Public Health England

Protecting and improving the nation's health

The effectiveness of trauma informed approaches to prevent adverse outcomes in mental health and wellbeing

A rapid review

Contents

Main messages

A Trauma Informed Approach (TIA) is a wide-ranging term and can apply to services, organisations, strategies, and policies that seek to acknowledge and mitigate the impacts of trauma on vulnerable users. The purpose of this rapid review is to examine the effectiveness of TIAs in preventing adverse mental health and wellbeing outcomes with a particular focus on groups more vulnerable to trauma during the COVID-19 pandemic.

Database searches were conducted from 1 January 2000 to 21 August 2020 and a search of a range of websites for grey literature on 21 August 2020. The academic search focused on groups identified as vulnerable to trauma during the COVID-19 pandemic, but included literature from before the COVID-19 pandemic in order to capture previous relevant literature.

Sixteen studies were included in this review examining the effectiveness of TIA on mental health and wellbeing, and associated factors (for example, social connectedness and risk-taking behaviours). Overall findings indicated positive effects on mental health or wellbeing related outcomes, and engagement and acceptability of those involved; supporting the feasibility of approaches to be successfully applied across different settings. Details given below:

1. Two papers evaluated system or organisation wide TIAs, 7 studies provided evidence for TIAs for specific vulnerable groups, 6 were specific to schools, and one paper looked at the effectiveness of TIAs in increasing access to healthcare.
2. Seven studies explicitly reported on mental health outcomes (quantitative or qualitative) and one looked at access to mental healthcare. The remaining 8 studies more broadly assessed wellbeing, for example confidence and self-esteem, and 3 included reporting of risk-taking behaviours. The studies were predominantly qualitative and based on professional (as opposed to service user) feedback.
3. Whilst TIAs have been applied to a wide range of non-healthcare settings including wider systems, policies, organisations, and interventions; most evaluations are of small-scale interventions that do not capture outcomes across staff, end users and different levels.
4. Application of the principles behind TIAs outside of healthcare settings has included complex and multilevel interventions, which includes multi-agency collaboration, empowerment of end users, systemic changes to policies and ways of working, which go beyond teaching and training.
5. The TIAs applied in included studies align with a public health approach to preventing adverse outcomes: a place-based preventative approach working with multi-agency partners at all levels across the whole system to prevent adverse outcomes when faced with trauma.

6. There is a need for more experimental study designs; evaluations that capture whole system and end user outcomes for application of TIAs; longer term follow-up and for more studies outside of the US.

Background

Psychological trauma can occur when a person experiences or witnesses what they perceive as a physically or emotionally harmful or life-threatening event. It may be a single incident or a prolonged or repeated experience (known as complex trauma) (1). Trauma is often identified in relation to adverse childhood experiences (ACEs), a now widely used term based upon research into a set of 10 defined experiences conducted in 1998 (2). This framing helped to increase awareness and engage wider partners in this agenda, although it is acknowledged that traumatic events extend further than the 10 ACEs, including bereavement, poverty, discrimination, victimisation, low birth weight, and the wider social determinants of health (3,4).

Traumatic experiences alter neurobiological stress responses, and if occurring during developmental years can impact long term resilience: however even trauma occurring later in life can affect these processes and may result in longer term mental health problems or post-traumatic stress disorder (5,6). Traumatic events affect everyone differently. Some people who have experienced trauma will find it more difficult to regulate their emotions and reactions to stressful events and may resort to less healthy coping mechanisms. They will be more vulnerable to poorer health and adverse wellbeing and social outcomes such as homelessness, substance misuse and involvement with criminal justice systems, especially those without protective factors (3). Protective factors include individual factors such as control, self-efficacy and resilience as well as social factors such as our family and social networks and wider structural factors relating to our community and environment (3).

‘Trauma-informed’ is a new label and it has come into being because of the spread of neuroscientific research underpinning our understanding on the way trauma damages human beings across the life-course. Neither the practice nor the science is new. Trauma informed care (TIC) or trauma informed practice (TIP) are two loosely defined terms that describe the application of this research on trauma into practice are commonly used to raise awareness of trauma in practitioners in healthcare settings and to ensure care delivered addresses, or takes into account, the impact of trauma on patient presentation.

A TIA is a wide-ranging term and can apply to services, organisations, strategies, and policies (5) that seek to acknowledge and mitigate the impacts of trauma on vulnerable users. A TIA includes the components of TIC/TIP but is also distinct as it takes a whole system approach to the prevention of traumatic experience, mitigation of the adverse impacts from trauma and preventing re-traumatisation. Much of the work around a TIA is in the US and has centred around the US Substance Abuse and Mental Health Services Administration (SAMHSA) framework for a TIA (1). SAMHSA sets out six key principles for implementation of a TIA: safety; trustworthiness and transparency; peer support; collaboration and mutuality; empowerment, voice, and choice; and cultural, historical and gender issues. These are core principles to be applied across the system, with sensitivity to the context. There are ten core domains for implementation: governance and leadership; policy, physical environment; engagement and involvement; cross sector collaboration;

screening, assessment, treatment services; training and workforce development; progress monitoring and quality assurance; financing and evaluation. As a result, TIA interventions are often context-specific and fall into a category of complex interventions in complex systems (7). Evaluations are wide ranging and can deploy a range of different outcome measures.

A public health approach to trauma involves a focus on preventing trauma; mitigating the harm from trauma and harnessing protective factors and strengths (8); and involves operating at multiple levels of influence – individual, relationship, community, and society (9). Public Health England have recently defined a whole system approach to addressing vulnerabilities and adversity and that a TIA is complementary to this agenda (3). Central to this is the idea that there are groups who will be vulnerable to adverse impacts of trauma, some of whom have experienced childhood adversity, and that system-wide approaches should address the needs of this group to prevent adverse health, wellbeing, and social outcomes, and where possible prevent trauma from occurring in the first place.

A collective trauma event is where the experience of trauma is shared across a wider group, community or society, an event which 'results in disruption of the basic conditions of social life; damages the bonds attaching people together and impairs the prevailing sense of community' (10,11). The COVID-19 pandemic can be defined as such a collective trauma event, and there has been evidence of deterioration in mental health at a population level in England since the onset of the pandemic, with young people, women, those with pre-existing mental health problems and some Black Asian and Minority Ethnic (BAME) groups amongst those at higher risk (12). There are also concerns of deterioration in poor mental health related to financial insecurity and unemployment during economic recession (13,14). The European Society for Traumatic Stress Studies (ESTSS) have produced a statement on defining trauma in relation to COVID-19 (15) for which the main stressors include abrupt changes in life circumstances; uncertainty about the future; deterioration of livelihood; restriction of social contacts; imposed quarantine; stigmatisation, discrimination and fragmentation of communities; loss of loved ones; deprivation of culturally appropriate mourning rituals; and finally, the threat of contracting COVID-19. These same or similar issues have prompted commentaries during past epidemics, such as SARS-CoV-1, Middle Eastern Respiratory Syndrome (MERS), and Ebola (16). This highlights the needs to protect the vulnerable across society; including those directly exposed to traumatic events and those made vulnerable to traumatic experiences during the pandemic due to a prior history of adversity.

TIAs are well placed to inform wider action across society, in the communities and organisations where people live, work and access support. Because of the potential of widespread trauma from COVID-19 that may disproportionately impact vulnerable groups, there is a need to understand the potential effectiveness of TIAs in preventing adverse mental health and wellbeing outcomes.

