, 17*(1), 47-51. doi:10.1111/j.1467-8721.2008.00546.x

Department for Education. (2016). Standard for teachers' professional development: Implementation guidance for school leaders, teachers, and organisations that offer professional development for teachers. In. London: Department for Education.

Department for Education. (2018). *Mental health and behaviour in schools*.

Department for Education. (2020). *S31 Grant Determination Letter for the Wellbeing for Educatio Return Grant*. London: Department for Education Retrieved from https://www.gov.uk/government/publications/wellbeing-for-education-return-grant-s31-grant-determination-letter

Department for Health, & NHS England. (2015). *Future in Mind: Promoting, protecting and improving our children and young people's mental health and wellbeing*. London: Department for Health

Driscoll, J. (1994). Reflective practice for practise. *Senior Nurse, 13*(7), 47-50.

Dube, S. R., Felitti, V. J., Dong, M., Giles, W. H., & Anda, R. F. (2003). The impact of adverse childhood experiences on health problems: Evidence from four birth cohorts dating back to 1900. *Preventive Medicine, 37*(3), 268-277. doi:10.1016/S0091-7435(03)00123-3

Dweck, C. S. (2008). *Mindset: the new psychology of success*. New York: Ballantine Books.

Education Endowment Fund. (2020). Systematic review of evidence on Continuing Professional Development: call for proposals. In.

Edwards, R., Gillies, V., Lee, E., Macvarish, J., White, S., & Wastell, D. (2017). *The Problem with 'ACEs': Edwards et al.'s submission to the House of Commons Science and Technology Select Committe Inquiry into the evidence-base for early years intervention (EY10039)*.

Elder-Vass, D. (2012). *The reality of social construction*. Cambridge; New York: Cambridge University Press.

Ellis, W. R., & Dietz, W. H. (2017). A New Framework for Addressing Adverse Childhood and Community Experiences: The Building Community Resilience Model. *Academic Pediatrics, 17*(7), S86-S93. doi:10.1016/j.acap.2016.12.011

Eraut, M. (1994). *Developing professional knowledge and competence*: Psychology Press.

Escueta, M., Whetten, K., Ostermann, J., & O'Donnell, K. (2014). Adverse childhood experiences, psychosocial well-being and cognitive development among orphans and abandoned children in five low income countries. *BMC International Health and Human Rights, 14*(1). doi:10.1186/1472-698X-14-6

Evidence for Policy and Practice Information and Co-ordinating Centre. (2010). EPPI-Centre Methods for Conducting Systematic Reviews. In. London: EPPI-Centre.

Feldman, R. (2010). The relational basis of adolescent adjustment: trajectories of mother-child interactive behaviors from infancy to adolescence shape adolescents' adaptation. *Attachment & Human Development, 12*(1-2), 173-192. doi:10.1080/14616730903282472

Feldman, R. (2015). Mutual influences between child emotion regulation and parent-child reciprocity support development across the first 10 years of life: Implications for developmental psychopathology. *Development and Psychopathology, 27*(4 Pt 1), 1007-1023. doi:10.1017/S0954579415000656

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., . . . Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The adverse childhood experiences (ACE) study. *American Journal of Preventive Medicine, 14*(4), 245-258. doi:10.1016/S0749-3797(98)00017-8

Field, A. P. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.): London : SAGE.

Finkelhor, D., Shattuck, A., Turner, H., & Hamby, S. (2013). Improving the Adverse Childhood Experiences Study Scale. *Jama Pediatrics, 167*(1), 70-75. doi:10.1001/jamapediatrics.2013.420

Fox, M. (2009). Working with systems and thinking systemically - disentangling the crossed wires. *Educational Psychology in Practice, 25*(3), 247-258. doi:10.1080/02667360903151817

Fraser, C., Kennedy, A., Reid, L., & McKinney, S. (2007). Teachers' continuing professional development: contested concepts, understandings and models. *Journal of in-service education, 33*(2), 153-169. doi:10.1080/13674580701292913

Gillham, B. (1978). *Reconstructing Educational Psychology*. London: Croom Helm.

Giovanelli, A., Reynolds, A. J., Mondi, C. F., & Ou, S. R. (2016). Adverse Childhood Experiences and Adult Well-Being in a Low-income, Urban Cohort. *Pediatrics, 137*(4). doi:10.1542/peds.2015-4016

Gough, D. (2007). Weight of Evidence: A Framework for the Appraisal of the Quality and Relevance of Evidence. *Applied and Practice-based Research. Special Edition of Research Papers in Education, 22*(2), 213-228.

Greening, J., & Hunt, J. (2017). *Transforming Children and Young People's Mental Health Provision: a Green Paper*. DfH, DfE Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/664855/Transforming_children_and_young_people_s_mental_health_provision.pdf

Griffin, J., & Tyrrell, I. (2003). *Human givens: The new approach to emotional health and clear thinking*: HG Publishing.

Grix, J. (2002). Introducing Students to the Generic Terminology of Social Research. *Politics, 22*(3), 175-186. doi:10.1111/1467-9256.00173

Halcomb, E. J., & Fernandez, R. S. (2015). Systematic reviews.

Hall, J., Porter, L., Longhi, D., Becker-Green, J., & Dreyfus, S. (2012). Reducing adverse childhood experiences (ACE) by building community capacity: A summary of Washington family policy council research findings. *Journal of Prevention and Intervention in the Community, 40*(4), 325-334. doi:10.1080/10852352.2012.707463

Hannes, K. (2011). Chapter 4: Critical appraisal of qualitative research. In J. Noyes, A. Booth, K. Hannes, A. Harden, J. Harris, S. Lewin, & C. Lockwood (Eds.), *Supplementary Guidance for Inclusion of Qualitative Research in Cochrane Systematic Reviews of Interventions*. Online: Cochrane Collaboration Qualitative Methods Group.

Harmon-Jones, E. E., & Mills, J. (2019). An Introduction to Cognitive Dissonance Theory and an Overview of Current Perspectives on the Theory. In E. E. Harmon-Jones (Ed.), *Cognitive dissonance: Reexamining a pivotal theory in psychology*: American Psychological Association.

HM Government. (2018). *Government Response to the Consultation on 'Transforming Children and Young People's Mental Health and Provision: a Green Paper' and Next Steps*.

Holm, S. (1979). A simple sequentially rejective multiple test procedure. *Scandinavian journal of statistics*, 65-70.

Hornor, G. (2017). Resilience. *Journal of Pediatric Health Care, 31*(3), 384-390. doi:10.1016/j.pedhc.2016.09.005

Huwiler-Müntener, K., Jüni, P., Junker, C., & Egger, M. (2002). Quality of reporting of randomized trials as a measure of methodologic quality. *JAMA, 287*(21), 2801-2804.

Kelly, B. (2017). Implementation Science: Applying the Evidence of Effectiveness in Reak-World Contexts. In B. Kelly, L. Woolfson, & J. T. Boyle (Eds.), *Frameworks for Practice in Educational Psychology: A Textbook for Trainees and Practitioners* (2nd ed., pp. 78-94). London: Jessica Kingsley Publishers.

Kennedy, A. (2005). Models of Continuing Professional Development: a framework for analysis. *Journal of in-service education, 31*(2), 235-250. doi:10.1080/13674580500200277

Kennedy, A. (2011). Collaborative continuing professional development (CPD) for teachers in Scotland: aspirations, opportunities and barriers. *European journal of teacher education, 34*(1), 25-41. doi:10.1080/02619768.2010.534980

Kennedy, A. (2016). Professional learning in and for communities: seeking alternatives discourses. *Professional development in education, 42*(5), 667-670. doi:10.1080/19415257.2016.1220541

Keselman, H. J., Huberty, C., J., Lix, L., M., Olejnik, S., Cribbie, R., A., Donahue, B., . . . Levin, J., R. (1998). Statistical Practices of Educational Researchers: An Analysis of Their ANOVA, MANOVA, and ANCOVA Analyses. *Review of educational research, 68*(3), 350-386. doi:10.3102/00346543068003350

Kolb, D. A. (2015). *Experiential learning: experience as the source of learning and development* (2nd ed.). Upper Saddle River, New Jersey: Pearson Education Ltd.

Kolomeyer, E., Renk, K., Cunningham, A., Lowell, A., & Khan, M. (2016). Mothers' Adverse Childhood Experiences and Negative Parenting Behaviors: Connecting Mothers' Difficult Pasts to Present Parenting Behavior via Reflective Functioning. *ZERO TO THREE, 37*(1), 5-12.

Lange, B. C. L., Callinan, L. S., & Smith, M. V. (2019). Adverse Childhood Experiences and Their Relation to Parenting Stress and Parenting Practices. *Community mental health journal, 55*(4), 651-662. doi:10.1007/s10597-018-0331-z

Larkin, H., Beckos, B. A., & Shields, J. J. (2012). Mobilizing resilience and recovery in response to adverse childhood experiences (ACE): A restorative integral support (RIS) case study. *Journal of Prevention and Intervention in the Community, 40*(4), 335-346. doi:10.1080/10852352.2012.707466

Larkin, H., Felitti, V. J., & Anda, R. F. (2014). Social Work and Adverse Childhood Experiences Research: Implications for Practice and Health Policy. *Social Work in Public Health, 29*(1), 1-16. doi:10.1080/19371918.2011.619433

Leadbetter, J. (2017). Activity Theory and the Professional Practice of Educational Psychology. In B. Kelly, L. Woolfson, & J. T. Boyle (Eds.), *Frameworks for practice in educational psychology: a textbook for trainees and practitioners* (2nd ed., pp. 254-276). Philadelphia: Jessica Kingsley Publishers.

Lerner, R. M., Lerner, J. V., Almerigi, J. B., Theokas, C., Phelps, E., Gestsdottir, S., . . . von Eye, A. (2005). Positive Youth Development, Participation in Community Youth Development Programs, and Community Contributions of Fifth-Grade Adolescents: Findings From the First Wave Of the 4-H Study of Positive Youth Development. *The Journal of early adolescence, 25*(1), 17-71. doi:10.1177/0272431604272461

Marie-Mitchell, A., & Kostolansky, R. (2019). A systematic review of trials to improve child outcomes associated with adverse childhood experiences. *American Journal of Preventive Medicine, 56*(5), 756-764.

McGeer, V. (2004). The Art of Good Hope. *The Annals of the American Academy of Political and Social Science, 592*(1), 100-127. doi:10.1177/0002716203261781

McGeer, V. (2008). Trust, hope and empowerment. *Australasian journal of philosophy, 86*(2), 237-254. doi:10.1080/00048400801886413

McMillan, D. W., & Chavis, D. M. (1986). Sense of Community: A Definition and Theory. *Journal of Community Psychology, 14*(1), 6-23.

McPherson, L., Gatwiri, K., Tucci, J., Mitchell, J., & Macnamara, N. (2018). A paradigm shift in responding to children who have experienced trauma: The Australian treatment and care for kids program. *Children and Youth Services Review, 94*, 525-534. doi:10.1016/j.childyouth.2018.08.031

Mittendorff, K., Geijsel, F., Hoeve, A., de Laat, M., & Nieuwenhuis, L. (2006). Communities of practice as stimulating forces for collective learning. *The journal of workplace learning, 18*(5), 298-312. doi:10.1108/13665620610674971

Moran, G., Pederson, D. R., & Krupka, A. (2005). Maternal unresolved attachment status impedes the effectiveness of interventions with adolescent mothers. *Infant Mental Health Journal, 26*(3), 231-249. doi:10.1002/imhj.20045

Morgan, A. (2002). Beginning to use a narrative approach in therapy. *International Journal of Narrative Therapy & Community Work, 2002*(1), 85.

Murphy, A., Steele, H., Bate, J., Nikitiades, A., Allman, B., Bonuck, K., . . . Steele, M. (2015). Group attachment-based intervention: Trauma-informed care for families with adverse childhood experiences. *Family and Community Health, 38*(3), 268-279. doi:10.1097/FCH.0000000000000074

Nussbaum, M. C. (2011). *Creating capabilities: the human development approach*. Cambridge, Mass.: Belknap Press of Harvard University Press.

Ofsted. (2019). The education inspection framework. In.

Open Science Collaboration. (2015). PSYCHOLOGY. Estimating the reproducibility of psychological science. *Science (American Association for the Advancement of Science), 349*(6251), aac4716-aac4716. doi:10.1126/science.aac4716

Oral, R., Ramirez, M., Coohey, C., Nakada, S., Walz, A., Kuntz, A., . . . Peek-Asa, C. (2016). Adverse childhood experiences and trauma informed care: the future of health care. *Pediatric research, 79*(1), 227-233.

Patton, M. Q. (2010). *Developmental evaluation: Applying complexity concepts to enhance innovation and use*: Guilford press.

Pearpoint, J. C., O'Brien, J., & Forest, M. (1998). *PATH: a workbook for planning positive possible futures: planning alternative tomorrows with hope for schools, organization, businesses, families* (2nd ed.): Inclusion Press.

Pellegrini, D. W. (2009). Applied Systemic Theory and Educational Psychology: Can the Twain Ever Meet? *Educational Psychology in Practice, 25*(3), 271-286. doi:10.1080/02667360903151841

Perry, B. (2021). Neurosequential Network. Retrieved from https://www.neurosequential.com/

Perry, E., Boylan, M., & Booth, J. (2019). Quality assurance of teachers' continuing professional development: Rapid Evidence Review.

Petticrew, M., & Roberts, H. (2006). *Systematic Reviews in the Social Sciences: a practical guide*. Malden, MA: Blackwell Publishing.

Prilleltensky, I. (2014). Education as Transformation. In T. Corcoran (Ed.), *Psychology in education: critical theory~practice*. The Netherlands: Rotterdam: SensePublishers.

Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*: Simon and schuster.

Raviv, T., Taussig, H. N., Culhane, S. E., & Garrido, E. F. (2010). Cumulative risk exposure and mental health symptoms among maltreated youth placed in out-of-home care. *Child Abuse & Neglect, 34*(10), 742-751. doi:10.1016/j.chiabu.2010.02.011

Redford, J. (Writer). (2016). Resilience: The Biology of Stress and the Science of Hope. In.

Roberts, J. (2006). Limits to Communities of Practice. *Journal of management studies, 43*(3), 623-639. doi:10.1111/j.1467-6486.2006.00618.x

Robson, C., & McCartan, K. (2016). *Real world research: a research for users of social research methods in applied settings* (4th ed.). Hoboken: Wiley.

Roffey, S. (2008). Emotional literacy and the ecology of school wellbeing. *Educational and Child Psychology, 25*(2), 29-39.

Roffey, S. (2013). Inclusive and exclusive belonging: The impact on individual and community wellbeing. *Educational and Child Psychology, 30*(1), 38-49.

Roffey, S. (2015). Becoming an agent of change for school and student well-being. *Educational & Child Psychology, 32*(1), 21-30.

