Mental health and wellbeing interventions for care-experienced children and young people: Systematic review and synthesis of process evaluations

Sarah MacDonald [a,*], Rob Trubey [b], Jane Noyes [c], Soo Vinnicombe [c], Helen E. Morgan [d], Simone Willis [d], Maria Boffey [e], G.J. Melendez-Torres [f], Michael Robling [c], Charlotte Wooders [e], Rhiannon Evans [a]

[a] DECIPHer, School of Social Sciences, Cardiff University, Cardiff, UK
[b] Centre for Trials Research, Cardiff University, Cardiff, UK
[c] School of Health Sciences, Bangor University, Bangor, UK
[d] Specialist Unit for Review Evidence, Cardiff University, Cardiff, UK
[e] The Fostering Network in Wales, Cardiff, UK
[f] Peninsula Technology Assessment Group (PenTAG), University of Exeter, Exeter, UK

ARTICLE INFO

ABSTRACT

Background: The mental health and well-being of care-experienced children and young people remains a concern. Despite a range of interventions, the existing evidence base is limited in scope, with a reliance on standalone outcome evaluations which limits understanding of how contextual factors influence implementation and acceptability. The Care-experienced cHildren and young people's Interventions to improve Mental health and wEll-being outcomes Systematic review (CHIMES) aimed to synthesise evidence of intervention theory, outcome, process and economic effectiveness. This paper reports the process evaluation synthesis, exploring how system factors facilitate and inhibit implementation and acceptability of mental health and wellbeing interventions for care-experienced children and young people.

Methods: Sixteen databases and 22 websites were searched between 2020 and 2022 for studies published from 1990 and May 2022. This was supplemented with contacting experts in the field, citation tracking, screening of relevant systematic reviews and stakeholder consultations. We drew on framework synthesis of qualitative data and incorporated a systems lens, taking account of contextual influences across socio-ecological domains. Quality appraisal assessed reliability and usefulness. Confidence in synthesised findings was assessed with the GRADE-CERQual tool. We report the review in accordance with relevant elements of both the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA), and the Enhancing transparency in reporting the synthesis of qualitative research (ENTREQ) checklist.

Results: Searches retrieved 15,068 unique study reports, and 23 of these were eligible for process evaluation synthesis, reporting on sixteen interventions. Studies were published between 2003 and 2021. Nine interventions were from the UK and Ireland, six interventions were from the USA, and one was from Australia. They were largely classified as interpersonal, where the aim was to modify carer-child relationships. Five key context factors were identified that supported and prohibited intervention delivery: (1) lack of system resources; (2) intervention burden, which encompasses the time, cognitive, and emotional burden associated with implementation and participation; (3) interprofessional relationships between health and social care professionals; (4) care-experienced young people's identity; and (5) carer identity.

Conclusion: We identified several supportive and restrictive factors across social and health care systems that may impact intervention implementation and acceptability. Key implications include: the importance of involving diverse stakeholders in intervention development and delivery; the need to better resource and support those involved in interventions, particularly training and support for carers; and ensuring future evaluations integrate process evaluations in order to optimise interventions.

* Corresponding author.
E-mail address: MacdonaldS@cardiff.ac.uk (S. MacDonald).

1. Background

The mental health and wellbeing of children and young people who have been or are currently in care (care-experienced) is a health and social care priority. They experience higher levels of mental health problems compared to the general population (Dubois-Comtois et al., 2021; Engler et al., 2022), and are more than three times as likely to attempt suicide (Evans et al., 2017). Given the associations between poor mental health and risk of adverse outcomes related to physical health, educational and employment outcomes (Jones et al., 2011; O'Higgins et al., 2017; Tessier et al., 2018), there is a clear need to prioritise mental health and wellbeing provision for care-experienced children and young people, and the UK education and social care policy has demonstrated a strong commitment in this area (Department for Education, 2015; Excellence NIfHaC, 2021). This includes policy directives stating that vulnerable populations must have equal access to high quality provision (Welsh Government, 2021), and an emphasis on preventing and reducing the impacts of Adverse Childhood Experiences (Welsh Government, 2021). Meanwhile, recent National Institute for Health and Care Excellence (NICE) guidelines for care-experienced children and young people, indicates mental health and wellbeing as a priority area, and recommend the delivery and evaluation of interventions focussed on mentoring, positive relationships, and system change models (Nice, 2021).

A number of systematic reviews offer syntheses of the international evidence-base for interventions (Luke et al., 2014; Turner and Macdonald, 2011; Everson-Hock et al., 2012; Hambrick et al., 2016; Bergström et al., 2019; Greeson et al., 2020; Excellence NIfHaC, 2021), but despite their contribution, they are subject to key limitations. Primarily, existing reviews tend to prioritise the synthesis of outcome evaluations, with limited assessment of intervention theory, context or process data (NICE Evidence Reviews Collection, 2021; NICE Evidence Reviews Collection, 2021). Where comprehensive syntheses of evidence reporting barriers and facilitators to intervention implementation with this population are conducted, they are rarely integrated with outcome data to understand and explain variations in effectiveness (Excellence NIfHaC, 2021).

Process evaluations report contextual characteristics impacting on implementation, and offer potential to help address the transportability of evidence between different countries and settings (Aarons et al., 2017). This resonates with recent advances in complex systems thinking in systematic reviews (Petticrew et al., 2019; Booth et al., 2019), which understand interventions as system disruptions where effectiveness is contingent on the system in which they are implemented (Moore et al., 2019; Hawe et al., 2009; Rutter et al., 2017). With the rise of complex systems thinking, we understand that intervention effects are contingent on context, and so understanding the interaction of the system will help to explain why the intervention works or fails to work.

Attending to process evaluations within evidence syntheses is particularly important given that interventions are predominantly developed and delivered within the USA (Excellence NIfHaC, 2021). This could result in gaps in understanding around the potential replicability of effects and transportability of interventions to different health and social care systems. The example of Multi-Systematic Therapy (MST) and Multi-dimensional Treatment Foster Care (MTFC) demonstrated the importance of attending to contextual factors and the complexities in replicating the positive effects of US originated interventions in Sweden (Westermark et al., 2011) MST was not effective when replicated in the new Swedish context as it was similar to usual care, whereas MTFC demonstrated impact as it included components that are common in usual care in Sweden but are rarely delivered as an integrated suite of support.

Given the limitations with extant evidence syntheses, there is a need for a complex, system-informed systematic review that synthesises evidence on the effectiveness of interventions, which considers the contexts in which they are evaluated. The Care-experienced cHildren and young

people's Interventions to improve Mental health and wEll-being outcomes Systematic review (CHIMES) was a multi-method review that aimed to draw together theory, context, process and outcome data in order to understand which interventions are effective in which contexts and why. The process evaluation synthesis reported in this paper, specifically addressed the following research questions:

- How do contextual characteristics shape implementation factors for interventions addressing the mental health and wellbeing of care-experienced children and young people, and what are key enablers and inhibitors of implementation?
- What is the acceptability of interventions to target populations, including children and young people, carers and delivery agents?

2. Methods

This paper reports the process evaluation synthesis from the CHIMES systematic review. The full CHIMES methodology is reported in the study protocol (Evans et al., 2021) and PROSPERO register (CRD42020177478). The present methods are specific to the process evaluation synthesis and reported in accordance with relevant domains of the PRISMA statement (Liberati et al., 2009) and ENTREQ (Tong et al., 2012), to form a hybrid reporting guideline that was most appropriate for this type of review (Flemming et al., 2018). The checklists are included in Appendix A.

2.1. Stakeholder consultations

Three stakeholder consultations were conducted at the start of the CHIMES review to refine scope and focus. This included consultations with: CASCADE Voices, a young people's advisory research group comprising care-experienced individuals up to the age of 25 years; the Fostering Network in Wales Young Person Forum, which is a group of care-experienced young people who provide advice and guidance to the charity on their programmes of work; and the All Wales Fostering Team Managers Forum, which is also facilitated by The Fostering Network in Wales and comprises a range of Local Authority and independent foster care providers.

The consultations helped refine the review parameters and identified key context factors in the UK social care system that should be prioritised in the conduct of the review. For example, related to system identities, the discussion referenced young people's experience of negative perceptions of poor mental health, and how there may be a lack of system support for implementing mental health and wellbeing promotion interventions. This included long waiting lists, alongside inadequate funding for mental health provision.

2.2. Inclusion criteria

In accordance with the PICOS framework, the review inclusion parameters are as follows:

Types of participants: Intervention participants could be care-experienced children and young people (aged ≤ 25 years old), or their proximal relationships, organisations and communities. The following populations were excluded: general population; children in need classified as being in need but not placed in care (e.g., have a Children in Need (CiN) plan or Child Protection plan); individuals at the edge of care (children and young people who are being considered for care but have not entered into local authority care as they and their families are being supported through alternative provision); care without statutory involvement (e.g., informal kinship care); adoption; or unaccompanied asylum seekers and refugees.

Intervention: These were broadly defined as any attempt to disrupt existing system practices, including mono-component or multi-component, and operating across any socio-ecological domain.

Comparator: For outcome evaluations a comparator was required

and could include treatment as usual, other active treatment, or no specified treatment.

Outcomes: There were three domains of primary outcomes:

- Subjective wellbeing (eudaimonia and hedonia); life satisfaction; and quality of life.
- Mental, behavioural or neurodevelopmental disorders as specified by the ICD-11.
- Self-harm; suicidal ideation; suicide.

Study design: Different study designs were eligible according to the research question being addressed. For process evaluations, included studies had to empirically report on context, implementation and/or acceptability of interventions. They could include qualitative, quantitative or mixed method process data.