Aim

The purpose of this rapid review was to examine the effectiveness of TIAs in preventing adverse mental health and wellbeing outcomes (including associated factors) during the COVID-19 pandemic. It was recognised that the academic literature would not yet have outcome data on the effectiveness of TIA on mental wellbeing during the COVID-19 pandemic, so the review drew on the wider literature, with a particular focus on groups most vulnerable to trauma during the COVID-19 pandemic.

Methodology

A rapid review methodology, which uses the principles of a systematic review but with streamlined methods in order to produce results in a more timely fashion, was adopted for this project. An initial scoping search was undertaken in order to identify any systematic reviews on this topic. When none were identified, the decision to undertake a full rapid review of primary studies was taken in line with procedures of the COVID-19 Evidence Team at Public Health England (17).

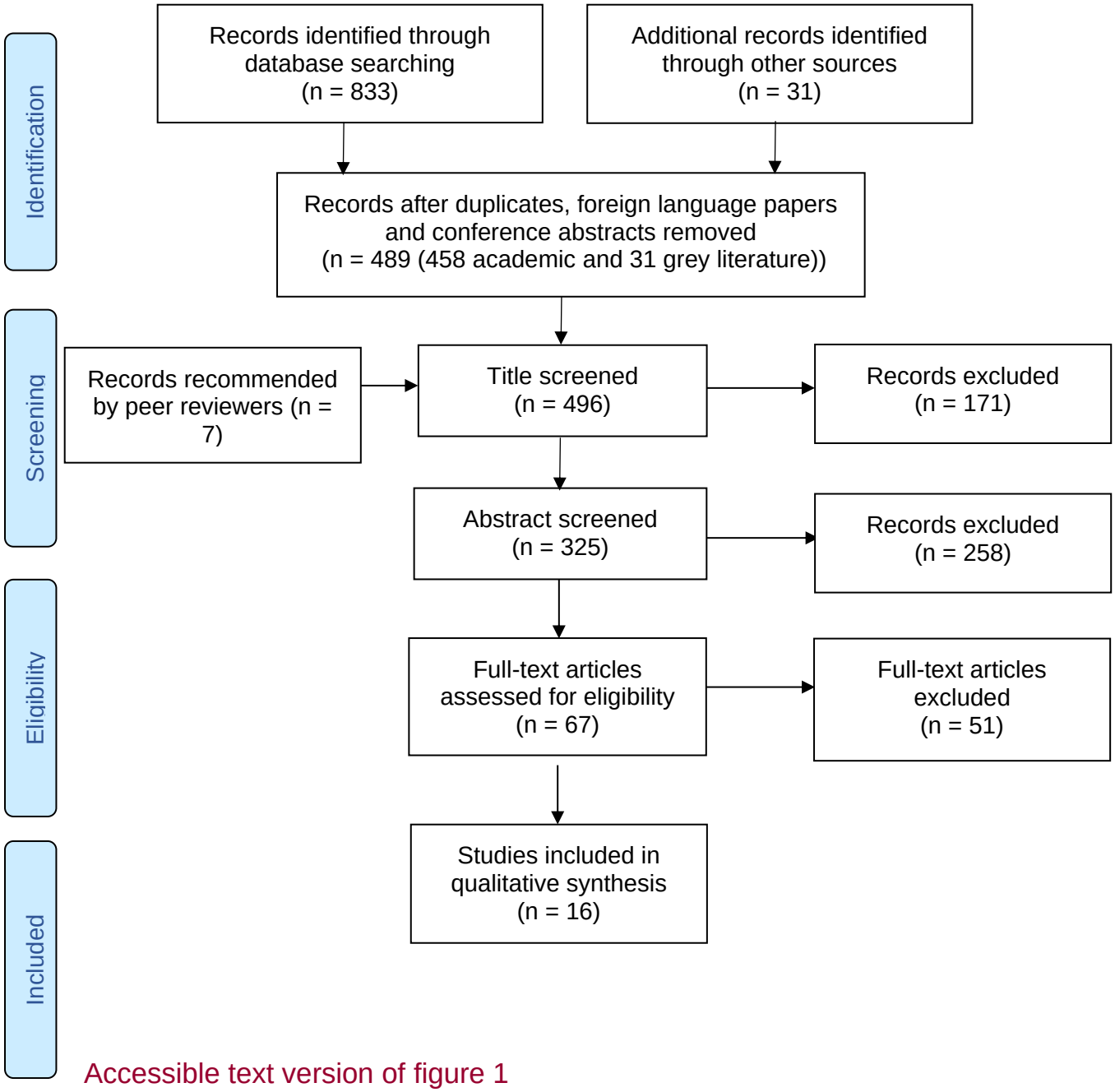
Full details of the methodology are provided in Annexe A. A protocol was produced a priori.

Evidence

Search results

The database search returned 489 records from PsycInfo, Embase, Medline, PsyArXiv, MedRxiv, WHO COVID-19 research database, and grey literature sources after removal of duplicates, papers not in English and conference abstracts, and an additional 7 papers were included by a peer reviewer. After title and abstract screening, 67 full text articles were assessed for eligibility and 16 met the inclusion criteria: one paper was from the grey literature and one paper from the additional 7 given by the peer reviewer was included. A PRISMA diagram setting out this process can be found in Figure 1. and Annexe B. details papers excluded from the full text screening. A systematic review looking at the effectiveness of a TIA for homeless young people was identified from the initial search, however within this only one quasi experimental study met the full inclusion criteria and was subsequently included in this review. Another qualitative study addressed a TIA RCT which was also reported on at 12 month follow up: the results from the second RCT paper, although not identified through the initial search strategy, were reported in this review.

Figure 1. PRISMA Diagram



Accessible text version of figure 1

A PRISMA diagram showing the flow of studies through this review, including n=833 studies identified through database searching.

From these, records removed before screening were:

Duplicate records removed (n=489)

Records recommended by peer reviewers (n=7)

n=496 records screened of which n=429 were excluded, leaving n=67 papers sought for retrieval.

n=51 papers were excluded, leaving n=16 papers included

What impact have TIAs had on mental health and wellbeing?

The 16 included papers were mostly observational or qualitative studies, with the majority using surveys and interviews to collect data, and one with an associated follow up RCT reporting on social outcomes. Thirteen were from the US, 2 from Canada and one from the Philippines. No studies had been conducted within the UK and no studies had been conducted within the context of COVID-19 pandemic or any other infectious disease outbreak. Seven studies explicitly reported on mental health in either quantitative or qualitative outcomes and one looked at access to mental healthcare. The remaining 8 studies more broadly assessed outcomes related to wellbeing, for example confidence, social support, and self-esteem, and 3 included reporting of risk-taking behaviours of substance misuse, high risk sexual activity and crime. The following section is split in to four themes which emerged at the data extraction phase. Where relevant, papers have been grouped together in discussion.

Evidence from whole system trauma informed approaches

Two studies (one quasi-experimental study and one repeat cross-sectional study) examined the effectiveness of a whole system TIA. One reported explicitly on mental health outcomes as well as risk-taking behaviours, one reported on wider organisation and staff wellbeing outcomes including collaboration and relationships between colleagues.

