Scottish Government
Riaghaltas na h-Alba

Evidence Review: Enablers and Barriers to Trauma-informed Systems, Organisations and Workforces

HEALTH AND SOCIAL CARE

social research

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Research summary

Overview

This research report presents the findings of a rapid evidence review of the international literature published between 2016-2022 describing the enablers that support the effective implementation of trauma-informed approaches across different systems, organisations and workforces, alongside barriers to implementation.

This review was conducted by the Scottish Government Health and Social Care Analysis Unit in 2022 with the initial search and screening phase conducted by NHS Education for Scotland (NES) Knowledge Services.

Approach

A rapid review of the literature was conducted to help identify predictors (enablers) that enhance the implementation of trauma-informed approaches in a variety of different services and systems, and the positive outcomes (successes) for staff and people with experience of trauma. Additionally, barriers and challenges identified in the implementation of these strategies to promote a trauma-informed approach are described. The main systems, services and organisations where these trauma-informed initiatives were adopted and have also been evaluated, include schools, child welfare systems, community-based organisations, health services and youth justice facilities.

A decision making tool (see Appendix A) was used to determine the effectiveness of the enablers or predictors described in the literature search. Effectiveness was assessed by determining how efficient the strategies were in supporting the successful implementation of trauma-informed approaches, and bringing positive change to staff and people with lived experience of trauma involved with the different systems, organisations and workforces covered here.

Key findings

In relation to the workforce in the services covered by the studies in our literature search, evidence shows that trauma-informed approaches can have a positive impact on staff wellbeing and satisfaction, improved communication and collaboration between systems and services, as well as increased confidence, knowledge and skills in relation to responding to psychological trauma.

For people with lived experience of psychological trauma, evidence shows that trauma-informed approaches can improve wellbeing, reduce emotional difficulties for children and young people and have a positive impact on families and caregivers. It can also increase knowledge and skills of people with experience of trauma, improve access to specialist treatment or services where required, increase completion rates of treatment and result in a reduction in the experience of seclusion and physical restraint.

Nine key enablers of successful trauma-informed approaches were identified with varying strengths of supporting evidence (discussed in Section 3). These include:

- Workforce development
- Organisational readiness/pre-intervention strategies
- Trauma-informed leadership
- Training and education for parents, carers and people with experience of trauma
- Use of trauma screening or routine enquiry (where appropriate)
- Adoption of strengths-based approaches
- A flexible approach
- Promoting involvement, positive relationships and effective communication with stakeholders
- Extended implementation periods

Evidence shows that the challenges or obstacles to embedding trauma-informed approaches can arise as a result of the following:

- Lack of clarity for staff on what a trauma-informed approach involves
- Lack of clarity for staff around what constitutes ‘effective training’
- Difficulties related to implementing trauma screening or routine enquiry (where appropriate)
- The length of time required for implementation including unforeseen delays.

List of abbreviations

ACE	Adverse Childhood Experiences
ADKAR	Awareness, Desire, Knowledge, Ability and Reinforcement
ARC	Attachment, Self-regulations, and Competency framework
CPP	Child-Parent Therapy
CRC	Court Report Checklist
DCYF	Division for Children, Youth and Families
EBT	Evidence-based Treatment
LSI	Life Space Interview
MCTP	Massachusetts Child Trauma Project
MHST	Mental Health Screening Tool
NASMHPD	National Association of State Mental Health Program Directors
NCTSN	National Child Traumatic Stress Network
NHS	National Health Service
PCP	Primary Care Provider
PTSD	Post-traumatic Stress Disorder
RCT	Randomised-Control Trial
SAMHSA	Substance Abuse and Mental Health Services Administration
SEL	Socio-emotional Learning
TCI	Therapeutic Crisis Intervention
TF-CBT	Trauma-Focused Cognitive Behavioural Therapy
TIC	Trauma-informed care
TIES	Trauma-Informed elementary Schools
TILT	Trauma-Informed Leadership Team
TSRT	Trauma System Readiness Tool
UK	United Kingdom
USA	United States of America
YCPC	Young Child PTSD Checklist

Section 1: Introduction

1.1 Key terms and definitions

What is trauma?

Individual trauma results from an event, series of events, or set or circumstances that is experienced by an individual as physically or emotionally harmful or life threatening and that has lasting adverse effects on the individual's functioning and mental, physical, social, emotional or spiritual wellbeing. The term 'trauma' or 'psychological trauma' refers to how a person experiences the event(s), recognising that individuals can experience the same event(s) differently. The experiences can be a single or repeated occurrence and the effects may occur immediately or be delayed (or both), may be long- or short-term, and may not be recognised as connected to the original trauma. Essentially, trauma is understood in terms of the "3 E's": the event, how it is experienced, and its effects. (Transforming Psychological Trauma Knowledge and Skills Framework, NHS Education for Scotland, 2017)

Individuals may experience and be impacted by trauma at any point(s) across the life-course and trauma typically occurs in the context of relationships. Trauma is often subdivided into Type 1 and Type 2 trauma, but it is not uncommon for people to experience both types during their lives:

Type 1 trauma – These are usually single incident events that are sudden and unexpected, such as rapes, assaults, or serious accidents, such as road traffic accidents. Type 1 trauma can also include terrorist attacks or other types of major emergencies. These can happen in childhood or adulthood and can involve life changing injuries or the loss of loved ones.

Type 2 or "complex trauma" – This term refers to repeated trauma, which is usually experienced in the context of relationships, persists over time and is difficult to escape from. These traumatic events often (although not always) occur in childhood, with significant potential risk of developmental impact. The most commonly studied example of complex trauma is child sexual abuse. However, it can also be experienced in adulthood, in particular with experiences of domestic abuse, and also in the context of war, torture or human trafficking.

The Impacts of Trauma

The Transforming Psychological Trauma Knowledge and Skills Framework, (NHS Education for Scotland, 2017) outlines a number of different and overlapping impacts of trauma. Their definitions are as follows:

Direct psychological and physiological impacts: As a result of exposure to threatening or unsafe situations, in particular for children (but also for adults), neurological and cognitive processes adapt to detect, avoid and manage the impact of (often extreme) threat. The development of a highly sensitive threat system is potentially life saving during times of trauma. However, maintaining 'high alert' over

time can have longer-term, negative physiological and psychological impacts. Prolonged trauma, particularly in childhood, can also cause longer-term difficulties by limiting cognitive, social and emotional development and opportunities for learning and for developing skills in managing relationships with peers

Coping responses: A person's adaptive responses, for example "tuning out", dissociation or avoidance, can be helpful in the short-term, but can become problematic longer-term, as they can compromise active coping and restrict life choices. The use of substances and self-harm can also be understood as attempts to manage distress linked to past trauma which carry additional risks and compound difficulties.

Relationships with others: As noted earlier, trauma typically occurs in the context of relationships. Such experiences of interpersonal trauma, particularly in childhood, can disrupt the ability to form and maintain healthy and supportive relationships with others. Forming unhealthy and unsafe relationships also has the potential to compound previous trauma through an increased risk of re-victimisation. This is important as safe and supportive relationships are the best predictors of recovery following trauma.

Help seeking and engagement with services: People affected by trauma can become highly sensitive to subtle (as well as obvious) reminders of their previous traumatic experiences and relationships. Such reminders, and the distress that they cause, and the impacts of trauma on relationships, can mean that people who are affected by trauma do not seek or receive the help, care and support that they need. This compounds the risks of poorer outcomes following trauma. Hence, the importance of developing trauma-informed workforces and services.

Wide-ranging studies have added to the growing evidence that large numbers of people in contact with public services have experienced traumatic events. The 'Hard Edges Scotland' study (Bramley, Fitzpatrick and Sosenko, 2019) found that growing-up with experiences of trauma, combined with poverty, underpins severe and multiple disadvantage experienced by adults in Scotland. Their needs have often not been met by services and they can experience a range of challenges including addiction, mental health problems, and homelessness.

What does it mean to be 'trauma-informed'?

Being 'trauma-informed and responsive' means being able to recognise when someone may be affected by trauma, collaboratively adjusting how we work to take this into account and responding in a way that supports recovery, does no harm, and recognises and supports people's resilience. (NHS Education for Scotland, 2017)

1.2 Research aims

The main aim of this report is to determine the strength of the evidence base underpinning trauma-informed systems, organisations and workforces. More specifically, this review looks at the key elements that are the biggest predictors of:

- improving people's experiences of those systems, organisations and workforces, and

- improving outcomes for people with lived experience of trauma.

These two areas represent the intended outcomes that trauma-informed systems, organisations and workforces are aiming to bring both to staff and people with experience of trauma .

1.3 Methodology

This report is based on a rapid evidence review of the literature exploring the implementation of trauma-informed approaches in systems, organisations and workforces, and the predictors that could bring the biggest improvements (in the short, medium, and long term) for those involved with them. As this is a rapid evidence review, it should not be considered comprehensive in its coverage. The evidence identified was analysed using a decision-making tool which helped to classify predictors according to their effectiveness in bringing positive changes to people (staff and those with lived experience of trauma) involved with those systems, organisations and workforces.

Search strategy and screening

A literature search and evidence summary on the outcomes of trauma-informed care or trauma-informed practice was carried out. It focused on:

- the empirical evidence (peer reviewed literature) available for the outcomes of trauma informed approaches to systems change, and
- examples of trauma-informed approaches being applied at the whole-system level (e.g. state, city, region, professional group) and the quality indicators / systems have been used to monitor them.

The key terms “trauma informed” OR “trauma responsive” AND outcomes OR effectiveness OR study (etc.) were used to search three databases: Medline, Embase, and PsycInfo. Inclusion criteria included literature written in English and published from 2017 onwards. A first search was conducted in January 2020 and then repeated in January 2022. A total of 2420 studies were identified once duplicates were removed.

2022 search

Total: 4109 references

1682 (‘trauma-informed’ in the title/subject field)

2427 (‘trauma-informed’ in other field)

After de-duplication: 2421

997 (title/subject field)

1424 (other field)

After initial screening: 77 references

2020 search

Total: 84 references, comprising:

60 references selected in 2020

24 additional references selected after rescreening the remaining 2020 results

After initial rescreening of 2020 results: 38 references

Combined results of 2022 and 2020 searches after initial screening: 115 references

After final screening: 60 references

19 papers provided data on outcomes from system-level trauma informed approaches

4 additional papers provided data on outcomes from interventions that involved staff education

10 references had possible assessment tools

27 references gave examples of system- or organisation-wide trauma-informed approaches

A summary of the most substantial papers (N = 24) that were used to develop this analysis can be found in Appendix B. The studies and literature reviews included in the analysis are those that clearly evaluated or discussed the impact of trauma-informed interventions on individual or organisational outcomes. When using the evidence of effectiveness decision tree, the following aspects were considered when classifying the available evidence:

- the relevance of the evidence: must include outcomes related to the impact of trauma-informed approaches on staff and people with lived experiences of trauma
- what the evidence says about the effectiveness of the different components, or of the whole intervention
- the strength of the available evidence (for example, was a control group included in the study design or is there a clear link between intervention components and outcomes?)

When considering the strength of the available evidence the following limitations were identified across the research literature:

- Heterogeneity of interventions
- Heterogeneity of measures and outcomes assessed
- Lack of control / comparison groups
- Lack of empirical evidence
- Small sample sizes

Data analysis

A decision-making tool and an evidence of effectiveness decision tree were used to classify the different strategies (enablers) within trauma-informed programmes identified in the evidence review according to their effectiveness in improving the experiences of people involved with different services (education, child welfare, etc.). Although the intention was to assess the effectiveness of these strategies in bringing positive changes in the short, medium and long term, the evaluation is limited to short and medium term outcomes due to the lack of research exploring longer term effectiveness.

The decision-making tool and evidence of effectiveness decision tree have been previously utilised in preceding Scottish Government reports (see Scottish Government, 2020). The approach taken here differs from how the decision-making tool has been used in other evidence reviews. In this study individual elements of interventions and programmes were analysed, as opposed to whole programmes or initiatives (e.g. Scottish Government, 2020). This decision was made to meet the goals set for this evidence review which aimed at identifying predictors or enablers that might bring the most significant improvements for individuals and organisations.

As not all the categories in that decision tree were present in the evidence from the literature review, the effectiveness ratings were reduced from six categories to three. An effectiveness rating was assigned to the different predictors identified. The effectiveness categories used to classify these predictors or enablers were as follows:

- **Effective** – Evidence that the intervention is associated with a positive impact on the outcomes of staff working within different services, systems, and organizations, and people with lived experience of trauma involved in those systems, based on a moderate or strong evidence base.
- **Promising** – Findings were positive but not to the extent that they constituted evidence that an intervention was ‘effective’. Similarly, a body of evidence that is mostly comprised of individual articles (or an article with mixed evidence of effectiveness) finding a ‘mixed’ impact of interventions would be considered ‘promising” overall.
- **Inconclusive** – Insufficient evidence to make a judgement on impact

Further details about the the decision-making tool are provided in Appendix A.