2.3. Information sources

Study reports were identified from five information sources: electronic bibliographic databases; websites; expert recommendations; unpicking of relevant systematic reviews; and citation tracking of included study reports. Sixteen electronic bibliographic databases were searched: ASSIA; British Education Index; Child Development & Adolescent Studies; CINAHL; Embase; ERIC; Cochrane Central Register of Controlled Trials; Cochrane Database of Systematic Reviews; HMIC; International Bibliography of the Social Sciences; Medline; PsycINFO; Scopus; Social Policy & Practice; Sociological Abstracts; and Web of Science. Search terms were clustered around the areas of: children; social care; mental health; wellbeing; and study design.

Twenty-two websites of relevant social and healthcare organisations were consulted. Databases and websites were searched from 1990 onwards, with this date marking ratification of the UN Convention on the Rights of the Child. Searches were conducted May-June 2020 and updated April-May 2022. There were no language limitations. Reports from lower-middle resource countries were excluded as the review was primarily concerned with intervention transportability to the UK context. Search terms focused on: children and young people in care; mental health; and wellbeing.

2.4. Selection process

Retrieved reports were exported to EndNote for de-duplication and imported to EPPI Reviewer 4 for screening. Screening of retrieved study reports was conducted in three stages. First, retrievals from electronic bibliographic databases and websites were screened to identify clearly irrelevant retrievals by checking the record title (e.g., animal testing of pharmacological treatment). This stage was conducted by one member of the review team. Retrievals that were identified as clearly irrelevant were checked by a second reviewer. Second, the title and abstracts of retrievals from almost all information sources were screened independently and in duplicate by two members of the research team. Third, the full texts of study reports from all information sources were screened independently and in duplicate by two members of the research team. Where there was a conflict, a decision was made through recourse to a third member of the research team.

Following the identification of eligible study reports, we constructed an evidence map. From here we assessed which study reports would be included in method specific syntheses.

For the process evaluation synthesis, we drew upon an existing review's classification to identify papers as either 'conceptually and/or empirically thin' or 'conceptually and/or empirically rich' (Ames et al., 2019; Ames et al., 2017). Thin process evaluations often formed part of a mixed method study report, did not have a dedicated description of method and typically only presented a small section of qualitative or quantitative data. Rich process evaluations were included as stand-alone study reports, and provided potentially generalisable contextual insight

into how interventions might interact with complex systems. In practice thin papers were a mixture of quantitative and qualitative data, whereas rich papers were purely qualitative. The latter set of papers were included in the process evaluation synthesis.

2.5. Data extraction, coding and derivation of themes

As eligible study reports for the present synthesis were qualitative, we followed the phases of the framework synthesis approach (Barnett-Page and Thomas, 2009; Brunton et al., 2020; Gale et al., 2013). This included: (1) Familiarisation: Two members of the review team read the study reports to achieve immersion in the data and become sensitised to within study and between study differences. (2) Framework development: The team developed a conceptual framework, which integrated key elements of a process evaluation that might support explanation of intervention functioning and effects. These were context, implementation and acceptability. Context and implementation were further defined in reference to the CICI framework (Pfadenhauer et al., 2017), and were also shaped by stakeholder themes from the consultations. (3) Indexing: Study reports were identified and extracted in accordance with the conceptual framework. Indexing of 10 % of papers was conducted independently and in duplicate, with the remainder being conducted by one reviewer and verified by a second. (4) Charting: Studies were grouped according to context factors, and how they relate to implementation and acceptability. These categories of context factors progressed to initial themes, with themes moving beyond the CICI framework and defining context domains more closely linked to the data. Initial descriptive themes included examples such as a lack of time. (5) Mapping and Interpretation: The review team transformed the initial themes into analytical themes, which entailed the generation of new constructs and interpretive insights. For example, the initial theme on lack of time was transformed into the richer theme of 'intervention burden', which included aspects of the cognitive, time and emotional burden involved in intervention delivery and engagement. These themes emphasised how context could structure implementation and acceptability, which in turn could influence effectiveness. The synthesis was presented narratively, with a summary table indicating evaluation characteristics and the key context factors presented at the individual-study level.

2.6. Quality appraisal – Rationale and process

Study reports were appraised using a tool developed in a previous systematic review (Rees et al., 2011) with appraisal undertaken independently and in duplicate, with disagreement being resolved through discussion or recourse to a third reviewer. The quality domains assessed for reliability/trustworthiness were: steps taken to increase rigour in sampling; steps taken to increase rigour in data collection; steps taken to increase rigour in the analysis of data; findings grounded in/supported by the data. The domains assessed for usefulness were: breadth and depth of study; how the study privileges the perspectives and experiences of children and young people; and how the study privileges the perspectives and experiences of parents, carers, social care professionals and other stakeholders. We made a global assessment of overall reliability/trustworthiness and overall usefulness. Domains were rated as high, medium, low or unclear and any methodological concerns were noted.

2.7. Assessment of confidence in the review findings

The GRADE-CERQual (Lewin et al., 2018) approach was used to assess the confidence in the synthesised qualitative findings, with six statements being generated. Each statement was assessed across four components: methodological limitations; coherence; adequacy; and relevance. Each evidence statement was assessed as high in the first instance and was rated down if there were concerns about each

component. From here an overall CERQual assessment of confidence in the qualitative finding was made, with an accompanying explanation. Confidence in the evidence was rated as high, moderate, low or very low.

2.8. Reflexivity

The review and synthesis were undertaken by a large and multi-disciplinary team who made transparent their views and biases when interpreting the evidence. Regular team meetings were conducted to discuss, develop and interpret the findings.

3. Results

3.1. Search results

The PRISMA flow diagram for study retrieval is presented in Fig. 1. Searches retrieved 15,068 unique study reports. Of these, 888 were screened at full text, with 124 study reports linked to 64 interventions being included.

Overall, 50 process evaluation studies were included which we classified as 'conceptually and/or empirically thin' and 'conceptually and/or empirically rich'. There were 23 rich process evaluations included in the present synthesis (Aventin, Houston, Macdonald, 2014; Mezey et al., 2015; Turner-Halliday et al., 2017; Turner-Halliday et al., 2016; Vallejos Elvira et al., 2016; Biehal et al., 2012; Callaghan et al., 2003; Kirton and Thomas, 2011; Lotty et al., 2020; McDermid et al., 2021; Baginsky et al., 2017; Dorsey et al., 2014; Hall Seventy et al., 2018; McMillen et al., 2015; Murray et al., 2014; Spencer et al., 2018; Spielfogel Jill et al., 2011; Ziviani et al., 2013; Alderson et al., 2020; Alderson et al., 2020; Alderson et al., 2021; Shklarski, 2020; Tullberg

et al., 2019). A summary of included studies is provided in Appendix B.

3.2. Study characteristics

Study reports were published between 2003 and 2021. Nine interventions (with fourteen associated study reports) were from the UK and Ireland (Aventin et al., 2014; Mezey et al., 2015; Turner-Halliday et al., 2017; Turner-Halliday et al., 2016; Vallejos Elvira et al., 2016; Biehal et al., 2012; Callaghan et al., 2003; Kirton and Thomas, 2011; Lotty et al., 2020; McDermid et al., 2021; Baginsky et al., 2017; Alderson et al., 2020; Alderson et al., 2020; Alderson et al., 2021; Haight et al., 2010). Six interventions (with eight study reports) were from the USA (Dorsey et al., 2014; Hall Seventy et al., 2018; McMillen et al., 2015; Murray et al., 2014; Spencer et al., 2018; Spielfogel Jill et al., 2011; Shklarski, 2020; Tancred et al., 2018). One intervention (with one study report) was from Australia (Ziviani et al., 2013).

Mapping the socio-ecological domain where the intervention operated provided insights into how interventions interact with the system in different ways. Two interventions, with two study reports, focussed on the intrapersonal domain, targeting the skills and knowledge of children and young people (Aventin et al., 2014; Vallejos Elvira et al., 2016).