The quasi-experimental study evaluated a TIA in a substance misuse community service for women compared to usual care (n=342) (18). The TIA included collaboration between services (substance misuse, mental health, and social services), TIA care pathways from diagnostics, treatment planning and case management, specific evidence-based sessions on trauma recovery and empowerment, and skills building sessions around leadership, economics, family reunification and parenting skills. Mental health symptoms (measured using the Brief Symptom Inventory and PTSD symptom scale) were lower in the TIA group compared to usual care but not significant, and there was no difference in results based on ethnicity. There was a significant reduction in drug misuse in the TIA group at 6 and 12-month follow up compared to usual care. Both groups decreased alcohol consumption; and there was no difference between the two groups. All measures were self-report, using validated scales, and one set time point was used for follow-up (despite differing enrolment times) meaning the duration of intervention varied.

The cross-sectional study (19) examined the effectiveness of TIA when applied to the child welfare system in Connecticut, US. The TIA core components included planning, workforce training and development, trauma champions, staff secondary trauma support, trauma screening/assessment, TI policy and guidelines and TI treatment. Outcomes were assessed via three surveys with state-wide stratified samples of staff at one year (n=233),

three year (n=231) and five years (n=188) follow up. Staff across the system were surveyed, including directors, administrators, managers, supervisors, caseworkers, clinical roles, and others. Staff reported improved collaboration across the system and between child welfare and health settings, improved familiarity with and involvement in TI activities and initiatives, and improved familiarity with efforts to increase access to specific evidence-based TI services/treatment or to enhance trauma-related policy and practice guidelines. Reported improvements were generally sustained, with some increases over time, for example, collaboration and relationships with colleagues. The survey was validated, and efforts had been made to evaluate a system wide TIA. However, the limitations of the study include an absence of service user feedback and objective health and wellbeing outcomes.

Evidence from trauma informed approaches for vulnerable groups

Seven studies (one quasi-experimental study, one observational study, 3 qualitative studies, one RCT with accompanying qualitative feasibility study and one mixed-methods grey literature paper) provided evidence on a TIA in primary or secondary prevention. All of these studies were looking at a TI intervention for specific vulnerable groups who are at increased risk of trauma. Five studies reported explicitly on mental health outcomes and two on associated wellbeing outcomes relating to social connectedness (2 also included risk-taking behaviours).

A systematic review looking at the effectiveness of a TIA for homeless young people was identified from the initial search, however within this only one quasi-experimental study met the full inclusion criteria and was subsequently included in this review. A quasi-experimental study evaluated an intervention for homeless young women who have experienced sexual assault or exploitation in Minnesota, US (n=68) (20,21). The TIA was strengths-focused, and components included goal setting and development of self-care skills. The TIA was compared to an age-matched sample enrolled into the state school system (not homeless, n=12,775). The control sample was less ethnically diverse and more affluent that the participant population which may lead to over-estimation of the impacts of the programme. Suicidal intention and self-esteem were significantly poorer in the TIA group compared to the age-matched sample at baseline but as the intervention progressed wellbeing measures improved significantly more in the intervention group compared to age-matched peers.

Two qualitative studies report on the same TI peer-support psychosocial group intervention at a homeless hostel for young females with histories of gender-based violence and homelessness in Toronto, Canada. The intervention was based on SAMHSA TI principles (1). In Kahan and others (22), 7 staff members and nearly half (12 out of 23) of the service users were interviewed (semi-structured) around acceptability, enablers and engagement. Staff and service users felt that the TIA was useful, reporting an increase in positive relationships, and an increase in young women's experiences of empowerment and choice. Other positive acceptability outcomes were reported but these did not relate to mental

health and wellbeing. The TIA was specific to the intervention and did not report to extend wider, for example, leadership engagement, wider system including referrals and discharge. In Reid and others (23), 18 participants were followed up 9 to 12 months following initial programme enrolment. Themes relating to mental health and wellbeing identified in the interviews included improvements in; self-image, empowerment, and confidence (n=15); health and self-care (n=15); interpersonal skills and relationships (n=15); hopefulness and goals for the future (n=14) and coping skills (n=12). Again, while the methods were robust, this is a small sample representing one specific program.

An observational study (24) explored the impact of TIA at a weekend residential healing camp for bereaved children (n=80). The intervention included counselling sessions (small groups of 6) led by mental health professionals following a trauma-focused grief curriculum, alongside other group arts-based activities. Outcomes were measures using a self-report scale for Post Traumatic Growth (PTG) and a statistically significant improvement in scores was observed. Limitations included the lack of a control group and a 50% attrition rate in the before and after measures. Those not followed up were more likely to have experienced bereavement closer to the time of the study.

One mixed methods study (with observational and qualitative components) found in the grey literature evaluated a TIA applied to a social enterprise workplace where survivors of human trafficking and other vulnerable people in the Philippines are trained and employed within the service as part of a TIA (25). Physical, mental, and social outcomes were collected at baseline, 6, 12 and 24 months. PTSD score (Harvard Trauma Questionnaire) gradually reduced from 1.76 to 1.47 at 1 year to 1.49 at 2 years follow up ($p < 0.05$) with the percentage of participants over diagnostic threshold reducing from 28% to 0%. However, baseline participation was 77 people, with 42 people at 6 months, 17 at 12 month and at 2-year follow-up only 9 people, and no control group. There is therefore likely attrition bias with a chance that those remaining at 2 years saw more benefit that those who did not, and it is unclear whether improvements are greater than would be expected. Changes in depression and anxiety scores were not significant. Qualitative improvements in mental health included reported improvements in confidence, self-esteem, and self-efficacy over the 2-year period. The study also reported an increase in percentage of those using effective contraception from 28% to 75% and a statistically significant increase in confidence in negotiating condom use, although there was the same attrition in response rate.

A third qualitative study (26) explored the experiences of staff (n=7) who had a minimum of two years' experience of implementing a TIA for young people in foster care. The TIA included building trusting and more stable relationships and addressing trauma, grief, and loss. Previous preliminary pilot outcomes (unpublished, described in this publication) had shown increased rates of placement with foster parents for those completing the program, and a significant increase in the validated Youth Connection Scale which measures the number, strength, and types of support for youth in out-of-home placement from caring adults. Whilst numbers are small, this suggests that a TI service model may help to strengthen supportive connections for vulnerable young people. From the qualitative study,

key effective components of the TIA model from staff perspectives were identified: accountability to young people and their empowerment; adopting an organisational culture of wellbeing using strategies such as secondary traumatic stress education, peer support, and structured supervision; and promoting systems change for improved collaboration with all stakeholders, including the young people in care, families, caregivers, and other service providers. Limitations of the study include the small-scale setting (one agency providing service in US states of Wisconsin and Minnesota only), and only staff surveys were used.

Two studies assessed a TI, gender-specific substance misuse intervention 'Beyond Violence' in a women's prison in the USA. In one study, 12 month follow up results were reported with the Beyond Violence intervention (n=19) compared with a treatment as usual intervention (n=16) in an RCT (27). Analysis of records indicated that there was a significant reduction in re-arrest rates for the intervention group; the odds of women in the intervention group being involved with law enforcement decreased by 79% compared to those in the control arm. Substance misuse rates also decreased in the intervention arm but increased in the treatment as usual arm over this period, but this was not statistically significant. The study is limited by its small sample size, which was likely underpowered to detect differences, and only collected secondary outcomes to mental health. It is also not clear whether assessors or participants were blinded: it is likely that this was unfeasible. Mental health and wellbeing outcomes were not explicitly measured. A mixed-methods (observational and qualitative) design was used in another paper (28) focussing on the feasibility and fidelity; both participant and facilitator surveys and focus groups were used. The outcomes assessed included: engagement, adherence, institutional support and attendance and satisfaction of participants. The intervention was piloted with 3 groups (n=35). Four themes related to intervention impact emerged: 1) positive learning experiences from interacting with other group members (group cohesion), 2) relating to childhood trauma to current condition, 3) realisation of shame, guilt, anger and role of violence in their lives and 4) praise for staff. Attendance rates were high, and women reported high satisfaction and rated the course content highly.