Section 2: Evidence on trauma-informed approaches to systems change

What evidence is there on the effectiveness of trauma-informed approaches improving people's experiences of services / organisations / systems?

Overview

The papers identified in the literature search process were reviewed to identify the predictors that could be support the implementation of trauma-informed interventions across different systems, organisations and workforces, and that could also deliver the greatest benefits to staff or people who use services. This evidence review was international in scope. Most of the studies were from the USA, with others from Europe, Australia and South America.

Most of the literature reviewed focused on education and child welfare, mainly within schools (see Avery et al., 2021; Fondren et al., 2020; Diggins, 2021; Tabone et al., 2020) or child welfare systems (see Bartlett et al., 2016; Bunting et al., 2019; Murphy et al., 2017). The second most common area was that of community-based organisations where, for example, researchers implemented trauma-informed interventions to support people experiencing substance abuse, mental health difficulties and homelessness (Hales et al., 2019), or mothers and children experiencing interpersonal violence (Singh et al., 2020). The remainder includes mental health services (Azeem et al., 2017) and the justice system (Lathan et al., 2019).

One of the main characteristics of the papers reviewed here is the significant variation amongst them. This variability mainly refers to the characteristics of the interventions implemented, and the methodologies adopted to assess their effectiveness. More specifically, some interventions were developed in one or two organisations, such is the case of Barnett et al. (2018) who implemented a multi-layered trauma-informed programme within a residential treatment centre and accompanying specialist school or Baetz et al. (2021) who did the same in two juvenile detention facilities. Alternatively, others like Bartlett et al. (2016) and Barto et al. (2018) were involved in the adoption of a trauma-informed programme at a regional level – e.g. the Massachusetts Child Trauma Project (MCTP).

Moreover, authors took different approaches to evaluate the impact of interventions. For instance, many used surveys filled out by staff, services users or both; sometimes supported by relevant administrative data that could, for example, focus on the number of critical or violent incidents in said residential treatment centre or juvenile detention facilities (see Baetz et al., 2021; Barnett et al., 2018). Others relied on family judgements (see Diggins, 2020) to assess the impact of a school-wide trauma specific intervention implemented at a specialist school or used semi-structured interviews to explore participants (staff) experience of the intervention (see Singh et al., 2020). Very few studies used experimental, or, quasi-experimental designs (see Murphy et al., 2017), while others took a descriptive approach to discuss trauma-informed interventions (see Akin et al., 2017).

Kirkpatrick's model of training evaluation criteria has been used to analyse the evaluation approaches used on different TIC training curricula by authors like Gundacker et al. (2021). According to Praslova (2010) there are four levels in Kirkpatrick's model, which Gundacker et al. (2021) define as follows. The first of these four levels is *reaction* or how well training is accepted and appreciated, examples including training satisfaction or engagement. The second level is *learning* or the new knowledge or skills acquired, such as improved knowledge about ACEs or increased resource awareness. Level 3, *behaviour*, refers to the application of knowledge into practice, which could be measured by self-reported changes of behaviour or patient-rated visits. The fourth level, *results*, focuses on the effect of training on practice reflected patient satisfaction and effects on health (Praslova, 2010). The first two levels (reaction and learning) are deemed as internal criteria because their focus is on what happens within the boundaries of the training course. Alternatively, the last two criteria (behaviour and results) are deemed as external due to their focus being on changes that occur beyond and after the training itself (Praslova, 2010).

One limitation identified concerning data analysis was that not all studies measured the impact of the trauma-informed strategies. Therefore, it was challenging to attribute the specific effects of the various strategies on outcomes for staff and service users. A further challenge concerning outcomes was that the implementation time for all the interventions reviewed ranged from one to five years, which meant their focus was on the impact of trauma-informed intervention in the short- and medium-term and not over a longer period.

Section 3: Key findings – Enablers

Nine key enablers of successful trauma-informed approaches were identified:

- Workforce development
- Organisational readiness / pre-intervention strategies
- Trauma-informed leadership
- Training and education for parents, carers and people with experience of trauma
- Use of trauma screening or routine enquiry (where appropriate)
- Adoption of strengths-based approaches
- A flexible approach
- Promoting involvement, positive relationships and effective communication with stakeholders
- Extended implementation periods

3.1 Workforce development

Professional or workforce development is often described as a driver for change, essential when it comes to implementing trauma-informed practices within different systems. Different aspects of trauma-informed workforce development that have been described in the literature as effective are set out below.

Education – staff training

Staff training has been identified as an essential element of trauma-informed approaches that helps staff understand difficult behaviours and regulate their own performance, leading to a decrease in reactive and punitive responses helping avoid escalation (Avery et al., 2021).

In Diggins' (2021) study, staff received a 2-day group training on the Sanctuary Model at the beginning of their employment in an Australian specialist school for emotional and behavioural difficulties. This training addresses the four core areas of the model, which include:

- trauma theory,
- the Sanctuary commitments of organisational practice,
- the Safety; Emotion; Loss; Future framework (focused on shared language)
- the Sanctuary toolkit (community meetings, self-care plans, and individual safety plans for all members of the institution).

The Sanctuary model promotes understanding of the effects of trauma and coping strategies at the organisational level. Similarly, the ReLATE model (see Diggins, 2021) offers training on Therapeutic Crisis Intervention (TCI) to staff at the

beginning of the trauma-informed intervention. The training is delivered in group sessions over two days, with lectures and individual coaching focusing on management of critical incidents, recovery and behavioural tools and strategies, and motivational interviewing. This was provided together with practice-based instruction of de-escalation, crisis management, injury reduction, or stress handling.

TIES (Trauma-Informed elementary Schools), a program based on the Attachment, Self-regulations, and Competency (ARC) framework, focused on delivering trauma-informed services within primary education and offering early intervention to children who have experienced trauma (Tabone et al., 2020). The main aims of TIES are providing trauma identification training for school staff and developing trauma-informed school environments through training for parents and teachers, and classroom consultation including the provision of a liaison figure (therapist) to help teachers identify and address signs of trauma.

In their literature review of school-based trauma-informed approaches implementation, Avery et al. (2021) conclude that allowing teachers to have an active role in training planning and delivery, together with creating space for them to share the systemic challenges they face was a key element of service design and delivery.

Child welfare – staff training

Murphy et al. (2017) consider that all members of care teams working within child welfare systems must be trained for certain trauma-informed strategies (such asTrauma Systems Therapy) to be successful, regardless of how closely they work with the children. All, from caregivers and therapists to service co-ordinators, influence the child's experience and are essential.

Other studies considered trauma-informed training as part of wider strategies such as CONCEPT, a programme implemented state-wide in Connecticut (Connell et al., 2019; Lang et al., 2016). Here, trauma-focused training was delivered pre- and in-service at a system-wide level to all the child-welfare workforce and was one of the best rated aspects of the programme. Staff training was supported by the development of a group of trauma champions, who acted as liaisons with relevant staff.

Several studies adopted a more complex training strategy providing post-delivery support and advanced training to certain members of staff. in their state-wide trauma-informed care (TIC) implementation, Jankowski et al. (2019) provided training on TIC principles and its implementation within the child protection and justice systems. They also provided training in using the Mental Health Screening tool (MHST), which is used to assess child wellbeing and exposure to trauma. Post training support was also available three months after delivery to help staff interpret and communicate the results of MHST and to guide them in effectively adopting this screening strategy. Advanced training was provided to trauma specialists or champions to support the implementation of TIC.

Lang et al. (2016) described the mandatory training that was part of the adoption of the CONCEPT project. This training was delivered pre- and in-service for child welfare staff. It followed a "train-the-trainer" format and was based on the National Child Traumatic Stress Network (NCTSN) Child Welfare Trauma Training Toolkit

(see Lang et al., 2019). The toolkit's curriculum focused on enhancing staff's child-trauma related knowledge and on the promotion of trauma-informed practice across different levels of the child welfare system.

Akin et al. (2017) highlight the significance of providing training to staff while considering their workload and the importance of their jobs. They highlighted the need to consider and use established systems and processes to integrate and deliver training. Considering a hybrid delivery method (web-based and in-person activities) could also be a facilitator to promote effective and efficient training.

Community-based interventions – staff training

Training all staff was a priority in the study conducted by Hales et al. (2019). These authors implemented a TIC intervention within a non-profit organisation which provided services for people experiencing problematic substance use, mental health difficulties and homelessness. Mentors and trainers were recruited from senior staff and programme directors in the organisation; staff across the agency could volunteer to become mentors as well. After receiving a three-hour "Trauma 101" session, a team comprised of the mentors, a programme director and a counsellor delivered the training. Having all staff receive the initial training helped create a common trauma-informed language and knowledge, sharing across the agency.

Health – staff training

Racine et al. (2021) aimed to help tackle the gap in the literature exploring the association between TIC approaches and health outcomes for mothers and new-borns. They implemented a multi-layered TIC initiative in a maternity clinic to evaluate the impact of adopting a TIC for women whose pregnancies were considered low-risk. Training played a key role in this intervention since some of its core components included training a peer champion or training physicians and staff offering primary care. The peer-champion, who was a physician, received trauma training and followed a model (Awareness, Desire, Knowledge, Ability and Reinforcement; ADKAR) to manage change and resources. They then delivered training to staff via voluntary retreats or online learning activities, which were attended by most staff. The aim of these training and educational activities were to understand the impact of trauma on those who experience it, and on the need to cultivate empathy and understanding towards them. The training strategy also targeted staff skills building, including motivational interviewing and trauma screening techniques.

Azeem et al. (2017) delivered training to staff working at a child and adolescent psychiatric hospital in the US with the aim of assessing the effectiveness of trauma-informed strategies in reducing the use of seclusions (where patients are temporarily segregated from other patients) and restraints. The training was based on six core trauma-informed and strength-based care strategies, which focused on principles of primary intervention (see Azeem et al., 2017). These were developed by the National Association of State Mental Health Program Directors (NASMHPD) and included: leadership towards organizational change, use of data to inform practice, workforce development, use of restraint and seclusion reduction tools, improve consumer's role in inpatient setting, vigorous debriefing techniques.

Regarding curriculum content, there seems to be a deficit of trauma-informed primary care providers (PCPs), despite the high prevalence of trauma and trauma-related symptoms amongst the general population. Gundacker et al., (2021) conducted a literature review to identify trauma-informed curricula for PCPs, considering their effectiveness and research gaps. The most common topic addressed by the different curricula was “understanding the health effects of trauma”. Additionally, they identified different methods and modes of training delivery such as online, within the setting, or hybrid. However, there is a need to expand the research to determine the most beneficial elements of online versus on-setting delivery. The main educational elements identified in this review included “tangible resources for providers to refer to during the clinical encounter”, or “continuing medical education credit for the training”, which incentivises participation in the training (p. 854). It was followed by 71% of the investigations focusing on patient-centred communication and care. Additionally, 53% of the studies reviewed discussed Kirkpatrick level 3 behavioural changes in assessment outcomes with higher rates of trauma screening and communication. However, no changes were reported in referrals.

Gundacker et al. (2021) concluded that trauma-informed curricula improved PCPs confidence and abilities to deliver TIC, increasing their knowledge about the impact of trauma on health outcomes (Kirkpatrick’s level 2). Their attitudes towards patients who experienced trauma improved as well, and changes on the PCPs behaviour were also reported (Kirkpatrick’s level 3). Therefore, the authors conclude that other organisations looking to deliver trauma-informed training to PCPs could use or adapt the curricula they describe in their review. The TIC framework they describe together with the Kirkpatrick levels can also be used, depending on the needs of their programme. However, this review has to be understood considering that it was mainly based on small pilot studies. More research is necessary to understand the impact of trauma-informed training on short- and long-term results (Kirkpatrick’s level 4) (Gundacker et al., 2021).

Youth Justice – staff training

Baetz et al. (2021) assessed the impact of a trauma-informed intervention on violence rates at two juvenile detention institutions in the US. It focused on delivering trauma-informed training for staff and a skills development programme for the young people in these facilities. The curriculum delivered to staff was known as Think Trauma (see Baetz et al., 2021) and focused on developing a shared knowledge and language related to exposure to trauma and its impact on the behaviours of young people, as well as staff wellbeing and organisational outcomes. A “train-the-trainer” approach was used, and the key components of this curriculum included the impact of trauma on young people involved in the juvenile justice system, trauma and the development of children and adolescents, supporting young people develop healthier coping strategies, as well as secondary trauma, self-care and stress at the organisational level. Training sessions took place over a period of eight weeks.