Five interventions, with five study reports, addressed the interpersonal domain (Mezey et al., 2015; Lotty et al., 2020; Spencer et al., 2018; Spielfogel Jill et al., 2011; Shklarski, 2020). These primarily worked to change the relationship between carers and care-experienced young people by enhancing knowledge, confidence and competency to improve relationships. This included parent training programmes for carers (Lotty et al., 2020; Spielfogel Jill et al., 2011; Shklarski, 2020), and two interventions focussed on linking young people to a range of adult supporters, through a programme of mentoring support (Mezey et al., 2015; Spencer et al., 2018).
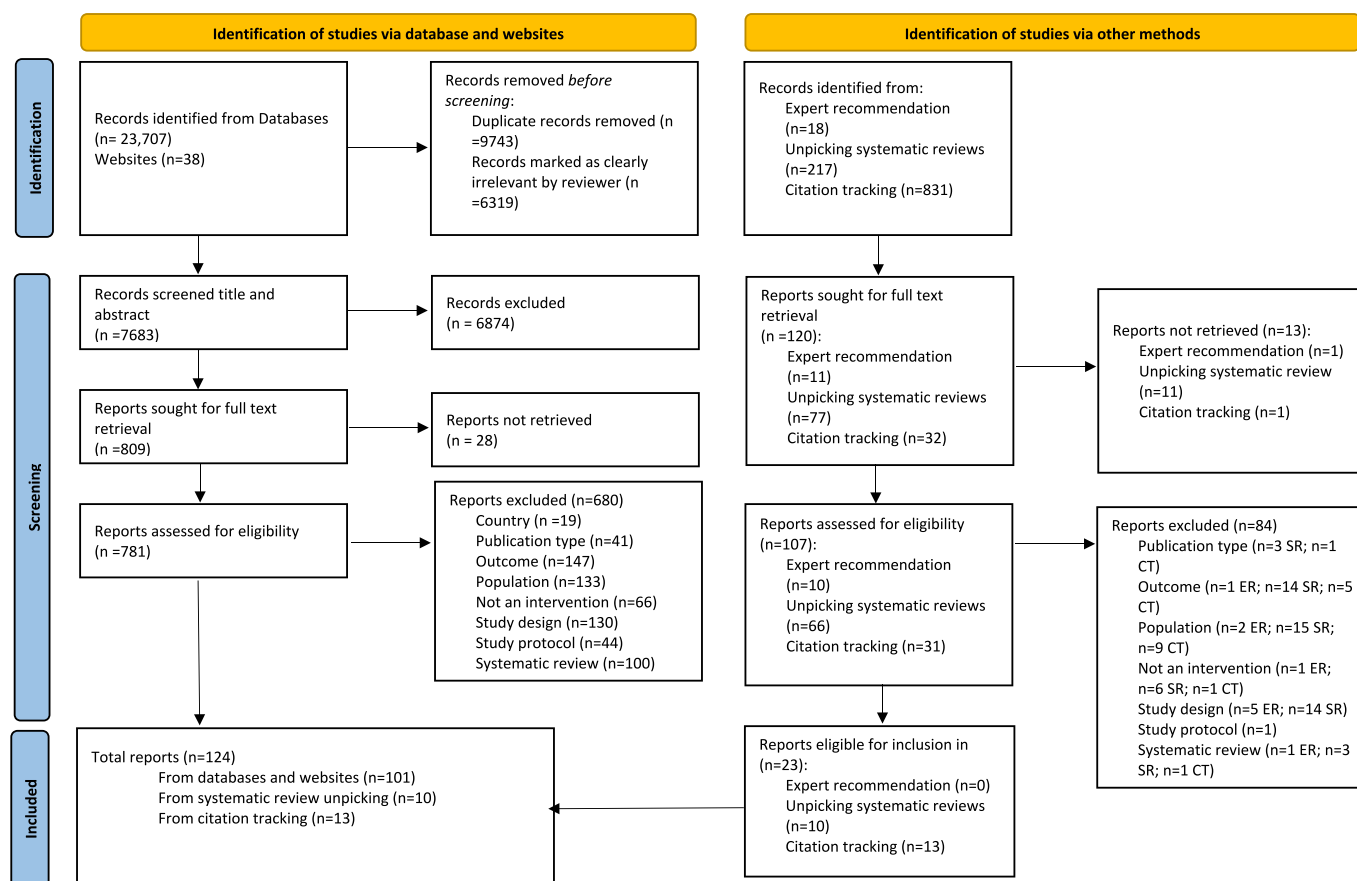

Fig. 1. PRISMA flow diagram.

Two interventions, with four associated study reports, targeted the intrapersonal and interpersonal domains (Dorsey et al., 2014; Alderson et al., 2020; Alderson et al., 2020; Alderson et al., 2021). They targeted the social and emotional development of children and their foster or residential carers and included: a trauma-based cognitive behavioural approach that focussed on treating trauma symptoms and behaviour management, involving multiple sessions with children, foster carers and some joint sessions (Dorsey et al., 2014). One intervention had a focus on developing young people's motivations and networks in relation to alcohol and substance use (Alderson et al., 2020; Alderson et al., 2020; Alderson et al., 2021).

Two interventions, with two study reports, operated within the interpersonal and organisational domains (McDermid et al., 2021; Hall Seventy et al., 2018). Their aim was to consider wider system factors that would interact with the intervention's interpersonal dimension to impact effectiveness. This included foster training and an orientation course for social care and health care workers to support the introduction of a new approach (McDermid et al., 2021), and the creation of supportive networks to facilitate permanent placements for young people (Hall Seventy et al., 2018).

Four interventions, with nine study reports, targeted the interpersonal, organisational and community domains (Turner-Halliday et al., 2017; Turner-Halliday et al., 2016; Biehal et al., 2012; Kirton and Thomas, 2011; Baginsky et al., 2017; McMillen et al., 2015; Murray et al., 2014; Ziviani et al., 2013; Tullberg et al., 2019), which included collaborative work with a range of community stakeholders in order to provide a holistic package of support (Ziviani et al., 2013), and also the integration of the intervention with the child welfare system to provide a wraparound service (Biehal et al., 2012; Kirton and Thomas, 2011). One intervention, with one study report, was community-based as it reviewed existing local authority mental health services for children in care (Callaghan et al., 2003).

3.3. Quality appraisal results

Quality appraisal is detailed in Appendix C. Twenty-one appraisals were made, as three study reports were related to the same evaluation of a single intervention. Two study reports were assessed as having overall high reliability, fourteen as medium, four as low and one as unclear. Five study reports were assessed as having overall high usefulness, fourteen as medium and two as low. One study was rated high in both overall categories (Turner-Halliday et al., 2016) and two were rated low in both overall categories (Baginsky et al., 2017; Murray et al., 2014).

We identified a number of methodological limitations across the evaluations. In terms of reliability, one of the main issues related to sampling and the challenges of recruiting participants, especially care-experienced children and young people, and also carers (Aventin et al., 2014). There were mixed assessments of the extent to which findings were grounded in the data. Some study reports demonstrated a direct link between qualitative data, interpretation and conclusions, presenting clearly labelled quotations from a range of participants, and these reports were rated highly. In lower-rated study reports, it was unclear how representative quotations were, usually as a result of non-specific labelling, and there was limited linkage between data and findings.

Assessments of usefulness identified the marginalisation of children and young people's voices. Some evaluations reported efforts to engage with participants (Aventin et al., 2014; Mezey et al., 2015; Hall Seventy et al., 2018; Spencer et al., 2018), but their voice was absent from other evaluations. This included studies where the main participants were carers, although outcomes related to children and young people; and also included studies which focussed on younger aged children (aged 5 years and under). Although this younger age may be more difficult to engage, these studies were also assessed as low for usefulness as there was little or no consideration of children's voice in intervention design. In a few cases, usefulness was not assessed as applicable as the study

focus was on intervention functioning, with delivery agents as study participants (Dorsey et al., 2014; Murray et al., 2014; Ziviani et al., 2013).

3.4. Context factors as intervention enablers and inhibitors

The framework synthesis of qualitative data from the process evaluations generated five themes that explore how key dimensions of context shape intervention implementation and acceptability. The first three themes explore how system resources and culture facilitate and inhibit implementation: (1) lack of system resources, and non-prioritisation of care-experienced young people's health and well-being; (2) intervention burden, which encompasses the time, cognitive, and emotional burden associated with implementation and participation; and (3) interprofessional relationships, where historic and ongoing tensions between health and social care professionals can inhibit interventions that are reliant on effective multi-agency communication and collaboration.

The final two themes relate to system identities and how stakeholders interact with interventions: (4) care-experienced young people's identity, where their systematic disenfranchisement can mean they feel unable to express dissatisfaction with an intervention, which might encourage disengagement; and (5) carer identity, where carers feel their expertise and history of parenting practices are not valued, creating misalignment between interventions and the wider contexts of their lives.

3.4.1. Limited system resources

System resources refer to the financial, technical and capacity resources to deliver interventions, while also considering the additional impact of intervention implementation within systems that are already overstretched. Seven interventions, with nine study reports, indicated a lack of capacity for intervention delivery, which reflected wider structural issues around inadequate resources in the social care system and the challenge of navigating competing demands (Mezey et al., 2015; Vallejos Elvira et al., 2016; Biehal et al., 2012; Lotty et al., 2020; Baginsky et al., 2017; Spielfogel Jill et al., 2011; Alderson et al., 2020; Alderson et al., 2020; Alderson et al., 2021).

Social care professionals aiming to implement interventions reported on the impact of overwhelming workloads and challenging working cultures, where other pressures dominated, including child protection issues and complex caseloads (Mezey et al., 2015; Spielfogel Jill et al., 2011).

Other delivery agents reported similar challenges, including peer mentors. Busy home lives meant there was not as much time available for mentoring as originally anticipated. A number of mentors had childcaring responsibilities and this compromised the time they had available to meet with young mentees (Mezey et al., 2015).

> *"She had a child and she had her job to do as well, so it kind of depended on both of us, and it's like most of the times she'll be busy when I'm free and then when I'm free, she'll be busy … and even in phone calls I will hear how busy she is with her child, so it's like sometimes I'll have to be like, 'D'you know what, deal with your family and then ring after or call tomorrow or something'" (Pilot mentee 3) (66, p. 90).*

Challenging workloads and competing priorities had adverse repercussions for implementation. Professionals struggled to be released from existing workloads to attend training which would support implementation (Lotty et al., 2020) and social care staff sometimes struggled to engage with interventions due to distractions from other caring responsibilities (Vallejos Elvira et al., 2016).

These issues were exacerbated by other system barriers such as difficulties funding and recruiting staff to support intervention delivery (Biehal et al., 2012; Alderson et al., 2020). This was the case in a peer mentoring intervention where a reported lack of communication between Local Authorities and mentors, was attributed to organisational

restructuring and staff cut-backs (Mezey et al., 2015). As a consequence, mentors became frustrated at the length of time between receiving mentoring training and being matched with a mentee (Mezey et al., 2015). As one mentor commented:

> "That enthusiasm that I walked away with from here, it would have been nice if our relationship sort of started the following week … I personally felt there was too much of a gap for me to apply what I've learnt from the training into our relationship" (Pilot mentor 1) (66, p. 32)

Where intervention outcomes were not seen as a system priority, this also adversely affected resources available for intervention delivery. In the intervention to prevent teenage pregnancy, preventative work was viewed as a low priority (Mezey et al., 2015), and this translated into limited organisational commitment to the intervention. Similarly, in the SOLID study, which primarily focussed on alcohol and substance use, the organisation's 'core business' was prioritised with limited resource designated to the intervention (Alderson et al., 2020; Alderson et al., 2020; Alderson et al., 2021).