Evidence from primary prevention trauma informed schools

TIA's have been more widely applied and evaluated in schools. The school's literature is therefore presented separately to see where we can learn and apply the school-wide TIA to other settings and population groups, and across the wider system.

Six studies provided evidence on a TIA in schools and pre-schools; 3 were of a mixed methods design, 3 were qualitative studies. Three studies reported explicitly on mental health and outcomes, 3 on wider wellbeing associated outcomes such as empowerment and social skills (one on staff wellbeing only). TIAs were applied across 3 secondary schools, one primary school, one preschool, and one after school programme at a secondary school. Two of the secondary schools were special schools, so for children with behavioural problems. Common principles to the TIA included training and support around

managing emotions, building relationships including whole-school relationships and with the wider community, emotional intelligence and resilience, pupil engagement/control in education and learning process, identification of personal strengths and values of pupils, and promptly addressing any issues.

One qualitative study of a preschool (2½ years to 4½ years) in the rural US evaluated a TIA model that included workforce training as well as specialist mental health interventions for trauma at the school. Evaluation consisted of staff surveys (n=10) using validated scales for teacher confidence and competence and teacher rated child emotional, social and behavioural outcomes via the Devereaux Early Childhood Assessment scale to determine the impact of the TIA in children (n=65) compared to 2 other school support schemes that were not TIA (n=81 and n=550) (29). Post-assessment scores, controlling for the same child characteristics, demonstrated significantly higher resilience scores (as measured by the Initiative, Attachment and Self-Control subscales) for the TIA programme children compared to children in the other 2 non-TIA programmes ($p < 0.001$). Staff confidence also improved.

Troy Harden and others (30), evaluated a TIA in young people violence prevention after-school programme for 44 students (aged 14-18 years) in Chicago, US. The TIA was one part of the skills-based programme, an additional three elements were core to the programme (leadership, documentary production and theatre). Whilst this was a mixed methods design, only a single survey evaluated the TIA, finding a significant improvement in empowerment among the 44 young people who took part compared to age matched controls from similar local communities. The survey was validated, however only a single wellbeing outcome measure is reported. Further, because the TIA was one part of a wider skills-based programme it makes it difficult to attribute the outcomes to the TI element.

A mixed method programme evaluation (quasi-experimental and qualitative) (31) was conducted with 500 students at two TIA secondary (middle) schools in low income communities in New York to measure the impact of TI support (whole school activities and targeted individual and family counselling/support activity) on students' social skills and problem behaviours. The evaluation involved pre and post-test quantitative assessment using the validated Social Skills Improvement System rating scales; a modified ACE questionnaire to assess prior history of trauma and qualitative data collection through student interviews after the intervention. Comparison was made with change in scores collected across the previous year before the intervention was in place. Social skills of students with low and moderate trauma increased, whereas those of students with high trauma decreased post-intervention. Problem behaviours of students with low trauma were lower at post-intervention, whereas students with high trauma exhibited higher problem behaviours post-intervention. There was little change for students with moderate trauma exposure. Student attendance increased on average by one percentage point post intervention, which equates to approximately one additional day. Qualitative analysis of student interviews indicated that the TIA school was seen to be helpful and impacted not only on behaviours but also on attainment, but that learning to trust in relationships, calm reactions and behaviour change takes time. Authors conclude that the TIA used was

suitable for those with moderate to low prior levels of trauma but may have no or negative effect with those with high prior levels of trauma; and that targeted more intensive support in a multi-layered approach would be needed to address this. The qualitative findings also suggest that a longer timescale may be needed to see the full impact of these approaches. The study is limited by lack of concurrent control group, although analysis against an appropriate baseline was carried out; and would have been strengthened by use of concurrent objective as well as self-report measures such as teacher or parent assessment of behaviour or grades.

Two secondary school studies focussed on special schools. One qualitative study looked at the experiences of being a TI secondary school (12 to 18 years) during a community-wide natural disaster traumatic event in Australia (32). Staff interviews (n=8) reported that the TIA model helped to manage the anxiety experienced, including improved behaviour and regulation of emotions, routines maintained and good communication. The other secondary school qualitative study in California, USA, looked at the TIA over 3 years with interviews with 13 staff (33). Staff reported improved student emotional regulation, confidence and behaviour and relationships were reported to be strengthened. Staff also reported that they had changed their behaviours, with less use of disciplinary actions, focus on developing coping skills and enhancing choice and control for the student. Over 3 years of the programme running, education improvements were also seen, however there is little description to what extent this was a result of the interventions. Both studies have used staff reports on student wellbeing rather than self-report measures and there was no comparator school. Both used a convenience sample, in the former, approximately half the staff volunteered to be interviewed, and in the latter 13 out of 15 staff. In both cases there is a risk of bias due to staff who were more invested in the TIA being willing to be interviewed.

A mixed-methods study (34) investigating teachers involved in TIAs in several primary (elementary) schools (5 to 10 years) across a district evaluated teacher wellbeing outcomes. Teacher's perceptions about how well TIAs worked were collected and analysed in relation to validated scale measures of occupational stress and turnover from educational employment. The study found that teachers who perceived TIAs were effective had higher reported compassion satisfaction (feeling positive because of helping others) and secondary traumatic stress (for example, feeling depressed after working with an abused student), as well as lower burnout scores. The strengths of this study include the large sample of teachers (n=163) studied and the diversity of the students. The cross-sectional design of the study means the analysis was not able to able to establish causality of how the TIA impacted, secondary traumatic stress, burnout, and compassion satisfaction. The study also lacked a control group. A second limitation is that the study relied on teacher self-reported perceptions of TIA effectiveness and would have benefited from other measures of fidelity and effectiveness.

Evidence from trauma informed approaches to improve access to services

One observational study looked at the application of a TIA to improve access to services in the US. Outcome measures were around access to mental health and wellbeing services.

The observational study evaluated the benefits from applying a TIA to women being released from prison and accessing primary care services, including mental health and substance misuse support (35). One hundred (50.0%) women attended the primary care programme at least once, 91.5% of those attending received mental health treatment and 64.0% received substance misuse treatment, as indicated by health care records. Most (83.0%) did not have a primary care provider before enrolment, indicating a large increase in access following the intervention. Those with psychiatric, behavioural, or emotional problems and from higher income backgrounds were more likely to access mental health care, whereas African Americans were less likely to access mental health treatment, indicating ethnic inequalities post intervention. However, this was not compared to expected uptake following usual care/referral routes and so it is difficult to assess impact of the TIA on access. No specific mental health and wellbeing outcome measures from receipt of the TIA were measured, only quantitative numbers accessing the services.

Supplementary evidence

TIA implementation

The search identified several papers which described design and implementation of TIAs. These models did not report mental health and wellbeing outcomes after the TIA was applied but illustrate details of practical delivery and factors relating to effective implementation of TIAs for different settings and groups.