Multi-Agency – staff training

Damian et al. (2017) studied the impact of a training-based, nine-month TIC strategy implemented at city-wide level in Baltimore (USA). The goal of the training

delivered was to promote the implementation of the six trauma-informed principles described by the USA Substance Abuse and Mental Health Services Administration (SAMHSA): “1) Safety, 2) Trustworthiness and Transparency, 3) Peer Support, 4) Collaboration and Mutuality, 5) Empowerment, Voice and Choice, and 6) Cultural, Historical and Gender Issues” (p. 3). This training was delivered to professionals working in the areas of Law Enforcement, Social Services, and Health and education who interacted with people with experience of trauma. Different activities such as coaching sessions, feedback from trauma experts about implementing TIC in their workplaces were used to deliver that training. This project was based on multi-agency collaboration.

Barnett et al. (2018) divided their 3-year TIC training-based implementation within a youth residential treatment centre and accompanying special needs school into different phases. These involved: 1) needs assessments involving leaders and administrators to deliver a programme tailored to the agency’s requirements, 2) promoting buy-in and strategic planning, 3) delivering voluntary training and coaching sessions to staff, and 4) internal sustainment of training and reflective practice group sessions. For the training delivery, a train-the-trainer approach was taken, and an internal trauma specialist delivered six (voluntary) ongoing training sessions and reflective practice group sessions to staff. Staff involvement in these training sessions was high, and, if they met the criteria, they received a pay increase. This strategy later evolved, and trauma training was embedded in staff orientation for new recruits.

Enhancement of staff capacity (other than training)

Schools: The ReLATE model included staff debriefing in response to critical incidents in schools (Diggins, 2021). These debriefing sessions lasted 90 minutes and involved staff who had witnessed the incident, and school leaders such as the principal and psychologist. The debriefing process included reflective practice and behavioural analysis. This was complemented with additional coaching opportunities during supervision meetings. Teacher coaching was used to translate knowledge into practice, deemed an essential element of successful school-based trauma-informed implementation (Avery et al., 2021). Teacher coaching can be delivered in the form of group sessions (Day et al., 2015, Dorado et al., 2016), workshops, or via specialist support (Perry and Daniels, 2016).

Child welfare: The CONCEPT initiative, implemented at state level in Connecticut (Connell et al., 2019; Lang et al., 2016) considered secondary staff trauma as a way of providing staff support and promote their wellbeing. Staff working within child welfare systems are particularly vulnerable to secondary traumatic stress due to their regular involvement with the consequences of these children’s traumatic experiences (see Lang et al., 2016). The CONCEPT project included an employee support and wellness team per office. These teams, who were provided annual funding organised regular meetings and used local resources to promote staff’s wellbeing. Some examples include creating a wellness room for staff to use during crises, or workshops delivery on topics such as stress management or physical wellbeing. In the fourth year of the implementation of CONCEPT, state-wide training was delivered for staff, along with follow-up consultation on secondary trauma (Connell et al., 2019).

Community-based interventions: enhancing staff capacity was the focus ofinterventions like Building Connections, which focused on increasing the capacity - through enhanced relational and trauma-informed approaches - of service providers in community-based projects to help them identify and respond to interpersonal violence (Singh et al., 2020). The general goals of the Building Connections initiative were to raise awareness about how to effectively support mothers and their children experiencing interpersonal violence and disseminating and evaluating the implementation of an intervention focused on interpersonal violence delivered to mothers. Additionally, staff coaching was offered in the study developed by Hales et al. (2019), where trauma coordinators observed staff during key points of their routine and provided relevant support about the use of language, promoted team building or helped walk staff through the program.

Culture change

Schools: promoting culture shifts is one of the aims of workforce development described in different school-based interventions. For Perry and Daniels (2016) focused on enhancing staff capacity and developing expertise to provide trauma-informed services to students. Workforce development seems to be crucial for driving trauma-focused changes because it provides staff with a broad understanding of trauma and its impact on learning, as well as with strategies to interact with students (who might have experienced trauma) more effectively. Initial staff training and intensive follow-up training to ensure culture shift, supported by collaborative bespoke training design and continuous opportunities for staff debriefing and discussion, are some of the strategies recommended by Avery et al. (2021).

Reflective practice

Child welfare: while adopting the Sanctuary Model, reflective practice helped staff identify strengths, areas for improvement and ways in which they can address challenges more effectively. Reflective practice encourages continuous learning and critical reflection of staff practices and performance (Galvin et al., 2021).

Community-based interventions: reflective conversations were used in the study conducted by Hales et al. (2019),which focused on the implementation of TIC in a non-profit organisation providing services for substance use, mental health and homelessness. These reflective conversations were implemented during staff meetings, facilitated by senior staff and directors. The aim of these conversations was to critically analyse policy, procedures and practices that could lead to re-traumatisation, and identify areas of focus to strengthen their trauma-informed approach. Additionally, these conversations focused on prompting safety, trust, choice, and empowerment for everyone in the organisation (ibid).

Multi-agency level: Barnett et al. (2018) included reflective practice groups to promote the sustainment of their trauma-informed programme implemented in a youth residential treatment centre and accompanying special needs school. Staff could participate in the reflective practice groups after completing six voluntary training sessions.

3.2 Organisational Readiness / pre-intervention strategies

Organisational readiness should be carefully considered before implementing trauma-informed approaches.

Schools

According to Avery et al. (2021) school readiness and motivation, together with the availability of appropriate systems and resources are essential to guarantee successful TIC implementation. Leadership engagement with and support of the intervention is also crucial in this regard, as is the alignment between the intervention and the needs, values, policies, and practices of the school. Two examples of implementations efforts developed to explore these areas include Perry and Daniels (2016) and Day et al. (2015), who developed implementation workshops and the bespoke co-design of training to meet schools needs to ensure the successful implementation of trauma-informed practices.

Child Welfare

Jankowski et al. (2019) conducted a needs assessment as part of the TIC project in the Trauma-Informed Care Initiative in a State Child Welfare System in New Hampshire, USA. The needs assessment was informed via interviews and focus groups with different stakeholders, including children, families and staff from child welfare services or juvenile justice. The results of this needs assessment were combined with the results of the Chadwick Trauma System Readiness Tool (TSRT) to pilot-test the intervention. The intervention was then modified according to the results of the pilot study.

Akin et al. (2017) describe the benefits of using pre-implementation needs assessment strategies in three US state-wide trauma-informed projects. They highlighted how these approaches can help define the needs of the population, gaps in the service and practice, readiness for change or challenges to implementation. Having a needs assessment phase in TIC implementation can also help promote buy-in, promote change, and plan the intervention.

Multi-agency level: Barnett et al. (2018) conducted a pre-intervention needs assessment before they implemented a TIC initiative within a youth residential treatment centre and special needs school. The researchers met with leaders and administrators in the institution to design a tailored intervention that would meet their needs and requirements, which they consider was part of what led to their successful results.

3.3 Trauma-informed leadership

Strong and committed roles models seem to be essential in the implementation of trauma-informed approaches.

Child welfare

Bunting et al. (2019) identified “leadership buy-in” (promoted via training senior managers, developing implementations plans, etc.) as a key element to promote organisational change within child welfare systems. According to Galvin et al. (2021) “leadership and / or champions were non-negotiable” (p. 4) in the implementation of the Sanctuary Model. These authors add that although some of

the managers and coordinators initially only followed the trauma-informed Sanctuary Model because they felt they “had to” (ibid), they sustained doing so because they believed in its benefits.

Seeing those in positions of leadership putting the model in practice and encouraging others to do so was essential for implementation. This is particularly relevant when implementing organisation-wide initiatives, where those in positions of influence and power should be the ones driving change and promoting buy-in at different levels of the organisation. Champions are those people with a higher level of knowledge and understanding of trauma, who are at a privileged position to steer change within the organisation (see Hales et al., 2019).

A key component was introducing Trauma-Informed Leadership Teams (TILTs). These teams focused on developing and supporting the structure for the integration of a community-based TIC system (Bartlett, et al., 2019). The membership of TILTs were formed by a wide range of professionals involved in different areas of the child welfare system, such as education, early intervention or legal services. Their role was to enhance collaboration between the different relevant systems to ensure practices were more responsive to young people and families with lived-experience of trauma. Having a team structure promoted increasing awareness of the impact of childhood trauma and enhanced the sharing of best practices and service gaps across different systems. It also helps reduce obstacles to accessing evidence-based services.

Bartlett et al. (2016), focused on assessing the improvements in TIC reported by clinicians after being involved in the project for a year. After reviewing meeting documentation (content, frequency of meetings, attendance, etc.) and conducting interviews with “key informants” about the first-year of implementation (retention, activities, challenges, etc.), the authors saw that TILTs were involved in a wide range of activities, reaching a varied audience. These activities included self-assessment, organising training about childhood trauma, mental health roles for child welfare staff or delivering wellness classes to address secondary stress within staff. They also provided training to parents and schools and focused on creating a positive and welcoming space for children and families.

Additionally, the learning collaborative model was employed as a key element of the dissemination of information about evidence-based treatment amongst health providers, due to its potential in supporting the implementation of evidence-based treatment (EBT) amongst mental health providers (see Bartlett et al., 2016). The learning collaborative model, considered a tool for developing governance and leadership at different TIC levels, comprises of a 1-year educational strategy based on in-person learning sessions and intensive EBT consultation. Leadership plays a key role in this model, which understands it as a key factor for promoting change and sustaining new initiatives. This is reflected the approach taken, which is based on bringing together teams of health professionals. It is essential that within those teams there is a senior leader with capacity and authority to make decisions about the programme and changes to policy, and who will focus on monitoring EBT and quality improvement (see Bartlett et al., 2016).

The state-wide project implemented by Jankowski et al. (2019) was directed by a leadership team involving administrators from the Division for Children, Youth and

Families (DCYF) and several evaluators. This team met monthly to review policies, guide change, it also focused on removing barriers to the implementation of new practices and discussed evaluation activities and findings. Organisation leads then introduced the project to DCYF staff.

In the implementation of the Sanctuary Model, creating relevant teams and structures within the organisation was also seen as an effective driver of change (Galvin et al., 2021). These different teams came together regularly to monitor implementation and quality and challenge each other, which helped embed the Sanctuary Model in their organisation.

In the case of the CONCEPT project (Lang et al., 2016), central teams guided planning and implementation of the programme. These teams were comprised of managers, administrators, project coordinators, trauma experts or members of the evaluation team. The CONCEPT project also included the creation of subcommittees that reported to those central teams, regarding policy changes, implementation of evidence-based practices or workforce development. Additionally, volunteer trauma champions (a total of 40) were selected in the different facilities and offices involved in the project implementation. These trauma champion roles were taken up by different members of staff, including managers, supervisors, or clinical coordinators. Trauma champions were expected to deliver monthly training within their facilities. Some of the activities they develop included delivering training to foster parents, circulating newsletters, or hosting presentations delivered by local trauma-informed mental health professionals.

Community-based interventions

Hales et al. (2019) implemented an intervention within in a non-profit organization delivering services for substance use, mental health and homelessness. In this case, the authors prioritised that senior staff and managers receive trauma-informed training first with the aim of creating a foundation and promoting TIC buy-in at other levels. These senior members of staff and programme directors were then recruited as mentors to deliver training to all staff, which was one of the priorities of the intervention. After delivering the training, these mentors returned to their previous programmes and became TIC champions, acting as role models and points of contact for other staff during the implementation of the TIC programme. All programme directors became trauma champions, receiving additional training to strengthen their specialised trauma knowledge, and their roles and responsibilities, which included providing support and securing the TIC implementation in the organisation.

Justice system

Leadership teams were considered essential in the effective implementation of trauma-informed programmes. Baetz et al. (2021) highlighted that regular check-ins with the leadership team were essential to protect key areas of their multi-layered programme that might have otherwise have been deprioritised. Baetz et al. (2021) also described skill development groups delivered to the young people at the juvenile detention facilities where they implemented a multi-layered trauma-informed strategy aimed at reducing violent incidents.

3.4 Training and education for parents, carers and people with experience of trauma

Schools

Fondren et al. (2020), in their literature review of school-based trauma-informed interventions, identified some studies that delivered what they called Tier 1 prevention strategies, which focused on the promotion of positive behaviours and increasing socioemotional learning (SEL). According to Fondren et al. (2020), the most effective techniques, which were even more effective if delivered by teachers, "(1) involved sequenced activities, (2) provided activities for students to practice using learned skills, (3) emphasized the development of social skills, and (4) targeted SEL skills specifically, such as self-awareness, self-management, social awareness, relationship skills, and responsible decision making.

Parent training and consultation is also a key element of the Trauma-Informed elementary Schools (TIES) intervention, an educational early intervention focused on delivering trauma-informed services within primary education and offer early intervention to children who have experienced trauma. (see Tabone et al., 2020).

Child welfare

Lotty et al. (2020) assessed the effectiveness of the programme known as Fostering Connections, focused on TIC for child welfare agencies in Ireland. Fostering Connections is a trauma-informed intervention, based on psychoeducation with a group and experiential activities (i.e. uses exercises, videos, role-play, discussions, etc.). This initiative was delivered during 6 weeks within a community setting. Fostering Connections focuses on delivering cumulative content, focusing on trauma awareness, attachment, resilience, or collaboration. The principles of this programme, which align with the National Child Traumatic Stress Network (NCTSN), focus on promoting "trauma awareness, knowledge, and skills" of those involved in the child welfare system (Lotty et al., 2020, p. 4). This programme aims to promote trauma-focused awareness amongst foster carers as well as strategies to effectively develop healing connections with foster children. The rationale is for the intervention to reduce the children's trauma and address attachment difficulties.