3.4.2. Intervention burdens – time, cognitive and emotional

Eight interventions, with nine study reports, considered how the delivery of interventions in an overstretched system created the experience of burden for delivery agents and participants (Turner-Halliday et al., 2016; Vallejos Elvira et al., 2016; Lotty et al., 2020; McDermid et al., 2021; Murray et al., 2014; Spencer et al., 2018; Spielfogel Jill et al., 2011; Shklarski, 2020; Tullberg et al., 2019). We inductively constructed three domains of burden as part of the synthesis: time; cognitive; and emotional.

The burden of time was centralised in reports of carers who participated in parenting programmes, where significant intervention demands led to them feeling overwhelmed given their other commitments. These interventions focused on the skills, knowledge and confidence of foster and kinship carers through training curricula and professional-delivered support. The Parent Management Training intervention included a group programme for foster carers and kinship carers, as well home visit supervision in behaviour management, combined with home practice assignments. The evaluation reported concerns about the frequency and timing of training sessions and the burden of regularly completing parenting tasks as part of the intervention's homework activities, often in addition to paid employment responsibilities (Spielfogel Jill et al., 2011). Similar sentiments about carer burden were expressed in the Glasgow Infant Family Team (GIFT) intervention where referrals were made to multi-disciplinary team who then engaged in a series of interviews, observations and questionnaires to assess family functioning and carer mental health. As part of this, carers were required to play a role in child assessments, which caused considerable anxiety and time pressures in the home setting:

> "People [from GIFT] were coming out to the house to do it so, therefore, I've got three under-fives at that point – it is a long time to sit and concentrate on things while you are running about after a baby, a 3-year-old and another child that's kind of hyperactive and with problems and all that kind of stuff. It is a full-time job just looking after the three children without looking after visitors if you know what I mean and trying to concentrate on the job. The questions that have been asked…it was very time-consuming" (Foster carer F12) (68, pg. 44).

Notions of burden were compounded by carers (and their families) adjusting to new children entering their care, especially when they were accompanied by limited background information (Tullberg et al., 2019). Opportunity costs associated with interventions also impacted on carers and added to the burden experienced. For example, in the Head, Heart Hands (HHH) intervention which aimed to develop the skills and confidence of foster carers through training sessions, carers reported feeling 'uncomfortable' with the amount of time taken up with social introductions during intervention training sessions, and would have preferred the time to be focussed on supporting children's needs

(McDermid et al., 2021).

Inter-woven with concerns about time was the notion of cognitive burden which was associated with the complexity of interventions. In one intervention where social workers supported young people to participate in yoga, professionals commented on their lack of confidence in completing intervention documentation:

> "I thought it was a bit of a headache to be honest, it was just a lot of paperwork to fill in, it's like its already getting you a bit anxious because not everybody may be as confident with paperwork…" (S5) (69, p. 271).

In other studies, carers reported difficulties translating the skills and knowledge from the intervention into everyday practice. In Together Facing the Challenge (TFTC) intervention which involved a weekly parenting programme including role play and didactic instruction, authors noted that although parents 'verbally committed to using the approach' in practice they did not seem to have the skills to implement the intervention and make the change in their daily lives:

> "…while treatment parents sometimes thought they were doing TFTC, this was not always the case (based on observation and assessment of their implementation of the intervention)" (79, p. 850).

To counter this cognitive burden, evaluations reported on the importance of training and support to ensure effective implementation (Shklarski, 2020).

The third domain of burden - emotional burden - related to the inadequate support for the emotional impact of interventions, and this was considered across a number of studies. The stress of working in the care sector, together with the additional pressures associated with interventions translated into significant emotional loads for social care professionals (Vallejos Elvira et al., 2016).

Other delivery agents experienced similar emotional burdens. For example, in the trauma-informed Fostering Connections study, facilitators who delivered training to carers reported on the emotional strain and associated feelings, which surfaced in discussions about attachment and relationships:

> "I don't think you can deliver this training without investing in the information and the information is incredibly sad, it is incredibly sad, it really is" (73, p. 4).

Sharing the emotional journey with foster carers also came with challenges in terms of managing personal disclosures within group training sessions, and process evaluations reflected on the importance of appropriate supervision and support for managing the emotional strain:

> "They felt unprepared for the level of personal disclosures in the group which was an important factor of the reflective process for foster carers" (73, p.8).

Emotional burden was also explored in relation to carers. One process evaluation reflected on key pressure points where foster carers would experience significant emotional burden. It reported on the need to prepare and assist foster parents through transitions recognising that as well as children being impacted by staff transience, carers were also emotionally affected by adjusting to new workers which led to them feeling destabilised:

> "Never mind about the kids feeling abandoned. I feel abandoned, too … 'cause every time you get used to a worker … so they can work with you with the case, there is a new one coming in" (87, p. 6).

At the same time, study reports also included examples of carers feeling supported. In the GIFT intervention, carers welcomed the way in which the intervention was concerned with their own mental health needs, alongside the needs of the child (Turner-Halliday et al., 2016). Other elements which provided a sense of support for carers included opportunities to look to the past and reflect on their caring experiences, which gave a different perspective on their children and their behaviours (Lotty et al., 2020). Facilitators also highlighted this dimension

and felt that the way interventions engaged carers in a reflective process was a real positive.

"In the facilitators' group, the reflective experience of the programme was highlighted as being at the heart of the programme. They felt the programme was very different to other trainings offered to foster carers as it involved foster carers engaging in a reflective process over several weeks. They described the experience as 'an emotional journey' (Faciltator_2) and a 'process'" (Faciltator_5) (73, p. 4).

Children and young people also occasionally felt this sense of emotional burden with consequences for their engagement with the intervention. In a USA-based mentoring intervention, young people reported feeling anxious about adding to their mentor's burden and responsibilities, and were reluctant to add to this by contacting them for support.

"Because she's got some stress going on in her life... she's going through college and … trying to get, you know, the job... She's just got a lot going on too. And I feel like I don't need to put my problems on her shoulders because she already got enough problems stacked up on her shoulders" (80, p. 46).

3.4.3. System culture and interprofessional relationships

Seven interventions, with twelve study reports, explored the relevance of the system culture, for effective intervention implementation (Turner-Halliday et al., 2017; Turner-Halliday et al., 2016; Callaghan et al., 2003; Lotty et al., 2020; Baginsky et al., 2017; Murray et al., 2014; Alderson et al., 2020; Alderson et al., 2020; Alderson et al., 2021; Shklarski, 2020; Tullberg et al., 2019; Kirton and Thomas, 2011). In particular, they focussed on cultures and interprofessional practices across health and social care systems.

Partnership working and cross-system support structures were seen as providing an essential scaffolding for intervention development in the Therapeutic Foster Care (TFC) intervention (Tullberg et al., 2019). The process evaluation of the London Infant Family Team (LIFT) intervention, while documenting initial teething problems around role definitions and boundaries, was seen to offer partnership and teamwork that made delivery agents feel safe and supported in their work (Baginsky et al., 2017).

Equally, intervention stakeholders explored the usefulness of expanding knowledge and expertise across professional boundaries. In the trauma-informed foster care intervention, the adoption of a trauma-informed approach provided a deeper understanding about children's behaviour in a trauma context (Murphy et al., 2017), and in the GIFT intervention, social workers welcomed the importance of introducing a mental health focus (Turner-Halliday et al., 2017; Turner-Halliday et al., 2016). They felt that a mental health lens allowed them to conduct a more detailed, intricate assessment of children and young people's needs, enabling them to identify issues that might have otherwise been overlooked:

"When you do have a case like that with a child who has got additional needs, things can be masked, like her development. GIFT had picked up on the clinical side of it, which has given us a much better and thorough assessment" (Area team social worker, case study 4) (67, p. 189).

Alongside reported advantages of interprofessional working cultures, there were also historical challenges ingrained in prior efforts to collaborate across social care and health. A process evaluation that explored efforts to develop new mental health services for children in care, observed previous strained relations between social services, residential social workers and mental health professionals (Callaghan et al., 2003). A range of factors contributed to this including: limited empathy about other organisational practices; absence of communication mechanisms across different sectors; the use of organisation specific language and jargon which promoted feelings of alienation; and competing priorities and targets. Overall, historical tensions were attributed to:

"…competing targets and pressures as well as ill-defined and overlapping boundaries" (71, p. 54).

Similar tensions were reported in an evaluation of Family Finding, where intervention difficulties were attributed to structural issues with the wider social care system failing to embrace the ethos and importance of the intervention (Shklarski, 2020).

In response to system challenges, evaluations reported implementation strategies for improving interprofessional cultures. Together Facing the Challenge considered the extensive organisational change that was required to improve system infrastructures in order to support staff and foster care families (Murray et al., 2014).

"Buy-in from staff and treatment families is essential to the full-scale implementation of a new approach. While it requires patience to go through the process of getting input from all relevant stakeholders in the organization as changes are being developed, it appears to create a sense of ownership and understanding throughout the organization that facilitates implementation" (79, p. 851).

The intervention to develop new mental health services adopted specific strategies to enhance systems cultures and interprofessional working. Firstly, they promoted understanding of other organisations' cultures, recognising the importance of jargon in building partnerships. Secondly, they aimed to improve support for carers and their children to avoid feelings of abandonment within a context of organisational pressures (Callaghan et al., 2003). Additionally, Multidimensional Treatment Foster Care (MTFC) was established following an overhaul of multi-agency working, aimed at collaborative working and clarification of targets for children and young people (Kirton and Thomas, 2011).