Rosenthal, H. (2001). Discussion Paper - Working Towards Inclusion: "I am another other". *Educational Psychology in Practice, 17*(4), 385-392. doi:10.1080/02667360120108990

Rutter, M. (2006). Implications of resilience concepts for scientific understanding. *Annals of the New York Academy of Sciences, 1094*, 1.
Rutter, M. (2012). Resilience as a dynamic concept. *Development and Psychopathology, 24*(2), 335-344. doi:10.1017/S0954579412000028
Ryan, R. M., & Deci, E. L. (2000). Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. *American Psychologist, 55*(1), 68-78. doi:10.1037/0003-066X.55.1.68
Salkind, N. J. (2017). *Statistics for people who (think they) hate statistics* (6th ed.). Los Angeles, California: SAGE.
Scottish Executive Education Department. (2002). *Review of provision of educational psychology services in Scotland*. Retrieved from Edinburgh:
Selvaraj, K., Ruiz, M. J., Aschkenasy, J., Chang, J. D., Heard, A., Minier, M., . . . Bayldon, B. W. (2019). Screening for Toxic Stress Risk Factors at Well-Child Visits: The Addressing Social Key Questions for Health Study. *Journal of Pediatrics, 205*, 244-249.e244. doi:10.1016/j.jpeds.2018.09.004
Shonkoff, J. P., & Fisher, P. A. (2013). Rethinking evidence-based practice and two-generation programs to create the future of early childhood policy. *Development and Psychopathology, 25*(4 Pt 2), 1635-1653. doi:10.1017/S0954579413000813
Shonkoff, J. P., & Garner, A. S. (2012). The lifelong effects of early childhood adversity and toxic stress. *Pediatrics (Evanston), 129*(1), e232-e246. doi:10.1542/peds.2011-2663
Siegel, D. (2021). Dr. Dan Siegel: inspire to rewire. Retrieved from https://drdansiegel.com/
Smith, L. (2018). Adverse childhood experiences (ACEs): Interventions in education. *ESSE outline Iriss iriss-esss-outline-adverse-childhood-experiences-2018-10-05*.
Snyder, C. R. (1994). *The psychology of hope: You can get there from here*: Simon and Schuster.
Snyder, C. R. (2002). Hope theory: Rainbows in the mind. *Psychological Inquiry, 13*(4), 249-275.
Snyder, C. R., Lopez, S. J., Shorey, H. S., Rand, K. L., & Feldman, D. B. (2003). Hope theory, measurements, and applications to school psychology. *School Psychology Quarterly, 18*(2), 122.
Steele, H., Murphy, A., Bonuck, K., Meissner, P., & Steele, M. (2019). Randomized control trial report on the effectiveness of Group Attachment-Based Intervention (GABI©): Improvements in the parent–child relationship not seen in the control group. *Development and Psychopathology, 31*(1), 203-217. doi:10.1017/S0954579418001621
Stetsenko, A. (2014). Transformative Activist Stance for Education. In T. Corcoran (Ed.), *Psychology in Education: Critical Theory~Practice*. The Netherlands: Rotterdam: SensePublishers.
Thase, M. E. (2006). A Tale of Two Paradigms. *Clinical Psychology: Science and Practice, 13*(1), 94-98. doi:10.1111/j.1468-2850.2006.00010.x
Thomas, M. S., Crosby, S., & Vanderhaar, J. (2019). Trauma-Informed Practices in Schools Across Two Decades: An Interdisciplinary Review of Research. *Review of research in education, 43*(1), 422-452. doi:10.3102/0091732X18821123
Thorley, W., Whiteside, R., & Chapple, E. (2019). *Adverse Childhood Experiences (ACEs): Why all the fuss. England, the North East and Cumbria*: Independently Published.
Trauma Informed Schools UK. (2021). Trauma Informed Schools UK. Retrieved from https://traumainformedschools.co.uk/
Ungar, M. (2011). Community resilience for youth and families: Facilitative physical and social capital in contexts of adversity. *Children and Youth Services Review, 33*(9), 1742-1748. doi:10.1016/j.childyouth.2011.04.027
Van der Kolk, B. A. (1994). The body keeps the score: Memory and the evolving psychobiology of posttraumatic stress. *Harvard review of psychiatry, 1*(5), 253-265.
Verbitsky-Savitz, N., Hargreaves, M. B., Penoyer, S., Morales, N., Coffee-Borden, B., & Whitesell, E. (2016). Preventing and mitigating the effects of ACEs by building community capacity and

resilience: APPI cross-site evaluation findings. *Washington, DC: Mathematica Policy Research*.
Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*: Harvard university press.
Wagner, P. (2017). Consultation as a Framework for Practice. In B. Kelly, L. Woolfson, & J. T. Boyle (Eds.), *Frameworks for practice in educational psychology: a textbook for trainees and practitioners* (2nd ed., pp. 194-216). Philadelphia: Jessica Kingsley Publishers.
Weiler, L. M., & Taussig, H. N. (2017). The Moderating Effect of Risk Exposure on an Efficacious Intervention for Maltreated Children. *Journal of Clinical Child and Adolescent Psychology*, 1-8. doi:10.1080/15374416.2017.1295379
Wenger, E. (1998). *Communities of practice: learning, meaning, and identity*. Cambridge: Cambridge University Press.
Wenger, E. (2000). Communities of Practice and Social Learning Systems. *Organization, 7*(2), 225-246. doi:10.1177/135050840072002
Wenger, E. (2010). Conceptual Tools for CoPs as Social Learning Systems: Boundaries, Identity, Trajectories and Participation. In C. Blackmore (Ed.), *Social learning systems and communities of practice*. London: Springer.
Whisman, M. A., & McClelland, G. H. (2005). Designing, Testing, and Interpreting Interactions and Moderator Effects in Family Research. *Journal of family psychology, 19*(1), 111-120. doi:10.1037/0893-3200.19.1.111
White, M. (1990). *Narrative means to therapeutic ends*. New York, London: W.W. Norton & Co.
Whitty, G. (2000). Teacher professionalism in new times. *Journal of in-service education, 26*(2), 281-295. doi:10.1080/13674580000200121
Williford, A. P., Carter, L. M., & Pianta, R. C. (2018). Attachment and School Readiness. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: theory, research, and clinical applications* (3rd ed.). New York: The Guilford Press.
Willig, C. (2013). *Introducing qualitative research in psychology* (3rd ed.). Maidenhead: McGraw Hill Education, Open University Press.
Wolff, K. T., Baglivio, M. T., Klein, H. J., Piquero, A. R., DeLisi, M., & Howell, J. C. (2020). Adverse childhood experiences (ACEs) and gang involvement among juvenile offenders: assessing the mediation effects of substance use and temperament deficits. *Youth violence and juvenile justice, 18*(1), 24-53.
Woods-Jaeger, B. A., Cho, B., Sexton, C. C., Slagel, L., & Goggin, K. (2018). Promoting Resilience: Breaking the Intergenerational Cycle of Adverse Childhood Experiences. *Health Education and Behavior, 45*(5), 772-780. doi:10.1177/1090198117752785
World Health Organization. (2021). Violence and Injury Prevention: Adverse Childhood Experiences Questionnaire (ACE-IQ). Retrieved from https://www.who.int/violence_injury_prevention/violence/activities/adverse_childhood_experiences/en/
Wortman, P. M. (1994). Judging Research Quality. In H. M. Cooper & L. V. Hedges (Eds.), *The Handbook of research synthesis*. New York: Russell Sage Foundation.
Zeedyk, S. (2021). The history of Scotland's ACEs movement: grounded in a focus on relationships. *Attachment, 15*(1), 1-20.

Appendices

Appendix A: Detailed Data Extraction of the Eight Papers Included for Systematic Review

The following tables present the study background, procedure and outcomes for each of the eight papers. Research questions are presented, with those most relevant to this review in bold text. In the final column I include effect size magnitude.

Detailed data extraction of Booshehri et al. (2018)

Background/ baseline information	**Study conditions**	**Outcome measures**	**Results (p value), including interpretation of effect size magnitude: Intervention Efficacy**
STUDY TITLE: Trauma-informed Temporary Assistance for Needy Families (TANF): A Randomized Controlled Trial with a Two-Generation Impact AUTHORS: Booshehri, Dugan, Patel, Bloom and Chilton (2018) RESEARCH QUESTIONS: 1. Was there a selection bias in follow-up response rates that could lead to erroneous differences in outcome measurements unrelated to treatment assignment? (Stated in aims) 2. **In comparison to the control group, do intervention participants experience statistically significant improvements in behavioural health, economic hardship, and labour market outcomes after exposure to the intervention?** (Stated in hypotheses) 3. **In comparison to those that had low participation in the intervention, do those that had greater exposure to the interventions report improvements in health, hardship and employment?** (Stated in hypotheses)			
Caregiver mean age = 25.4, SD = 5.2 Child mean age = 30.4 months, SD = 18.7	Participants randomly assigned to one of three conditions: - Control: 'Temporary Assistance for Needy	Six caregiver outcome measures were categorised under three broad areas: Family behavioural health	Simple effect sizes for each outcome with a significant effect are reported here. Standard deviations were not reported, therefore I could not calculate standardised effect sizes.

Background/ baseline information	Study conditions	Outcome measures	Results (p value), including interpretation of effect size magnitude: Intervention Efficacy
- Caregiver depressive symptoms ranging from 49% to 62% - At least one concern of child developmental risk 12.9% to 22.9% - >50% moderate to severe food, housing or utility hardship - >90% unemployed at baseline - Almost 40% of all caregivers experienced four or more ACEs	Families' received as typical – 20 hours/ week scheduled supervised job training and job search activities - <u>Partial intervention</u>: a 28-week curriculum of weekly three hour classes focussing on self-sufficiency, a savings account with funds matched provided - <u>Full intervention</u>: 'The Building Wealth and Health Network' – equivalent to the partial intervention condition, with additional weekly four hour Self-Empowerment Groups.	- *Depression*: Center for Epidemiologic Studies Depression Scale - *Self-efficacy* (to manage stress and address challenges): General Self-Efficacy Scale - *Child developmental risk*: Parent's Evaluation of Developmental Status Scale <u>Economic *hardship*</u> - The U.S. Household Food Security Survey Model - Energy security survey - Housing security survey <u>Labour market outcomes</u> - Self-reported *employment* status and *earnings* Surveys administered by Audio Computer-Assisted Self-Interview (ACASI)	$P < 0.10$ used as indicative of significant effect, due to small sample size. <u>Research Question One</u> - no significant differences in the distribution of treatment assignment over time ($p = 0.9253$) <u>Research Question Two</u> Depressive symptoms - significant decline for full intervention at 15 months. Simple effect size = -1.13 points, $p = 0.0640$ - no change for control or partial → **LOW MODERATE EFFECT SIZE** Self-efficacy - significant increase for full intervention at *nine* months. Simple effect size = 1.08 points, $p = 0.0388$ - significant decline for control group at *nine* months. Simple effect size = -2.84 points, $p = 0.0589$ - considering non-significant outcome at 15 months → **VERY SMALL EFFECT SIZE** Child developmental risk

Background/ baseline information	Study conditions	Outcome measures	Results (p value), including interpretation of effect size magnitude: Intervention Efficacy
		software at baseline and then every three months for 15 months.	- no significant change for full or partial - significant increase for control group at *nine* months. Simple effect size = 0.21 (21%), *p* = 0.0680 - considering non-significant outcome at 15 months → **VERY SMALL EFFECT SIZE** Hardship - significant decline for full intervention at *12* months. Effect size = -0.73 points, *p* = 0.0640 - no significant change for control or partial - considering non-significant outcome at 15 months → **SMALL EFFECT SIZE** Employment - significant increase for control group at every interval, particularly at 15 months. Simple effect size = 0.26, *p* = 0.0384 - no significant change for full or partial → **VERY SMALL EFFECT SIZE** Hourly earning - significant increase for full intervention at *12* months. Effect size = 0.36, *p* = 0.0857 - no changes for control or partial.

Background/ baseline information	Study conditions	Outcome measures	Results (p value), including interpretation of effect size magnitude: Intervention Efficacy
			- considering non-significant outcome at 15 months → **SMALL EFFECT SIZE** <u>Research Question Three</u> Attendance rates -- 26% average overall for partial -- 23.6% average overall for full - no impact on outcomes for partial group - significant impact on some outcomes in full intervention group. Attendance increase of 1% leads to: -- significant decrease in developmental risk of youngest child – coefficient estimate: -0.0048, *p* = 0.0284 -- significant increase in employment probability – coefficient estimate: 0.0048, *p* = 0.0443 -- non-significant increase in self-efficacy – coefficient estimate: 0.0463, *p* = 0.1048

Detailed data extraction of Brody et al. (2017)

Background/ baseline information	**Study conditions**	**Outcome measures**	**Results (p value), including interpretation of effect size magnitude: Intervention Efficacy**
STUDY TITLE: Family-centered prevention ameliorates the association between adverse childhood experiences and prediabetes status in young black adults AUTHORS: Brody, Yu, Chen and Miller (2017) RESEARCH QUESTION: **Will participation in a prevention programme that enhances supportive parenting ameliorate the association between ACEs and prediabetes status?**			
Mean participant age at pre-test = 11.2 Participants followed through to age 25. - Rural African American - Number of ACEs ranged from 0-7 (data collected post-test at age 25) - Mean number of ACEs = 1.25 6 dichotomous variables formed an index of	Participants randomly assigned to one of two conditions: - <u>Control</u>: families received three leaflets via post on adolescent development and provided tips for stress management and exercise promotion - <u>Intervention</u>: 'Strong African American Families' (SAAF) – two hour weekly meetings for seven weeks at community facilities	CYP outcomes measured: - *Intervention status*: control or SAAF - Number of *Adverse Childhood Experiences*: the original questionnaire (Felitti et al., 1998) - Type 2 *Prediabetes Status*: fasting blood sample - *Weight* and *Height* to calculate BMI to enable controlling for obesity as a confounding variable Five study variables: - Prediabetes/ diabetes status - Gender - Family SES disadvantage	Significant correlations between the five study variables are reported here across the two conditions: <u>Control</u> - Positive correlation between BMI and prediabetes/ diabetes status: 0.204, $p<0.01$ - Negative correlation between BMI status and gender (male): -0.256, $p<0.01$ - Positive correlation between ACEs and prediabetes/diabetes status: 0.161, $p<0.05$ <u>SAAF</u> - Positive correlation between BMI and prediabetes/ diabetes status: 0.149, $p<0.05$ - Negative correlation between BMI and gender (male): -0.237, $p<0.001$

Background/ baseline information	Study conditions	Outcome measures	Results (p value), including interpretation of effect size magnitude: Intervention Efficacy
socioeconomic disadvantage at age 11: - Family poverty based on federal guidelines - Caregiver unemployment - receipt of Temporary Assistance for Needy Families (TANF) - Caregiver single parenthood - Caregiver education level less that high school graduation - Caregiver report of inadequacy of family income	The intervention consisted of separate parent and youth skill-building curricula and a family curriculum - For parents: consistent provision of instrumental and emotional support; high levels of monitoring and control; adaptive racial socialisation strategies; methods for communicating about sex and alcohol use - For youths: adaptive behaviours to use when encountering racism; the importance of	- BMI - ACEs score	Odds ratios (OR) and confidence intervals (CI) reported. Data to compute standardised effect sizes not reported. A main effect for ACEs and a significant interaction between ACEs and SAAF participation: OR = 0.57, 95% CI [0.37, 0.88] This was retained when control variables were included: OR = 0.56, 95% CI [0.36, 0.88] → **SMALL EFFECT** Control group – a one point increase in ACEs, associated with a 37.8% increase in risk of having prediabetes status at 25: OR = 1.37, 95% CI [1.02, 1.84] Intervention group – ACEs not associated with risk of having prediabetes status at 25: OR = 0.77, 95% CI [0.55, 1.07] Youths who experienced high levels of ACEs (3+)[v] and were in the control group were 3.54 times more likely (22.3%) to have prediabetes than those in the SAAF group (7.5%): OR = 3.54 → **MODERATE EFFECT**

[v] While 3+ ACEs is labelled 'high' within this study, 4+ is more commonly used as a 'high' comparison in the ACEs literature (Bellis et al., 2015; Bellis et al., 2014; Couper & Mackie, 2016)

Background/ baseline information	Study conditions	Outcome measures	Results (p value), including interpretation of effect size magnitude: Intervention Efficacy
	forming goals for the future and making plans to attain them; skills to resist inappropriate sex, and alcohol/ substance use		

Detailed data extraction of Giovanelli et al. (2016)

Background/ baseline information	**Study conditions**	**Outcome measures**	**Results (p value), including interpretation of effect size magnitude: Intervention Efficacy**
STUDY TITLE: Adverse Childhood Experiences and Adult Well-Being in a Low-income, Urban Cohort AUTHORS: Giovanelli, Reynolds, Mondi and Ou (2016) RESEARCH QUESTIONS: 1. Do cumulative ACEs predict multiple indicators of well-being, over and above environmental and demographic risk? 2. **Does participation in the Child-Parent Centre programme moderate the impact of ACEs on adult well-being?**			
All participants were from the most disadvantaged minority neighbourhoods, as part of the Chicago Longitudinal Study (CLS). - 93% African American - 7% Hispanic A wide variety of data regularly collected for CLS: - Birth records	Quasi-experimental design across two study conditions: - Control: participants were from five randomly selected schools and attended the usual full-day kindergarten programmes available to low-income CPS students. - Intervention: 'Child-Parent Centre' (CPC) preschool programme – children attended	CYP outcome measures were categorised under three broad areas: Mental Health and Health Behaviour - *Depressive symptoms*: Brief Symptom Inventory (modified) - *Health compromising behaviour*: current engagement in two or more of the following: illegal substance use; daily tobacco use; frequent (3+ times/ week) alcohol use	Research Question One[vi] Prevalence of ACEs across the participants: - with the exception of neglect, both intervention and control groups had equivalent rates of ACEs - those with 4+ indicators of demographic risk had a similar pattern of ACEs as those with fewer 0 ACEs were used as the comparison group. Log odds ratios (OR) reported for the majority in the report, confidence intervals and marginal effects reported for all ACEs and Adult Well-Being - *Depressive symptoms* significantly increased: - 1 ACE: $p<0.05$, OR = 1.45 - 2 ACE: $p<0.01$, OR = 1.93

[vi] At least one error identified in the data analysis pertaining to Research Question One, addressed in Appendix E.