Trauma informed policy and place-based approaches

Three studies describe stakeholder engagement and participatory research being used to engage communities and policymakers in TIA development. Bowen and others developed a framework for TI social policy (36) which has been applied to food policy (37); framing food insecurity in Baltimore as a form of social trauma. Government, voluntary and community sector organisations contributed to interviews to identify policy recommendations across the 6 SAMHSA principles. For example, ‘trustworthiness’ involved including community members in all stages of development and implementation of the final Food System Resilience Plan; ‘empowerment’ involved the city government to provide training and assistance to community-based organisations. Other TIAs used participatory research with

local community members to identify main community needs and design interventions to address them, for example the development of an intervention to holistically address women's wellness around trauma symptoms, substance misuse, and HIV risk behaviours within a tribal academic partnership (38) or building a holistic health system within an Urban Indian US setting (39). A main factor in these approaches was the ability to engage stakeholders from different parts of the system to gain a nuanced perspective on experiences of trauma and collaboratively address them.

Trauma informed organisations

Three papers described the implementation of a TIA in the workplace, focussing largely on the relational components of the organisation and responsiveness to disruptive events such as disasters or organisational change (40 to 42). Approaches implemented included supervision, training and self-care strategies for staff and involving members across the whole organisation in emergency/change planning. Loomis and others (42) reported on a TIA to a whole public health authority in San Francisco looking at both organisational wide training and cultural change. Main facets included TI leadership and champions at organisational level to develop and lead change, with TI initiatives aligned with other organisation-wide priorities and programmes.

The National Child Traumatic stress network outline whole school TI strategies (43). The 'essential elements' include: identification and signposting to treatment for traumatic stress; having partnerships with students and families; creating a TI learning environment (social/emotional skills wellness and trauma awareness); being culturally responsive; integrating emergency management and crisis response; understanding and addressing staff self-care and secondary traumatic stress; evaluating and revising school discipline policies and practices; collaborating across systems and establishing community partnerships.

Three papers described trauma informed models in prisons (44 to 46). Main themes included fostering hope, trust, connectedness and emotional regulation in prisoners through structured recreational/work activities or through redesign of usual policies and procedures, for example explaining the rationale for doing a body search prior to doing so with recognition that this could be a retraumatising experience. More direct components were staff helping prisoners recognise the role of trauma in behaviour and building positive coping skills. There is also risk of institutional trauma, where prisoners' traumatic histories are re-enacted causing staff to become vicariously traumatised, cynical and burnt out; this resulted in the overuse of sanctions, surveillance and authoritative measures, thus creating a cycle of re-traumatisation. Suggestions for staff training include awareness of trauma and its effects; grounding role plays and demonstrations; practicing verbal trauma de-escalation prompts; and incorporating the voice of trauma survivors.

Four TI models in community substance misuse facilities (47 to 50) described integrating care for women with trauma histories and substance misuse behaviours; for example, providing advocacy and advice services, support groups, parenting groups and counselling

alongside substance misuse treatment. Some models were designed using participatory methods to include the voice of the vulnerable women.

Two papers described TI models in organisations working with refugees. Im and others (51) use the case study of a state-wide refugee mental health initiative in Virginia to describe applying a TIA to a refugee resettlement, emphasising identification of those who have experienced trauma and linking to mental health care. They also discuss the importance of addressing psychosocial needs to aid successful integration of refugees into their new communities. Welch and others describe training and advocacy support provided to organisations working with refugees (52).

Two TI models with homeless people highlighted the need to address normalised historical and intergenerational trauma including harsh and punitive parenting styles to break a cycle of homelessness and abuse. Williams and others (53) suggest the addition of trauma-focused play interventions into supported living shelters may have the added benefit of helping both the child and mother to understand and integrate their traumatic experiences so that the mother can restore her role as a ‘protective shield’ for her family. Ballard and others (54) describe a public health nursing programme for any parent; where staff are trained to carry out an ACEs screening programme, carry out a reflective conversation with the parents on the role of trauma and deliver resources on self-care to empower parents to address the impacts of trauma.

In a TI mobile health (mHealth) intervention (55) adolescents from marginalised cultures and communities coproduced story and game apps, which use narratives that provide a structure for decision making, emotions, and outcomes to facilitate self-regulation. The intervention was evaluated to be feasible and acceptable but did not look at behaviour change or mental health outcomes.

Discussion

Summary of main findings

The 16 studies included in this review evaluated TIAs across a whole system, for preventive intervention for vulnerable groups, in school settings, and to increase access to mental healthcare. No evidence was found that related to COVID-19 or other infectious disease pandemic. Seven studies explicitly reported on mental health in either quantitative or qualitative outputs: (18,21,23,25,29,32,33) and one looked at access to mental healthcare (35). The remaining 8 studies more broadly assessed aspects of wellbeing, for example confidence and self-esteem, collaboration and relationships, empowerment, disruptive behaviour, and social skills (19,20,22,24,26,28,30,31). Three included risk-taking behaviours of substance misuse and crime (18,25,27). Almost all TIAs were implemented in the US.

Overall findings indicated positive effects on mental health or wellbeing related outcomes, and engagement and acceptability of those involved; supporting the feasibility of

approaches to be successfully applied across different settings. Two studies looked at TIAs applied across the whole system and did not find any direct effect on mental health outcomes, but some evidence of positive effect on wider wellbeing outcomes and risk-taking behaviours of substance misuse (18,19).

Seven studies looked at impacts of TIAs for specific vulnerable groups including homelessness, youth who have experienced adversity, and those who have been exploited through sex trafficking (21,23,25). Improvements were found in mental health measures such as suicidality, PTSD symptoms and post traumatic growth, alongside social outcomes related to risk-taking behaviours of substance misuse and re-offending.

Six studies addressed TIAs in schools (29 to 34). Two studies reported positive mental health outcomes on students and/or staff and 4 reported positive impact on wider wellbeing outcomes such as social skills and behaviours only. One study in schools highlighted the need for a multi-layered approach with more intensive support for those with extreme trauma; with possible adverse effects if this cohort were not appropriately supported (31). Qualitative research in the same study highlighted that long lead times may be necessary to pick up objective evidence of effect. One study found increased access to mental health care post prison discharge (35), but study design did not allow comparison to usual care.

The lack of mental health specific outcomes and lack of experimental study evidence, as well as the broad scope of this review with heterogenous intervention design and contexts, limits the ability to draw conclusions of effectiveness of TIA in general. Despite these limitations, there is an argument that given TIAs are evidence informed and will vary greatly according to the context in which they are applied, the role of evaluation should focus on process, fidelity to principles and more nuanced, realist understanding of outcomes (what works for who in what circumstances), which may be appropriately served by qualitative, mixed methods and observational approaches common to the studies included in this review.

The evidence base is also limited by the difficulty in measuring impact across the system. Four studies collected both professional and service user reports (22,26,27,33) However, the evidence was usually reliant on staff reported outcomes rather than collecting directly from service users. Five studies included longer term follow up of at least 6 months post intervention (18,19,23,26,28). In describing the designs, it was often not clear to what extent the TIA differed from usual approaches. Because of their multi-component design most of these studies could have also reported on objective measures of mental health and wellbeing, which are likely routinely collected as part of their service and would have strengthened the evaluation findings.

Gaps in the literature

There is a need for studies with higher quality study designs which capture and evaluate the whole system, including service user outcomes and objective mental and health wellbeing measures, and outside the US context. The literature highlighted several

published examples of comprehensively developed TIAs across a whole system that have not been evaluated for effectiveness: this is a further gap in the current evidence.

Most studies focussed on vulnerable groups known to institutions: there were no examples of evaluated interventions specifically aimed at vulnerability to poverty; ethnic groups, migrants, or refugees; or domestic abuse which are relevant to the current climate; although these groups are represented within the TIAs described and in the supplementary evidence.