Despite efforts to improve partnership working across health and social care systems, further tensions were sometimes inadvertently created, such as through the creation of new partnerships which some stakeholders felt undermined previous accomplished works. For example, in the GIFT intervention social workers were concerned about new links with the legal system and the potential disregard for their own historical perspectives (Turner-Halliday et al., 2016). This resonated with feedback from social workers in the MTFC intervention, who reported feeling 'out of the loop' or excluded in terms of decision-making. They were concerned about not being told about specific incidents and also missing out on ongoing issues, which had implications for who was accountable for keeping children safe:

"It seemed to me that the treatment fostering team pretty much took on responsibility for the case, which is fine, but if anything goes wrong then don't make me accountable" (72, p. 13).

The remaining two context themes relate to system identities and the socio-cultural positioning of children and young people, and their carers within the care system, considering the values and needs of these different groups.

3.4.4. System identities - care-experienced children and young people

Eight interventions, with ten study reports, reported on children and young people's identities, needs and values within the care system where experiences of marginalisation and disenfranchisement were typical (Aventin et al., 2014; Mezey et al., 2015; Callaghan et al., 2003; Hall Seventy et al., 2018; McMillen et al., 2015; Spencer et al., 2018; Spielfogel Jill et al., 2011; Alderson et al., 2020; Alderson et al., 2020; Alderson et al., 2021).

Feelings of disempowerment were centralised in the peer-mentoring programme to prevent pregnancy in teenage girls, translating into young people's inability to express their voice or to be able to decline participation (Mezey et al., 2015). In practice, this was expressed as intervention disengagement including inconsistent attendance at meetings, last minute changes to meetings, or an absence of enthusiasm for the intervention.

"[Young people] may find it hard to express their opinion about whether or not they want to participate, possibly because they feel so disempowered, and so they end up voting with their feet, by not turning up or not responding to phone calls" (66, pg. 88).

In the same intervention, this systemic undermining of values translated into young people blaming themselves for intervention breakdown. The abrupt and early ending of relationships with mentors and the decreasing frequency of meetings caused young people to feel they were somehow at fault:

"It made me feel a bit upset and then like it did make me sometimes feel like, I didn't see the point in me doing it; I just felt like giving up. 'Cos I've had two [mentors] and they haven't really worked out so well. But then, it kind of questions me, like maybe it's something I'm doing wrong" (LA1 mentee 1001) (66, pg. 92).

Issues around seeking mental health and wellbeing support, and associated stigma, were also intertwined with the identities and values of care-experienced young people. Feelings of marginalisation were reported in the process evaluation exploring new mental health services where a 'language of abnormality', alienated some young people from intervention engagement, and social workers recognised the need to dismantle these sorts of barriers:

"I think it's dispelling the myths and accessing services in a way that doesn't make them feel stigmatised" (71, pg. 54).

In response to these issues, young people advocated for choice and control to be centralised within future interventions. Within the SOLID study, young people emphasised the importance of them engaging with appropriate support at a time when they felt ready, rather than forcing them into a framework of support that failed to really meet their needs at that point in time:

"I don't know, it's just hard to talk to people about saying, 'Look, this is the problem now', it's hard to say isn't it?" (Angelina, young person, 20 years) (83, pg. 77).

Evaluations also highlighted the importance of facilitating meaningful relationships where young people were treated as equal partners. For example, mentoring worked well when young people established strong links with their mentors who provided dependable friendship and support.

"…Carmen described her mentor, who is an extended family member, as a 'friend' who was a consistent, supportive part of her life: 'She's like my best friend. Like, she's just there, she's always there, she's understanding, and, she's like…my best friend, like, that's how I feel'" (80, pg. 44).

Notions of shared experience were also valued by young people and in the peer-support programme to prevent pregnancy, mentees had high regard for mentors who had also been through the care system (Mezey et al., 2015). Additional qualities of the relationship which young people considered important were: a non-judgemental attitude; similar cultural experiences; and providing companionship (Mezey et al., 2015; McMillen et al., 2015; Spencer et al., 2018).

Benefits from building strong and meaningful relationships were reported across the evaluations. In the trauma-informed intervention benefits included encouraging trusting, positive relationships between young people and their careers (Hall Seventy et al., 2018), and in the peer mentoring programme, young people highlighted strengthened relationships with family and friends (Spencer et al., 2018). Improved self-esteem, and the ability to have control over future life choices, after the intervention ended, were also reported (Mezey et al., 2015).

Benefits were also reported alongside shortcomings of intervention relationships. In the peer mentoring intervention, some young people declined participation as they felt able to handle things independently, they did not feel that they could identify an appropriate mentor, or the nominated mentor was not contactable or declined (Petticrew et al.,

2019). Further limitations were reported in the computer game intervention where some young people were distracted by social worker involvement (Engler et al., 2022).

3.4.5. System identities - carers

Ten interventions, with twelve study reports, explored the system identity of carers (including foster, kinship and residential carers) (Aventin et al., 2014; Vallejos Elvira et al., 2016; Kirton and Thomas, 2011; Lotty et al., 2020; McDermid et al., 2021; Dorsey et al., 2014; Hall Seventy et al., 2018; Spielfogel Jill et al., 2011; Ziviani et al., 2013; Alderson et al., 2020; Alderson et al., 2020; Alderson et al., 2021). There was a sense of a wider socio-cultural context that, similar to children and young people, left carers structurally disadvantaged, with limited regard for their expertise and experience.

Tensions between intervention aims and the values of carers were reported across evaluation studies, which included lack of intervention relevance because it replicated carers' existing practices (McDermid et al., 2021); and also challenges involved in balancing intervention principles with carers' own values, decision-making and bespoke practices (Kirton and Thomas, 2011).

In the Head, Heart, Hands (HHH) evaluation, carers were concerned about the way in which systems and structures (including social workers, fostering services, local authorities and regulatory frameworks) would need to adapt in order to avoid their voices being marginalised (McDermid et al., 2021).

Dimensions of race and ethnicity were also woven into the complexities of carer identity. Engagement challenges related to African American foster parents were reported in one parent management training intervention in the USA, and this was associated with mismatches in parenting values, language and phrasings:

"To an African American parent, the term 'time out' might sound like 'Caucasian parenting' and lead to resistance, but perhaps use of another word to describe the practice or a deeper explanation of its potential relevance would help parents see its value" (81, pg. 12).

Identity conflict issues were also reported, where carers were asked to take on multiple roles, such as the role of parent and disciplinarian (Aventin et al., 2014), and this also raised broader questions about the appropriateness of carers as delivery agents. In the SOLID study, which addressed alcohol and substance use, carers were based in residential homes and felt that that intervention delivery (which included sanctions for negative behaviour) could risk damaging their existing relationships with young people.

"I think you could alienate and might potentially damage our relationships if we went at it in the wrong way. It's got to be an offer, not a requirement. It can't be sanction-able" (Jane, residential carer) (83, pg. 77).

Complexities associated with carer identity highlighted questions about intervention adaptability to encompass different carer values, priorities and needs (Ziviani et al., 2013). Interventions were sometimes viewed by carers as fixed and unchangeable, as in the MTFC intervention, where it was seen as heavily influenced by its origin in the USA, which was in some ways incongruent with the UK context.

"There were concerns that the prescribed list of behaviours was in places too 'Americanised' (e.g. 'mean talk') and that self-harm (not infrequent within the programme) was not listed separately but under destructiveness, requiring annotation to distinguish it from instances of 'kicking the door in'" (72, pg. 10).

Carers reported additional unacceptable elements including concerns about increased pain endured by children and young people when an intervention promoted 'healing' through revisiting past trauma, or encouraged reconnections with family members involved in past traumas (Hall Seventy et al., 2018).

Adaptation was anticipated within some interventions, with

developers recognising the dual need for meeting individualised carer needs without compromising fidelity to support carer engagement (Spielfogel Jill et al., 2011). More participatory intervention designs were also put forward as a way of ensuring the needs of carers (and other stakeholders) were taken into account to ensure appropriate reach and engagement, as was the case in the Kundalini yoga intervention where they emphasised the importance of adaptation to local needs through a co-produced approach:

> *"We suggest the creation of a reference group that will include a representative sample of those directly and indirectly involved in the project that should meet several times before any decision is taken to build rapport, trust and leadership" (69, pg. 273).*

3.5. Confidence in review findings

Based on the summarised qualitative findings derived from the themes, we constructed six evidence statements that relate to context factors that structure implementation and acceptability. Three of these statements were rated as having high certainty of evidence:

- those working in social care reported heavy workloads together with unsupportive workplace cultures as challenges to intervention participation and attendance at training sessions;
- care-experienced children and young people can feel disempowered within interventions. This includes feeling unable to express their opinions about participation and also feeling they are to blame if the intervention breaks down;
- children and young people value building positive, meaningful relationships within interventions, particularly where those relationships are with individuals who understand or have experienced care.

Three findings were rated as having moderate certainty of evidence:

- implementation involves a time, cognitive and emotional burden for carers and others involved with intervention delivery, which young people may be aware of and so may discourage their engagement;
- a supportive system culture that promotes interprofessional relationships across health and social care, is needed for intervention implementation;
- carers feel that interventions do not always value their knowledge, expertise and breadth of experiences. Carers called for adaptive approaches that are responsive to their specific needs and relevant to their particular caring situations.

The evidence judgements are presented in Appendix D.