Background/ baseline information	Study conditions	Outcome measures	Results (p value), including interpretation of effect size magnitude: Intervention Efficacy
- Number of ACEs (modified to reflect more common experiences of the target population) - School and social services records - Measures of adaptive functioning in adulthood - Index of family ecology of risk (8 dichotomous variables) All participants attended early childhood programs in the Chicago Public Schools (CPS), between 1985 and 1986	three hours/ weekday. Low student-to-staff ratios, a literacy-focused curriculum, a comprehensive parent involvement and education program, home visits and health services	<u>Educational and Occupational Status</u> - *Number of college years* - *College attendance* - *High school completion* - *High school graduation* - *Occupational prestige*: Barratt Scale <u>Criminal Behaviour</u> - *Juvenile Arrests* - *Adult felony charges*	- 3 ACE: $p<0.01$, OR = 2.31 - 4+ ACE: $p<0.01$, OR = 3.87 - *Health compromising behaviours* significantly increased: - 2 ACE: p<0.01, OR = 2.18 - 4+ ACE: p<0.01, OR = 4.52 - *High school completion* significantly less likely: - 1 ACE: p<0.01, OR = 0.606 - 4+ ACE: p<0.01, OR = 0.503 - Significant and graded association for *high school graduation*: - 1 ACE: $p<0.05$, OR = 0.695 - 2 ACE: $p<0.01$, OR = 0.416 - 3 ACE: $p<0.01$, OR = 0.510 - 4+ ACE: $p<0.01$, OR = 0.368 - linear and relatively graded relationship between ACEs groups and years of education – no ORs, but marginal effects reported - Significantly lower *occupational prestige*: - 2 ACE: p<0.01, OR = 0.542 - 4+ ACE: p<0.01, OR = 0.500 - Significant linear and graded association for *juvenile arrests*: - 2 ACE: $p<0.01$, OR = 2.121 - 3 ACE: $p<0.01$, OR = 1.915

Background/ baseline information	Study conditions	Outcome measures	Results (p value), including interpretation of effect size magnitude: Intervention Efficacy
			- 4+ ACE: $p<0.01$, OR = 3.119 - Significantly more likely to have adult *felony charges*: - 2 ACE: $p<0.05$, OR = 1.782 - 4+ ACE: $p<0.01$, OR = 2.823 ACEs from Birth to Age five Years and Adult Well-Being - Participants with 2+ ACEs by age five had significantly worse outcomes for: - Depression: $p<0.01$, OR = 3.00 - High school graduation: $p<0.01$, OR = 0.428 - Juvenile arrest: $p<0.01$, OR = 2.071 - Felony charge: $p<0.01$, OR = 2.443 - Health compromising behaviour: $p<0.01$, OR = 3.50 <u>Research Question Two</u> Moderation of ACEs by CPC Participation - no evidence that CPC preschool participation moderated the relationship between ACEs and adult outcomes (data not provided) → **NO EFFECT**

Detailed data extraction of Hall et al. (2012)

Background/ baseline information	**Study conditions**	**Outcome measures**	**Results (p value), including interpretation of effect size magnitude: Intervention Efficacy**
STUDY TITLE: Reducing Adverse Childhood Experiences (ACE) by Building Community Capacity: A Summary of Washington Family Policy Council Research Findings AUTHORS: Hall, Porter, Longhi, Becker-Green and Dreyfus, 2012 RESEARCH QUESTIONS: 1. Study 1: Do communities with funded networks show greater reductions in community health and safety problems than unfunded networks? (Stated through hypothesis) 2. Study 2: **Do strong self-directed communities, high in 'Community Capacity' show reduced ACE prevalence in their young-adult population, ages 18-34?** (Stated through hypothesis)			
Work carried out by the Washington State Family Policy Council (FPC), using participatory action research and learning methods to explore the impact of strong self-directed and funded community networks. Due to funding cuts, network funding was only maintained	STUDY ONE		
	Quasi-experimental design across two study conditions: - <u>Control</u>: Communities where networks were defunded in 2001 - <u>Intervention</u>: Communities with community network funding, rated as having higher CC	Uniformly collected council data across 15 key social and health indicators formed the 'Severity Index': - Out of home placements - Loss of parental rights - Child hospitalisation rates for accident and injury - High school dropout - Juvenile suicide attempts - Juvenile arrests for alcohol/ drugs/ violent crime - Juvenile offenders	Significantly greater improvement in severity index in funded network communities: *T*=2.51, *P*<.02 No significant differences found between the groups across the six possible confounding variables. Means for each group and t statistic reported only. No standard deviation data, therefore effect size cannot be computed → **SMALL EFFECT SIZE**

Background/ baseline information	Study conditions	Outcome measures	Results (p value), including interpretation of effect size magnitude: Intervention Efficacy
(beyond 2001) for those networks achieving minimum levels of Community Capacity (CC) (see immediately below). Network community capacity measured using the 'Community Capacity Index', submitted biannually to the FPC. The index has four dimensions: - Focus on interrelated problems - Learning - Strategic community leadership - Results-based decision making		- Teen births - Low birth weights - No 3rd trimester maternity care - Infant mortality - 4th grade test performance Separate analysis took place to assess differences across the two groups regarding: - Food stamp and welfare use - Unemployment - Adult arrests - Divorce - Population size - Race/ ethnicity	
	STUDY TWO		
	Quasi-experimental design across two study conditions: - <u>Control</u>: Low CC networks (bottom	Adult ACEs prevalence was measured via survey data collected through phone interviews, using the 'Behavioural Risk Factor Surveillance System'. This	Significantly reduced ACEs in high CC networks for younger adults (age 18-34) - Younger adults had higher ACEs generally: B=-.03, *p*<.00 - High CC networks had higher ACEs generally: B=.16, *p*<.02

Background/ baseline information	Study conditions	Outcome measures	Results (p value), including interpretation of effect size magnitude: Intervention Efficacy
	75% on CC index measure) - Intervention: High CC networks (top 15% on CC index measure)	system was funded by the Centre for Disease Control and Prevention, with questions regarding ACEs being added in 2009.	- 18-24yo in high CC networks had significantly lower ACEs: B=-.53, *p*<.00 A significant effect for age on prevalence of high ACE individuals - Number of high ACE individuals higher in younger adults: B=-.028, *p*<.00 - Number of high ACE individuals higher in high CC networks: B=.24, *p*<.00 - Number of high ACE individuals in young adults lower in high CC networks: B=-.64, *p*<.00 B statistic and p-values reported only. No further data to compute effect size → **SMALL EFFECT SIZE**

Detailed data extraction of McPherson et al. (2018)

Background/ baseline information	**Study conditions**	**Outcome measures**	**Results (p value), including interpretation of effect size magnitude: Intervention Efficacy**
STUDY TITLE: A paradigm shift in responding to children who have experienced trauma: The Australian treatment and care for kids program AUTHORS: McPherson, Gatwiri, Tucci, Mitchell and Manamara (2018) RESEARCH QUESTION: **Does this program create stability for children and young people who have endured ACEs?**			
48 children had been involved in the programme in total - 20 female, 28 male - 16 currently enrolled, 32 formerly enrolled - Mainly Anglo-Australian origin, two Indigenous, two sisters with a Vietnamese father - 19 came to programme directly from a residential care programme - Varying levels of placement stability prior to programme attendance: e.g. 29	Exploratory study regarding: The Australian Treatment and Care for Kids programme (TrACK) - an intensive therapeutic foster care programme - focus on the caregiver-child relationship - supported by educative and support roles known as therapeutic specialists and foster care workers	Qualitative and quantitative data were collected (mixed methods) under the following broad outcome measure areas: *Quantitative*: - Demographic data - Prior experience of adversity - Length of stay on the programme - Number of planned vs unplanned exits from the programme - school enrolment and attendance *Qualitative*: - CYP casefile information - CYP graduate interviews	Mixed methods results presented by broad areas, split into quantitative and qualitative findings. Quantitative data is descriptive only. Effect sizes were not produced and cannot be calculated from the data available → **SMALL EFFECT SIZE** (considering data below) Effect size N/A for qualitative data. <u>Placement Stability</u> Quantitative: - CYPs almost always stay in TrACK placement - 6 unplanned vs 26 planned exits Qualitative: - CYPs continuing to live with carers beyond 18yo and are claimed as part of the family <u>Educational Stability</u> Quantitative: - all currently placed TrACK CYPs enrolled in education and attending, compared to known educational

Background/ baseline information	Study conditions	Outcome measures	Results (p value), including interpretation of effect size magnitude: Intervention Efficacy
CYPs had 3+ placements - High levels of significant adversity prior to programme attendance: 41 CYPs had experienced multiple severe level ACEs prior to placement	- surrounded by a multi-disciplinary Care Team	- Carer focus group - Multi-disciplinary professionals focus group	outcomes for children in residential care (49% attending five days, 40% attending less than five days, 11.5% suspended, 0.3% expelled) Qualitative: - teachers have an understanding of the neurobiology of trauma and how this can affect CYP behaviour <u>Emotional Regulation</u> Quantitative: - volatile episodes reduced in number Qualitative: - improvements in emotional and psychological well-being and behaviour - growing confidence, enhanced emotional stability and capacity to self-regulate - reported to be less volatile - development of hobbies and interests, sustainable peer relationships, and community connections <u>Stability of Relationships with Carers</u> Qualitative: - positive relationships developed with carers, where CYPs felt supported and cared for (carers provided positive attention, persisted without evidence of change,

Background/ baseline information	Study conditions	Outcome measures	Results (p value), including interpretation of effect size magnitude: Intervention Efficacy
			avoided escalation, noticed and responded to emotional needs) 3 key factors that supported improved outcomes: - relational practice around the child - education around the neurobiology of trauma - practical use within the home environment Dominant themes of safety, stability and nurturing reported.

Detailed data extraction of Steele et al. (2019)

Background/ baseline information	Study conditions	Outcome measures	Results (p value), including interpretation of effect size magnitude: Intervention Efficacy
STUDY TITLE: Randomized control trial report on the effectiveness of Group Attachment-Based Intervention (GABI©): Improvements in the parent-child relationship not seen in the control group AUTHORS: Steele, Murphy, Bonuck, Meissner and Steele (2019) RESEARCH QUESTIONS: 1. **Does GABI lead to improvements in the mother-child relationship not seen in the control treatment as usual group treatment, that is Systematic Training for Effective Parenting (STEP)?** *Original RCT study question in Murphy et al. (2015)* 2. **Does the parent with a higher burden of ACEs stand to benefit more or less from a trauma-informed intervention?** (Additional follow-up study question).			
All participant mothers regarded as at risk of maltreating their children by referral agencies Demographic data; - >90% black, Hispanic or biracial - two thirds unemployed - almost 20% lost a child to foster care - half lack stable housing	Participants randomly assigned to one of two conditions: - <u>Control</u>: 'treatment as usual' Systematic Training for Effective Parenting (STEP) – weekly parenting classes for 10-12 weeks - Anger management - The distinction between discipline and punishment	Observed parent-child relationship outcome measure (pre- and post-intervention): Coding of Interactive Behavior (CIB) Four dimensions: - Two reflect a possible history and risk of maltreatment - *maternal hostility* and *dyadic constriction* - Two reflect a probable history of sensitive care, and health and security in the parent-child	Results relating to both research questions reported under each outcome. <u>Maternal supportive presence</u> - significant main effect of treatment group: F (1, 73) = 9.50, $p < .05$; partial $\eta^2 = .12$ (GABI mothers = 0.68 higher levels than STEP) → **HIGH SMALL EFFECT SIZE** - no significant main effect of ACEs: $F = 0.17$, *ns*; partial $\eta^2 = .00$ → NO EFFECT - no significant Group x ACEs interaction: $F = 1.62$, *ns* → NO EFFECT <u>Maternal hostility</u> - significant main effect of treatment group: F (1, 73) = 3.82, $p < .05$; partial $\eta^2 = .05$ (GABI mothers = 0.48 lower levels than STEP) → **SMALL EFFECT SIZE**

Background/ baseline information	Study conditions	Outcome measures	Results (p value), including interpretation of effect size magnitude: Intervention Efficacy
- majority have high school diploma or less Questionnaire at baseline for self-report of mothers' ACEs in first 18 years of life: - 25-item clinician-administered version of original ACEs Q - dichotomised into <4 = low, 4+ = high → remarkably high prevalence of ACEs: (72% with 4+ ACEs in intervention group, 80% with 4+ ACEs in comparison group)	- Social learning approaches - Deflecting and preventing domestic violence - Role-playing adaptive parenting strategies - High attrition rate: 68% - <u>Intervention</u>: Group Attachment-Based Intervention (GABI) – three 120 minute sessions/ week for 26 weeks. Each session: - 45 mins – parents and children all interact together for parent-child psychotherapy - 60 mins – parents interact while children interact together	relationship - *supportive maternal presence* and *dyadic reciprocity*	- no significant main effect of ACEs: $F = 0.94$, *ns*; partial $\eta^2 = .01$ → NO EFFECT - no significant Group x ACEs interaction: $F = 0.01$, *ns* → NO EFFECT <u>Dyadic constriction</u> - highly significant and moderately sized main effect of treatment group: $F (1, 73) = 13.69$, $p < .001$; partial $\eta^2 = .16$ (GABI mothers = 0.99 lower levels than STEP) → **MODERATE EFFECT SIZE (overall)** - no significant main effect of ACEs: $F = 0.02$, *ns* → NO EFFECT - significant Group x ACEs interaction: $F (1, 73) = 3.83$, $p < .05$; partial $\eta^2 = .05$ → SMALL EFFECT SIZE (though not captured in the summary of effect size magnitudes, this implicates a sub-group of participants, and will be addressed in the review discussion) <u>Dyadic reciprocity</u> - very highly significant and moderately sized main effect of treatment group: $F (1, 73) = 17.56$, $p < .0001$; partial $\eta^2 = .19$ (GABI mothers = 0.88 higher levels than STEP) → **MODERATE EFFECT SIZE (overall)** - no significant main effect of ACEs: $F = 0.02$, *ns*, partial $\eta^2 = .00$ → NO EFFECT

Background/ baseline information	Study conditions	Outcome measures	Results (p value), including interpretation of effect size magnitude: Intervention Efficacy
	supported by trained clinicians – parents view videos of parent-child interactions, discussing possible meaning - 15 mins – reunion of all parents and children interacting together again - 24/7 access to on-call clinicians - High attrition rate: 63%		- trend-level interaction of Group x ACEs: F (1, 73) = 3.72, p < .10; partial η^2 = .05 → SMALL EFFECT SIZE (as above)

Detailed data extraction of Verbitsky-Savitz et al. (2016)

Background/ baseline information	**Study conditions**	**Outcome measures**	**Results (p value), including interpretation of effect size magnitude: Intervention Efficacy**
STUDY (REPORT) TITLE: Preventing and Mitigating the Effects of ACEs by Building Community Capacity and Resilience: APPI Cross-Site Evaluation Findings AUTHORS: Verbitsky-Savitz, Hargreaves, Penoyer, Morales, Coffee-Borden and Whitesell (2016) RESEARCH QUESTIONS: - Central Evaluation Question: **Can a multifaceted community-based empowerment strategy focused on preventing and mitigating ACEs succeed in producing a wide array of positive outcomes in a community, including reduction of child maltreatment and improvement of child and youth development outcomes?** o Phase One: sought to understand the APPI sites' evolving goals, strategies and theory of change o Phase Two: examine the extent to which the initiatives developed effective coalitions and created collaborative cross-sector partnerships that introduced new programmes, policies, and practices at multiple levels to support their goals; assess the impact of these efforts on ACEs-related outcomes 1. **What are the strengths and weaknesses in collective community capacity in the five APPI sites?** 2. **How do select ACEs and resilience-related activities of APPI sites relate to the outcomes of individuals in their communities?** 3. **What did we learn from the APPI evaluations?**			
A full-scale evaluation and report conducted by Washington State's ACEs Public-Private Initiative (APPI): a consortium of public agencies, private foundations, and local	Each of the selected sites had its own community-wide intervention: - multifaceted community-based initiatives	PHASE ONE Qualitative and quantitative data were collected (mixed methods) using the following methods: - Site visits and interviews - A review of site documents	Reported in a separate interim report (Hargreaves et al., 2015).

Background/ baseline information	Study conditions	Outcome measures	Results (p value), including interpretation of effect size magnitude: Intervention Efficacy
networks formed to study interventions to prevent and mitigate ACEs and facilitate state-wide learning and dialogue on these topics. Five communities were selected through a competitive process. Four sites originated from Washington State Family Policy Council, which in 2002 initiated a series of state-wide network training sessions on the impact of trauma and toxic stress on brain development in children, also emphasising the preventative and	- using community capacity-building strategies to drive community change through new programmes, policies, practices, and community norms that can reduce ACEs, increase resilience, and promote healthy child-development The APPI sites sought to develop community capacity in four major areas: - creating sustainable network infrastructures - facilitating cross-sector partnerships targeting ACEs	- Analysis of county-level trends in 30 ACEs-related county-level indicators (that compared the sites to the rest of Washington)	
		PHASE TWO	
		Qualitative and quantitative data were collected (mixed methods) using the following methods: - ARC^3 web-based survey task (including designing, piloting and implementing the ARC^3 survey) (RQ 1 only) - reviewing site documents - interviewing key stakeholders - conducting quantitative analyses of individual-, programme-, and	Quantitative data, where available, is descriptive only (some significance stats). Effect sizes were not produced and cannot be calculated from the data available. <u>Research Question One</u> The development of the five APPI sites across the 11 community capacity domains varied Highest results were found in five domains: - developing community cross-sector partnerships addressing ACEs - implementing evidence-based community problem-solving processes - developing shared goals targeting ACEs and resilience - communicating effectively with their partners

Background/ baseline information	Study conditions	Outcome measures	Results (p value), including interpretation of effect size magnitude: Intervention Efficacy
mitigating role of nurturing environments, protective factors and resilience. They encouraged local community networks to: - attend the training - disseminate ACEs and resilience info into communities - develop community-wide responses through assessing strengths and challenges and researching effective strategies The fifth site was a community mobilisation coalition funded by the federal Drug-Free	- using evidence-based community problem-solving processes - implementing strategies for community-wide impact Where possible (within phase two, research question two only), comparison/ control groups were also assessed	organisation-level changes associated with 11 selected site-based activities (RQ 2 only) The evaluation team worked with the coordinators of the five APPI sites to obtain a list of individuals who were involved in and knowledgeable of their community's efforts to form the survey sample of members and partners for Research Question One. (233 responses) The 11 activities assessed for Research Question Two were selected based on four criteria: - degree of site involvement	- addressing equity Moderate results were found in four domains: - developing a sustainable infrastructure - engaging and mobilising large numbers of community residents - implementing programmes, policies, and practices at multiple levels - increasing their capacity to use data to document and evaluate their results Lowest results were found in one domain: - sites' capacity to work at sufficient scale to achieve community-wide change The sites had statistically similar capacity results in five domains: - community partnerships ($F = 0.34$, $p = 0.85$) - shared goals ($F = 1.51$, $p = 0.20$) - focus on equity ($F = 1.90$, $p = 0.11$) - leadership and infrastructure ($F = 1.91$, $p = 0.11$) - multi-level strategies ($F = 2.07$, $p = 0.09$) The sites had statistically different capacity results in five domains and network structure/ characteristics:

Background/ baseline information	Study conditions	Outcome measures	Results (p value), including interpretation of effect size magnitude: Intervention Efficacy
Communities support programme. The five APPI sites were: - Skagit County Child and Family Consortium - Whatcom Family and Community Network - Okanogan County Community Coalition - The Coalition for Children and Families of North Central Washington (NCW) - The Walla Walla County Community Network		- believed to be successful by the sites (not previously evaluated) - availability of data - represent diversity of sites' efforts	- engaging with and empowering a diverse set of community partners ($F = 7.42$, $p < 0.001$) - communicating effectively with network members and community partners ($F = 4.86$, $p < 0.001$) - managing community problem-solving processes ($F = 7.70$, $p < 0.001$) - collect and use data to monitor and evaluate their work ($F = 8.39$, $p < 0.001$) - expand the reach and scale of their activities ($F = 2.79$, $p = 0.03$) Of the five sites, results in: - Okanogan were the highest in all five domains - Skagit were the joint highest in two domains - Whatcom were the joint highest in one domain - NCW were lowest in all five domains <u>Research Question Two</u> Three of the five sites had implemented activities with demonstrated results: - Skagit, one activity - Okanogan, two activities - Walla Walla, three activities

Background/ baseline information	Study conditions	Outcome measures	Results (p value), including interpretation of effect size magnitude: Intervention Efficacy
			6 of the 11 activities were found to have some evidence of impact (positive, statistically significant changes) - 'Nurse-Family Partnership', a targeted prevention strategy in Skagit - The Positive Social Norms Campaign' a general prevention strategy in Okanogan - 'Omak Community Truancy Board', trauma-informed practice in Okanogan - 'ACEs and Resilience Awareness Campaign', community awareness in Walla Walla - 'Commitment to Community', trauma-informed practice in Walla Walla - Lincoln High School's use of trauma-informed practice in Walla Walla 5 of the 11 activities were found to have no evidence of impact (mixed results or limited or no outcome data available) - 'ACEs Awareness Campaign', community awareness in NCW - Westside High School's use of trauma-informed practice in NCW - 'Community Navigator Program', trauma-informed practice in Whatcom

Background/ baseline information	Study conditions	Outcome measures	Results (p value), including interpretation of effect size magnitude: Intervention Efficacy
			- Shuksan Middle School's use of trauma-informed practice in Whatcom - Use of Prevention/ Intervention Specialists, a targeted prevention strategy in Skagit <u>Research Question Three</u> The sites engaged in full-spectrum prevention - All sites worked in four areas: child abuse prevention and family support; school climate and school success; risk behaviour reduction and healthy youth development; and community development - All sites worked across three levels: general/ universal/ primary prevention activities; selective targeted/ secondary prevention initiatives; and indicated/ tertiary prevention programs Multiple models of success were seen across the sites - Most success seen when three factors aligned: collective community capacity; community network characteristics; and choice of community change strategies - The three most successful (with regards to evidence in the available data) sites:

Background/ baseline information	Study conditions	Outcome measures	Results (p value), including interpretation of effect size magnitude: Intervention Efficacy
			○ Focused more on universal evidence-based prevention programmes, and were supported by dense partner networks (Okanogan and Skagit) ○ Operated more like an entrepreneurial business, and created a larger less dense 'smart' network structure (Walla Walla) Sustainability challenges were evident - Resources and support for the coalition infrastructure needed to be found independently in each site, were scarce and often limited - Creative approaches helped Okanogan, Skagit and Whatcom secure federal and state grants - The sustainability of all sites remains uncertain Considering the data above, and that information to calculate overall effect sizes is not provided: - The three most successful sites (Okanogan, Skagit and Walla Walla) → **HIGH SMALL EFFECT SIZE** - The 2 other sites (Whatcom and NCW) → **SMALL EFFECT SIZE**

Detailed data extraction of Weiler and Taussig (2017)

Background/ baseline information	**Study conditions**	**Outcome measures**	**Results (p value), including interpretation of effect size magnitude: Intervention Efficacy**
STUDY TITLE: The Moderating Effect of Risk Exposure on an Efficacious Intervention for Maltreated Children AUTHORS: Weiler and Taussig (2017) RESEARCH QUESTION: **Does the promotion of positive development lead to reductions in problem behaviours and buffer high-risk youth from the impact of prior adversity?**			
All CYP participants in foster care by court order due to maltreatment, and had been placed with current caregiver for at least three weeks 50.7% female Racial/ ethnic distribution (non-exclusive): 47.2% Caucasian 45.8% Hispanic 29.9% African American	Participants randomly assigned to one of two conditions: - <u>Control</u>: participation in usual child welfare services - <u>Intervention</u>: Fostering Healthy Futures (FHF) – a nine month mentoring and skills group preventive intervention. Positive effects evidenced in a previous RCT.	Nine CYP outcome measures were categorised under six broad areas: <u>Mental Health Functioning</u> - Trauma Symptom Checklist mean score - Caregiver completed Child Behavior Checklist - Teacher Report Form <u>Posttraumatic stress and Dissociation</u> - Corresponding subscales of the Trauma Symptom Checklist	Baseline associations between risk and measured outcomes were examined Posttraumatic stress (pts) - significant moderation effect of baseline risk exposure: (B = 4.62, β = 0.38, p<0.0055[viii]) sr^2 = .07 - √0.07 = 0.26 → **SMALL EFFECT SIZE** - significant reduction of pts for those with lower baseline risk exposure: $t(136) = -3.55$, p=.001 - no significant reduction of pts for those with average baseline risk exposure: $t(136) = -1.57$, p=.12, or higher baseline risk exposure: $t(136) = -1.33$, p=.19 Dissociation - significant moderation effect of baseline risk exposure: (B = 3.78, β = 0.30, p<0.00625) sr^2 = .04 - √0.04 = 0.2 → **SMALL EFFECT SIZE**

[viii] Because nine models were tested, Holm's modified Bonferroni correction (Holm, 1979) was applied, such that the most significant p value had to be smaller than 0.0055 to reject the null hypothesis (Weiler & Taussig, 2017).

Background/ baseline information	Study conditions	Outcome measures	Results (p value), including interpretation of effect size magnitude: Intervention Efficacy
7.6% Native American 1.4% Asian American 1.4% Pacific Islander 1.4% Other Baseline risk indicated through a dichotomized six item measure of childhood adversity[vii] - child welfare records (3 items) - exposure to community violence - caregiver transitions - school transitions	- weekly 1:1 mentoring (2-4hrs) with social work graduates - weekly manualised skills groups (1.5hrs) to promote positive mental health and psychosocial functioning led by 2 clinicians - Attendance and drop out rates monitored (statistically non-significant impact on results)	<u>Positive and negative coping skills</u> - Youth report on Life Events and Coping Inventory <u>Social acceptance and Global self-worth</u> - The Self-Perception Profile for Children <u>Social Support</u> - 3 short-form scales (peers, primary care giver and mentors) of People in My Life measure <u>Quality of Life</u> - Previously developed scale that asks respondents to rate satisfaction in several domains	- significant reduction of dissociation for those with lower baseline risk exposure: $t(136) = -3.58$, $p<.001$, or with average baseline risk exposure: $t(136) = -2.23$, $p=.03$ - no significant reduction of dissociation for those or higher baseline risk exposure: $t(136) = -.43$, $p=.67$ Mental Health Functioning; positive and negative coping skills; social acceptance; global self-worth; social support; quality of life: - no significant moderating effect of baseline risk exposure: stats not reported → **NO EFFECT**

[vii] Not based on Felitti et al.'s original ACEs Questionnaire (Raviv, Taussig, Culhane, & Garrido, 2010).

Appendix B: Interpretation of effect size magnitudes

Coe (2002) explains that effect size demonstrates the size of the difference between groups in a study, and so represents a truer measure of difference, without conflating sample size. The effect size indicates the magnitude of the effect. This is as opposed to reporting statistical significance, which quantifies the likelihood that a difference found is an accidental one. However, effect sizes are rarely used in original educational research reports (Keselman et al., 1998). The type of effect size used also depends on the nature of the sample, the study design, and the method of data collection and analysis carried out. Where a standardised effect size is not provided and cannot be calculated I have interpreted the results as best possible.

Paper	**Statistics Reported**	**Interpretation**
Booshehri et al. (2018)	Simple effect size	Standardised effect sizes could not be calculated, though this is not an indication of poor quality (Baguley, 2009). Simple effect sizes were compared and interpreted across the outcomes and variation across study conditions, also taking into account the variation over time.
Brody et al. (2017)	Odds ratio and Confidence Intervals	Chen, Cohen, and Chen (2010); Field (2018) and Whisman and McClelland (2005) used to support interpretation.
Giovanelli et al. (2016)	N/A for the research question of focus.	Reported as no effect in paper. Data not provided.
Hall et al. (2012)	*t*-stat	Effect is reported to be significant, though magnitude cannot be computed. Plotted as a small effect size.
	B-stat	
McPherson et al. (2018)	Descriptive statistics and qualitative analysis	My own interpretation. An effect reported, interpreted as small due to lack of evidence otherwise.

Paper	Statistics Reported	Interpretation
Steele et al. (2019)	Partial η^2	See article for references for magnitude interpretation boundaries (J. Cohen, 1988; Open Science Collaboration, 2015).
Verbitsky-Savitz et al. (2016)	Descriptive statistics mainly, some significance statistics and qualitative analysis.	My own interpretation. Effects reported, interpreted as varying small effect sizes due to lack of evidence otherwise.
Weiler and Taussig (2017)	sr^2	Field (2018, p. 355-359) and Salkind (2017, p. 92-93) used to support interpretation.

Appendix C: Adaptation of quality appraisal tools: Matching CASP items to EPPI items

Matching took place to ensure rigorous quality appraisal of both quantitative and qualitative elements of the identified studies. Given prompts relating to each item from both original tools (Critical Appraisal Skills Programme, 2018; Evidence for Policy and Practice Information and Co-ordinating Centre, 2010) were used when completing the quality appraisal.

CASP Item	**Matched EPPI Item(s)**
Was there a clear statement of the aims of the research?	Are the aims of the study clearly reported? Is the context of the study adequately described?
Is a qualitative methodology appropriate?	Is there sufficient justification for why the study was done the way it was?
Was the research design appropriate to address the aims of the research?	Was the choice of research design appropriate for addressing the research question(s) posed?
Was the recruitment strategy appropriate to the aims of the research?	Is there an adequate description of the sample used in the study and how the sample was identified and recruited?
Was the data collected in a way that addressed the research issue?	Is there an adequate description of the methods used in the study to collect data? Have sufficient attempts been made to establish the reliability* of data collection methods and tools? **dependability* *(for qualitative elements of mixed-methods papers)* Have sufficient attempts been made to establish the validity* of data collection tools and methods? **credibility* *(for qualitative elements of mixed-methods papers)*
Has the relationship between researcher and participants been adequately considered?	To what extent are the research design and methods employed able to rule out any other sources of error/bias which would lead to alternative explanations for the findings of the study?
Have ethical issues been taken into consideration?	Are there ethical concerns about the way the study was done?
Was the data analysis sufficiently rigorous?	Is there an adequate description of the methods of data analysis? Have sufficient attempts been made to establish the reliability* of data analysis?

CASP Item	Matched EPPI Item(s)
	dependability (for qualitative elements of mixed-method papers) Have sufficient attempts been made to establish the validity of data analysis? *credibility (for qualitative elements of mixed-methods papers)*
Is there a clear statement of findings?	Do the authors avoid selective reporting bias? (e.g. do they report on all variables they aimed to study as specified in their aims/research questions?) Have sufficient attempts been made to justify the conclusions drawn from the findings so that the conclusions are trustworthy?
How valuable is the research?	How generalisable* are the study results? *transferable (for qualitative elements of mixed-methods papers)*

Appendix D: EPPI (2010) Quality of study: Reporting

Carried out on the quantitative studies and the quantitative elements of the mixed-methods studies

I used prompts from both the EPPI and CASP to support completion of the table.

Key	High
	Medium
	Low

	Booshehri et al, 2018	**Brody et al, 2017**	**Giovanelli et al, 2016**	**Hall et al, 2012**		**McPherson et al, 2018**	**Steele et al, 2019**	**Verbitsky-Savitz et al, 2016**	**Weiler and Taussig, 2017**
				Study 1	**Study 2**				
Is the context of the study adequately described?	Yes – explains TANF aims and possible failings, including baseline characteristics of participants	Yes – connections between ACEs, health and supportive parenting drawn, including baseline characteristics of participants	Yes – ACEs research and its current limitations reported	Yes – links between building community capacity and mitigating the impact/ prevalence of ACEs reported, as well as a brief summary of Washington State FPC's efforts.		Yes – connections between children in care and their experiences of trauma reported, supported by the reporting of a literature review	Yes – links between ACEs, mothers' risk status and parent-child relationships described, as well as comparison with some current intervention practice	Yes – the significance of ACEs and the history of the APPI and the five sites described	Yes – efficacy of FHF intervention previously demonstrated, however links drawn to mixed results regarding the impact of baseline risk, therefore further research needed

Are the aims of the study clearly reported?	Yes – three research questions reported, in the form of an aim and 2 hypotheses	Yes – aim/ primary purpose and hypothesis reported	Yes – study aims and two research questions reported	Yes – overall aim reported, as well as a hypothesis for each of the two studies		Yes – aim and research questions reported	Yes – study aims and two research questions reported	Yes – a central evaluation question reported, along with a 2-phased purpose, including the three research questions within the second phase *This report focused largely on the second phase, with an interim report providing further detail regarding the first phase.*	Yes – primary aim and hypothesis reported
Is there an adequate description of the sample used in the study and how the sample was identified and recruited?	Characteristics and context described, although inappropriate/ inadequate statistics reported for participant characteristics – i.e. no range	Adequate description of sample along with identification criteria. Some information regarding initial RCT recruitment missing.	Yes – characteristics and context described. Identification and recruitment method reported.	Number of networks reported, and brief note on identification.	Number of respondents reported. No info regarding identification and recruitment	Some characteristics of population that sample came from described. Sample-specific characteristics not described.	Yes – characteristics and context described. Identification and recruitment method reported.	Yes – characteristics of each of the five sites described. Survey sample criteria reported. Criteria for choosing 11 select activities	Yes – characteristics and context described. Identification and recruitment method reported.

	reported/ arithmetic mean reported instead of median. Brief description of recruitment method and compensation for participation.					Brief overview of identification and recruitment method.	Attrition rate reported, and prepared for to maintain statistical power.	for evaluation reported.	Some confusing demographic statistics reported.
Is there an adequate description of the methods used in the study to collect data?	Yes – method and tools described, as well as frequency of data collection	Yes – method and tools described, as well pre- and post-test timescales	Tools described. Some methods described, but survey administration method missing	Yes – state and federal level data tools described	Yes – tools and methods described	Tool types are mentioned but not all described. Timescales/ administration method not reported.	Yes – methods and tool described, as well as reporting pre- and post-intervention data collection	Access (through references) to in-depth article regarding creation and use of the ARC[3] survey. Methods used for site visits/ interviews/ document reviews not reported. Description of data sources and tools for the 11 selected activities in Phase Two, Question Two reported.	Yes – methods and tools reported and referenced, as well as reporting pre- and post-intervention data collection

Is there an adequate description of the methods of data analysis?	Yes – mixed effects analysis: multi-variate linear mixed effects modelling with pre and post measures	Yes – two-factor multivariate analysis of variance, followed by descriptive statistics and Pearson product-moment correlations, followed by a logistic regression model	Somewhat – probit, multiple and binary logistic regression analyses (to the extent that I, a non-statistician, can interpret it)	Brief – T tests run comparing the two groups (control and intervention) on changed in severity index	Brief – ratings compared, linear regression was used and additional logistical regression analyses	No method for quantitative analysis reported (basic descriptive statistics given only) Thematic analysis briefly reported as method for qualitative analysis, however no further detail of process given.	Yes – a series of one-way analyses of covariance (ANCOVA) results were computed to determine differences between the two groups, controlling for baseline data. Number of ACEs as second independent variable. Levene's tests computed first to test for normality	Brief descriptions across the various research Qs and activities – descriptive synthesis/ analysis, pre-post, difference in difference, interrupted time series Some further detail accessible in interim report and survey design article.	Yes – moderation analysis conducted through a series of linear regression models, with Holm's Bonferroni correction applied
Is the study replicable from this report?	Yes	Yes	Somewhat – some difficulties with clarity and interpretation	Somewhat – in as far as details are reported		Somewhat – in as far as details are reported	Yes	Somewhat – in as far as details are reported	Yes
Do the authors avoid selective reporting bias? (e.g. do they report on all variables	Yes – all variables across all research aims reported	Yes – all variables across all research aims reported	No – stats for Research Question Two are not reported	Reports on severity index as a whole (not the	Yes – all variables reported	No – answering the broad research question is discussed	Yes – all variables across all research aims reported	Yes – all variables across all research phases/	Yes – all variables across all research aims reported

they aimed to study as specified in their aims/research questions?)				individual components)		somewhat, however how the conclusions were reached is not sufficiently clear		questions reported	

Appendix E: Adapted EPPI (2010) Quality of study: Methods and data

I used prompts from both the EPPI and CASP tools to support my completion of the table (see Appendix C). I also added an item regarding use of theory (Hannes, 2011). I also used Hannes (2011) to inform my translation of vocabulary from appraisal of quantitative to qualitative research (p. 3), as indicated by asterisks.

