



Consultation paper: Development of a whole-of-government Trauma Strategy for Queensland

Infants and Young Children

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What is this research about

An infant's and young child's earliest experiences lay foundations for lifelong outcomes, and future resilience, health, mental health and wellbeing. Early life adversity and traumatic experiences can disrupt a child's developmental trajectory, with long-lasting and potentially intergenerational impacts. A wholistic ecological approach is required to prevent and overcome trauma and adversity and ensure the best start and optimal outcomes for each infant and child. A suite of two papers will provide policy evidence summaries toward the development of a whole-of-government Trauma Strategy for Queensland, across *Pregnancy and Early Parenting* and *Infants and Young Children*. These papers, while delivered separately, are inextricably linked through the relationship between parents and caregivers and their infants and young children. This relationship is a significant determinate of the impact of early adversity and trauma across the First 2000 Days of Life.

The context for this research

The World Health Organization states that 'enabling young children to achieve their full developmental potential is a human right and a critical requisite for sustainable development' [1]. The World Association for Infant Mental Health (WAIMH) Position Paper on the Rights of Infants [2] declares Basic Principles of Infant Rights, beyond those specified in the United Nations Convention on the Rights of the Child [3]. These Basic Principles include the right to be given nurturance that includes love, physical and emotional safety, adequate nutrition, and sleep; the right to be protected from neglect, physical, sexual, and emotional abuse; and the right to have access to professional help whenever exposed directly or indirectly to traumatic events.

In this paper, infant and early childhood trauma refers to the adversities and traumatic events that occur to children aged birth to 5 years. Traumas experienced by infants and young children may be intentional - such as child physical or sexual abuse, or domestic violence - or the result of specific events such as natural disasters, illness, injury, painful medical procedures, or war. These traumatic events can be single experiences or occur repeatedly or in the context of chronic interpersonal trauma, emotional neglect, and deprivation. They may be directly experienced or witnessed and overwhelm a child's ability to cope. One of the most traumatic experiences an infant and young child can have is separation from their parent/primary caregiver. These adverse experiences may have an individual impact or be part of a collective disruption of life. The more adversity an infant and young child experiences, the more cumulative the effect. If the accumulation of stresses becomes too great, then stress can become toxic and trauma results and the longitudinal risk for poorer outcomes grows [4]. The impact of trauma on infants and young children can be further complicated by unresolved and unhealed intergenerational and historical traumatic experiences and requires consideration in Aboriginal and Torres Strait Islander [5, 6] and refugee and asylum-seeking families, and families where there is a history of relational trauma within the parent/caregiver relationships [7].

In humans, critical neurobiological and developmental periods occur in-utero, infancy, and early childhood, when neurological structures and pathways develop and experiences shape the architecture of the brain, with the consequence that developmental resilience and vulnerabilities are well established before the start of school [8]. These developmental periods are shaped by a dynamic interaction between genetic potential and individual experience, in which infants and young children are active participants, with a drive to explore and master their

world. The development of sensory and perceptual systems that are critical to language, social behaviour, and emotional self-regulation are the cornerstone of early childhood development and are strongly impacted by experiences, culture, and child-rearing practices and beliefs [9, 10].

A growth-promoting environment, nurturing care-giving, and minimal adverse experiences during sensitive periods of brain development will provide an optimal foundation for a young child's future developmental outcomes. Conversely, an infant and young child exposed to an impoverished environment and adversity with limited quality care-giving experiences will be at risk of negative consequences on both brain structure and functioning. Early childhood development is shaped by an interplay between sources of vulnerability and resilience [9-11]. For infants and young children, trauma is a disorganising experience and a significant threat to their emotional security, and optimal brain development and functioning. Trauma can impact neurobiological development with lifelong and intergenerational impacts on learning, emotional and physical health, and the capacity to contribute productively to society [4, 12]. Parents/caregivers and early childhood professionals play a crucial role in establishing, maintaining, and restoring emotional safety and buffering the negative impacts of traumatic experiences [13]. Developing a secure and nurturing relationship with at least one primary caregiver is vital to minimise the impact of adversity and lay the foundations for emotional resilience, and lifelong health and mental health [8].

Infants and young children are particularly vulnerable to stress and trauma because of the rapid and crucial development of the foundations of their brain architecture, their complete physical and emotional dependence on parents/caregivers, their limited coping skills and their immature communication skills. Due to this limited ability to communicate, their reactions to traumatic experiences are at risk of being minimised and the perspective of the infant and young child dismissed. Common misconceptions are that infants and young children are too young to understand or remember traumatic experiences or that their young age and immaturity somehow protects them from long-term negative outcomes. When the needs of infants and young children are not met, they become stressed and distressed, presenting with a range of externalising and/or internalising responses. If they do not receive sufficient care and support from parents/caregivers to reduce their distress, then the stresses are compounded by emotional neglect and deprivation of care and support. In the absence of protective and supportive relationships, prolonged or frequent exposure to trauma can cause stress to become toxic with the risk of negative impacts on infant's and young child's developing brain and body. Research has extensively documented the reactions and symptoms of infants and young children exposed to events that threaten their safety or the safety of those caring for them and is referenced in this paper. The course of development can be altered in early childhood by effective interventions that change the balance between risk and protection, thereby providing opportunities for shifting the odds in favour of more adaptive outcomes [14]. Emerging research suggests that positive childhood experiences are associated with lower levels of childhood adversity and more favourable outcomes and a public health approach to promoting and supporting positive childhood experiences may result in better outcomes across the lifecycle [15, 16].