4. Discussion

4.1. Summary of key findings

The overarching CHIMES review aimed to understand which interventions are effective, in which contexts and why, against a backdrop of increasing concerns about young people's mental health, and the particular risks associated with the care-experienced population (Tessier et al., 2018; Jones et al., 2011; O'Higgins et al., 2017). This paper reports on the process evaluation synthesis which aimed to explore how system factors facilitate and inhibit implementation and acceptability of mental health interventions for the care-experienced population and understand how stakeholders experience them. The review is one of the first syntheses to take a complex-systems lens and focus on understanding the system-level factors that support and hinder intervention implementation and acceptability (Moore et al., 2016; Pfadenhauer et al., 2017).

In terms of system resources and cultures, social workers' complex and heavy workloads and unsupportive working cultures, together with competing demands and low prioritisation for mental health preventative work, hindered intervention development and delivery. This translated into challenges such as social care professionals feeling overwhelmed trying to juggle intervention participation alongside existing workloads, and in some cases intervention training was missed due to difficulties being released from other work commitments (theme 1). Carer involvement in interventions included attendance at group training sessions, as well as home visits and assessments of family behaviour. A key finding related to the extent of intervention burden for carers, in terms of the amount of time required for intervention engagement, especially when home visits featured as part of the intervention which had implications for managing other children in the home setting. The cognitive burden associated with the challenges of translating interventions into practice also impacted carers, alongside reports of their limited confidence with completing intervention documentation. The churn of emotions involved in intervention participation added a further dimension to the theme of intervention burden. Delivery agents were emotionally unprepared for personal disclosures in intervention sessions, and such disclosures also impacted carers, although they felt supported where interventions took account of carer mental health needs (theme 2). Supportive systems cultures and strong interprofessional working practices were important for intervention implementation, and in particular, drawing together social care expertise alongside a mental health focus, was welcomed by social care professionals. Where historic tensions in relationships between social and healthcare professionals surfaced, implementation became more challenging (theme 3).

The synthesis also highlighted the importance of system identities and considered the socio-cultural positioning of children and young people, and their carers in relation to interventions. Interventions were hindered where children and young people felt marginalised or unable to express their voice, so instead of being able to articulate their needs or opinions on participation, they missed intervention meetings or failed to respond to messages. Stigma associated with seeking mental health and wellbeing support also merged with issues of identity and what it means to be care-experienced, and delivery agents recognised the work needed to breakdown these barriers to accessing support. Interventions were supported where the identity of care-experienced children and young people was prioritised and included recognising the importance of establishing strong, meaningful, and consistent relationships with carers and others delivery agents (theme 4). Similarly, carers also reported feeling unsupported or at the fringes of interventions where their expertise and experience was overlooked or ignored. Questions around their identity as care-giver seemed challenged in some interventions where they also had to take on a more disciplinarian role which they felt could damage existing relationships with young people. In comparison, carers welcomed interventions which encouraged opportunities for reflection and engagement at an emotional level (although this also signalled support needs) (theme 5).

Overall, the synthesis makes a unique contribution to the evidence base and identifies key context factors that intervention development should focus on. Addressing these factors may help address implementation and acceptability issues that have been demonstrated amongst recent UK interventions, suggesting that further adaptation work is warranted (Moore et al., 2021). The synthesis also contributes to the broader evidence base on care-experienced children and young people's mental health, confirming some of the findings from a recent NICE review in relation to barriers and facilitators for promoting mental and physical health (NICE, 2021). Synergies between the findings include: the importance young people attach to authentic and strong relationships with carers and others; and also, the importance of culture and identity, which includes sensitivity to language used and acknowledgement of journeys through care.

4.2. Implications for research, policy and practice

Process evaluations provided vivid insights into experiences of delivering and receiving mental health interventions for children and young people with care experiences, and there are a number of implications for research, policy and practice.

Firstly, the synthesis confirms the need to conduct process evaluations as part of intervention evaluation to understand the contextual contingency of effectiveness. This is supported by methodological guidance and recommendations (Moore et al., 2016; Glasgow et al., 1999). The level of detail highlighted within the synthesis regarding intervention experiences for children and young people, carers and other stakeholders, would be overlooked in standalone outcome evaluations, but could make an important difference to all aspects of implementation and acceptability (Haudenhuyse et al., 2012).

Secondly, future process evaluations could benefit from the adoption of a complex-systems lens, as the present review identified the systemic nature of facilitators and inhibitors for intervention development. Findings about system resources, cultures and organisational working practices suggest change is required at these higher socio-ecological levels, whereas mapping the characteristics of interventions clearly demonstrated they were focussed on interpersonal and intrapersonal domains such as relationships, and skills and knowledge development, with very few targeting community or organisational domains. A shift in emphasis to encompass wider pressures around resources, working cultures and stakeholder values would address intervention inhibitors identified in this synthesis.

Thirdly, is the need for research to explore the potential replicability and transportability of interventions to new contexts (Moore et al., 2021; Munthe-Kaas et al., 2020). Included study reports were mostly from the UK and Ireland, while the overarching CHIMES review identified that the majority of outcome evaluations are from the USA. This synthesis has demonstrated contextual differences in the roles, values and experiences of participants and stakeholders, and there needs to be further research to understanding the extent of contextual tailoring that may be required, or if new intervention development is required across diverse social care systems. For policy makers, standalone outcome evaluations raise questions about how the intervention will work in a different context, and for systematic reviewers, outcome evaluations restrict their ability to compare different interventions and limit understanding the agency of participants, implementers and wider stakeholders (Engler et al., 2022). Context factors as described in the current synthesis (lack of resources; intervention burden; interprofessional communication and relationships; care-experienced young people's identities; and carers' identities) are important when deciding to fund and implement new interventions which have potentially been delivered elsewhere, encouraging funders and developers to be mindful of contextual differences for the intervention to be optimised and adapted.

Fourthly, there is a need for policy and practice to better resource and support interventions and those involved. This includes sufficient funding for intervention development and all stakeholders involved, also ensuring that the mental health and wellbeing needs of care-experienced children and young people are prioritised. Specific support may need to be provided to delivery agents and participants in order to reduce the burden they experience.

Carers and delivery agents spoke about their engagement with interventions at an emotional level, encouraging a churn of thoughts and feelings, and the synthesis also identified the range of burdens they experience within the context of existing organisational and cultural pressures. Supporting carers, other participants and other stakeholders to manage these burdens, including different burdens experienced across the intervention process, is a future priority given its implications for intervention recruitment and retention (Lingler et al., 2014; Naidoo et al., 2020). These support needs resonate with wider calls for foster carers to access good quality training to help them respond to and support the specific mental health and wellbeing needs of children in their care, as well as ensuring fostering services support foster carers own mental health and wellbeing (The Fostering Network, 2018).

Finally, across research policy and practice there needs to be consistent efforts to involve diverse stakeholders in intervention development and implementation, with opportunities to feedback in order to optimise. The synthesis revealed challenges for all stakeholder groups and there needs to be mechanisms to ensure interventions are responsive. In particular, the findings report the crucial but sometimes overlooked role of carers, and carers themselves suggested how they could enhance interventions through peer-to-peer support and reciprocal support for training facilitators, endorsing the need to co-produce interventions drawing on their experiences (Bradley, 2015).

4.3. Limitations and confidence in the evidence

Our study incorporated a comprehensive search of available literature from 1990 and captures the extant literature relating to process evaluations for interventions which address care-experienced children and young people's mental health and well-being, and is one of the first syntheses of process evaluations in social care. Our application of a previously used tool to assess quality (Rees et al., 2011) also adds to the strength of the review alongside application of the GRADE-CERQual approach (Munthe-Kaas et al., 2020; Noyes et al., 2018) which identified high or moderate confidence in each of the qualitative findings.

In terms of the review method, the main limitation relates to the poor reporting of interventions. Limited description of interventions translated into challenges around data extraction and synthesis indicating a need to improve description and reporting of the study designs used in evaluation in this area. The review's focus on care-experienced children and young people meant that other population groups were excluded, and these would be important groups to include in future reviews (for example, children in need, individuals at the edge of care, informal kinship care, adopted children and refugees).

A number of methodological limitations across the evaluations were highlighted in the quality appraisal. Assessments of reliability highlighted challenges relating to: recruiting care-experienced children and young people, and their carers; and the grounding of findings in the data. Assessments of usefulness focussed on the under-representation of children and young people's voices. Whereas a number of evaluations made attempts to engage with this group, their voice was absent in other evaluations, which would have been important for securing their participation in the interventions.

Overall, the synthesis of process evaluation can also help explain the mixed-evidence findings for intervention effectiveness, which we are currently considering as part of an outcome evaluation synthesis, as well as the theory synthesis to understand the theories that underpin these interventions.

5. Conclusion

Addressing critical limitations in the existing evidence base for mental health interventions for care-experienced children and young people, this review identified several supportive and restrictive factors across social and health care systems related to resources, cultures and stakeholder needs and values, that may impact intervention implementation and acceptability.

Implications for future research include the importance of considering how interventions can be co-produced with the voice and experiences of potential participants and stakeholders more centralised in study designs. Insights about the lived experiences of interventions for carers, children and young people and other stakeholders, confirms the usefulness of process evaluations to explore how system factors facilitate and inhibit implementation, and how stakeholders interact with intervention delivery and receipt.