Key	High
	Medium
	Low

	Booshehri et al, 2018	**Brody et al, 2017**	**Giovanelli et al, 2016**	**Hall et al, 2012**		**McPherson et al, 2018**	**Steele et al, 2019**	**Verbitsky-Savitz et al, 2016**	**Weiler and Taussig, 2017**
				Study 1	**Study 2**				
Are there ethical concerns about the way the study was done?	No – ethical approval sought and informed consent obtained	No – caregiver and young person consent obtained	No – non-manipulated variables. Obtaining consent not reported (although secondary use of data).	No – obtaining consent not reported, however data collected at state level as per standard state procedures (secondary use of this state-level data).		No – ethical approval sought and informed consent obtained	No – ethical approval sought and informed consent obtained Participants received monetary incentive after each visit.	No – professional agreement from all five sites at the systemic level	No – secondary use of data. Ethical approval and informed consent and assent obtained for original study. Caregivers and CYPs received $40 per interview, whereas teachers received $25.

Were students and/or parents (i.e. relevant stakeholders) appropriately involved in the design or conduct of the study?	Yes – caregiver self-report surveys as main data collected	Yes – caregiver consent obtained. No follow-up information from caregivers, however this was not integral to study aim.	Yes – family support included in pre-school intervention. No follow-up information from caregivers, however this was not integral to study aim.	State level data didn't differentiate between individuals	Differences between age groups assessed. Community respondents, as well as independent reviewer	Yes – a range of views triangulated – clients (CYPs), carers and professionals	Mothers and young children as intervention participants. Researcher views only – no input from mothers' perspective.	Students and parents/ community members explicitly involved in 11 activities. The rest of the data at a systemic level. No further involvement integral to study purposes	Yes – a range of views triangulated – CYPs, carers and teachers
Is there sufficient justification for why the study was done the way it was?	Yes – to assess impact of full and partial interventions in comparison to baseline TANF support across a range of caregiver outcomes	Yes – to assess the impact of the SAAF intervention on specific health outcomes (additional to outcomes in original study)	Yes – to assess whether the CPC pre-school intervention moderated the impact of ACEs on various indicators of adult well-being	Yes - to assess the effectiveness of community networks in reducing chronic social problems over time		Yes – to provide detailed, practical insights about the experience of therapeutic care, that may not be available in the existing research	Yes – to compare the impact of the GABI intervention on parent-child relationships, in comparison to the impact of the widely-used STEP intervention	Yes – to study and evaluate effective interventions to prevent and mitigate ACEs and facilitate state-wide learning and dialogue on these topics	Yes – to understand who is most likely to benefit from the intervention
Is there evidence of the use of a	References trauma-	Draws on/ references	References research	Refers to the impact of trauma		Makes reference to	Refers to research and	Focuses on capacity-	References being grounded in the

theoretical paradigm?	informed approaches to practice and draws on research demonstrating the benefits of promoting social support and resilience. Emphasises the importance of working across generations and collaborative working.	research that demonstrates a bio-psycho-social perspective to understanding the impact of ACEs (supportive parenting, stress buffering, biological processes, improved psychosocial outcomes). Positioned within a medical paradigm.	demonstrating the impact of experiences mediated by bio-social processes. No reference to theory, however, a bioecological perspective may be assumed. Positioned within a medical paradigm.	on adult life, referencing Felitti et al. (1998) and related studies only. References theory regarding Community Capacity: shared focus; collaborative leadership; continuous learning and improvement; a system-wide focus on results Refers to a developmental approach that utilises participatory action research and learning	research and theory regarding attachment theory, resilience and trauma-informed approaches. Draws on neuro-psychology. Programme referenced as strengths-based, solution-focused and trauma-informed Indirectly draws on principles of eco-systemic working.	theory from an attachment perspective, trauma-informed approaches, and emphasises the importance of social interactions and resilience. Draws on child-parent psychotherapy, and the following (REARING) principles: - Reflective functioning - Emotional attunement - Affect regulation - Reticence - Inter-generational patterns of impact	building and a research-based multi-level conceptual framework with a grounding in community capacity-building theory and practice. Refers to theory and research regarding: community, inter-generational and individual resilience; community-centred system change; trauma prevention and alleviation.	Positive Youth Development approach which emphasises the importance of healthy relationships/ mentoring, cognitive-behavioural activities, and active pro-social skill development. Informed by literature on risk and resilience.

						- Nurturance - Group context		
Was the choice of research design appropriate for addressing the research question(s) posed?	Yes – RCT to test intervention efficacy	Yes – RCT to test intervention efficacy (some secondary use of data)	Yes – quasi-experimental design to assess intervention efficacy (secondary use of data)	Yes – quasi-experimental design, with longitudinal data, to assess impact		Yes (from the extent it is known) – file data, interviews and focus groups to investigate programme response	Yes – RCT to test intervention efficacy	Yes – various levels of mixed-methods developmental and retrospective data aligned with the sites' goals and the overall APPI's aims	Yes – secondary use of RCT data to assess impact
Have sufficient attempts been made to establish the <u>reliability</u>* of data collection methods and tools? *<u>*dependability*</u> *(for qualitative elements of mixed-methods papers)*	Yes – reliability of all tools referenced	Reliability of measure of socioeconomic disadvantage index not reported. ACEs questionnaire referenced, but reliability not reported. Blood-test referenced for method.	Some established tools referenced. Reliability of modifications not reported. Reliability of dichotomous variables/ use of administrative records not reported.	Standard state and federal level data collection tools used.	Some reference to data collection tools, but reliability not reported.	Not attended to for quantitative methods. Somewhat insufficient/ limited information regarding conduct of qualitative methods. Interviews digitally recorded and transcribed.	Yes – reliability of CIB tool and its administration reported	Extensive work establishing the reliability of the ARC[3] survey referenced. Brief descriptions of various other data collection tools provided, but reliability/ dependability	References for measures provided, but reliability not reported

								not attended to.	
Have sufficient attempts been made to establish the validity* of data collection tools and methods? *credibility (for qualitative elements of mixed-methods papers)	Yes – validity of all tools referenced (as far as a positivist epistemology is assumed)	Validity of measure of socioeconomic disadvantage not reported. ACEs questionnaire referenced, but validity not reported. Blood-test referenced for method.	Some established tools referenced. 'The entire sample had 1 or more valid outcome measures' Validity of dichotomous variables/ use of administrative records not reported.	Validity of key standard social and health indicators not reported.	Referenced, but not reported.	Not attended to for quantitative methods. Seeking varied perspectives enhanced the credibility of the collection of qualitative data.	ACEs questionnaire reported as valid. Validity of CIB tool not reported.	Extensive work establishing the validity of the ARC[3] survey referenced. Brief descriptions of various other data collection tools provided, but validity/ credibility not explicitly attended to. Wide range of perspectives and data sources enhanced richness and triangulation of data.	Validity of baseline risk index reported. References for dependent variable measures provided, but validity not reported

Have sufficient attempts been made to establish the reliability* of data analysis? *dependability (for qualitative elements of mixed-method papers)	Separate analyses and methods described for each aspect of focus. Some issues with clarity for interpretation. Small sample size acknowledged.	Yes – thorough description of analysis method used and why. Attrition rates analysed and accounted for.	Detailed description of analysis method used for each aspect of focus, although some difficulties with interpreting this. At least one error identified. Missing data accounted for in study analysis. Data and results not provided for second research question.	Brief description of analysis method. Effect size not present.	Brief description of analysis method. Effect size not present.	Not attended to for quantitative data. An audit trail reported to have ensured dependability. Insufficient information provided regarding qualitative data analysis.	Yes – separate analyses and methods described for each aspect of focus. Analysis conducted using data of those who completed the full intervention.	Yes – brief description of the various analysis methods used for the aspects of each phase and research question.	Yes – good description of analysis method used.
Have sufficient attempts been made to establish the validity* of data analysis? *credibility (for qualitative	Yes – analyses methods chosen enabled control of multiple variables across effects	Yes – warrant for analysis method described to account for control variables.	Analysis method chosen enabled control of multiple variables across effects	Analysis method chosen enabled comparison with control group. Additional analysis	Analysis method chosen enabled comparison across control and variables	Not attended to for quantitative data (basic descriptive statistics given only).	Yes – warrant for analysis described to account for control and baseline variables.	Methods used to capture control group differences where possible, differences over time and	Yes – analysis method chosen enabled analysis across baseline, post-intervention and control measures.

elements of mixed-methods papers)	and participants	Some inconsistent pre- and post-test measures. Intent-to-treat analysis may have skewed the results	and areas of focus. Inconsistent pre-and post-test measures.	conducted to assess impact of possible confoundi ng variables. Effect size not present or possible to calculate.	of interest. Effect size not present or possible to calculate.	Peer review and examination reported to have enhanced the credibility of the qualitative data analysis. Insufficient information provided regarding qualitative data analysis.	Analysis conducted using data of those who completed the full intervention. Reported awareness of further data needed to determine validity of findings	between sites/ stakeholders. Validity/ credibility of mixed methods interpretation and synthesis unclear, at times.	Intent-to-treat analysis may have skewed the results.
To what extent are the research design and methods employed able to rule out any other sources of error/bias which would lead to alternative explanations for the findings of the study?	Control, partial and full intervention groups randomly assigned to help control for study variables. Consistent pre- and post-test, as well as ACEs questionnaire helped to account for	Control group and intervention group randomly assigned, to help control for study variables. Inconsistent pre- and post-test measures meaning individual differences	Control group helped control for study variables. Previous studies deemed the two groups comparable, however inconsistent pre-and post-test measures meaning individual differences	Control groups helped control for study variables. Attempts to consider potential confoundi ng variables. Data collected over time.	Control groups helped control for study variables. Inconsist ent pre- and post-measures	Some explanations seem to have been reached without explicitly reliable and/ or valid methods. Link between outcome measures and study focus in context not clear.	Comparison intervention group and main intervention group randomly assigned to help control for study variables. Consistent pre- and post-test, as well as ACEs questionnaire	Length of time, broad and varied sources of data, and appropriate methods of analysis. Some inconsistency in measures over time.	Control group and intervention group randomly assigned, to help control for study variables. Consistent pre- and post-test, as well as baseline risk and programme attendance all helped to account for individual differences.

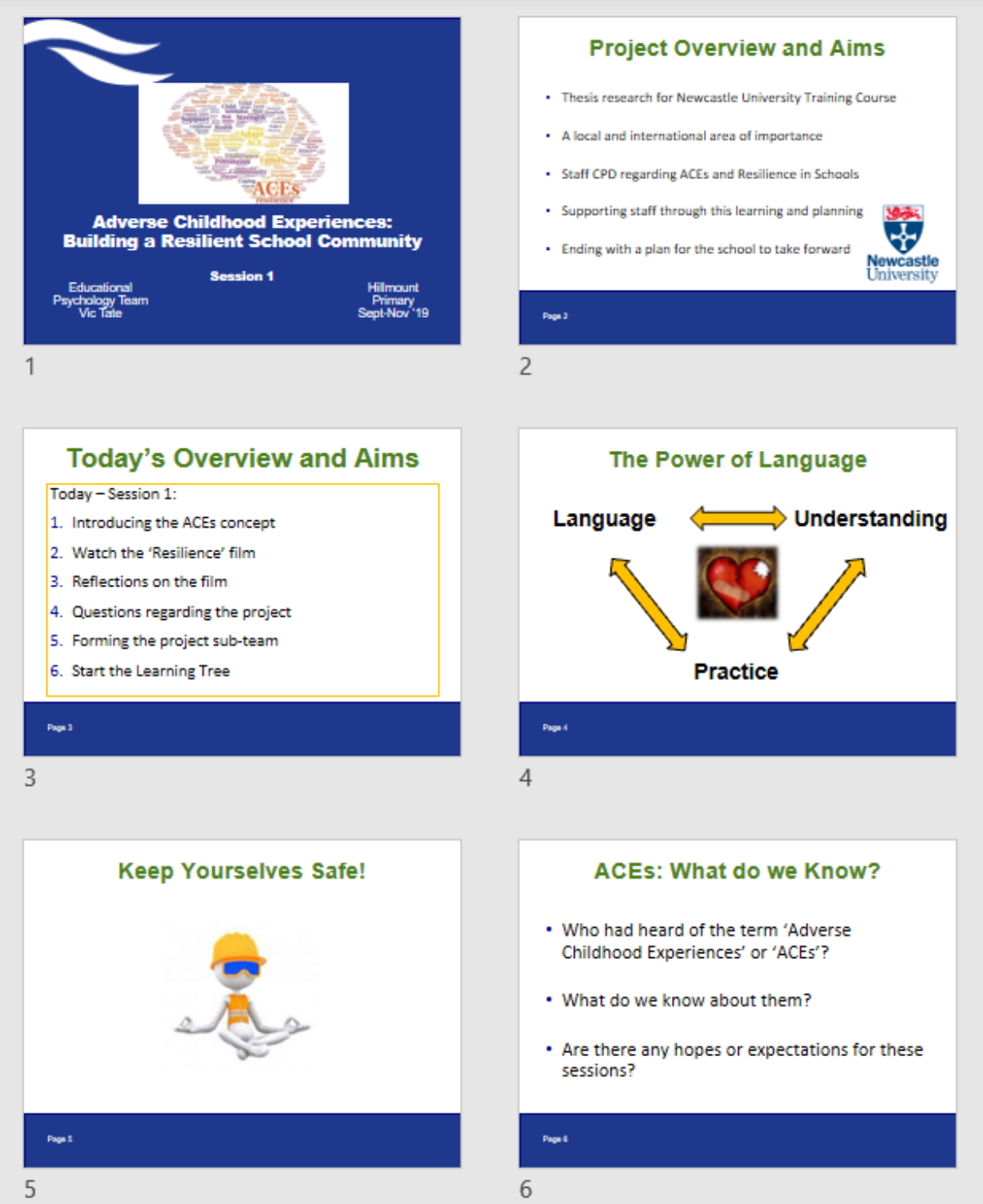
	individual differences.	difficult to account for. Intent-to-treat analysis applied.	difficult to account for			Lack of control/ comparison group.	helped to account for individual differences		Intent-to-treat analysis applied.
How <u>generalisable</u>* are the study results? *<u>*transferable*</u> *(for qualitative elements of mixed-methods papers)*	Rich description of context, purpose and participants, demonstrating value within target population. Awareness of possible impact of data from within one state only (although comparable criteria across nation for target population), and high drop-out rate.	Good description of context, purpose and participants, demonstrating value within target population, although the need for repetition in comparable samples acknowledged.	Good description of context, purpose and participants, demonstrating value within target population, with acknowledged limited generalisability beyond that. Replication of findings within other populations evident however	Some description of context and aim. Insufficient information regarding participants. Generalisability beyond site limited, although is supported by the use of theory.		Somewhat insufficient information regarding the small sample. Limited generalisability beyond the specific context of the unique and complex intervention and care programme that was studied, although is support by the use of theory.	Good description of context, purpose and participants, demonstrating value within target population, although reported awareness of further data needed to determine validity of findings. Supported by use of theory, however.	Rich description of context, purpose and participant sites, demonstratin g value within target context. Generalisabilit y beyond site somewhat limited. However, supported by the large scale of the study and its use of theory.	Cannot be generalised to non-maltreated samples or different geographical locations. The need for replication of the findings is acknowledged. However, supported by use of theory.
Have sufficient attempts been made to justify the conclusions drawn	Discussion of results for each question and across	Conclusions discussed in relation to existing	Conclusions drawn through referring to related	Yes – conclusions linked to specific findings, supported by scale of study.		Discussion points and conclusions often drawn without	Yes – per variable within the measure, and	Yes – lengthy report detailing rich data and	Yes – discussion of possible explanation for significant vs

from the findings so that the conclusions are trustworthy?	variable, also in relation to existing theories and research. Limitations acknowledged.	theories and research. Significant limitations acknowledged.	theories and research, despite not necessarily being reflected in the results. Limitations acknowledged.	Limitations acknowledged.	sufficiently clear warrant. Limited acknowledgement of limitations.	relating focus of measure to focus of intervention	discussions linked to holistic conclusions	non-significant results, as well as what this means for future research.
In light of the above, do the reviewers differ from the authors over the findings or conclusions of the study?	No	Somewhat	No	No	Somewhat	No	No	No

Appendix F: PowerPoint slides for whole-staff sessions 1 and 2

These screen shots capture the basic structure of the first and second CPD sessions of the empirical project. Some further information and media was contained in the notes section for each slide. These slides have been anonymised. There were no PowerPoint slides used in the third CPD session.

<u>Whole Staff CPD 1</u>



Adverse Childhood Experiences

Page 7

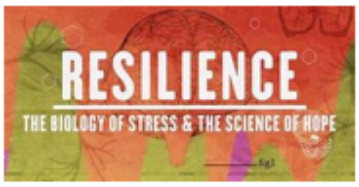
7

ACEs and Possible Life Outcomes

Page 8

8

The Resilience Film



Page 9

9

ACEs and Resilience: Some Reflections

- A moment from the film that stands out for you?
- What do you want to do next as a result of watching the film?
- What would we like to see for the Hillmount community?