Traumatic and adverse environmental and interpersonal experiences of infants and young children can be further compounded by the social determinants of health and developmental inequities [17]. The risk for adversity and trauma is particularly elevated within certain families including Aboriginal and Torres Strait Islander and refugee/asylum seeking families; families with disability and mental illness, families where parents have less than a high-school education, who are low-income or unemployed or unable to work; and families in the LGBTQIA+ community. Racism, stigma, and social and environmental disadvantage and adversity are ongoing sources of trauma and negative outcomes for Aboriginal and Torres Strait Islander infants, young children and their families [18]. The stress of experiencing racism can lead to damaging parenting choices and behaviours as well as traumatizing and adversely impacting the biopsychosocial development of infants and young children in ethnically diverse communities [19]. Furthermore, the physical spaces, both natural and the built environment, in which infants and young children are growing up can exacerbate health and developmental inequities. Impoverished and dangerous physical spaces can contribute to adverse and traumatic experiences for families with infants and young children [20]. Research has demonstrated that investment in high-quality intervention programs for disadvantaged infants and young children can deliver a substantial annual return on investment, as well as realizing better

outcomes in education, health, social behaviours, and employment. Significant benefits are demonstrated across the lifecycle in health, the quality of life, participation in crime, labour income, IQ, schooling and increases in mothers' labour income if subsidized childcare is included [21]. Therefore, an ecological approach is essential to understanding the experiences of and supporting better outcomes for infants and young children at risk of psychosocial health and developmental inequities [22-25].

The key findings

Trauma during infancy and early childhood has been neglected

Trauma during infancy and early childhood has been a neglected topic for research, clinical practice, and policy [14, 26]. Fortunately, due to the pioneering work by Scheeringa and Zeanah [27], the first developmental subtype of an existing disorder, *Post traumatic Stress Disorder (PTSD) for Children 6 Years and Younger*, was included in the latest edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; 2013). Over the past 20 years, recognition and knowledge of the important and challenging issues associated with trauma and childhood adversity has grown exponentially. The research evidence is now clear that infants and young children (0-5 years) can develop PTSD and other psychological and physical comorbidities following trauma, and this has contributed greatly to increasing awareness and advocacy for the special needs of this population. However, infants and young children are still substantially underrepresented in the trauma literature, indicating key knowledge gaps in our understanding of the assessment and treatment of trauma across the lifespan. A notable limitation is that there is no empirical data available to inform understanding of how trauma symptoms typically manifest in Aboriginal and Torres Strait Islander infants and young children, and there are no peer-reviewed publications investigating culturally appropriate trauma assessment tools, trauma-informed services and trauma-specific care practices and interventions to support social and emotional wellbeing specifically for this age group [22, 28].

High incidence of trauma exposure in the first 5 years of life

The lack of research evidence for trauma interventions is concerning, given that infants and young children are disproportionately exposed to trauma and adverse childhood experiences. Australian statistics on the incidence of **child maltreatment** (i.e. physical abuse, sexual abuse, emotional abuse, neglect, exposure to domestic violence) are concerningly high and widespread. During 2017-2018, 116,000 child protection notifications for children aged 0-12 years were documented [29]. Children aged 0-4 years had the highest rates of substantiated reports. During 2019-2020, one in five Aboriginal and Torres Strait Islander children admitted into out of home care were less than one year of age and more than ten times the rate of non-Indigenous infants [30]. Findings from the recent Australian Child Maltreatment Study indicate maltreatment is far more prevalent than the cases known to government agencies [31]. The study reported 40.2% of young people (16-24 years) had experienced at least one type of child maltreatment and 1 in 4 had experienced 3-5 types.

Early childhood is also a high-risk period for exposure to **medical trauma**. Illness (e.g. cardiovascular and respiratory conditions, cancer) and injury (e.g. from burns, falls, accidental poisoning, dog attacks, driveway runovers, drowning) are leading causes of child deaths and hospitalisation in children aged 0-4 years [29]. At the Queensland Children's Hospital, infants made up a substantial proportion (42.1%) of all patient admissions in 2020. The likelihood of children being exposed to **climate and weather-related disasters** in Australia is also very high, and is predicted to increase due to the impacts of anthropogenic climate change. Queensland is Australia's most disaster-impacted state, with 84 disaster events in the past decade. Since 2017, 64 of Queensland's 77 local governments have been impacted by one or more declared disaster events [32].