CRediT authorship contribution statement

Sarah MacDonald: Methodology, Formal analysis, Writing – original draft, Writing – review & editing. **Rob Trubey:** Methodology, Formal analysis, Writing – review & editing. **Jane Noyes:** Conceptualization, Methodology, Supervision, Writing – review & editing. **Soo Vinnicombe:** Formal analysis, Writing – review & editing. **Helen E. Morgan:** Conceptualization, Methodology. **Simone Willis:** Methodology, Resources, Writing – review & editing. **Maria Boffey:** Conceptualization, Methodology. **G.J. Melendez-Torres:** Conceptualization, Methodology, Supervision. **Michael Robling:** Conceptualization, Methodology, Supervision. **Charlotte Wooders:** Conceptualization. **Rhiannon Evans:** Conceptualization, Methodology, Writing – original draft, Writing – review & editing, Supervision.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

The authors do not have permission to share data.

Acknowledgements

Funding

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.childyouth.2023.107266.

References

Aarons, G. A., Sklar, M., Mustanski, B., Benbow, N., & Brown, C. H. (2017). "Scaling-out" evidence-based interventions to new populations or new health care delivery systems. *Implementation Science, 12*(1), 111.

Alderson, H., Kaner, E., Brown, R., Howel, D., McColl, E., Smart, D., et al. (2020). Behaviour change interventions to reduce risky substance use and improve mental health in children in care: the SOLID three-arm feasibility. *RCT, 8*, 13.

Alderson, H., Kaner, E., McColl, E., Howel, D., Fouweather, T., McGovern, R., et al. (2020). A pilot feasibility randomised controlled trial of two behaviour change interventions compared to usual care to reduce substance misuse in looked after children and care leavers aged 12–20 years: The SOLID study. *PLoS One, 15*(9), e0238286.

Alderson, H., McGovern, R., Copello, A., McColl, E., Kaner, E., Smart, D., et al. (2021). Implementation factors for the delivery of alcohol and drug interventions to children in care: Qualitative findings from the SOLID feasibility trial. *International Journal of Environmental Research and Public Health, 18*(7).

Ames, H. M., Glenton, C., & Lewin, S. (2017). Parents' and informal caregivers' views and experiences of communication about routine childhood vaccination: A synthesis of qualitative evidence. *Cochrane Database of Systematic Reviews, 2*(2), Cd011787.

Ames, H., Glenton, C., & Lewin, S. (2019). Purposive sampling in a qualitative evidence synthesis: A worked example from a synthesis on parental perceptions of vaccination communication. *BMC Medical Research Methodology, 19*(1), 26.

Aventin, A., Houston, S., & Macdonald, G. (2014). Utilising a computer game as a therapeutic intervention for youth in residential care: Some preliminary findings on use and acceptability. *Children and Youth Services Review, 47*(Part 3), 362–369.

Baginsky, M., Moriarty, J., Manthorpe, J., Ougrin, D., & Middleton, K. (2017). *Evaluation of the Early Implementation of the New Orleans Intervention Model in a London Borough London.* London: Department for Education.

Barnett-Page, E., & Thomas, J. (2009). Methods for the synthesis of qualitative research: A critical review. *BMC Medical Research Methodology, 9*(1), 59.

Bergström, M., Cederblad, M., Håkansson, K., Jonsson, A. K., Munthe, C., Vinnerljung, B., et al. (2019). Interventions in foster family care: A systematic review. *Research on Social Work Practice, 30*(1), 3–18.

Biehal, N., Dixon, J., Parry, E., Sinclair, I., Green, J., Roberts, C. et al. (2012). The care placements evaluation (CaPE) evaluation of multidimensional treatment foster care for adolescents (MTFC-A).

Booth, A., Moore, G., Flemming, K., Garside, R., Rollins, N., Tunçalp, Ö., et al. (2019). Taking account of context in systematic reviews and guidelines considering a complexity perspective. *BMJ Global Health, 4*(Suppl 1), e000840.

Bradley, E. (2015). Carers and co-production: Enabling expertise through experience? *Mental Health Review Journal, 20*(4), 232–241.

Brunton, G., Oliver, S., & Thomas, J. (2020). Innovations in framework synthesis as a systematic review method. *Research Synthesis Methods, 11*(3), 316–330.

Callaghan, J., Young, B., Richards, M., & Vostanis, P. (2003). Developing new mental health services for looked after children: A focus group study. *Adoption & Fostering, 27*(4), 51–63.

Department for Education (2015). Promoting the health and well-being of looked-after children. Statutory guidance for local authorities, clinical commissioning groups and NHS England. London: Department for Education.

Dorsey, S., Conover, K.L., Revillion, C. (2014). Improving foster parent engagement: using qualitative methods to guide tailoring of evidence-based engagement strategies. *Journal of Clinical Child and Adolescent Psychology: The Official Journal for the Society of Clinical Child and Adolescent Psychology. American Psychological Association, Division 53, 43*(6), 877–889.

Dubois-Comtois, K., Bussières, E.-L., Cyr, C., St-Onge, J., Baudry, C., Milot, T., et al. (2021). Are children and adolescents in foster care at greater risk of mental health problems than their counterparts? A meta-analysis. *Children and Youth Services Review, 127*, Article 106100.

Engler, A. D., Sarpong, K. O., Van Horne, B. S., Greeley, C. S., & Keefe, R. J. (2022). A systematic review of mental health disorders of children in foster care. *Trauma, Violence, & Abuse, 23*(1), 255–264.

Evans, R., Boffey, M., MacDonald, S., Noyes, J., Melendez-Torres, G. J., Morgan, H. E., et al. (2021). Care-experienced cHildren and young people's Interventions to improve Mental health and wEll-being outcomes: Systematic review (CHIMES) protocol. *BMJ Open, 11*(1), e042815.

Evans, R. E., White, J., Turley, R., Slater, T., Morgan, H. E., Strange, H., et al. (2017). Comparison of suicidal ideation, suicide attempt and suicide in children and young people in care and non-care populations: Systematic review and meta-analysis of prevalence. *Children and Youth Services Review, 82*, 122–129.

Everson-Hock, E. S., Jones, R., Guillaume, L., Clapton, J., Goyder, E., Chilcott, J., et al. (2012). The effectiveness of training and support for carers and other professionals on the physical and emotional health and well-being of looked-after children and young people: A systematic review. *Child: Care, Health and Development, 38*(2), 162–174.

Excellence NIfHaC (2021). Looked-After Children and Young People: Interventions to promote physical, mental, and emotional health and wellbeing of lookedafter children, young people and care leavers NICE guideline NG205.

Excellence NIfHaC (2021). Looked-after children and young people: Interventions to promote physical, mental, and emotional health and wellbeing of lookedafter children, young people and care leavers. NICE guideline NG205.

Excellence NIfHaC (2021). Looked-after children and young people. NICE guideline [NG205]. London: Public Health England.

Flemming, K., Booth, A., Hannes, K., Cargo, M., & Noyes, J. (2018). Cochrane Qualitative and Implementation Methods Group guidance series-paper 6: Reporting guidelines for qualitative, implementation, and process evaluation evidence syntheses. *Journal of Clinical Epidemiology, 97*, 79–85.

Gale, N. K., Heath, G., Cameron, E., Rashid, S., & Redwood, S. (2013). Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC Medical Research Methodology, 13*, 117.

Glasgow, R. E., Vogt, T. M., & Boles, S. M. (1999). Evaluating the public health impact of health promotion interventions: The RE-AIM framework. *American Journal of Public Health, 89*(9), 1322–1327.

Greeson, J. K. P., Garcia, A. R., Tan, F., Chacon, A., & Ortiz, A. J. (2020). Interventions for youth aging out of foster care: A state of the science review. *Children and Youth Services Review, 113*, Article 105005.

Haight, W., Black, J., & Sheridan, K. (2010). A mental health intervention for rural, foster children from methamphetamine-involved families: Experimental assessment with qualitative elaboration. *Children & Youth Services Review, 32*(10), 1446–1457.

Hall Seventy, F., Semanchin, J., & Annette. (2018). Implementation of intensive permanence services: A trauma-informed approach to preparing foster youth for supportive relationships. *Child & Adolescent Social Work Journal, 35*(6), 587–598.

Hambrick, E. P., Oppenheim-Weller, S., N'Zi, A. M., & Taussig, H. N. (2016). Mental health interventions for children in foster care: A systematic review. *Children & Youth Services Review, 70*, 65–77.

Haudenhuyse, R. P., Theeboom, M., & Coalter, F. (2012). The potential of sports-based social interventions for vulnerable youth: Implications for sport coaches and youth workers. *Journal of Youth Studies, 15*(4), 437–454.

Hawe, P., Shiell, A., & Riley, T. (2009). Theorising interventions as events in systems. *American Journal of Community Psychology, 43*(3), 267–276.

Jones, R., Everson-Hock, E. S., Papaioannou, D., Guillaume, L., Goyder, E., Chilcott, J., et al. (2011). Factors associated with outcomes for looked-after children and young people: A correlates review of the literature. *The ChildCare, Health and Development, 37*(5), 613–622.

Kirton, D., & Thomas, C. (2011). A suitable case?: Implementing multidimensional treatment foster care in an English local authority. *Adoption & Fostering, 35*, 5–17.

Kirton, D., & Thomas, C. (2011). A suitable case?: Implementing multidimensional treatment foster care in an English local authority. *Adoption & Fostering, 35*(2), 5–17.

Lewin, S., Bohren, M., Rashidian, A., Munthe-Kaas, H., Glenton, C., Colvin, C. J., et al. (2018). Applying GRADE-CERQual to qualitative evidence synthesis findings—paper 2: How to make an overall CERQual assessment of confidence and create a summary of qualitative findings table. *Implementation Science, 13*(1), 10.

Liberati, A., Altman, D. G., Tetzlaff, J., Mulrow, C., Gøtzsche, P. C., Ioannidis, J. P., et al. (2009). The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate healthcare interventions: Explanation and elaboration. *BMJ, 339*, Article b2700.