Youth Justice

Baetz et al. (2019) studied the delivery of a trauma-informed intervention focused on reducing violence at two juvenile detention institutions in the US. This initiative delivered trauma-informed training for staff (see the "workforce development" section above) and a group skills development programme for youth in the facilities known as STAIR. The STAIR programme was based on the delivery of three sessions focusing on trauma education and feelings recognition, coping with difficult feelings, and effective communication. There is no specific order for these sessions, and participants also needed to complete a "trauma-informed safety plan" along with attending the three sessions, allowing participants to identify triggers, dysregulation, and coping skills. These groups were co-facilitated by a mental health professional and a counsellor. This training was offered to all youths in both settings.

Community-based interventions

Some initiatives share TIC information with their clients to ensure they are aware of the trauma-informed organisational changes and their purpose (Hales et al., 2019), and others (Racine et al., 2021) promoted patient awareness of mental health and trauma within a maternity clinic as part of the implementation of a multi-layered TIC initiative. Racine et al. (2021) also included the promotion of trauma awareness amongst the patients of the low-risk maternity clinic where they implemented a TIC strategy. With this aim, posters, brochures and online information on the clinic's website was facilitated, also with the objective of promoting mental health.

3.5 Use of trauma screening or routine enquiry where appropriate

Child welfare

In their literature review, Bunting et al. (2019), observed that trauma screening was a common strategy implemented in different studies, generally the result of trauma-informed training. Trauma screening can be used to identify children and young people who might need further assessment, support or treatment from trauma-informed services (ibid). According to Bunting et al. (2019) there are different ways of adopting trauma screening i.e. screening children in all child-welfare related cases, or only screening those going into care, or using the Trauma Screening Checklist to identify children and adolescents who needed trauma specialist services. However, independently of the strategy, trauma screening was positively perceived by child welfare and mental health staff.

Jankowski et al. (2019) describe the implementation of the Mental Health Screening Tool (MHST) as one of the main components of their project that implemented TIC in a state child welfare system. MHST is an online tool used to assess general child wellbeing and exposure to traumatic and post-traumatic experiences leading to stress symptoms. Specialist training and guidance was offered to staff to ensure the effective implementation of this screening strategy.

Community-based interventions

Racine et al. (2021) used standardised screening of ACEs and mental health symptomatology in their implementation of a multi-layered TIC strategy within a low-risk maternity clinic to evaluate the impact of TIC on mother and offspring outcomes. The first step toward the implementation of this strategy was delivering training to ensure staff had the skills to effectively use a trauma screening questionnaire and provide follow-up. When it came to the ACEs screening process itself, a handout was given to patients during their second prenatal visit with the aim of explaining the reason to ask about childhood trauma. After this, patients could voluntarily complete a 10-item version of the ACEs questionnaire. The results of ACEs screening were reviewed by the physician, focusing on the patient's mental health needs and available supports; referrals for follow-up were processed if needed.

3.6 Adoption of strengths-based approaches

Schools

Strategies with the aim of increasing connection, self-regulation skills or empathy were crucial organisational changes in the school-based studies reviewed by Avery et al. (2021). Replacing a punitive and reactive approaches for a healing, “strength-based and skill-building approaches” (p. 13) is supported by research exploring evidence-base trauma-informed care and practices.

Studies such as the programme implemented by Diggins (2021) included strategies to respond to critical incidents. In this case, the ReLATE model included the Life Space Interview (LSI) as a response to every critical incident that happened in the school (for instance, dangerous behaviours, injuries, physical assault). LSI included a structured staff-student discussion focused on self-regulation to avoid violent behaviours. Steps include empathic listening and helping the student identify adaptive behaviours. These interviews were adapted to the children’s developmental stage, using storybooks and drawings to work with primary students, and conversational approaches with secondary students.

Additionally, the ReLATE program created individualised safety plans for each student, something they could use whenever they did not feel safe in the classroom. These safety plans were developed at the beginning of an academic year and included triggers and were adapted to the children’s cognitive level (images for children in primary education and written language for secondary students (see Diggins, 2021). A key components of the Trauma-Informed Elementary Schools (TIES) programme is the provision of therapeutic interventions for children and their families. This includes the creation of comprehensive intervention plans developed by the schools’ behavioural health services and children’s families (Tabone et al., 2020).

Child-welfare

After reviewing relevant policy and practice manuals, a policy workshop developed a review tool stemming from Chadwick’s essential elements of a trauma-informed system. This led to the change of 22 policies and practice guidelines and the production of a guide for trauma-informed resources to support these types of policies and practices. For example, the family Assessment and Response guidelines were updated to ensure it assessed signs of traumatic stress in the children, their caregivers’ trauma history and the impact it might be having on their ability to care for the child (see Bunting et al., 2019). In the study conducted by Jankowski et al. (2019), a change of system-level policies and practices was promoted through the establishment of formal protocols to help integrate the new approach including new screening guidelines, case planning, and progress monitoring within the overall structure of the child welfare system.

3.7 A flexible approach

Child welfare

Creativity and flexibility as key elements of a trauma-informed approach ensure that model(s) can be adapted to the of service users and organisations. In the case of the Sanctuary Model (Galvin et al., 2021), ensuring young people had flexibility in the ways they could engage with the different programmes and initiatives related to the model, and allowing staff to creatively implement the model's principles worked particularly well. Initiatives like the MCTP are also characterised by its flexibility, which according to Barto et al. (2018) allowed for tailored service delivery, adapting to the individual needs of children and families.

According to Akin et al. (2017) inflexible work plans and protocols can prevent or limit the implementation certain initiatives. However, they report flexibility and continuous evaluation promoted the adjustment of practices, when needed, and the development of supports to promote successful adoption of trauma-informed approaches.

Multi-agency level

Damian et al. (2017) reported that TIC training led to more flexible and lees punitive policies towards clients. As a result of the training received, the government and non-profit professionals involved in this city-wide initiative mentioned changing their views regarding labelling youth and adopting a less rigid approach to working with service users. Additionally, they reported increased capacity to listen and pay more attention to the clients' needs.

3.8 Promoting involvement, positive relationships and effective communication with stakeholders

Schools

In Perry and Daniels' (2016) study of a school-based trauma-informed intervention, clinical services gave relevance to building relationships across all organisational levels. Rather than focusing on referral to external trauma-based services, the focus was on working with existing resources and building positive relationships within schools by delivering relevant workshops. More specifically, the aim was to identify and assess existing needs and supports already available at the school, strengthening relationships between staff and students, providing workshops at classroom level and trauma screening and clinical interventions for students. Perry and Daniels (2016) created Care Coordination teams, which helped establish supportive relationships with families, providing resources and coordinating care to address their overall needs. The constant communication facilitated by this strategy helped close a frequent gap in the interactions between families and schools. Additionally, in this school-based intervention, the focus was ensuring that the efforts to promote academic achievement did not outshine the specific support needs of students and families. Therefore, the intervention included personalised care guided by collaboration with the family and individual with the aim of covering the families' complex needs. Avery et al. (2021) reported that, together with care

coordination teams, revising communication guidelines with stakeholders (staff, families, students, sider community) and interagency collaboration were enablers of the implementation of trauma-informed approaches.

The ReLATE intervention includes daily community meetings, at the beginning and end of the school day.. These meetings focused on three questions: “How are you feeling? What is your goal for today? and Who can you ask for help?” (Sanctuary Model, 2012, as cited in Diggins, 2021 p. 196). The aim of these questions was to increase emotional communication, supporting help-seeking behaviour and goal setting. These community meetings, which created a predictable daily routine for students, promoted a feeling of safety, which can support students who benefit from having clear structures (see Diggins, 2021).

TIES (Trauma-Informed elementary Schools) is a program aimed at offering trauma-informed early intervention to primary school children who have experienced trauma (Tabone et al., 2020). TIES is delivered at classroom level. The needs of children who have experienced trauma are addressed by developing healthy classroom environments facilitated by the collaboration between schools and families.

Avery et al. (2021) described that some of the studies in their literature review were interested in understanding students’ views (see Day et al., 2015; Dorado et al., 2016). Considering students and their families’ cultural values and needs was understood to promote empowerment, safety and the promotion of relevant cultural and gender principles of care, while strengthening the commitment to avoid re-traumatisation.

Child welfare

Several programmes developed within child welfare systems considered promoting engagement amongst service users as a key element of TIC implementation (Bunting et al., 2019). Some of the initiatives included trauma-informed training for parents and carers, promotion of community engagement or involvement in leadership teams. In the case of more grassroots approaches such as the Michigan Children’s Trauma Assessment Centre, the emphasis was put on the development of community partnerships and on promoting community collaboration assessments including foster and birth parents. This particular initiative included using an assessment of TIC policies and practices, which helped develop the principles to implement TIC plans, something that was supported by consultation with the appropriate stakeholders. However, these initiatives were discussed in a mainly descriptive way, and they seemed to have targeted parents and carers, but not children and young people (ibid). Bartlett et al. (2016) conclude that the simultaneous, comprehensive implementation of TIC within the child welfare system and associated mental health services improves the inter-systems collaboration that is understood to be essential for the success of these initiatives.

In their description of three state-wide projects that implemented trauma-informed and evidence-based initiatives, Akin et al. (2017) discuss the efforts made in those projects to promote cross-agency and cross-system engagement. In this regard, they mention that different activities (e.g. training) were developed to promote stakeholder engagement and collaboration at all stages of implementation, including planning. These efforts promoted buy-in and helped address challenges.

Additionally, establishing inter- and intra- agency teams seemed to be another essential part of TIC implementation. Having several of these teams can help deliver change, promote buy-in and engagement, and guide project implementation. These teams can also help address and prevent challenges, solve problems. However, it is important to consider their already high workload and ensure the intervention did not become a burden.

3.9 Extended implementation periods

Schools

Avery et al. (2021) reported a strong relationship between the longer length of implementation and reduction in behavioural difficulties.

Child welfare

Zhang et al. (2021), concluded that child-welfare TIC interventions had the largest effect size when implemented for a longer time (7 to 12 months), in comparison to those implemented for shorter periods. Murphy et al. (2017) maintained that longer implementation periods are a factor that helps observe certain changes that only take place over time, as is the case of changes in emotional difficulties.

Section 4: Key findings – Barriers

This review found limited evidence in relation to the barriers or obstacles to implementing trauma informed practice, with the exception of Galvin et al. (2021) who discussed the barriers they found when it came to implementing the Sanctuary Model within the child welfare system.

In the case of the Sanctuary Model, outdated, inaccessible, contextually inappropriate, or a general lack of resources had a negative impact on engaging young people in the programme (Galvin et al., 2021). Additionally, Bartlett et al. (2016) report that limited resources for trauma-related work appeared to be a significant barrier for TIC implementation. Lack of human resources, such as the limited availability of mental health providers that could deliver evidence-based trauma-informed treatment to children was also a significant barrier.

4.1 Lack of commitment to the programme

Lack of fidelity to the (Sanctuary) model is the main barrier discussed by Galvin et al. (2021). The lack of fidelity was the result of limited consistency in using the model's tools (community meetings, psychoeducation), staff having a limited understanding of their role, and confusion or scepticism. Similarly, Bartlett et al. (2016) observed that one of the main barriers associated with the functioning of the Trauma Informed Leadership Teams (TILTs) was reduced commitment after over time, also affected by high work demands (see Bartlett et al., 2016).

4.2 Lack of practice-based training and refreshers

In Galvin et al.'s (2021) study, the theoretical background provided was appreciated, but sometimes staff felt like the training was "content heavy and not interactive enough" (Galvin et al., 2021, p. 5), which did not allow them to see the model in practice with young people . Additionally, staff would benefit from regular refresher sessions to ensure they use the model's tools more consistently in their daily practice. These barriers highlight the need for systematic and practice-based training and refresher sessions for staff to ensure they know how to practically utilise the model, but also to ensure consistent knowledge and understanding of the programmes and their purposes (Galvin et al., 2021).

4.3 Poor resources

Not having enough of the resources required to implement and embed an approach were seen as a significant barrier.

Section 5: Key findings – Impact

This section provides a summary of the evidence of the short- and medium-term positive impact of trauma-informed approaches on workforces, and people with experience of trauma.

1 – Outcomes of trauma-informed approaches for the workforce include:

- Improved wellbeing and satisfaction
- Improved communication and collaboration
- Increased confidence, skills and knowledge in relation to responding to psychological trauma.