Implications for policy and practice in the UK

Organisations and systems, including now in the UK, are developing, and applying TIAs. Application of TIA principles require engagement with wider systems, awareness of levels of need, and should be done with cultural sensitivity as part of a public health approach to addressing vulnerabilities and adversity. Much of the evidence base does not capture all of these components and there are limitations in study design that limit attributions of causality. However, there is some evidence in this review that supports the association of contextually reflexive application of these principles with improved mental health and wellbeing outcomes and highlights models where the principles have been applied across a range of settings with fidelity, including barriers and facilitators to implementation, which can be drawn from in future practice.

A TIA is essentially an evidence-informed reframing or renaming of a public health approach to preventing adverse outcomes when people are faced with physical or emotional harm and/or experiencing adversity, including poverty (3). However, it is also a distinct approach and is complementary to wide ranging public health measures to address vulnerability and the social determinants of health and prevent poorer health outcomes (3,8,9). The approach advocates for action across organisations, including a preventative element, intervening early when problems arise and creating an environment throughout the life course where negative impacts are mitigated. A TIA should therefore not be considered in isolation to the much broader evidence base in addressing adversity. Future researchers and practitioners should consider the role of TIAs in addition to existing pathways to address social determinants of health as well as access to trauma specific care where necessary; and seek to evaluate implementation and effectiveness in context.

Limitations

The rapid review criteria meant that studies were limited to English language and relevant literature from other countries may have been missed. Whilst studies were assessed for risk of bias by authors, no formal critical appraisal tool was used. There was no assessment for publication bias, and there is a risk that negative study outcomes have been under-represented within the published review sample.

Conclusions

Despite the prominence of TIA discourse and opinion papers, there remains limited evidence on effective application of TIAs in non-healthcare settings for mental health and wellbeing. Results were themed around the application of TIAs to; whole systems, vulnerable populations, schools, and access. The majority of the literature focussed on wider wellbeing and social outcomes related to mental health, rather than specific mental health outcomes. Almost all of the literature is concentrated within the US and so may not be generalisable to other settings and cultural contexts. However, there are common TI principles which are evidence-informed and have been applied with cultural sensitivity to different populations and settings, with tentative evidence suggestive of positive outcomes. This review highlights ways of applying and operationalising TIA across micro and macro settings. These insights may be used to inform application of these principles in the context of the COVID-19 pandemic. Concurrent evaluation is needed to further strengthen the evidence base.

Disclaimer

PHE's rapid reviews aim to provide the best available evidence to decision makers in a timely and accessible way, based on published peer-reviewed scientific papers, unpublished reports, and papers on preprint servers. Please note that the reviews: i) use accelerated methods and may not be representative of the whole body of evidence publicly available; and ii) are only valid as of the date stated on the review.

In the event that this review is shared externally, please note additionally, to the greatest extent possible under any applicable law, that PHE accepts no liability for any claim, loss or damage arising out of, or connected with the use of, this review by the recipient and/or any third party including that arising or resulting from any reliance placed on, or any conclusions drawn from, the review.

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Annexe A. Protocol

A protocol was produced by the project team before the literature search began, specifying the research question and the inclusion and exclusion criteria.

Sources searched

This search was conducted on 21 August 2020.

The following electronic databases were searched: PsycInfo, Embase, Medline, PsyArXiv, MedRxiv, WHO COVID-19 research database.

Grey literature, defined as information from a range of sources, including academia, government and industry, which are not published through traditional channels (56), was searched for on a range of websites: (57) Google (10 pages); National Academies Press; Health, Education, Advocacy, Linkage (HEAL) Trafficking Network; Social Care Institute for Excellence. Finally, an expert peer reviewer contributed an additional seven papers relevant to the topic.

Search strategy

Database searches were conducted for papers published between 1 January 2000 and 21 August 2020. Search terms covered key aspects of the research question.

Inclusion and exclusion criteria

Article eligibility criteria are summarised in Table 1.

Table 1: Inclusion and Exclusion Criteria

	Included	Excluded
Population	Adults and children identified as vulnerable to trauma during the COVID-19 pandemic, including bereavement, stigma, discrimination, loss of home or employment, low SES, BAME, high risk occupation, outbreak community or quarantine. and Adults and children who are more susceptible to trauma with a focus on marginalised groups, for example: Refugees, asylum seekers, those at risk of modern slavery and trafficking; forced migrants; racism; other marginalised groups, to include Gypsy Roma travellers and homeless people.	Non-human studies, General population in non-pandemic context
Setting	Non health care service setting including voluntary sector, housing, social care, criminal justice system, religious; workplace;	All healthcare settings, to include mental health

	asylum / detention centre; drug and alcohol services in community setting	services, primary care, hospitals.
Context	Any context where specified groups vulnerable to trauma are found.	
Intervention	Any intervention following a trauma informed approach, including trauma informed and trauma-specific interventions or approaches. Include policy (macro) service (micro) and strategies (mezzo) interventions, place-based, community and / or whole system approaches. Trauma informed training was included where the evaluation extended beyond the delivery of the training session.	Clinical treatment or trauma/ PTSD Internet based trauma-informed interventions including CBT. Adaptation of healthcare delivery only.
Comparator	No intervention, same setting. Same/similar intervention carried out in health care setting. No comparator (where not applicable due to study design).	
Outcomes	Primary outcomes: Prevent development of long-term mental health problems Change in mental health or wellbeing, broadly defined and measured using any approach Secondary outcomes: Wider social, health or wellbeing outcomes Risk taking behaviours associated with mental and wellbeing outcomes Access to support service or mental health care	Model of an intervention with no measured or assessed outcome.
Language	English	
Date of publication	From 2000	
Study design	Systematic reviews and primary studies with any study design including: Experimental or observational Before/after times series Evaluations, Qualitative, Mixed methods, Surveys, case studies Realist study designs	Guidelines Opinion pieces/ editorials
Publication type	Published and pre-print Grey literature	

Studies conducted in any non-healthcare setting that had applied a TIA and had captured outcomes, particularly to improve mental wellbeing or reduce or prevent mental ill health, but other relevant outcomes such as social connectedness or risk- taking behaviours were

included. Healthcare settings were excluded because of the focus on trauma informed (TI) therapeutic care rather than a whole system public health approach. TIAs to access or barriers to healthcare papers where a whole system approach to referrals and joint agency working in a TI way was explored were also included. To allow for more relevant articles in the context of COVID-19, a narrower search including COVID-19 was applied to the grey literature only.

Studies in which TI training was applied as an approach or system, and where they had outcome measures, were included; however, studies which evaluated a TI training course only were excluded.

Psychological First Aid (PFA) was initially included because of its similar principles to a TIA; however, it was excluded in the final review of the evidence because it became clear that it is a different independent concept.

If a systematic review as a whole did not meet the criteria on full text screening, individual studies included in the review were considered for inclusion.

Screening

Screening on title and abstract were undertaken by one reviewer with a second reviewer checking at least 10% of studies. Disagreements were resolved by discussion. Screening was conducted using Rayyan, an online tool which allows multiple researchers to collaborate on a systematic review (57).

Screening on full texts was undertaken by one reviewer and all papers were checked by a second reviewer. This was completed using a combination of Rayyan and EndNote X9. Any disagreement was resolved by discussion, and issues that could not be resolved were referred to a third reviewer. Grey literature screening was undertaken using the same process and was completed using Microsoft Excel. Figure 1. illustrates this process.