Page 10

10

What Next?

- **Reflect through the coming weeks**
  - Personal?
  - Professional?
- **What's already going well in Hillmount?**
- **What could be different?**

Page 11

11

Any Questions?

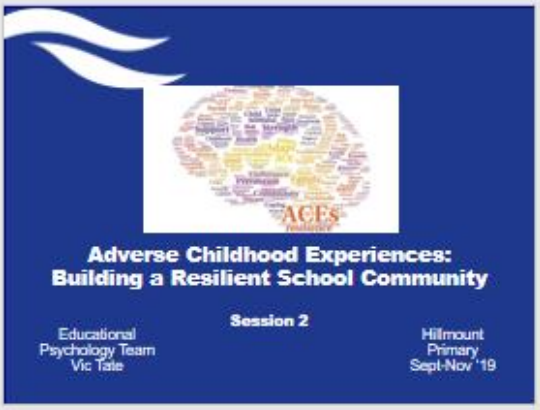
- **Information sheet circulated prior to today**
- **Consent forms**
- **The project sub-team**

Page 12

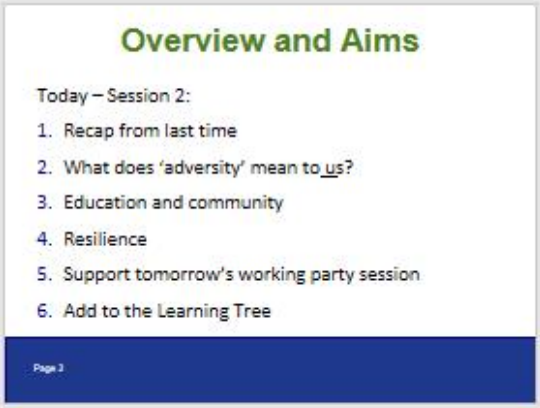
12

13

Whole Staff CPD 2

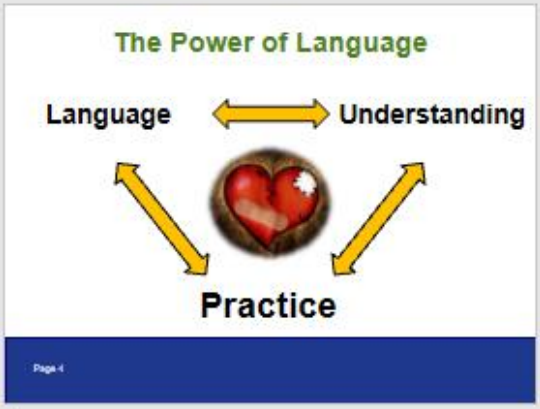


1



2

3



4

What we learnt...

Mechanisms by Which Adverse Childhood Experiences Influence Health and Well-being Throughout the Lifespan

Page 5

5

Buffer suggestions in the film

- Home visits
- Strengthen parents
- Therapy
- Mindfulness
- Nutrition
- Exercise
- Sleep
- Education re ACEs

- Defining resilience
- Change the question
- Recognise toxic stress as the largest public health issue
- Build critical collaborations
- Promote safe, stable and nurturing relationships and environments
- Prevent intergenerational transmission of toxic stress
- Promote hope

Page 6

6

Last Week's Reflections

- A moment from the film that stands out for you?
- What do you want to do next as a result of watching the film?

Page 7

7

Stand out moments: your thoughts

- The prevalence of ACEs, including people from various backgrounds
- Miss Kendra's list as an example approach to support children who may find it difficult to verbalise issues
- The term 'toxic stress' and the 'truck/ lorry' analogy
- Links with significant health issues and the wide-reaching impact of ACEs from such a young age
- The passionate doctor and her work in an underprivileged area
- How resilient families can be, 'buffers' breaking the cycle, small changes making a difference and the statistics that demonstrated the impact of related interventions
- The child's point of view missing in the medical centre
- The lack of understanding and resources in public services

Page 8

8

Next steps: your thoughts

- Support children to express worries - research the Miss Kendra intervention/ have worry boxes
- Facilitate a whole-school approach/ involve parents in sessions
- Recognise children in need and how to support them – help children develop and nurture resilience
- Be a positive and reassuring adult
- Consider links between children's behaviours and experiences – including for unexpected children
- Reduce the "lead" for our children and families
- See an updated version of the ACEs list
- Use the ACEs checklist in school/ take the test ourselves
- Join the working party group...!

Page 9

9

Since last time...

Photograph of written discussion from Working Party Session 1 removed to preserve anonymity

Page 10

10

More locally

- In the north of England….
  - Less likely to hold the equivalent of 5 GCSEs
  - More adults with no qualifications
  - Lower average weekly earnings
  - Higher rates of unemployment
  - Obesity rates exceed national averages
  - Higher rates of teen conception and motherhood
  - And more….
- Nicky Murray – YouTube clip 'ACE-Aware Nation Conference – One school's story of building resilience – Nicky Murray, Headteacher'
  - https://www.youtube.com/watch?v=oGLGuco-L_g

Page 11

11

What is adversity?

ACEs

Stress

Adversity

Toxic stress

Trauma

Page 12

12

Two Approaches to Education

- Deficit-oriented
- Reactive
- Alienating
- INdividualistic

- Strengths-based
- Preventive
- Empowering
- Community-based

Page 13

13

A Sense of Community

The four dimensions of a sense of community:

- Membership
- Influence
- Integration and fulfilment of needs
- Shared emotional connection

Page 14

14

School as Community

What can/ do schools provide?

- For children
- For families
- For parents and carers
- For the staff
- For the wider community
- For each other

Page 15

15

Addressing Adversity at 3 Levels

- Primary prevention – prevention of the occurrence of ACEs
- Secondary prevention – prevention of risk through (immediate) support as a response to ACEs
- Tertiary prevention – prevention of further/ intergenerational risk through supporting change after a history of ACEs

Page 16

16

Toxic Stress

Page 17

17

From toxic… …to tolerable

Page 18

18

Resilience

Collaboratively built

- Optimism
- Emotional awareness and control
- Impulse control
- Empathy and connection
- Self-efficacy
- Flexible and accurate thinking

Page 19

19

A Resilience Framework

Page 20

20

3 Principles from Harvard CDC

1. Support responsive relationships
2. Strengthen core life skills
3. Reduce sources of stress

Page 21

21

Support Responsive Relationships

- **Attachment theory**
  - Children's models of relationships
  - Key adults in their lives
- **Ordinary Magic… tells you and your teddy bear you matter**
  - Curiosity
  - Empathy
  - Courage
  - Compassion
  - Attunement

Page 22

22

Strengthen Life Skills

- Building awareness
- Building internal/ cognitive resources
- Availability and accessibility

What more could the school offer?

Page 23

23

Reduce Sources of Stress

Where are the sources of stress within your community?

What time and space do the members of your community get to lower their stress levels?

Page 24

24

Building a Resilient School Community

What can/ do schools provide?

- For children
- For families
- For parents and carers
- For the staff
- For the wider community
- For each other

Schools can ~~only~~ do so much

Page 25

25

Tomorrow…

Page 26

26

Thank you

How do I feel?

What will I do differently?

Page 27

27

Appendix G: The empirical research process timeline

Session	Actions/ Plan
Request for CPD/ Recruitment *April-May 2019*	Through an LA-wide incentive for all schools to engage in CPD from the EPS regarding ACEs, local schools were in contact with the EPS to arrange input from the team. Multiple members of the service, including me, were engaging in facilitating the CPD regarding ACEs in various schools. A request came from one small primary school in which I was co-working with my supervisor during the academic year 2018-19. I would finish my work with the school at the end of that year, with my supervisor continuing to work there after summer. Along with the school SENDCo and Headteacher, we agreed that my knowledge of the school and relationships with staff could be helpful assets for facilitating the enhanced project there in the following autumn term. My supervisor would support me in the six project sessions as the school EP.
Planning Session *Wed 12/06/19*	My supervisor/ the school EP and I met with the school Headteacher and SENDCo to discuss the project possibilities. Project session dates were agreed. We agreed that I would send the supporting documents (Information Sheet and Consent Form, see Appendix H) through to the Headteacher. The Headteacher would disseminate these in school, alongside notifying staff of the dates for the CPD sessions. This communication from the Headteacher also served as a primer for anyone who may be interested in joining the research Working Party.
TEP Planning	Finalise information sheet and consent form to email through to the school. Prepare input for CPD1. Meet with the school EP to discuss the session plan.
Staff CPD Session 1 *Mon 30/09/19* *3:15-5:15pm*	*See* Appendix F *for the session PowerPoint slides.* Introduction to project process Brief introduction to ACEs Watch the 'Resilience' film Reflections and discussion regarding the film – discuss in small groups/ time to think to self to digest information – complete short individual written reflections on the film – discuss responses as a group Space for questions regarding project (from information sheet) Sign consent forms and form the sub-team

	Add to Learning Tree: roots/ blue post-its (see Appendix I)
TEP planning	Personal reflections on the session Type up individual film reflections and collate to feedback in WP1 and CPD2 Type up Learning Tree responses for review in WP1 Prepare reflection framework for sub-team activity Familiarise with content of literature review to offer suggestions if necessary
Working Party 1 *Fri 11/10/19* *12-2pm*	Display collated slip responses and Learning Tree Welcome and time to reflect on previous session/ typed up responses Decide on group name: 'Working Party' Group reflection framework (Driscoll, 1994) (presented and scribed on wall) – What? – So what? – Now what? Complete individual Hopefulness Questionnaires
TEP planning	Personal reflections on the session Type up group reflection Type up questionnaire responses Prepare CPD2, informed by the working party discussion
Staff CPD Session 2 *Delayed due to my absence.* *Mon 11/11/19* *3:15-5:15pm*	Introduction to session *Input as informed by WP1 (see* Appendix F *for the PowerPoint slides)* – Recap from last time – What does 'adversity' mean? – Education and community – Resilience (and Harvard CDC Principles) Link to next working party session Add to Learning Tree: trunk/ pink post-its
TEP planning	Personal reflections on the session Type up Learning Tree responses Prepare PATH framework
Working Party 2 *Tue 12/11/19* *3:15-5:15pm*	Display Learning Tree and last Working Party reflection Time to regroup and reflect on previous Working Party session Group reflection/ planning framework (presented and scribed on wall) – PATH framework (Pearpoint et al., 1998) Complete individual Hopefulness Questionnaires
TEP planning	Personal reflections on the session Type up PATH content Familiarise with content to feed back

	Email Working Party members with PATH content and prompts for feeding back in CPD3 Bring PATH and Learning Tree to next session
Staff CPD Session 3 *Mon 02/12/19* *3:15-5:15pm*	Working Party members share the PATH with the wider staff group Add to PATH as necessary/ desired by wider staff group Add to Learning Tree: branches & leaves/ green post-its Leave PATH with school
TEP planning	Personal reflections on the session Type up amended PATH Type up Learning Tree responses Prepare Working Party reflection framework
Working Party *3* *Tue 10/12/19* *3:15-5:15pm*	Display Learning Tree Time spent looking back over: – Timeline and overview of project so far – Responses to the film in CPD Session 1 – PATH Content Group reflection framework – individual initially, then scribed up on wall – Considering both the CPD content and process o What went well? o What didn't go well? o What have we learnt? Complete individual Hopefulness Questionnaires
TEP debrief	Initial debrief document (see Appendix H) emailed to school to be disseminated to school staff. Hard copies of the initial debrief document taken to school for the Working Party members.
TEP research process	Analysis and write-up
TEP planning	Prepare for school feedback session
Project Feedback *Date – TBC* *Time – TBC* *Delayed due to COVID-19*	*This session has been postponed due to COVID-19. I am in contact with the participant school and we are hoping to arrange a session in the summer or autumn term of 2021.* Discuss any thought and/ or progress made in school since the project finished. Feedback from my analysis and write-up. Discuss the impact/ pertinence of COVID-19 and systemic inequality. Discuss next steps for the school.

Appendix H: Participant information documents

These documents were emailed to the participant school Headteacher at the beginning of the autumn term, 2019. The Headteacher then disseminated them through the staff group to be read in advance of the first whole-staff session. The consent forms were not signed until the end of the first whole-staff session.

(Anonymised) Information Sheet for University Research Project: Professionals Working with Children and Families who have Experienced Potentially Toxic Adversity

You are invited to take part in a research study entitled: *Professional experiences of supporting children and families who have experienced potentially toxic adversity – How can ACEs-informed Continuous Professional Development (CPD) be Delivered in a School Community in a Hopeful way?*

Introduction

My name is Victoria Tate and I am a Trainee Educational Psychologist (TEP) training at Newcastle University and on placement with The Education Psychology Team in XXX Local Authority. As part of my training, I'm facilitating a piece of research which aims to explore how school communities might be supported to maintain hopefulness when learning about supporting children and families who have experienced adversity in their lives.

The Adverse Childhood Experiences (ACEs) studies indicated the importance of early experiences on later life, detailing potentially traumatic childhood events which were shown to have a significant impact on public health in various ways (Dube et al., 2003; Felitti et al., 1998). These studies and subsequent research have also demonstrated the significant likelihood of families from a range of socioeconomic and cultural backgrounds directly experiencing ACEs.

Proactive and reactive approaches to addressing ACEs are suggested in the research, including awareness building, community collaboration and supportive relationships. Children's Services teams, education professionals and schools are paramount to this approach. However, working with this information, and with the children and families who are living through this adversity can be emotionally and psychologically distressing for professionals. In light of this, it can be challenging for these professionals to remain hopeful in their practice under these circumstances.

What is the purpose of the research?

This research arises from a review of the related literature, and the preliminary findings from that review. The research is also intended to complement the development of 'ACEs-informed practice' within the Children's Services teams and schools in Hartlepool, a move also seen in other local authorities across the country.

Through discussions with YY (Principal Educational Psychologist), it has been suggested that exploring the ways in which education professionals manage to remain hopeful during these developments, and are themselves supported, would be beneficial to the Local Authority. The question that I shall explore through this research is:

How can ACEs-informed CPD be delivered in a school community in a hopeful way?

I hope that the research will help identify ways in which the Education Psychology Team, and the managers of Children's Services Teams may think about supporting staff working with children and families who have experienced adversity. I also hope that this research may provide useful ideas to help scaffold and guide the preparation and delivery of training and CPD regarding this sensitive topic and related areas of practice.

What will this involve?

Through discussion with AA (Head Teacher) and BB (SENDCo), your school has been selected to participate in and collaborate with me for this research. I will work with the whole-school staff & governing body, in a TEP capacity, to collaboratively plan, deliver and disseminate ACEs-informed CPD within your school community. We will then reflect on the process together, thinking about what has been helpful in facilitating feelings of hopefulness and professional efficacy for your staff and governors.

I hope for this project to be collaborative in nature, and that this will support your ongoing ownership of the development process as a staff body and school community. I have a baseline format for the project, which we will build on and shape together.

The process will begin with a whole-school session on Monday 30th September (3:15-5:15pm), where the ACEs film 'Resilience: The Biology of Stress and the Science of Hope' will be shown, and we will reflect on this together. Following this will be two more whole-school sessions, on Monday 21st October, and Monday 11th November.

In-between these sessions, I will meet with a team of volunteers from your school staff; this will incorporate reflections from the whole-staff sessions to plan next steps for the CPD together. This planning stage of the process needs only to involve a small sub-group of your staff team, and I shall facilitate these sessions. I will be asking for between 6 and 10 volunteers to form this group at the end of the first whole-staff session. In order to capture the range of responsibilities and perspectives

within the school, volunteers representing the various professional roles within the staff body will be sought.

Sub-Team Commitment

The dates and times of the sub-team meetings can be negotiated within the group and will take place in school and during school hours. There is no requirement to have any prior knowledge regarding ACEs and ACEs-informed practice in school to be part of the sub-team, however an interest in developing related approaches to practice would be beneficial. There is also no expectation for members of the sub-team to prepare anything outside of the sessions. Just bring your ideas and participation. During the sub-team sessions, I will also ask you questions regarding your experiences of the CPD, in terms of both the process and content.

There will be space for questions and discussion during each of the whole-staff and sub-team sessions. Additionally, if you decide to volunteer to take part in the sub-team, I will go through this information sheet again when we meet and answer all questions you may have. Any identifying information will be removed from the data to ensure anonymity and confidentiality.

I conduct this research with an understanding that working with children and families who experience potentially toxic adversity can sometimes be distressing and uncomfortable, and that participation in this research may also cause some distress and discomfort. Should you wish to seek support under these circumstances, we will be able to discuss the most appropriate course of action.

What happens to my information?

As this research project is part of my educational psychology training, a research report will be required. All information will remain entirely confidential and compliant with the Data Protection Act (1988) and the British Psychological Society's Code of Human Research Ethics (2014). The data generated will be protected by Newcastle University and stored securely. Only my research supervisors and I will have access to the raw data. All raw data will be deleted and destroyed on completion of the written report, which is anticipated to be by June 2020.

My supervisors and I will respect the privacy of everyone taking part by ensuring that the data generated is appropriately anonymised and randomly generated pseudonyms will be used within the report. The only time this principle will not be followed is if a safeguarding concern is raised, in which instance the information would be passed on to the relevant safeguarding contact. In any research report that may be published, no information will be included that will make it possible to identify you individually. There will be no way to connect your name or the identity of your setting to your responses at any time during or after the study. After completion of

the research phase, I hope to share and discuss the outcomes with you in the Spring Term 2020.