2 – Outcomes of trauma-informed approaches for people with experience of trauma include:

- Improved wellbeing
- Reduce emotional difficulties for children and young people
- A positive impact on families and caregivers
- Increased knowledge and skills
- Improved access to specialist treatment or services where required
- Increased completion rates of treatment
- Reduction in experiences of seclusion and physical restraint

5.1 Outcomes of trauma-informed approaches for the workforce

Improved wellbeing and satisfaction:

Community-based interventions

Hales et al. (2019) reported an increase in staff levels of safety, trustworthiness, choice, collaboration, and empowerment after the implementation of a TIC intervention within a residential agency focused on treating addictions, mental health difficulties and homelessness. Hales et al. (2019) reported an increase in domains of staff satisfaction, including trusting each other, ability to work collaboratively, influencing their workplace, being encouraged to innovate, or feeling fulfilled. The most significant increases were observed in the areas of choice and emotional safety. In this case, the TIC intervention was based on the use of mentors and trauma champions, changes in policy and practice, the provision of staff training ad coaching and sharing trauma-relevant information with clients.

Schools

In Perry and Daniels' (2016) study, 97% of staff were satisfied with the trauma-informed approach training they received, reporting that it was useful and that they learnt about implementing self-care initiatives, identifying signs of trauma, and new techniques to reduce stress in the classroom. Staff in the school where this strategy

was implemented also reported positive changes in attitudes toward students who experienced trauma.

Multi-agency

After a nine-months city-wide TIC implementation based on training delivered to government and non-profit organisations professionals, Damian et al. (2017) observed that professional satisfaction among staff improved significantly. Staff reported significant improvements in their perception of the quality of the work environment and increased agreement with managerial efforts to promote safety. The participants in this study, who worked across different sectors, including health and education, social services and law enforcement, reported significant changes in their knowledge and practice. The results showed that participants found the TIC training intervention to be beneficial for them, as it was linked to increased professional satisfaction. Moreover, it was also related to cultural changes and organisational benefits such as improved collaboration, morale, safety, or a better workplace climate. A rarely described impact of TIC training, was the changes it brought to the physical environment where some institutions restructured their offices and buildings to promote a safe space for staff and service users, which also promoted positive relationships between workers and clients. The intervention also increased staff awareness of their own stress and trauma-related symptoms, which highlighted their own needs for support and self-care. This increased awareness also helped improve the identification of their colleagues' symptoms of trauma and enhanced their empathy and understanding toward each other.

Improved communication and collaboration between services and systems:

Child welfare

The objective of the TILTS, the Trauma Informed Leadership Teams in the Massachusetts Child Trauma Project (MCTP) was to align the different trauma-informed services with a focus on treatment, to ensure families could access them. It promoted collaboration and coordination of services and families, with the aim of promoting effective partnerships at community and individual level (Bartlett et al., 2016). This led to the creation of a shared language between the different services involved, facilitating the understanding of each other's role and the development of resources that could be used to engage with community stakeholders and improved the referral process for evidence-based treatments. According to the results obtained by Bartlett et al. (2016), TILTs seemed to have a positive impact on the overall system due to the improved connections and communication between external services/systems (mental health services, schools, justice) and the child welfare system. This positive effect was particularly evident in the relationships between mental health services and the child welfare system because it helped creating a shared language between them. An additional benefit of TILTs is their capacity to address secondary traumatic stress, which has a positive impact on clinicians and child welfare staff.

Increased confidence, skills and knowledge in relation to responding to psychological trauma.

Schools

Approaches such as TIES (Trauma-Informed Elementary Schools) aim to provide early intervention strategies for children in primary education who experience chronic stress or trauma (Tabone et al., 2020). The results obtained by Tabone et al. (2020) show that implementing TIES led to a significant improvement in children's emotional support, instructional support (teacher's ability to promote higher-order thinking and skills, to give meaningful feedback, and to use language stimulation and facilitation techniques) and classroom organisation (the teacher's ability to prevent/address challenging behaviours, manage instructional time, promote student engagement) across a school year. Non-TIES classrooms experienced a decrease or no changes in those areas at the end of the same academic year. Therefore, this study provides evidence of the benefits of these types of intervention when it comes to nurturing trauma-informed school environments and culture, highlighting that trauma-informed early intervention is critical for the prevention of re-traumatisation of children who have experienced trauma. Additionally, classroom level strategies like TIES, have the potential to benefit staff, pupils and their families, regardless of their trauma history (ibid).

According to Avery et al. (2021), teacher coaching, including group sessions, supervision, or workshops, was essential when it came to translating knowledge into practice. Therefore, coaching and supervision seem to enhance and strengthen the change and new practices linked to TIC adoption.

Child welfare

Understanding trauma and its impact was recognised as a key element of the Sanctuary Model's implementation. Participants Galvin et al's (2021) study recognised that most of the work they do relates to being trauma informed. Having a shared language, knowledge, and understanding of trauma and its long-lasting and negative effect had a positive and transformative impact on the organisation, where staff changed the way in which they addressed times of crisis and provided help and support young people. Part of this change came from having a greater understanding of the trauma young people in the organisation might face and its impact on their behaviour, as well as supporting these young people understand their own trauma and its overall influence.

Similarly, Jankowski et al. (2019) observed that the implementation of a comprehensive TIC intervention led to significant increases in the frequency in which trauma screening was used, and in the skills reported by part of the staff in this area. It also led to improvements in attitudes and behaviours regarding trauma screening and other areas such as case planning. The implementation of programmes such as the Massachusetts Child Trauma Project (MCTP) might lead to an increase in the use of trauma screening during the referral process (Bartlett et al., 2016). More specifically, after six months of the implementation of the MCTP, 6% more mental health agencies started using trauma screening at the start of the referral process (ibid). According to Bunting et al. (2019), projects reported that their efforts in training mental health services providers across their state, helped

maximise capacity for assessment and treatment referrals after these professionals had better information regarding the effects of childhood trauma.

Bunting et al. (2019) observed how all of the studies reviewed reported increases in the confidence, responsiveness and awareness of staff in relation to trauma-informed approaches to practice after receiving trauma-focused training. These changes were maintained over time. This positive impact was reflected at individual and institutional level through staff's positive attitudes and commitment toward evidence-based and trauma-informed practice and their increased ability to deliver trauma-informed care.

Community-based interventions

Staff from an addiction treatment residential agency expressed how areas of supervision, support, self-care, training, education, assessments and involving former clients presented significant improvements after implementing TIC (Hales et al., 2019).

The findings described by Singh et al. (2020) include positive (self-reported) changes in practice, particularly in the areas of awareness (trauma recognition), competency (changing behaviour, knowledge application), collaboration (community engagement) and safety (environmental changes to become more welcoming, consistent, reliable). After being involved in Building Connections – the initiative designed to increase staff capacity in community-based projects supporting mothers and children who experiences interpersonal violence - participants reported increased capability to build positive relationships with the families in their organisation. Moreover, they discussed their increased confidence when working with women who might be facing interpersonal violence by building relationships that were based on safety, trustworthiness, and support. The participants stressed the key role that adopting critical trauma-informed (consideration of previous trauma, efforts to avoid re-traumatisation, etc.) and relational approaches had in that increased confidence and competence. This has relevance in this specific context as women who are facing interpersonal violence often struggle to disclose their circumstances, meaning that it is essential staff staff being able to recognise these situations and provide effective supportare essential (see Singh et al., 2020). Facilitators also mentioned the positive organisational impact of the intervention since they could observe positive changes on attitudes and practices, for instance, concerning referral procedures or the promotion of co-facilitation. A key finding from Singh et al's (2020) study was to demonstrate how trauma-informed approaches can be effectively implemented in non-clinical and community-based initiatives.

Health services

Gundacker et al. (2021) conducted a literature review of the trauma-informed curricula for Primary Care Providers (PCPs), considering their effectiveness and research gaps. They concluded that trauma-informed training for PCPs lead to positive improvements, increased knowledge, screening, communication, and patient satisfaction. However, changes in referrals or health outcomes could not be reported.

Justice system

In the Promise Initiative (Lathan et al., 2019), police officers that had received trauma-informed interviewing training were more sensitive to the way other officers treated people who had experienced sexual assault and seemed to have better knowledge of trauma-informed approaches and dealt with more sexual assault cases. Receiving trauma-informed training was also associated with increased disposition to learn about sexual assault, how it impacted victims and how to conduct trauma-informed investigations, in comparison with officers who did not receive this training. However, the need to ensure the training provided to these officers also tackles rape myths was identified.

Incorporating trauma-informed principles into decision-making processes in areas such as the court system, led to an increased consideration of trauma-informed principles throughout Family Court processes. In the context of the Michigan Children's Trauma Assessment Centre, a Court Report Checklist (CRC) was developed to support Family Court judges understand childhood trauma and its impact on children, and on the services provided to them. Consequently, in the span of two years, 100% of the cases submitted a CRC to the judge before seeing the case in court. The Michigan Children's Trauma Assessment Centre also developed a Trauma-Informed Therapist Report to register the progress of trauma-informed provision and shared it with the relevant stakeholders.

Secure care

Barnett et al. (2018) maintain that the success of their TIC intervention within a youth residential treatment centre and accompanying special needs school was due to delivering a tailored intervention, leadership support, and incentivising the participation of staff via pay increases, certificates and continuous education credits. Finally, although not evaluated, thes authors reported a positive effect of their initiative on staff trauma and stress symptoms. Although not intended to be a part of the intervention, a high rate of staff disclosed their own trauma history and mentioned that this initiative was helping them gain knowledge about the impact of trauma on their personal lives and work performance. Staff mentioned feeling empowered by these training opportunities and reported increased effectiveness in their roles thanks to having the opportunity of processing these experiences within a safe context.

Multi-agency level

Frequency of participation in staff training was significantly correlated with self-reported trauma-informed skills (Barnett et al., 2018).

Purtle (2020) conducted a literature review to study the impact of trauma-informed interventions at the organisational level focusing on staff training. They concluded that staff trauma-related practice outcomes such as knowledge, attitudes, and behaviours improved after being involved in trauma-focused training.

5.2 – Outcomes of trauma-informed approaches for people with experience of trauma

Improved wellbeing:

Child welfare

Murphy et al. (2017) concluded that that integrating trauma-informed care increased the wellbeing of children in care, as well as their placement stability a further finding of this study was that not all areas of children's wellbeing are linked with TIC implementation in the same way. This means that some improvements, for instance, those relating to functioning and behavioural regulation, were gained over time. However, improvements around emotional regulation took place after children were exposed to trauma-informed care in the first three months in the system. This reflects the principle of the "trauma systems therapy" that states that changes in emotional wellbeing can appear relatively early in the process, whereas changing behavioural patterns takes more time (ibid).

According to Zhang et al. (2021), TIC interventions have a moderate effect on the wellbeing of children involved in the child welfare system. However, this effect is stronger in the case of the reduction of problematic behaviour, particularly when compared to areas like post-traumatic symptomatology or psychological wellbeing improvement.

Health services

Implementing TIC in a residential addiction agency was linked to a positive increase in client satisfaction at discharge. Clients also reported an increase in staff being able to solve their difficulties (Hales et al., 2019).

In their study based at a maternity clinic, Racine et al. (2021) report modest benefits for new-born outcomes, and no improvements for maternal health during pregnancy. Specifically, they found that exploring ACEs history within the parental care setting as part of a TIC initiative showed no association with differences in the health of pregnant women when compared with standard (non-TIC) care. The association with better outcomes for children at birth was moderate. Additionally, there was no association between implementing a TIC initiative and the increase of mother or child health risks.

Increased rate of treatment completion:

Health Services

Hales et al. (2019) reported a significant increase of planned discharges within a residential addiction agency in relation to a trauma-informed approach. Planned discharges are an indicator of successful treatment completion.

Reduced emotional difficulties for children and young people:

Schools

A TIC intervention in a specialist school (Diggins, 2021) led to a reduction in difficult behaviours, problems with peers and overall difficulties. Total difficulties and emotional symptoms decreased significantly during the 12-month implementation period. Externalising problems such as hyperactivity and peer problems also diminished, the former in a consistent way during the 12 months period, and the latter during the first 6 months. A factor that might explain this difference is the complexity of the interactions amongst the students. Behavioural problems also showed a significant reduction during the 12 months period of the intervention, which might be linked to the proactive approach and focus on problem-solving skills adopted as part of the trauma-informed intervention. Finally, Diggins reported that the intervention had a more significant effect on new than existing students. This could perhaps be because existing students had been part of the initiative for two years and were showing fewer behavioural and emotional difficulties. However, new students who were joining a specialist school were likely to be showing particularly high levels of behavioural and emotional difficulties at the beginning of the intervention..

According to Fondren et al. (2020) tier 1 interventions, based on prevention strategies, the promoting of positive behaviours and increasing socioemotional learning (SEL), were linked to increased positive behaviour and SEL skills. Tier 2 initiatives, targeting groups of children at higher risk of having experienced trauma, without having to meet strict criteria regarding the type of trauma, helped increase prosocial behaviours and measures of children's outlook on the future. These interventions were also linked to the decrease of children's post-traumatic stress disorder (PTSD) symptomatology and negative behaviours (internalising and externalising). Tier 3 interventions, delivered to students reporting having experienced significant trauma and PTSD symptoms, are linked to reduced children's PTSD symptomatology and psychopathology and improved school functioning.