Lingler, J. H., Schmidt, K. L., Gentry, A. L., Hu, L., & Terhorst, L. A. (2014). A new measure of research participant burden: Brief report. *Journal of Empirical Research on Human Research Ethics, 9*(4), 46–49.

Lotty, M., Bantry-White, E., & Dunn-Galvin, A. (2020). The experiences of foster carers and facilitators of Fostering Connections: The Trauma-informed Foster Care Program: A process study. *Children and Youth Services Review, 119*, Article 105516.

Luke, N., Sinclair, I., Woolgar, M., & Sebba, J. (2014). *What works in preventing and treating poor mental health in looked after children*. London: NSPCC.

McDermid, S., Trivedi, H., Holmes, L., & Boddy, J. (2021). Foster carers' receptiveness to new innovations and programmes: An example from the introduction of social pedagogy to UK foster care. *The British Journal of Social Work*.

McMillen, J.C., Narendorf, S.C., Robinson, D., Havlicek, J., Fedoravicius, N., Bertram, J., et al. (2015). Development and piloting of a treatment foster care program for older youth with psychiatric problems. *Child and Adolescent Psychiatry and Mental Health, 9* (1).

Mezey, G., Meyer, D., Robinson, F., Bonell, C., Campbell, R., Gillard, S., et al. (2015). Developing and piloting a peer mentoring intervention to reduce teenage pregnancy in looked-after children and care leavers: An exploratory randomised controlled trial. *Health Technology Assessment, 19*(85).

Moore, G., Campbell, M., Copeland, L., Craig, P., Movsisyan, A., Hoddinott, P., et al. (2021). Adapting interventions to new contexts—the ADAPT guidance. *BMJ, 374*, Article n1679.

Moore G, Audrey, Suzanne, Barker, Mary, Bond, Lyndal, Bonell, Chris, Hardeman, Wendy, Moore, Laurence Anthony Russell, O'Cathain, Alicia, Tinati, Tannaze, Wight, Danny and Baird, Janis (2016). Process evaluation of complex interventions. London: UK Medical Research Council guidance.

Moore, G. F., Evans, R. E., Hawkins, J., Littlecott, H., Melendez-Torres, G., Bonell, C., et al. (2019). From complex social interventions to interventions in complex social systems: Future directions and unresolved questions for intervention development and evaluation. *Evaluation, 25*(1), 23–45.

Munthe-Kaas, H., Nøkleby, H., Lewin, S., & Glenton, C. (2020). The TRANSFER approach for assessing the transferability of systematic review findings. *BMC Medical Research Methodology, 20*(1), 11.

Murphy, K., Moore Kristin, A., Redd, Z., & Malm, K. (2017). Trauma-informed child welfare systems and children's well-being: A longitudinal evaluation of KVC's bridging the way home initiative. *Children & Youth Services Review, 75*, 23–34.

Murray, M., Culver, T., Farmer, E., Jackson Leslie, A., & Rixon, B. (2014). From theory to practice: One agency's experience with implementing an evidence-based model. *Journal of Child and Family Studies, 23*(5), 844–853.

Naidoo, N., Nguyen, V. T., Ravaud, P., Young, B., Amiel, P., Schanté, D., et al. (2020). The research burden of randomized controlled trial participation: A systematic thematic synthesis of qualitative evidence. *BMC Medicine, 18*(1), 6.

Nice. (2021). Looked-afer children and young people. NICE guideline [NG205]. *Public Health England* [Available from: www.nice.org.uk/guidance/ng205.

NICE Evidence Reviews Collection. (2021). Interventions to support care placement stability for looked-after children and young people: Looked-After Children and Young People: Evidence review A. *Health and Care Excellence (NICE) Copyright © NICE 2021*. London: National Institute for.

NICE Evidence Reviews Collection. (2021). Barriers and facilitators for promoting physical, mental and emotional health and wellbeing of looked-after children and young people and care leavers: Looked-After Children and Young People: Evidence review G. *Health and Care Excellence (NICE) Copyright © NICE 2021*. London: National Institute for.

NICE (2021). NICE looked-after children and young people: evidence reviews for barriers and facilitators for promoting physical, mental and emotional health and wellbeing of looked-after children, young people and care leavers FINAL.

Noyes, J., Booth, A., Lewin, S., Carlsen, B., Glenton, C., Colvin, C. J., et al. (2018). Applying GRADE-CERQual to qualitative evidence synthesis findings–paper 6: How to assess relevance of the data. *Implementation Science, 13*(1), 4.

O'Higgins, A., Sebba, J., & Gardner, F. (2017). What are the factors associated with educational achievement for children in kinship or foster care: A systematic review. *Children and Youth Services Review, 79*, 198–220.

O'Higgins, A., Sebba, J., & Gardner, F. (2017). What are the factors associated with educational achievement for children in kinship or foster care: A systematic review. *Children and Youth Services Review, 79*, 198–220.

Petticrew, M., Knai, C., Thomas, J., Rehfuess, E. A., Noyes, J., Gerhardus, A., et al. (2019). Implications of a complexity perspective for systematic reviews and guideline development in health decision making. *BMJ Global Health, 4*(Suppl 1), e000899.

Pfadenhauer, L. M., Gerhardus, A., Mozygemba, K., Lysdahl, K. B., Booth, A., Hofmann, B., et al. (2017). Making sense of complexity in context and implementation: The Context and Implementation of Complex Interventions (CICI) framework. *Implementation Science, 12*(1), 21.

Rees, R., Oliver, K., Woodman, J., & Thomas, J. (2011). The views of young children in the UK about obesity, body size, shape and weight: A systematic review. *BMC Public Health, 11*, 188.

Rees, R., Oliver, K., Woodman, J., & Thomas, J. (2011). The views of young children in the UK about obesity, body size, shape and weight: A systematic review. *BMC Public Health, 11*(1), 1–12.

Rutter, H., Savona, N., Glonti, K., Bibby, J., Cummins, S., Finegood, D. T., et al. (2017). The need for a complex systems model of evidence for public health. *The Lancet, 390* (10112), 2602–2604.

Shklarski, L. (2020). Understanding individual and organizational factors related to the implementation fidelity of the family finding intervention to support youth in foster care who are transitioning to independent living. *Child Welfare, 98*(2), 103–136.

Spencer, R., Drew Alison, L., Gowdy, G., & Horn, J. P. (2018). "A positive guiding hand": A qualitative examination of youth-initiated mentoring and the promotion of interdependence among foster care youth. *Children & Youth Services Review., 93*, 41–50.

Spielfogel Jill, E., Leathers Sonya, J., Christian, E., & McMeel, L. S. (2011). Parent management training, relationships with agency staff, and child mental health: Urban foster parents' perspectives. *Children & Youth Services Review., 33*(11), 2366–2374.

Tancred, T., Paparini, S., Melendez-Torres, G. J., Fletcher, A., Thomas, J., Campbell, R., et al. (2018). Interventions integrating health and academic interventions to prevent substance use and violence: A systematic review and synthesis of process evaluations. *Systematic Reviews, 7*(1), 227.

Tessier, N. G., O'Higgins, A., & Flynn, R. J. (2018). Neglect, educational success, and young people in out-of-home care: Cross-sectional and longitudinal analyses. *Child Abuse & Neglect, 75*, 115–129.

The Fostering Network. (2018). *Inquiry into the emotional and mental health of children and young people in Wales*. A response from The Fostering Network to the Children: Young People and Education Committee's call for evidence.

Tong, A., Flemming, K., McInnes, E., Oliver, S., & Craig, J. (2012). Enhancing transparency in reporting the synthesis of qualitative research: ENTREQ. *BMC Medical Research Methodology, 12*(1), 181.

Tullberg, E., Vaughon, W., Muradwij, N., & Kerker, B. D. (2019). Unpacking "support": Understanding the complex needs of therapeutic foster parents. *Children and Youth Services Review, 105*, Article 104420.

Tullberg, E., Vaughon, W., Muradwij, N., & Kerker, B. D. (2019). Unpacking, "support": Understanding the complex needs of therapeutic foster parents. *Children and Youth Services Review, 105*, Article 104420.

Turner, W., & Macdonald, G. (2011). Treatment foster care for improving outcomes in children and young people: A systematic review. *Research on Social Work Practice, 21* (5), 501–527.

Turner-Halliday, F., Kainth, G., Young-Southward, G., Cotmore, R., Watson, N., McMahon, L., et al. (2017). Clout or doubt? Perspectives on an infant mental health service for young children placed in foster care due to abuse and neglect. *Child Abuse & Neglect, 72*, 184–195.

Turner-Halliday, F., Watson, N., & Minnis, H. (2016). Process evaluation of the New Orleans intervention model for infant mental health in Glasgow. *Impact and Evidence Series., 69*.

Vallejos Elvira, P., Ball Mark, J., Brown, P., Crepaz-Keay, D., Haslam-Jones, E., & Crawford, P. (2016). Kundalini yoga as mutual recovery: A feasibility study including children in care and their carers. *Journal of Children's Services, 11*(4), 261–282.

Welsh Government (2021a). Framework on embedding a whole-school approach to emotional and mental well-being. 2021.

Welsh Government (2021b). Review of Adverse Childhood Experiences (ACE) policy: report.

Westermark, P. K., Hansson, K., & Olsson, M. (2011). Multidimensional treatment foster care (MTFC): Results from an independent replication. *Journal of Family Therapy, 33* (1), 20–41.

Ziviani, J., Darlington, Y., Feeney, R., Meredith, P., & Head, B. (2013). Children with disabilities in out-of-home care: Perspectives on organisational collaborations. *Children & Youth Services Review., 35*(5), 797–805.