What if you change your mind?

You are under no obligation to become a sub-team member. If you choose to volunteer for the sub-team, you have the right to withdraw at any time without giving any reason and without negative consequences. If any requests are made for data to be destroyed, I will comply with the request and remove these data from the study. This option will be included on the debriefing sheet provided after the process, and will inform you of the time limit for this.

Further Information

Please feel free to contact me if you have any questions, requests or concerns. My email address is V.R.Tate2@newcastle.ac.uk and my telephone number is 01429 402711. Alternatively, you can email my research supervisor, Dr Richard Parker, Joint Programme Director of Educational Psychology at Newcastle University - richard.parker@newcastle.ac.uk

This study has been reviewed and approved by the Faculty of Humanities and Social Sciences Ethics Committee at Newcastle University (date of approval: 12th March 2019).

Thank you for taking the time to read this information sheet and for considering contributing to this research project.

Faithfully yours,

Victoria Tate

Declaration of Informed Consent for Participation in University Research Project

Title of study: How can ACEs-informed Continuous Professional Development (CPD) be Delivered in a School Community in a Hopeful way?

Researcher: Victoria Tate (Trainee Educational Psychologist)
Contact details: School of Education, Communication and Language Sciences, King George VI Building, Queen Victoria Road, Newcastle upon Tyne NE1 7RU
Email: V.R.Tate2@newcastle.ac.uk
Telephone: 01429 402711

Please circle YES or NO as applicable.

1. I have read and understood the information sheet provided. YES / NO

2. I have had an opportunity to ask questions and been given satisfactory responses. YES / NO

3. I have been informed that should participation in this study make me feel distressed or uncomfortable, I will have the opportunity to seek appropriate support. YES / NO

4. I have been informed that I may decline to answer any questions or withdraw from the study without giving any reason and without penalty of any kind. YES / NO

5. I am aware that all data collected will be kept confidential and then destroyed once analysis is complete. YES / NO

6. I am happy to take part in this research and give my informed consent. YES / NO

7. *ADDITIONAL: I agree to work with the researcher in a collaborative process to plan, deliver and disseminate Adverse Childhood* YES / NO

Experiences-informed CPD and practice within my school community (i.e. become a sub-team member).

A copy of this form will be provided for you.
Any concerns about this study should be addressed to the School of Education, Communication & Language Sciences Ethics Committee, Newcastle University via email to ecls.researchteam@newcastle.ac.uk

_____

_____Date Name of Participant (please print)
Signature of Participant

I certify that I have presented the above information to the interviewee and secured his or her consent.

Victoria Tate
_____

Date Name of Researcher Signature of Researcher

Debrief Information for University Research Project

Thank you for taking the time to contribute to this research study and for sharing your experience. Your participation is greatly appreciated.

The aim of this project was to identify ways in which Education Psychologists can help school communities to interpret Continuing Professional Development regarding ACEs in a hopeful way. I hope that the project can provide useful ideas to help scaffold and guide the preparation and delivery of future training and CPD regarding this sensitive topic and related areas of practice. I also hope that this project can identify ways in which education professionals maintain hopefulness when working with children and families who have experienced potentially toxic adversity, and what supports them in this.

I am in the process of reflecting on and analysing the process that we undertook together, including the reflections that we collaboratively discussed. It is hoped that the information generated from this process will lead to the identification of themes that detail what works well to support professionals in these circumstances. I also hope that this information can be considered by the Local Authority and the Education Psychology Service when planning how to support professionals who work with children and families who have experienced potentially toxic adversity.

This process may have caused you to reflect on some issues that are uncomfortable for you. If you would like to talk to someone regarding your experience of taking part in this process, please contact me via the email address below, or via my telephone number. Alternatively, you may want to speak to your line manager, or your designated school Educational Psychologist, who may be able to signpost you to some helpful contacts if necessary.

If you have any further questions about the aims of this research project, please feel free to contact myself using the following email address: victoria.tate2@newcastle.ac.uk or telephone number 01429 402711. Alternatively, you can contact my research supervisor, Dr. Richard Parker, using the following email address: richard.parker@newcastle.ac.uk

If you are interested in the findings of this research, I am more than happy to share this with you if requested. There will be an opportunity for me to facilitate a feedback session in school towards the end of the spring term for those who would like to attend.

I would like to reiterate that all information will be anonymised and that you will not be identifiable in any form of data recording. The data will be kept until the analysis is completed and the final report written, at which time all data will be disposed of.

What if you change your mind?

You are under no obligation to take part in this research and have the right to withdraw at any time up to the completion of the written report, which is anticipated to be by May 2020. Requests to withdraw from the research can be made by contacting me via the email address below. I will comply with the request and remove all your individual data from the study. Group data that was collected collaboratively will remain in the study with no link to individual participants.

Thank you, once again, for contributing to this research. Please feel free to get in touch if you have any questions.

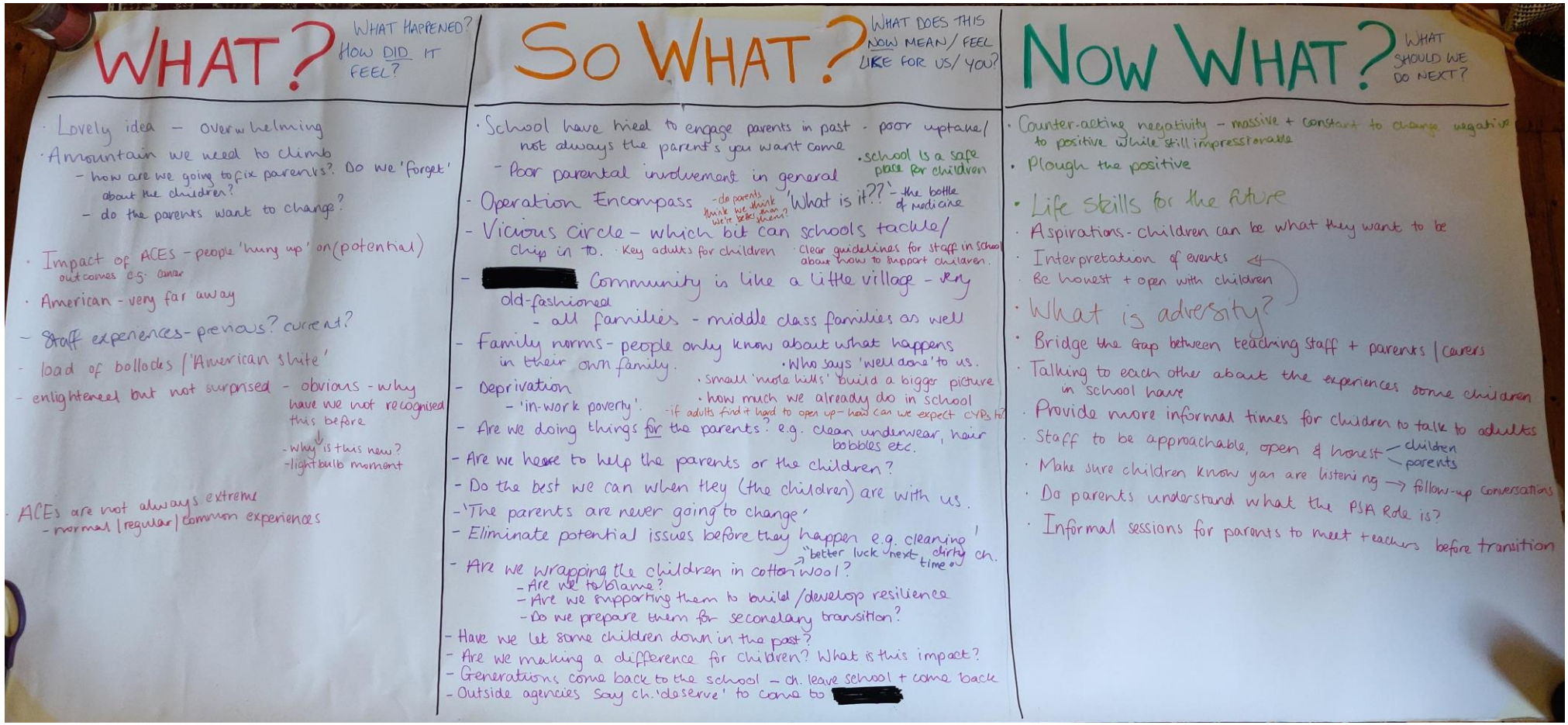
Researcher: Victoria Tate (Trainee Educational Psychologist)

Contact details: School of Education, Communication and Language Sciences,
King George VI Building,
Queen Victoria Road,
Newcastle upon Tyne
NE1 7RU

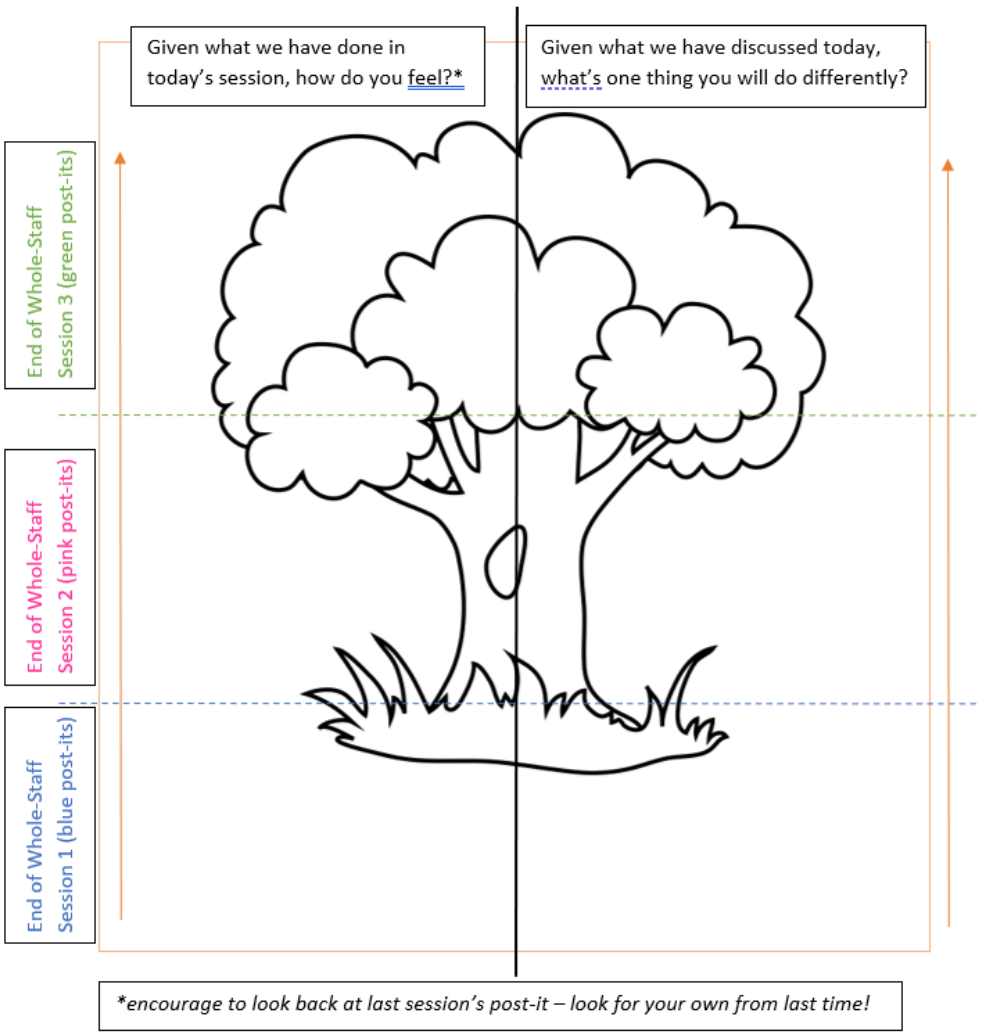
Email: victoria.tate2@newcastle.ac.uk
Telephone: 01429 402711

Appendix I: Templates for data gathering

Working Party 1 Driscoll (1994) Reflection Template – Completed and anonymised



The Learning Tree



Hopefulness Questionnaire

I created a bespoke questionnaire, incorporating common scaling questions from EP practice.

1. How hopeful do you feel about this CPD impacting upon your practice in a helpful way?

Please scale between 0 and 10

0 _____1_____2_____3_____4_____5_____6_____7_____8_____9_____ 10

2. What factors have contributed to this level of hopefulness?

3. What factors have prevented you from feeling more hopeful?

4. How hopeful do you feel about this CPD impacting upon your school's practice in a helpful way?

Please scale between 0 and 10

0 _____1_____2_____3_____4_____5_____6_____7_____8_____9_____ 10

5. What factors have contributed to this level of hopefulness?

6. What factors have prevented you from feeling more hopeful?

7. What will you do next to improve (or maintain, if rated 10 on both questions 1 and 4) this level of hopefulness? *This question was added to the questionnaire for WP sessions 2 and 3.*

Appendix J: Excerpts and diagrams from the Grounded Theory analysis process

Example Personal Reflection

Written on 11/11/2019, following Staff CPD Session 2

- Last time all together – hadn't seemed particularly ready to think about own wellbeing, as members of the community – had been very focused on the children, and a little on the parents
- This time – a lot of focus on children, in second half, much more focus on staff wellbeing/ each other – great, however this lead to discussions regarding 'giving in' to parents too much/ parents have got away with too much → a sense of the parents' needs OR the staff needs, with CYP needs as a constant – a trade-off between staff wellbeing and parental wellbeing – very interesting!
- A recent/ ongoing issue – relationships/ working with parents – very prevalent for the staff team, dominated a lot of discussion
- Me: "this issue seems very present for you just now" → "that's cos you've made us think about it" – wasn't sure what to make of that at the time!
- Not looked at the post-its yet – didn't seem as many on there as last time
- Not confident about having finished the session on a level of hopefulness… – not necessarily because of the session, perhaps more regarding staff emotional readiness…?
- Additionally – not everyone present – one person suspected to be absent due to how close to home this information feels for her
- The first video (Slide 5) comments – would have perhaps been more helpful to see this first – felt more relevant (resilience film perhaps too much, not as hopeful, not a so what/ what to do)
- Discussion re more local statistics – one person felt these were full of blame – quite defensive – didn't agree with the idea that the north of England had negative stats compared to the rest of the nation
- Window of tolerance video seemed helpful – sparked quite a lot – people seemed activated after it – one interpretation: staff leave all their stuff at the door and therefore are the calm adult – another interpretation: when you see a child either

hyper- or hypo-aroused, adults need to model being calm and stable. This took the convo onto thinking about staff windows of tolerance "no one supports teacher's stress"…

- The working party members had seemed to need the time in the smaller group to understand what ACEs were and their relation to it. Perhaps there was some of this needed for those who aren't in the working party, that then needed to happen in the CPD session
- Although a lot of the discussion was the working party members anyway – something about the connection these particular people have to the content, making them want to be involved at the extra level…?

Example Analysis Memo 1

Added new (focused) code: exploring another perspective

- When the WP members wonder about what parents think the staff think of them… this seems a powerful step towards empathy, de-stigmatisation, holism.... I wonder which other pieces of data contribute to this, if any

Qualifying/ extra detail for the tension between 'seeing a huge issue/ wanting big change' and 'feeling helpless/ only able to make small changes' → something about where does *responsibility* to effect change lay? All in one place? Or shared? How much can one person/ agency/ service/ group/ community do? Where are the *boundaries* (between roles and responsibilities)? How are these communicated??? Are there overlaps?

I have thought a few times about my use of the word 'assuming' for the code 'assuming parent capacity'. I generally mean it as in 'presuming', or 'thinking without proof' and did not want this to be mistaken for 'taking on', 'becoming'… However, there are times when it seems that this definition is actually appropriate – the school staff put themselves in the position of parent – with pride, but also begrudgingly? With disdain for what parents should be doing??? It's interesting where empathy could come in here… the first definition of assuming suggests lack of empathy, but the second is synonymous (kind of) with 'being in parents' shoes' yet does not evoke empathy, which has a similar definition in this instance…

I wonder whether unpicking the reasons why school staff can do what they do when they do (supported by systems, processes, resources, time, containment etc.), vs why parents can't do those things, at times, would be helpful? Lack of all of the above…?

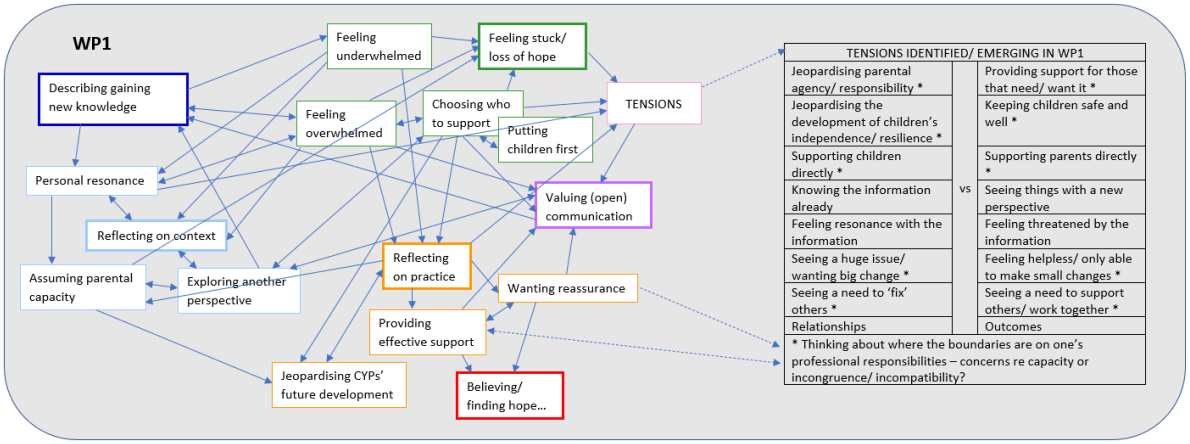
Am I imposing my own desire for hope and optimism on my thinking?