In their literature review, Avery et al. (2021), found that studies that implemented trauma assessment and intervention strategies reported improvements in trauma symptoms in students. The implementation of TIC led to an increase in the number of children reported as having symptoms of trauma, either at all open cases or for children going into the welfare system.

Child welfare

Bartlett et al. (2016) and Barto et al. (2018) studied the effectiveness of the Massachusetts Child Trauma Project (MCTP), a state-wide intervention based on providing trauma-focused training to mental health staff and promoting trauma-informed practices within child welfare systems. These authors observed that children supported by staff who had participated in the MCTP had increased levels of functioning and were less likely to suffer maltreatment, including physical abuse and neglect, than children who were not part of the intervention.

Bartlett et al. (2016) assessed the effect of EBT. They reported that children showed fewer trauma-related symptoms and behavioural difficulties, six months (or

less) after treatment. More specifically, they showed that, overall, children displayed fewer internalising and externalising negative behaviours. Furthermore, post-traumatic symptomatology decreased significantly, particularly amongst older children, who also showed fewer avoidant, numbing, and re-experiencing symptoms, as well as weakened arousal symptoms. Substantial reductions in functional impairment and of indicators of reduced arousal symptomatology were observed for young children who also were exposed to the EBTs known as Child-Parent Psychotherapy (CPP), Trauma-Focused Cognitive Behavioural Therapy (TF-CBT) or Attachment, Self-regulation, and Competency (ARC). Contrastingly, caregivers did not observe improvements for these children displaying re-experiencing, avoidant or numbing symptoms, or of their severity. The reason behind these inconsistencies might be due to caregivers' biases or methodological limitations since the reliability of the instrument employed (the Young Child PTSD Checklist (YCPC)) is unclear. Bartlett et al. (2016) concluded that research is still needed to clarify the role of EBT fidelity in achieving TIC system objectives. Additionally, the findings suggest that more solid outcomes might emerge in the future, after staff (clinicians, supervisors, etc.) and agencies had received full training, acquired additional experience and knowledge of the treatment models and after TIC has been developed and implemented across child welfare systems more consistently.

After being involved in the Fostering Connections initiative, Lotty et al. (2020) observed significant improvement in the emotional and behavioural difficulties of children in foster care, fifteen months post intervention, with a small effect size. In this case, these changes could be related to the intervention focussing on child regulatory strategies, which could have helped improve children's behaviour. They concluded that Fostering Connections could potentially be an effective programme to help increase the capacity of foster parents to provide trauma-informed care.

Secure care

After implementing an educational-based intervention in two youth juvenile detention facilities, Baetz et al. (2021) observed a reduction in violent incidents at both facilities. However, significant effects were found only in one facility. The authors concluded that various elements led to this positive change, including delivering staff training and a skills development programme for the youth in the facility, as well as having a larger proportion of young people take part in the intervention for a sustained period of time.

Positive impact on families and caregivers:

Schools

In Perry and Daniels(2016) families reported improved communication with the school. The implementation of the trauma-informed model also led to the creation of a support network as the families involved decided to keep supporting each other after the end of the intervention. They also reached out to those in their communities who could be experiencing stress to help them get support. Diggins' study (2021) was based on the perspective of the students' families which allowed

for an exploration of the impact of school-based trauma-informed practices on life beyond school.

Perry and Daniels (2016) also reported improvements in children's social and family life, as well as in their learning. Although some programmes focused on strengthening the communication between families and institutions (schools in the case of Perry and Daniels, 2016), it was easy for families to remain out of the loop. Unreliable communication can negatively impact the level of trust families have in schools. The Care Coordination strategy discussed above also focused on addressing this difficulty by promoting trauma-informed engagement, education, and empowerment in all contacts with the family, the student, and the school.

Child welfare

Amongst the benefits associated with trauma screening, Bunting et al. (2019) reported improved family engagement and reduced caregiver stress. Additionally, Murphy et al., (2017) report that children who worked with staff with higher levels of trauma-related training (Trauma Systems Therapy dosage) experienced greater placement stability (i.e. their total number of placements significantly decreased). Bunting et al. (2019) also reported increased placement stability linked to being in contact with trauma-informed interventions.

Care-givers

After being involved in the Fostering Connections intervention, significant improvements were found in the knowledge of foster parents regarding trauma-informed fostering, tolerance to children's challenging behaviours and fostering efficacy, which was maintained 15 months after intervention (Lotty et al., 2020).. The potential reasons forsupporting these changes include the role of increased trauma-focused knowledge on facilitating behavioural change, how increased understanding of the impact of trauma could increase tolerance toward challenging behaviour, or that foster parents with increased confidence when supporting children who have experienced trauma has a positive impact on their wellbeing potentially due to increased feelings of safety and security in the foster parent-child relationship.

Increased knowledge and skills:

Schools

Providing psychoeducation to school children and adolescents helped them acquire skills to identify signs of stress in themselves and other people, relax, worry less, recognise who are the members of their community that can act as their support network and trust others (Perry and Daniels, 2016). Students in this intervention also had the opportunity to learn skills to react to future traumatic events and help with ongoing symptoms.

Improved access to specialist treatment or services where required:

Health services

The use of ACEs screening in the low-risk maternity clinic where Racine et al. (2021) implemented a TIC strategy led to the referral of some patients to access mental health support. Following completion of a modified version of the ACEs questionnaire and assessment of their needs, 18 women (5.3% of the patients) were referred to access mental health treatment.

Reduction in experiences of seclusion and physical restraint:

Health services

Azeem et al. (2017) demonstrated a significant reduction in the number of seclusions and restraints used within a child and adolescent psychiatric hospital after implementing six trauma-informed care strategies. The significant decrease in the number of restrictive practices was maintained for most of the intervention. Azeem et al. (2017) concluded that their study strengthens the evidence about the benefits of using trauma-informed prevention strategies, inclusive treatment plans, monitoring and appropriate training for staff.

Section 6: Key findings – challenges

This section provides a summary of the evidence in relation to the challenges or obstacles linked to the implementation of trauma informed approaches. These include:

- Lack of clarity for staff on what a trauma-informed approach involves
- Lack of clarity for staff around what constitutes 'effective training'
- Difficulties related to implementing trauma screening or routine enquiry (where appropriate)
- The length of time required for implementation including unforeseen delays.

Lack of clarity for staff on what a trauma-informed approach involves:

Lack of understanding of certain models, their relevance and scope were a barrier to effective implementation. Galvin et al. (2021) reported that while the programme (The Sanctuary Model) was well supported, some members of the organisation seemed to believe it was only for certain members of staff (clinical and front-line) and not suitable for other teams. The model was also sometimes viewed as a management tool, rather than a trauma-informed approach to working with the young people in the institution.

The implementation of new strategies and policies related to adopting trauma-informed approaches can also lead to difficulties in staff satisfaction when not fully explained, particularly in the areas of "being well-informed of agency changes, experiences of safety in the work environment, and transparency in how staff are evaluated" (Hales et al., 2019, p. 535).

Lack of clarity for staff around what constitutes 'effective training':

While staff training has been identified as key to implementing TIC, it is unclear what can be deemed as "effective trauma-training" in terms of length, impact, or key elements of that training (Purtle, 2020).

Content and characteristics of the training delivered varied across different studies, ranging from two-hour sessions to year-long programmes, targeting different stakeholders, and using different resources such as National Child Traumatic Stress Network (NCTSN) or the Child Welfare Training Toolkit (see Bunting et al., 2019).

Difficulties related to trauma screening or routine enquiry:

After being involved in the CONCEPT initiative, Connell et al (2019), focused on enhancing system capacity to deliver trauma-informed care, staff reported being less familiar with efforts to implement new practices such as trauma screening. There are some challenges associated with the implementation of trauma screening as it can become an additional burden to the workforce, which might lead organisations to seek support from external agents (Connell et al., 2019). This might also be linked to additional barriers such as staff showing lack of awareness

if they are not directly involved in the screening process. Additionally, there seems to be a lack of validated tools that can assess exposure to trauma and symptomatology related to trauma, particularly for younger children (ibid). Additionally, Lang et al. (2016) highlighted that the implementation of trauma screening processes can be more complex and challenging than the implementation of other approaches such as providing staff training. The challenges associated with these difficulties range from systemic problems (number of staff, high demands), the cultures of the different teams, and limited staff engagement or buy-in. Therefore, these findings highlight the need to ensure professionals are invested, aware, and convinced about the benefits of trauma-informed approaches.

Length of time required for implementation

Akin et al. (2017) described that the three projects they reviewed experienced implementation delays. The most common reasons for these postponements related to implementing or modifying information systems, creating sharing agreements, lengthy bureaucratic times or staff turnover.

In the literature review carried out by Zhang et al. (2021), many of the TIC initiatives reviewed were implemented for one year or less. However, not all areas of psychological wellbeing can be addressed in the same amounts of time, and some of them, such as PTSD, might need a longer period to show improvements (see Zhang et al., 2021). Murphy et al. (2017) reported that while some improvements could be seen within three months of intervention (for instance emotional regulation), others were gained over a longer time period, including functioning and behavioural regulation.

Section 7: Analysis

This section focuses on the analysis of the effectiveness of the key predictors identified in terms of improving people's experiences of services, organisations, systems and outcomes for people with lived experience of trauma.

Following the criteria descibed above in Section 1.3 Methodology, the decision-making tree (see Appendix B) was used to evaluate the evidence about each of these predictors or enablers, leading to the following classification:

Effective: workforce development.

Promising: pre-intervention strategies, trauma-informed leadership, training and education for other stakeholders, use of trauma screening or routine enquiry, evidence-based trauma-informed treatments.

Inconclusive: promoting positive relationships and effective communication with stakeholders, creativity and flexibility, longer implementation periods, adoption of proactive approaches.

Effective: workforce development

There is evidence of a positive link between workforce development and positive short- and medium-term outcomes for those involved with different services, systems, and organisations. These positive outcomes refer to those with lived experience of trauma and to staff working on those services, systems, and organisations.

Workforce development is the most common component used in the trauma-informed interventions covered in this evidence review. More specifically, it covers strategies such as staff training (Diggins, 2021; Racine et al., 2021), staff coaching and support (Barnett et al., 2018; Hales et al., 2019; Damian et al., 2017; Tabone et al., 2021), or the use of reflective practice (Barnett et al., 2018; Galvin et al., 2021; Hales et al., 2019).

Within workforce development, training is the most accepted and widely used strategy, present in nearly all the studies and literature reviews covered here. Therefore, there is strong and shared support that staff training is an essential part of the implementation and delivery of trauma-informed initiatives within different services, systems, and organisations such as education (see Diggins, 2021; Tabone et al. 2020), child welfare (see Jankoswki et al., 2019; Murphy et al., 2017), or community-based interventions (see Racine et al., 2021; Singh et al., 2020). However, training can take many different forms, and it depends on the chosen intervention, population, objectives, etc. (see Bunting et al., 2019). Some like Avery et al. (2021) believe that allowing staff, such as teachers, to have control over the training received could enhance its positive impact.

Other areas of what it is defined as workforce development include staff coaching and support or promoting reflective practice. In these cases, the focus was sometimes on providing staff with support as many times as necessary when working in environments that make them prone to secondary traumatic stress (see

Connell et al., 2019). Additionally, some interventions aimed at ensuring staff had the tools to provide supports specific to the populations they work with (see Singh et al., 2020), or that they have the skills to effectively implement trauma-informed approaches within their settings (Galvin et al., 2021).

One of the main challenges of this reviewwas the difficulty in determining the direct effect of each of the specific strategies on the overall intervention outcomes as they are not measured separately. However, there is quantitative (Azeem et al., 2017; Baetz et al., 2021; Connell et al., 2019; Murphy et al., 2017) and qualitative (Barlett et al., 2016; Damian et al., 2017; Singh et al., 2020; Tabone et al., 2020) evidence supporting the positive influence of trauma-informed workforce development on staff and service user outcomes. In the case of service users, these benefits include reductions in violent incidents in juvenile facilities (Baetz et al., 2021), children's behavioural difficulties (Diggins, 2021), and in the use of restraints and seclusions in a child and adolescent psychiatric hospital (Azeem et al., 2017), as well as improvements in the wellbeing of children involved with the child welfare system (Murphy et al., 2017). For staff, improvements include professional satisfaction (Damian et al., 2017; Perry and Daniels, 2016), increased trauma-informed knowledge, competency, or capacity to support the people with whom they work (Singh et al., 2020). Staff training also had a positive impact on staff skills to use trauma screening, which increased the frequency this strategy was used (Bartlett et al., 2016; Jankoswki et al., 2019), something that could help maximise the capacity for assessment and referrals (see Bunting et al., 2019).