Data extraction and quality assessment

Data extraction was completed by one reviewer and checked by a second, and any discrepancies were discussed and resolved. Due to the rapid nature of this work, a validated risk of bias tool was not used to assess the quality of primary studies. Instead, risk of bias was assessed based on research design and key sources of bias (including, but not limited to:

1. Population or sample
2. Exposure
3. Outcome

Variations across populations and subgroups, for example cultural variations or differences between ethnic, social or vulnerable groups were considered where the evidence was available.

Search strategy

Box 1. Search strategy Embase

Concept	Search terms
Vulnerable groups within COVID-19 context	exp psychological resilience/ resilience.ti,ab,kw. exp bereavement/ bereavement.ti,ab,kw. exp death/ "loss of life".ti,ab,kw. "loss of loved one*".ti,ab,kw. "loss of home".ti,ab,kw. "loss of life".ti,ab,kw. "loss of lives".ti,ab,kw. "loss of home".ti,ab,kw. exp homeless person/ homeless*.ti,ab,kw. exp income/ "loss of income".ti,ab,kw. “financial insecurit*".ti,ab,kw. jobless.ti,ab,kw. exp unemployment/ unemployment.ti,ab,kw. furlough.ti,ab,kw. exp human trafficking/ exp sex trafficking/ ((human or sex*) adj traffick*).ti,ab,kw. "asylum seek*".ti,ab,kw. exp socioeconomics/ "socioeconomic factor*".ti,ab,kw. exp substance abuse/ "substance abuse".ti,ab,kw. ((disadvantage* or vulnerable or refugee or BAME or BME) adj (communit* or population*)).ti,ab,kw.
Intervention/approach	("trauma-informed" adj (approach* or care or intervention* or provision* or strateg* or support or "therapeutic support" or training or organisation* or organization* or system* or COVID-19 or response*)).ti,ab,kw. ("trauma-specific" adj (approach* or care or intervention* or provision* or strateg* or support or "therapeutic support" or training or organisation* or organization* or system* or COVID-19 or response*)).ti,ab,kw. ("trauma treatment" adj (approach* or care or intervention* or provision* or strateg* or support or "therapeutic support" or training or organisation* or organization* or system* or COVID-19 or response*)).ti,ab,kw. ("trauma focused" adj (approach* or care or intervention* or provision* or strateg* or support or "therapeutic support" or training or organisation* or organization* or system* or COVID-19 or response*)).ti,ab,kw.

	("survivor-informed" adj (approach* or care or intervention* or provision* or strateg* or support or "therapeutic support" or training or organisation* or organization* or system* or COVID-19 or response*)).ti,ab,kw. (1) "caring for trafficked person*".ti,ab,kw. "psychological first aid".ti,ab,kw.
Constraints	Since 2000, limit to English language, conference abstracts
Databases	Medline Embase Psycinfo Grey literature

Annexe B. Excluded studies

Table 2. Excluded studies from full text screening

Reference	Reason for exclusion
Amaro and others, 2005, Boston consortium of services for families in recovery: A trauma-informed intervention model for women's alcohol and drug addiction treatment	No outcome measured (described in supplementary section on implementation)
Anderson and others, 2020, Barriers in seeking support: Perspectives of service providers who are survivors of sexual violence	No TIA
Atkins and others, 2017, Specialized disaster behavioral health training: Its connection with response, practice, trauma health, and resilience	Psychological First Aid
Aucott and others, 2016, Reflections on the use of Critical Incident Stress Debriefing in schools	Wrong study design
Brown, 2018, Through a trauma lens: Transforming health and behavioral health systems	Wrong publication type (not evaluation)
Damian and others, 2018, Barriers and facilitators for access to mental health services by traumatized youth	No outcome measured (described in supplementary section on implementation)
Dell and others, 2019, Helping Survivors of Human Trafficking: A Systematic Review of Exit and Postexit Interventions	Treatment
Dierkhising and others, 2018, Pilot Evaluation of a University-Based Training in Trauma-Informed Services for Gang Intervention Workers	Workforce training evaluation only
Eruyar and others, 2018, Review: How should child mental health services respond to the refugee crisis?	Treatment – one element of wider approach
Everly and others, 2014, The development of a model of psychological first aid for non-mental health trained public health personnel: the Johns Hopkins RAPID-PFA	Psychological First Aid
Fraser and others, 2014, Implementation of a workforce initiative to build trauma-informed child welfare practice and services: Findings from the Massachusetts Child Trauma Project	No outcome measured
Girardi and others, 2020, Creative expression workshops as Psychological First Aid (PFA) for asylum-seeking children: An exploratory study in temporary shelters in Montreal	Psychological First Aid
Hall and others, 2018, Implementation of intensive permanence services: A trauma-	Treatment

informed approach to preparing foster youth for supportive relationships	
Hickle, Understanding trauma: Its relevance to CSE	Wrong publication type (not evaluation)
Hickle, 2020, Introducing a trauma-informed capability approach in youth services	No outcome measured (described in supplementary section on implementation)
Hopper and others, 2018, STARS experiential group intervention: a complex trauma treatment approach for survivors of human trafficking	Treatment – complex trauma
Ko and others, 2008, Creating Trauma-Informed Systems: Child Welfare, Education, First Responders, Health Care, Juvenile Justice	No outcome measured (described in supplementary section in Annexe)
Lang and others, 2016, Building Capacity for Trauma-Informed Care in the Child Welfare System: Initial Results of a Statewide Implementation	No outcome measured
McKenzie-Mohr and others, 2012, Responding to the needs of youth who are homeless: Calling for politicized trauma-informed intervention	No outcome measured (described in supplementary section in Annexe)
McCabe and others, 2014, Building a national model of public mental health preparedness and community resilience: validation of a dual-intervention, systems-based approach	Psychological First Aid
McCabe and others, 2012, Community capacity-building in disaster mental health resilience: A pilot study of an academic/faith partnership model	Psychological First Aid
North and others, 2013, Mental health response to community disasters: A Systematic review	No TIA – Psychological First Aid
Parker and others, 2020, The Impact of Trauma-Based Training on Educators	Workforce training evaluation only
Sun and others, 2016, The Building Wealth and Health Network: methods and baseline characteristics from a randomized controlled trial for families with young children participating in temporary assistance for needy families (TANF)	Baseline trauma only
Tuck and others, 2017, B'More Fit for Healthy Babies: Using Trauma-Informed Care Policies to Improve Maternal Health in Baltimore City	No outcome measured (described in supplementary section on implementation)
Centre for Mental Health, 2020, Briefing 56: Trauma, mental health and coronavirus	No outcome measured (described in supplementary section)