How much am I paying attention to the aspect of the session/ framework that the data piece has come from? I don't know at this point…

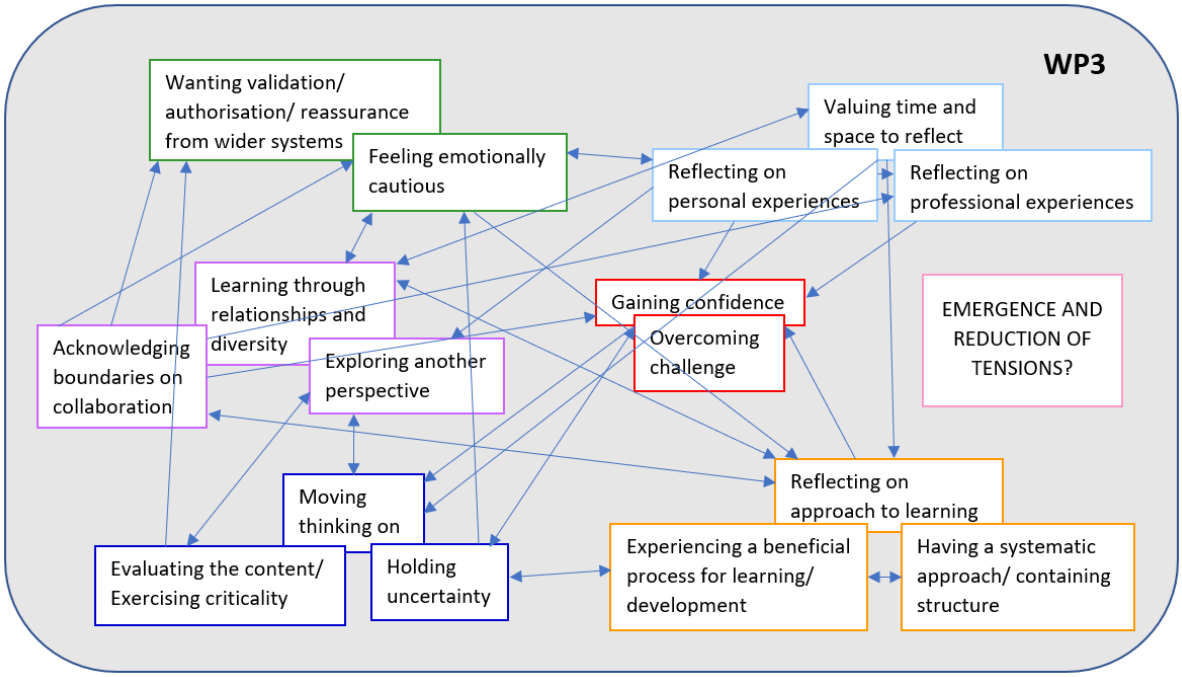
Example Analysis Memo 2

I've colour coded the 'groupings' in each session's data set – the colours used across the two sessions don't necessarily correlate, though I did provisionally think about using similar colours for groups that may have links. For example, how did the valuing of open communication (in WP1) become learning through relationships (and diversity) (in WP3)? We can see that alternative perspectives were explored in both WPs, facilitated partly by assumptions made about parents' capacity (which at times correlated with taking on a 'parenting role and responsibilities'), exploring different contexts and experiences, and the personal but varied resonance that the information had with the WP members. The size and members of the group were important to this process, and boundaries on collaborating on something of this nature were acknowledged. This was both in the need for relational and emotional safety during discussion, as well as pragmatics, which then also may need to involve wider systems for authorisation and validation. This may be financial, logistical, or to seek community approval/ consensus.

Diagramming of WP1 theoretical codes and categories



Diagramming of WP3 theoretical codes and categories



These diagrams represent one stage of the Grounded Theory analysis process, exploring initial links between the codes from WP1 and WP3 respectively. The arrows represent my initial interpretation of the direction of influence between the codes, some being uni-directional and some bi-directional. However, as I progressed through my analysis and write-up, the relationships between the codes and categories emerged as more nuanced and complex than these diagrams indicate. The table to the right of the first diagram also captures my initial perception of some of the tensions emerging in WP1, which I have described in dichotomous balances.

Links between WP1 theoretical codes and categories, through the process of WP2, to the WP3 concepts

The table below presents a version of

Table 17 that includes all the model concepts. Again, examples of verbatim data and their codes (in italics) from both WP1 and WP2 are provided to show how they contributed to building the final model concepts. Verbatim data is shown in black standard font (capitals represent data that was scribed in capitals during data collection). Black italics represent initial and some focused codes. Coloured italics represent focused and theoretical codes, linked to the theoretical concepts.

Evidence in Data from WP1	**Evidence in Data from WP2**	**Final Theoretical Concept**
Do the best we can when they (the children) are with us *Containing the scope of change possible* *Feeling stuck/ loss of hope* *Providing effective support* *Tension: huge issues yet feeling helpless*		
Staff experiences – previous? Current/ *Feeling connected to the content* *Personal resonance* *Tension: resonance versus threat*	HAVE EACH OTHER'S BACKS *Having each other's backs* *Feeling emotionally cautious* *Tensions reduce* *Learning through relationships*	**Needing to feel safe**
Talking to each other about the experiences some children in school have *Talking about children's experiences* *Exploring another perspective*		
massive and constant *Working hard and long-term*		

Evidence in Data from WP1	Evidence in Data from WP2	Final Theoretical Concept
Believing/ finding hope…		
Outside agencies say children 'deserve' to come to Hillmount *Feeling affirmed by external agencies* *Wanting reassurance*	OTHER SERVICES – EPs *Being supported by external agencies* *Togetherness* *Reaching out* *Wanting validation* *Tensions reduce* *Exploring another perspective* *Learning through relationships* *Developing understanding*	*(Needing to feel safe continued)*
ACEs are not always extreme – Normal/ regular/ common experiences *Realising adversity is common* *Feeling overwhelmed*		
Clear guidelines for staff in school about how to support children *Having clear support guidelines* *Providing effective support* *Wanting reassurance*		
Interpretation of events – what is adversity? *Conceptualising adversity* *Reflecting on context*		**Reflecting on experiences**
Are we wrapping the children in cotton wool? *Worrying about doing too much for the children* *Jeopardising CYP's future development* *(reflecting on practice)* *Tension: CYP independence versus CYP safety and wellbeing* *Tension: relationships versus outcomes*	BE AWARE OF OTHER PEOPLE'S WINDOW OF TOLERANCE *Being aware of other people's window of tolerance* *Connection* *Understanding* *Valuing time and space to reflect* *Tensions reduce* *Developing understanding* *Learning through relationships*	
Staff experiences – previous? Current? *Feeling connected to the content* *Personal resonance* *Tension: threat versus resonance*		

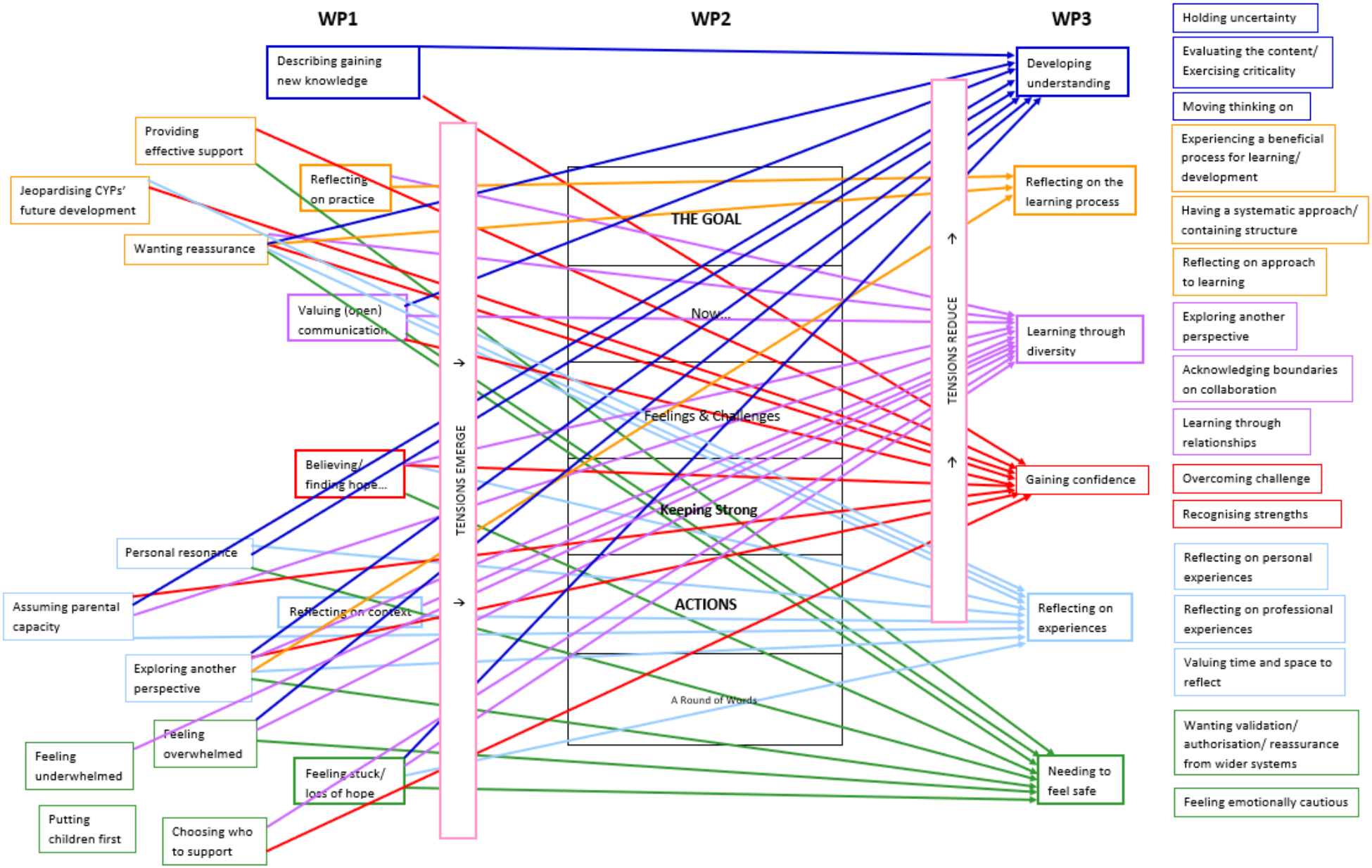
Evidence in Data from WP1	Evidence in Data from WP2	Final Theoretical Concept
If adults find it hard to open up – how can we expect children to? *Questioning how difficult children find 'opening up'* *Believing/ finding hope…* *Valuing (open) communication* *Exploring another perspective*	AFTER SCHOOL GET TOGETHER – VENT *Venting together* *Understanding* *Physical presence* *Valuing time and space to reflect*	*(Reflecting on experiences continued)*
which bit can school tackle/ chip into? *Wanting to start change* *Providing effective support* *(reflecting on practice)* *Tension: huge issue yet feeling helpless*	MOMENTUM *Having momentum* *Gaining confidence* *Tensions reduce*	**Gaining confidence**
Light bulb moment *Having a lightbulb moment* *Describing gaining new knowledge*		
How are we going to fix parents? *Wondering how parents can be helped* *Assuming parental capacity* *Tension: 'fix' others versus working together*	PARENTS' VISION DAY *Listening to parents* *Learning through relationships* *Tensions reduce*	**Learning through diversity**
Are we here to help the parents or the children? *Feeling tension between supporting parents or children* *Choosing who to support* *(feeling stuck/ loss of hope)* *Tension: supporting CYPs versus supporting parents*		
Bridge the gap between teaching staff and parents/ carers *Building relationships between staff and parents/ carers*		

Evidence in Data from WP1	Evidence in Data from WP2	Final Theoretical Concept
Valuing (open) communication *Tension: relationships versus outcomes*		*(Learning through diversity continued)*
Do parents think we think we're better than them? *Worrying parents feel patronised by staff* *Assuming parental capacity* *(reflecting on context)*		
Headland community is like a little village – very old-fashioned *Working in an old-fashioned community* *Reflecting on context*	explore possibility of making links with Neighbour School *Exploring links with Neighbour School* *Reaching out* *Exploring another perspective* *Learning through relationships* *Tensions reduce* *Valuing time and space to reflect*	
'What is it??' – the bottle of medicine *Wondering what the solution is* *Reflecting on practice* *Tension: huge issue yet feeling helpless*		
Feeling overwhelmed *Feeling underwhelmed* *(feeling stuck/ loss of hope)* *Tension: nothing new versus new thinking* *Tension: huge issue yet feeling helpless*	A 'sounding board' *Having/ being a sounding board* *Relational support – shared thinking* *Reflecting on approach to learning* *Tensions reduce* *Valuing time and space to reflect* *Exploring another perspective* *Learning through relationships*	**Reflecting on the learning process**
Are we making a difference for children? What is the impact? *Questioning the impact of current practice* *Reflecting on practice*		
Talking to each other about the experiences some children in school have		

Evidence in Data from WP1	Evidence in Data from WP2	Final Theoretical Concept
Talking about children's experiences *Exploring another perspective*		*(Reflecting on the learning process continued)*
Overwhelming *Feeling overwhelmed* *Describing gaining new knowledge*	OTHER SERVICES – EPs *Being supported by external agencies* *Togetherness* *Reaching out* *Developing understanding* *Tensions reduce* *Wanting validation* *Exploring another perspective* *Learning through relationships*	**Developing understanding**
Obvious – why have we not recognised this before? *Feeling guilty that this hasn't been recognised before* *Describing gaining new knowledge* *Feeling underwhelmed* *(feeling stuck/ loss of hope)* *Tension: nothing new versus new thinking*		
Are we supporting them to build/ develop resilience? *Wondering whether staff are promoting resilience* *Jeopardising CYP's future development* *(reflecting on practice)* *Tension: CYP independence versus CYP safety and wellbeing*	RAISING PARENT AWARENESS *Raising parent awareness* *Developing understanding* *Tensions reduce* *Valuing time and space to reflect*	
'The parents are never going to change' *Assuming parents can't change* *Assuming parental capacity* *Feeling stuck/ loss of hope* *Tension: fix others versus working together*		

Evidence in Data from WP1	Evidence in Data from WP2	Final Theoretical Concept
Who says 'well done' to us? *Wanting acknowledgement and appreciation* *Wanting reassurance* *(reflecting on practice)*	BE EACH OTHER'S BUFFERS *Buffering each other* *Connection* *Understanding* *Developing understanding* *Feeling emotionally cautious* *Tensions reduce*	*(Developing understanding continued)*
A mountain we need to climb *Climbing a (metaphorical) mountain* *Starting a difficult task* *Feeling overwhelmed* *Feeling stuck/ Loss of hope*		

The diagram below presents a full complicated schematic of the table above, demonstrating the contribution of WP1 and WP2 to the progression of the final concepts (see earlier for diagramming of the construction of theoretical codes and categories in WP1). Links between the theoretical codes and categories from WP1 to the final WP3 concepts are shown by the arrows, with the elements of the PATH from WP2 that facilitated these links shown in the table in the centre. Upper case, larger and bold font represents increased level of contribution from the WP2 elements. The matching colours in WP1 and WP3 represent categories that appeared similar upon construction, though as the diagram shows, the links between the categories across the WPs are multiple and complex. While the diagram shows links to the main WP3 concepts only, I have included the theoretical codes from WP3 to the right, to demonstrate the depth of the concepts.


WP1
WP2
WP3
Describing gaining new knowledge
Providing effective support
Jeopardising CYPs' future development
Wanting reassurance
Reflecting on practice
Valuing (open) communication
Believing/ finding hope...
Personal resonance
Assuming parental capacity
Reflecting on context
Exploring another perspective
Feeling underwhelmed
Feeling overwhelmed
Feeling stuck/ loss of hope
Putting children first
Choosing who to support
TENSIONS EMERGE
THE GOAL
Now...
Feelings & Challenges
Keeping Strong
ACTIONS
A Round of Words
TENSIONS REDUCE
Developing understanding
Reflecting on the learning process
Learning through diversity
Gaining confidence
Reflecting on experiences
Needing to feel safe
Holding uncertainty
Evaluating the content/ Exercising criticality
Moving thinking on
Experiencing a beneficial process for learning/ development
Having a systematic approach/ containing structure
Reflecting on approach to learning
Exploring another perspective
Acknowledging boundaries on collaboration
Learning through relationships
Overcoming challenge
Recognising strengths
Reflecting on personal experiences
Reflecting on professional experiences
Valuing time and space to reflect
Wanting validation/ authorisation/ reassurance from wider systems
Feeling emotionally cautious