Therefore, despite the weaknesses and inconsistencies in the literature available, there is an extensive evidence base supporting the positive effect of workforce development, with a particular focus on staff training, in the short- and medium-term outcomes of those involved with different systems, services, and organisations.

Promising:

- **Trauma-informed leadership;**
- **Organisational readiness / pre-intervention;**
- **Training and education for parents, carers and people with experience of trauma;**
- **Use of trauma screening or routine enquiry.**

These four strategies appear to aid the implementation of trauma-informed initiatives, also being linked with positive outcomes for staff and service users. Findings about these strategies were positive, but not to the extent that they constituted evidence that an intervention was 'effective'. This is because while authors noted a positive change, there was limited evidence regarding whether these strategies could confidently be said to have contributed to the changes in a more consistent way. These strategies are considered promising because of their positive impact on the successful implementation of trauma-informed initiatives and because of their mediating role in promoting positive short- and medium-term outcomes for staff and service users.

Trauma-informed leadership

Effective leadership appears to be essential in the implementation and delivery of trauma-informed initiatives. Many of the studies and literature reviews covered in this report highlighted the role of leadership buy-in and of leadership teams to ensure the effective adoption of these initiatives. More specifically, assigning roles of trauma-informed leadership. Creating leadership teams seems to help promote wider staff buy-in, drives policy and practice change, protects the effective delivery of the intervention, and helps address implementation challenges (see Bartlett et al., 2016; Bunting et al., 2019; Barnett et al., 2018).

Trauma-informed leadership appears to be a key predictor or enabler of the effective implementation of trauma-informed approaches in different systems and services. Although there are no direct evidence of its impact on staff and service users' outcomes, trauma-informed leadership seems to act as a mediator to ensure the implementation of the key components (such as staff training; see Bartlett et al., 2019; Hales et al., 2019) that are more directly linked to these positive outcomes and to ensure the quality of delivery and sustainability of the intervention. For example, having Trauma Informed Leadership Teams (TILTs) helped create a shared language between different agencies involved in a trauma-informed initiative implemented state-wide within the child welfare system, which improved the referral process (see Bartlett et al., 2016). TILTs can also help improve communication between child welfare systems and external partner agencies, and help address secondary trauma stress among staff.

Implementing trauma-informed leadership roles and teams is a promising strategy that can help promote positive outcomes for those working in different services, systems, and organisations and for those with lived experience of trauma.

Organisational readiness / pre-intervention

Having pre-intervention strategies, such as conducting a needs assessment, appear to be another predictor that supports the successful implementation of trauma-informed initiatives in different sectors, promoting positive outcomes for staff and service users.

The aims of these pre-intervention strategies include defining the needs and values of the organisation, determining readiness for change or predicting potential challenges to implementation. Therefore, pre-intervention strategies can help develop tailored trauma-informed interventions that address the needs of the systems and organisations and align with their values (see Avery et al., 2021; Barnett et al., 2018; Jankowski et al., 2019; Perry and Daniels, 2016). Although these pre-intervention strategies appear to have potential to aid service delivery and promote positive outcomes for staff and service users, the evidence reviewed is limited. Therefore, this strategy is also considered promising.

Training and education for parents, carers and people with experience of trauma

Some interventions focus on providing training and education to staff and to other stakeholders such as children, young people, or families who are service users, or part of service user's support network. Although this is another case where the is evidence limited and impact has not been directly assessed, initial findings are

promising regarding impact on overall outcomes. Baetz et al. (2021) conclude that their education-based intervention, adopted by two juvenile detention facilities, was most effective when, together with staff training, young people had also been involved in a skills-development programme. The effectiveness here lies in the reduction of violent incidents within one of the two facilities, where more youth had participated in the programme. Additionally, a six-week training programme delivered to foster parents had a positive effect on their understanding of effective trauma-informed fostering, or tolerance of children's perceived negative behaviour (Lotty et al., 2020). It also had a significant effect, although smaller, on the reduction in children in care's emotional and behavioural difficulties (ibid).

Therefore, expanding the training efforts to stakeholders, and not limiting to staff, might be adding benefits to trauma-informed initiatives. There are different ways of involving stakeholders, such as providing trauma-informed parent training (see Tabone et al., 2020), or sharing information with clients about the trauma-informed changes taking places in the services they use and their purpose (see Hales et al., 2019). However, the extent and quality of the evidence reviewed means that these initiatives can only be classed as promising.

Use of trauma screening or routine enquiry (where appropriate)

Trauma screening or routine enquiry where appropriate is an approach that can help identify those at higher risk of developing a negative reaction because of their exposure to trauma (see Connell et al., 2019). Despite the challenges linked to its adoption (see Connell et al., 2019), it is a strategy widely used in systems (e.g. child welfare), and has been positively perceived by staff (Bunting et al., 2019). However, its impact is not always assessed or discussed.

One example of the positive impact of using trauma screening or routine enquiry is Racine et al.'s (2021) study, where 3.5% of the pregnant women attending a prenatal care clinic who participated in the study were refereed to mental health services. Additionally, in their school-based literature review, Avery et al., (2021) conclude that implementing trauma screening and assessment, together with other TIC interventions led to improvements in children's trauma symptoms.

Therefore, due to the inconsistent results and limited evidence of positive impact, the effectiveness of trauma screening or routine enquiry is deemed promising. There are gaps in the evidence relating to its impact and role in the implementation of trauma-informed approaches across different systems, services, and organisations. However, it is important to consider that not all systems or services aim to identify people with lived experience of trauma. Instead, they assume these people are part of the general workforce or population with whom they work. However, other services take a more focused approach working at "trauma-specialist" levels, meaning that trauma screening would be more appropriate. Therefore, these factors must be taken into consideration when looking at the limited evidence about trauma-screening or routine enquiry available in the body of literature reviewed here, bearing in mind that it might not be an appropriate strategy for all systems and organisations.

Inconclusive:

Adopting a strengths-based approach;
Flexibility;
Positive relationships and effective communication with stakeholders;
Extended implementation

Insufficient evidence to make a judgement on impact. Although these strategies were linked to positive outcomes for staff and service users, it is not possible to determine their effectiveness, mainly due to a lack of evidence concerning their impact.

Promoting involvement, positive relationships and effective communication with stakeholders

Building positive relationships with families and communities was one of the key elements of certain interventions. Avery et al. (2021) concluded that respecting students' and families' cultural values are important to promote empowerment, safety, or to strengthen the commitment to avoid re-traumatisation.

These strategies seem to be particularly common within school systems. Perry and Daniels (2016) focused on using the resources schools already had instead of looking for external support from trauma-based services. Therefore, they focused on identifying existing needs and supports available and on strengthening the relationships between staff and students and involved families via Care Coordination teams. These strategies helped improve communications and bring together resources and coordination to assess stakeholders' overall needs. According to Avery et al. (2021) Care Coordination teams and improving communication with stakeholders boosted TIC implementation.

Other positive examples include the ReLATE model, where daily community meetings helped school children increase emotional communication, setting goals, and promote a sense of safety that can help those who need clear routines (see Diggins, 2021).

In the case of the child welfare system there seems to be an interest in involving services users as part of the TIC implementation (see Bunting et al., 2019). Examples of how to promote this involvement include trauma-informed training for parents and carers, or the creation of community partnerships by promoting consultation and planning with stakeholders (ibid). Additionally, some projects followed a "grassroots" strategy, focused on community networks and collaboration, assessment and consultation, supported by specific TIC implementation tools and consultation with relevant stakeholders (Bunting et al., 2019).

While there seem to be indications of the positive impact of this strategy in the implementation of trauma-informed approaches within different settings, and its promising impact on the short- and medium-term outcomes of staff and service users, the lack of clear and solid evidence means its effectiveness can only be deemed inconclusive.

A creative and flexible approach

Adopting a creative and flexible approach in the implementation of trauma-informed approaches could help systems adapt these strategies to meet their needs and values, as well as those of service users. This approach can lead to tailored service delivery (see Barto et al., 2018), ensure service users engage with the interventions' programmes and activities in their preferred way (see Galvin et al., 2021), as well as avoiding strategies that might negatively affect the overall trauma-informed initiative (see Akin et al., 2017). However, studies discussing creativity and flexibility or assessing their impact are scarce. Therefore, their role in the implementation of trauma-informed approaches and their impact to bring about positive outcomes for service users and staff is unclear, deeming effectiveness inconclusive.

Extended implementation periods

Although not always assessed, longer implementation periods seem to be a facilitator for promoting positive outcomes, particularly amongst service users. Avery et al.'s (2021) observed a relationship between longer implementation periods and a reduction in school children's behavioural difficulties. Similar effects were observed with child welfare trauma-informed interventions, where the effect size is largest when implementation t runs for a longer period, in this case at least 7 to 12 months. Finally, Murphy et al. (2017) defended the importance of longer implementation periods based on the principle that not all areas of intervention react equally, and some, like emotional difficulties, will only emerge over the longer-term.

However, the impact of longer implementation periods, or even the definition of what "longer" constitutes is not widely assessed in the literature reviewed for this report. Therefore its effectiveness is deemed as inconclusive due to the lack of evidence.

Adopting a strengths-based approach

Making changes to policies and practice to ensure the adoption of proactive perspectives seem to be a facilitator to promote the comprehensive adoption of trauma-informed approaches, as well as having a positive mediating impact on service user outcomes. One example is strategies to respond to critical incidents or individualised safety plans for students (Diggins, 2021). Another is replacing punitive approaches with strength-based and "skill-building" ones (Avery et al., 2021). These changes to policies and practice seem to support the implementation of trauma-informed initiatives and can contribute towards positive results such as reductions in emotional and behavioural difficulties (see Diggins, 2021). However, the evidence available is limited, and their effectiveness inconclusive.

Section 8: Discussion

The main findings of this evidence review indicate that the while research about the implementation of trauma-informed approaches in different systems, services and organisation is growing area, it is still at an early stage. The evidence reviewed was also constrained by inconsistencies and methodological weaknesses, which might be due to the need to implement broad strategies that are context- and population-relevant (see Bunting et al., 2019; Jankowski et al., 2019). Nonetheless, this evidence review also highlights the promising effect of certain strategies supporting the implementation of trauma-informed interventions and their positive impact, in the short- and medium-term, on individuals and organisations.

More specifically, these findings support the role of a particular strategy, workforce development, and its positive impact on the successful implementation of trauma-informed interventions and the positive short- and medium-term outcomes that come with it. Within workforce development, staff training seems to be the most used strategy, helping the creation of shared knowledge and understanding of trauma, its impact, ways of avoiding re-traumatisation, supporting those with lived experience of trauma (see Bunting et al., 2019; Galvin et al., 2021; Murphy et al., 2017). Additionally, it can also help increase staff awareness of their own, but also their colleagues' trauma and burnout symptoms and aid them address secondary trauma stress (Baetz et al., 2021; Connell et al., 2019; Lang et al., 2016). According to Jankowski et al (2019), broad Trauma-Informed Care training may be necessary to support changes in practice. However, more specific training may create challenges were the areas of practice are narrower (Department of Health and Human services, 2012).

The implementation of trauma-informed approaches should not be based on a single strategy and workforce development cannot be considered in isolation. Rather, it should encompass cultural and organisational changes. This aligns with Purtle's (2020) conclusions that trauma-informed interventions appear to be most meaningful when they include other components that supplement staff training. According to Galvin et al. (2022), institutions need to "become trauma-informed rather than do trauma-informed care, to sustain and embed" (p. 666) these approaches. In line with this, additional strategies have been identified, although the scarce evidence available means it is not possible to make a clear judgement about their efficacy yet. In this regard, developing organisational readiness or pre-intervention strategies, promoting trauma-informed leadership, delivering training and education parents, carers or people with experience of trauma where appropriate, or using trauma screening or routine enquiry seem promising in promoting improvements linked to the adoption of trauma-informed care.

These preliminary findings provide information about what could be the components of effective trauma-informed interventions in the short- and medium-term. These could include broad initiatives, where workforce development is a core strategy supported by a thorough analysis of the organisations, systems, and population needs that can lead to tailored interventions. This approach, supported by effective trauma-informed leadership and the involvement of other stakeholders

who are knowledgeable about the pervasive impact of trauma, seems to be key to driving organisational changes and buy-in. This broad involvement and shared trauma-knowledge are likely to promote what Galvin et al. (2022) understand as becoming trauma-informed. The combination of these strategies could also help develop a foundation that leads to transformational changes across all organisational levels and stakeholders, helping promote systemic change, which as Perry and Daniels (2016) say, “cannot happen overnight” (p. 185).

Additionally, these initiatives might also benefit from including trauma-specialist services, focused on supporting those that might need additional help. According to Bunting et al., (2019), the implementation of trauma-informed screening was a common element of the studies reviewed, which, when assessed, had positive results, was supported by staff and led to higher numbers of children screened during intake.