Urban Indian Health Institute, 2020, A Historical Trauma-informed Approach to COVID-19	No outcome measured (described in supplementary section on implementation)
The King's Fund, 2020, Responding to stress experienced by hospital staff working with Covid-19	Secondary healthcare
Pattani, 2020, Webinar blog: Covid-19 and a Trauma Informed Approach	No outcome measured
Ortiz and others, 2020, Responding to the Trauma of COVID-19: Individual and community actions: Trauma-Related Effects During COVID-19 and Other National Emergencies	No outcome measured
National Child Traumatic Stress Network, 2020, Trauma-informed school strategies during COVID-19	No outcome measured (described in supplementary section)
Montesanti and others, 2020, Examining the use of virtual care interventions to provide trauma-focused treatment to domestic violence and sexual assault populations	Treatment
The Mental Elf, 2020, COVID trauma response: pandemics require trauma-informed mental health support	No outcome measured
Jeffrey and others, 2020, Providing Telebehavioral Health to Youth and Families During COVID-19: Lessons From the Field	No TIA
Gerber and others, 2020, Trauma-Informed Telehealth in the COVID-19 Era and Beyond	No outcome measured
Educational Psychology Service, City of York Council, COVID-19 Advice Transitioning Back to Schools and Settings	No TIA
Edgerly, 2020, The New Normal: Trauma Informed International Practices During COVID-19	No outcome measured
The European Society for Traumatic Stress Studies, 2020, Trauma-informed responses in addressing public mental health consequences of the COVID-19 pandemic: position paper of the European Society for Traumatic Stress Studies (ESTSS): Letter to the editor	No outcome measured (described in background and supplementary section)
COVID Trauma Response Working Group Rapid Guidance, 2020, Guidance for planners of the psychosocial response to stress experienced by hospital staff associated with COVID: Early Interventions	No outcome measured (described in supplementary section)
COVID Trauma Response Working Group Rapid Guidance, 2020, COVID Trauma Response Working Group Rapid Guidance	Healthcare

Collin-Vezin and others, 2020, When it counts the most: Trauma-informed care and the COVID-19 global pandemic	No outcome measured (described in supplementary section)
Brown and others, 2020, COVID-19 Lessons: The Alignment of Palliative Medicine and Trauma-Informed Care	Palliative treatment
Boag, 2020, A trauma-informed response to covid-19	No outcome measured
Baker and others, 2020, What Being Trauma Informed Can Tell Us in This Time of Crisis	Wrong publication type (blog)
Allwood and others, 2020, Covid-19: understanding inequalities in mental health during the pandemic	No outcome measured
Witkin and others, 2018, The Trauma-Informed Code of Conduct- For all Professionals working with Survivors of Human Trafficking and Slavery	No outcome measured
Warshaw and others, 2018, Tools for Transformation: Becoming Accessible, Culturally Responsive, and Trauma-Informed Organizations An Organizational Reflection Toolkit	No outcome measured
Institute of health Equity, 2018, Addressing Adversity - Prioritising adversity and trauma-informed care for children and young people in England	No outcome measured (described in supplementary section)
Gill and others, 2018, Building core skills among adult survivors of human trafficking in a workplace setting in the Philippines	No outcome measured
Van Ommeren and others, 2011, Psychological first aid: Guide for field workers	No outcome measured

Annexe C. Guidance on TIAs

The search identified several relevant pieces of guidance or commentary which have sought to apply TIA to the pandemic context and give practical guidance as to how to do this. These did not meet our inclusion criteria but are included to further facilitate understanding on how we might apply a TIA in current policy and practice.

Trauma informed guidance in the context of COVID-19

In the context of COVID-19, the ESTSS have presented an evidence-based need for a TIA response to protect public mental health (15) They promote a public health TIA which includes raising awareness of trauma related issues, avoiding re-traumatisation and investing in prevention. A whole system TIA is described, including TI policies, strategies and practices from prevention and mitigation, particularly for disadvantaged communities, to mental health support services.

The Centre for Mental Health have also recently published a report on trauma, mental health and COVID-19 making the case for a TIA across the system for collective and individual recovery (58). They highlight common themes from the disaster literature in defining a TIA; normalising trauma and helping people to help themselves; core principles are sensitively adapted to the place and the culture to prevent widening inequalities; strengthening family and community based social support including the most vulnerable; TIA to recovery takes time, patience and compassion; and mental health services and support continues in collaboration with all necessary partners. Collin-Vezina and others (59) also offers insights to guide practices and policies during the COVID-19 crisis and reference the SAMHSA principles in order to renew and strengthen TI practices within the context of COVID-19.

Trauma informed guidance for specific groups

Specific guidance has been developed to adapt TIAs to distinct groups and populations. The US Department of Health and Human Services have also produced a toolkit for domestic violence and trauma victims, highlighting the need for TIA to be applied across a whole organisation (60). It is a self-assessment toolkit measuring against the SAMHSA TI principles and domains, as well as wider factors around accessibility and culture. It also highlights other key public health principles including a whole-system integrated approach and the importance of evaluation.

Young Minds and the Institute of Health Equity (61) have published a collection of papers around the impact of adversity and trauma on the mental health of children and young people, identifying good practice where TIAs have been embedded in the community and

voluntary sector. Six Principles for adversity and trauma informed practice are identified: Prepared, Aware, Flexible, Safe & Responsible, Collaborative & Enhancing and Integrated

Ko and others (62) review guidance for organisations working with vulnerable young people, highlighting key themes for screening for trauma exposure; that service providers use evidence-informed practices; that resources on trauma are available to providers, survivors, and their families; and that there is a continuity of care across service systems.

McKenzie-Mohr and others (63) focus on the application of a Strengths, Prevention, Empowerment, and Community conditions (SPECs) model for comprehensive wellbeing to a TIA for services working with homeless young people; drawing upon previous qualitative research with 100 young people and the wider literature. They argue that individual and reactive interventions are the common way of responding to trauma and homelessness in young people, and that collective responses that recognise the structural causes of trauma and homelessness are needed. They highlight that within services that maintain zero-tolerance policies, staff suspicions and their role of regularly monitoring intoxication can create a considerable social barrier to developing positive relationships. Safe and secure shelter and counselling is instead required whilst young people transition from substance misuse to manage the severe effects of trauma. Other examples of TI policies and procedures detailed include: guaranteeing that services are voluntary; engaging in partnerships with service users through informed consent; conducting early interventions by trained staff to assess for trauma, focus on strengths, and create safety plans; establishing visible leadership roles for service users and ongoing opportunities for engagement; and providing training and education for staff.

Glossary

Adverse childhood experiences	A specific set of childhood experiences associated with negative outcomes in later life.
Anxiety	Is a feeling of unease, such as worry or fear, that can be mild or severe.
Depression	Clinical depression is when you feel persistently sad for weeks or months.
Place-based	Place-based working is a person-centred, bottom-up approach used to meet the unique needs of people in one given location by working together to use the best available resources and collaborate to gain local knowledge and insight. By working collaboratively with the people who live and work locally, it aims to build a picture of the system from a local perspective, taking an asset-based approach that seeks to highlight the strengths, capacity and knowledge of all those involved.
PTSD	Post-traumatic stress disorder is an anxiety disorder caused by very stressful, frightening or distressing events.
Resilience	The ability to manage and recover from adversity in a way that strengthens wellbeing in the long term.
Self-harm	Or self-injury is any behaviour where someone causes harm to themselves.
Suicide	The act of taking one's life.
Trauma	Trauma occurs when a person experiences or witnesses a physically or emotionally harmful or life-threatening event. It may be a single incident or a prolonged or repeated experience (known as complex trauma).
Trauma informed	An approach to care which looks to provide support or onward referral and avoid the potential for re-traumatisation by recognising when people may have experienced trauma or adverse childhood experiences.

About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. We do this through world-leading science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health and Social Care, and a distinct delivery organisation with operational autonomy. We provide government, local government, the NHS, Parliament, industry and the public with evidence-based professional, scientific and delivery expertise and support.

Authors

Karen Buckley, Neha Shah, Jane Roberts, Caroline De Brún, Randip Khangura, Rachel Clark. This document has undergone both internal and independent peer review. We are grateful to reviewers for their comments and feedback.

Public Health England
Wellington House
133-155 Waterloo Road
London SE1 8UG
Tel: 020 7654 8000

For queries relating to this document, please contact: enquiries@ukhsa.gov.uk

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