The impact of other strategies such as adopting a creative and flexible implementation approach or using longer implementation times for these programmes might be playing an important role promoting the successful adoption of trauma informed approaches. However, there is currently limited evidence available about their impact, which means their effectiveness is deemed inconclusive. Nevertheless, creativity and flexibility could be tools that ensure that trauma-informed interventions are adapted to the needs of staff and of service users, who might gain more control about how they want to engage with the programme (see Galvin et al., 2021). Additionally, it is important to consider that not all areas of intervention will react in the same way to these initiatives, and some might need more time than others to demonstrate reliable outcomes, such as emotional difficulties (see Murphy et al., 2017). While it seems that longer implementation times could be an important component in trauma-informed interventions, it would be necessary to determine what are considered effective implementation times, something that may vary across the different systems and services.

Two additional strategies often discussed are the promotion of positive involvement, communication and relationships with stakeholders and the adoption of strengths-based approaches. The promotion of positive communication and relationships with stakeholders is usually linked to positive outcomes, such as the creation of community-support networks (see Perry and Daniels, 2016) or promoting empowerment (see Avery et al., 2021). Additionally, proactive strategies such as using healing, strength-based approaches instead of punitive practices (see Avery et al., 2021), or creating protocols to respond to critical incidents (see Diggins, 2021) might also be promising in creating changes for individuals and organisations. However, the strength of the evidence demonstrating that positive link is very limited and not standardised. Therefore, these examples, of what seem to be strategies of potential, and the ones previously described, support the need for stronger evidence. Particularly evidence that assesses the specific impact of these strategies, to determine their role, helping create a body of literature that supports the enhancement of trauma-informed interventions.

Overall, these initial findings support the results of Fondren et al., (2020), who conclude that multi-tiered trauma-informed interventions are feasible. Although these authors focused on schools, the multi-tiered programmes they described use similar strategies as the ones identified in this evidence review. For instance, these kinds of programmes tend to include including staff training, group interventions focused on delivering prevention strategies and personalised services for students who needed them. Another similarity with the current results is that Fondren et al. (2020) maintain that it is difficult to determine the effectiveness of these approaches due to the lack of experimental evidence.

Although not a strategy, another factor that might impact the effectiveness of the implementation of trauma-informed interventions is the characteristics of the service users. According to Zhang et al., (2021), in the case of child welfare systems, the most robust effects were shown in interventions implemented in groups with higher rates of male children from a minority background and of younger age.

This evidence review also identified barriers to the implementation of trauma-informed approaches and challenges linked to them. Although these were not areas addressed by most of the studies, several highlighted the lack of commitment to the programme, lack of practice-based training or access to poor resources as barriers hindering the success of trauma-informed approaches (Bartlett et al., 2016; Galvin et al., 2021). Further challenges described included limited understanding of the relevance of certain strategies, negative impact of these initiatives on staff workload, implementaion delays and difficulties determining the most effective training to deliver (see Akin et al., 2017; Galvin et al., 2021; Hales et al., 2019; Bunting et al., 2019). Other elements to consider when implementing trauma-informed strategies are to bridge the gap between knowledge and practice, deliver relevant training, ensure there is access to appropriate resources, and that the existing workload of staff are considered before and during implementation. Thus, this evidence supports the relevance of tailored interventions that consider the needs of the organisations and those working and collaborating with it.

Trauma-informed interventions that are based on workforce development, but also strive to understand the unique needs and values of the institution/system and staff, promote trauma-informed leadership and involve people who use services, their support networks and the wider community seem to have the highest potential to bring significant improvements to people's experiences of systems, services, and organisations. Broad, tailored, and collaborative approaches like these could help promote the ongoing and comprehensive change that is needed for the successful implementation of trauma-informed approaches, truly embedded across all levels of an organisation. This ties in with Jankowski et al.'s (2019) findings where they mention the need to encourage a critical discussion about the effectiveness of trauma-informed interventions, while considering the resources available, or how to address the needs of service users while seeking to address the needs and challenges confronted by the system(s). They conclude that, more targeted, comprehensive, multi-layered trauma-informed initiatives are valuable due to their potential to initiate changes in practice (Jankowski et al., 2019, p. 95). Tailored approaches are also of value, as considering elements like school readiness,

context or collaborative approaches, pre-intervention, are important factors to promote success in the process of change that characterises TIC implementation (Jones et al., 2018, as cited in Avery et al., 2021).

Multi-layered, but also targeted approaches are more likely to cover the key principles of a trauma informed approach. More specifically, building trauma-informed practice from a base of workforce development and focusing on workforce training could support those involved in these services and systems realise how prevalent the experience of trauma and adversity is. It could also give them the tools to recognise the different ways that trauma can affect people and respond by supporting recovery and resilience. Additionally, there is also great value in understanding the needs and values of trauma affected people and developing bespoke interventions where stakeholders and the wider community are involved. These approaches could help resist re-traumatisation and increase the sense of choice, trust, empowerment, collaboration and safety of staff and service users, while recognising the central importance of relationships.

Gaps in the literature

Although there is increasing interest in understanding how to implement trauma-informed approaches in different systems and services that can have positive impacts on staff and service users, there are areas that are still under researched. For instance, there is an emphasis on understanding the impact of trauma-informed school-wide initiatives on different stakeholders. However, key components such as organisational change and staff wellbeing are rarely assessed, despite their key role in the implementation and maintenance of trauma-informed care and practice (see Avery et al., 2021; Bunting et al., 2019). Additionally, in the school-based trauma-informed research, there is limited reporting of their impact on student engagement or academic outcomes. However, Avery et al. (2021) believe that these areas should be examined in future, as the key areas of trauma-informed practice (student wellbeing, strengths and skills development, etc.) are closely linked to academic achievement.

Similarly, there is a lack for research that reports on the impact on outcomes for adult service users, this was a consequence of most of the research reviewed being studies that looked at education or child welfare settings. While several studies explored initiatives implemented in with adult service users, commonly community-based (see Hales et al., 2019; Racine et al., 2021), that assessed intervention impacts on client satisfaction or health outcomes, most focused on staff and the effect that trauma-informed initiatives had on their knowledge, competence, and satisfaction (see Damian et al., 2017; Perry and Daniels, 2016; Singh et al., 2021). The need to understand the impact of these interventions on staff and the predictors that support their work during implementation and sustainment phases is important. However, it is also important to understand the impact that implementation trauma-informed approaches in services and organisations used by adults is having on short-, medium-, and long-term outcomes.

The cost of implementing trauma-informed initiatives is not commonly discussed in the research reviewed. Given the potential scale of some of these initiatives – i.e. that are broad and take place over several years – then the cost implications may impact on the prospects of them being delivered or how sustainable their delivery over time might be. More evidence regarding the cost and potential cost-effectiveness of these strategies would be beneficial, particularly for smaller organisations.

Most of the literature reviewed here has been developed in the USA, with few examples from other countries. Research conducted in the UK, and particularly in Scotland, would be beneficial to develop the evidence base to support the effective implementation trauma-informed approaches

Limitations

The body of literature reviewed in this report covers multiple settings, services and systems, meaning that there are differences between the trauma-informed interventions adopted. How the impact of these interventions was examined also varied. Having different approaches to measuring impact hinders the generalised conclusions that can be drawn from this review. Additionally, the lack of experimental designs, small sample sizes, or the fact that many of the studies reviewed directly or via existing literature reviews did not evaluate the effects of some components of the trauma-informed interventions they implemented, limit the strength of the findings shared here.

Regarding the lack of experimental designs, there is growing debate concerning whether Randomised Control Trials (RCTs) are the most effective strategy to investigate the implementation and impact of trauma-informed interventions (Bailey et al., 2018).In some cases, RCTs are neither feasible nor appropriate due to their complexity and the logistical and ethical considerations that have to be accounted for (Bailey et al., 2018)

For example there are ethical concerns linked to withholding trauma-informed care to individuals who might benefit from it (Connell et al., 2019). Therefore, some authors support the use of different methodologies such as utilising administrative data to assess impact of (see Bailey et al. 2018; Murphy et al., 2017). Berger (2019) highlights that trauma-informed initiatives at school level are sometimes developed as a response to negative events, something that together with ethical and practical reasons, supports the argument that RCTs might not be the most effective approach in these cases (Berger, 2019). Instead, “longitudinal, quasi-experimental” and multi-tiered interventions could be a more suitable alternative (Berger, 2019, p. 661).

A further limitation of the evidence reviewed was the difficulty in determining the specific effects of the components of the different interventions .This was a challenge also experienced by Bunting et al. (2019) or Avery et al. (2018) who

observed a disengagement between the many intervention components described, and the limited occasions where empirical data about their impact was available. Therefore, it is was impossible to determine the specific effect of each of these strategies and their role in promoting change and positive outcomes.

The wider use of robust, rigorous and standardised evaluations would increase the quality of evidence about trauma-informed interventions, as is acknowledge in the existing literature (Avery et al., 2021; Bailey et al., 2018; Bunting et al., 2019; Berger, 2019; Fondren et al., 2020; Hales et al., 2019; Purtle, 2020). However, given the many settings in which trauma informed approaches are being applied (e.g. schools, prisons, psychiatric hospitals), and the complexities therein, means that tailored and flexible initiatives are likely to be necessary for the successful implementation and maintenance of trauma-informed approaches. The implications for research are, therefore, in finding a balance between robust methodologies and assessment and flexible and targeted approaches to implementation. One approach to addressing this challenge suggested in the literature is to take an implementation science approach. Bauer et al. (2015, p. 1) define implementation science as "the scientific study of methods to promote the uptake of research findings and other evidence based practices into routine practice". The purpose of implementation science is closing the gap between research and practice, focusing on improving the quality and effectiveness of service provision, being an approach that shares principles with quality improvement and dissemination techniques (Bailey et al., 2018; Bauer et al., 2015). This approach can help fuel substantial organisational and institutional changes, while avoiding the challenges related to multi-layered interventions (Wilson et al., 2012 as cited in Bailey et al., 2018), commonly used in trauma-informed approaches. Proctor (2012, as cited in Avery et al., 2021) maintains that implementation science could also help improve translating knowledge into practice, offering relevant understandings, guidance and methodologies for the application of trauma-informed approaches, particularly within the education system (see Albers and Pattuwage, 2017; Mitchell, 2011). Due to all these reasons, Bailey et al. (2018) and Avery et al. (2021) recommend using implementation science in future research on the trauma-informed interventions field.

A final limitation of this evidence review was the lack of evidence addressing long-term trauma-informed initiatives and their impact. Despite it being one of the initial aims of this report, there was no evidence that described facilitators that sustained long-term implementation of these initiatives beyond five years, or their impact on life chances across all domains of life, or the inequalities faced by people with lived experience of trauma. Trauma-informed research that considered longer implementation times to assess the feasibility and effectiveness of trauma-informed approaches over longer periods of time and the sustainability of the changes they bring to individuals and organisations would greatly bolster the existing evidence base (Singh et al., 2020). One approach to this, in line with Avery et al.'s (2021) conclusions, would be the use of longitudinal studies that evaluate the impact of trauma-informed approaches for more than two or three years.

Section 9: Conclusions

The evidence review demonstrates that the implementation of trauma-informed approaches is a growing field, and that they are being introduced within different services and organisations, particularly schools and child welfare systems. However, others like community-based organisations, health services or youth custody facilities are beginning to adopt these approaches to bring positive changes for staff and service users.

Despite the complexity of the topic, and the methodological weaknesses that still need to be addressed, the findings of this rapid evidence review highlight the positive and promising short- and medium-term impact of trauma-informed approaches.

The evidence reviwed shows that staff training and other forms of workforce development could be the most effective strategy to promote organisational change by creating shared trauma-related language, knowledge and skills. Additionally, other strategies such as carrying out pre-intervention or organisational readiness assessments, promoting trauma-informed leadership teams, cross-system collaboration, and educating all stakeholders on the impact of trauma, together with conducting routine enquiry where appropriate seem to be promising. This means that they seem to be having a positive impact on the short- and medium-term outcomes of individuals and organisations.

However, there is a need for more robust evidence to determine their efficacy. Additionally, although not linked to negative results, there is also need for more evidence to determine the effectiveness of components such as taking proactive, flexible approaches to TIC implementation, or promoting positive relationships with stakeholders, currently deemed as inconclusive. Therefore broad, multi-layered, tailored interventions that aim at embedding trauma-informed approaches across all levels for all stakeholders, and that provide specific support when needed, could be the most appropriate way forward to promote short- and medium-term improvements for individuals and organisations.

Nonetheless, there is a need to develop more rigorous and robust research that is adapted to the characteristics of the field, but that can also provide solid support to the evidence underpinning the implementation of trauma-informed interventions. Additionally, it would be beneficial to extend the implementation and evaluation times . This could help to better understand the needs of long-term implementation of these interventions and the sustainability of the short- and medium-term changes they aim to deliver. It would also help understand the impact on long-term outcomes for people with lived experience of trauma, including the inequalities they face and potential improvements across different domains of life.

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