Trauma during early childhood is associated with detrimental impacts on biopsychosocial outcomes

The majority of children are resilient or will recover relatively quickly from initial high levels of distress following a traumatic event. However, a clinically meaningful number develop PTSD. A recent meta-analysis of 15 studies with a sample population of young children (0-6 years) reported a pooled PTSD prevalence rate of 24.8% (95% CI=16.9%-33.7%) [33]. Notably, the prevalence was three-fold higher following exposure to interpersonal or repeated trauma (32.6%-35.3%; including interpersonal violence, war) compared to non-interpersonal or single-event traumas (10.7%-11.3%; including illness, injury, terrorist attack). Even when a child does not meet full diagnostic criteria,

symptoms can still be very distressing for the child and family and lead to functional impairment on a daily basis [34]. Consistent with research with older children, trauma exposure is linked to the development of other new-onset psychological disorders and comorbidity with PTSD is common (e.g. separation anxiety, oppositional defiant behaviour and phobias) [35, 36]. The high rates of comorbidity (up to 85%) has raised concerns relating to the risk of misdiagnosis and a focus on the emerging externalizing behaviour difficulties (e.g. Attention Deficit Hyperactivity Disorder), without addressing the underlying trauma presentation first [14, 35]. If left untreated, PTSD symptoms (PTSS) can follow a chronic and debilitating course. A meta-analysis of PTSD prevalence and severity changes over 12 months in school-aged children reported that whilst there was a significant natural recovery during the first 3-6 months (PTSD reduced by 53%; small-medium effect for a reduction in symptom severity), there was limited evidence of symptom reduction after 6-months [37]. These findings show there is a clear window of opportunity to intervene before symptoms become chronic. This is particularly important given the irrefutable evidence documenting the positive association between childhood trauma and mental health disorders, poor academic outcomes, health risk behaviours, chronic health conditions, and health service use across the life span [38-42].

The impact of trauma must be considered within the context of the dyadic parent-child relationship

It is widely documented that intergenerational trauma, parental mental health, the quality of the parent-child attachment, and parenting behaviours are crucial factors that influence a child's adjustment following trauma [7, 14, 43, 44]. Parents are also at risk of developing PTSD following their child's trauma, whether or not they are involved in the incident themselves. Results of two recent meta-analyses showed that pooled prevalence rates for parental PTSD ranged between 14% following their child's acute single-incident trauma (e.g. traumatic injury, disaster, road traffic accident) and 30% in response to their child's health condition (e.g. neonatal or paediatric intensive care admission, diabetes, transplants, cancer) [45, 46]. In addition to PTSD, parents can experience clinically elevated levels of acute stress, anxiety, depression and stress [47]. Parental distress during the acute phase has been shown to contribute to increased pain and procedural distress, delays in wound healing and the development and maintenance of trauma symptomatology in their young child following injury/illness over time [47-50]. The relational model of posttraumatic stress in early childhood [44], proposes that PTSS in either member of the parent-child dyad can exacerbate mental health symptoms in the other member, regardless of whether parent and child were exposed to the same or different traumatic event(s). Given the significant impact of trauma on parents own general functioning and mental wellbeing, their child's psychological and physical recovery, and the cost implications, it is essential to also attend to the needs of parents to reduce their own distress and to support their caregiving. Interventions that target child distress, parent distress, relational health and positive parenting practices, are likely to be beneficial in reducing the subsequent development and reciprocal nature of parent and child posttraumatic stress and exposure to further adverse experiences [51].

Research evidence to guide trauma-informed assessment, prevention, and intervention during early childhood is sparse but growing

There is no debating that early childhood trauma is a critical public health issue that needs to be prioritised to reduce the costly impacts it has on the child, family, and society across the lifespan. Stepped and integrated care frameworks are needed to prevent, mitigate, and treat the biopsychosocial impacts of early childhood trauma and proactively promote and repair relational health and resilience [51]. However, in comparison to older children and adults, there are very few interventions that exist to address the unique developmental needs of infants and young children who have experienced early childhood trauma. A critical limitation is the absence of trauma specific interventions for infants (0-2 years), Aboriginal and Torres Strait Islander children, and culturally and linguistically diverse families. This section presents interventions that have been empirically validated and can be delivered at either universal prevention, targeted intervention, and clinically indicated treatment levels.

Trauma-informed care

Trauma-informed care is a term widely used to describe interventions and services across the continuum of care that aim to provide a healing environment that promotes safety and trust, ensures cultural competence, and is sensitive to the impacts of trauma on children, families, and communities [22, 52, 53]. The implementation of trauma-informed practices has the potential to improve patient engagement, treatment adherence, health outcomes, and staff wellbeing and retention [52]. In order to be successful, trauma-informed care must be adopted

at the organizational and clinical levels [52]. However, despite the increased knowledge and implementation of trauma-informed care, the majority of peer-reviewed papers have focused on evaluating improvements in awareness, perceived capacity and capability of the providers [53]. There are no known studies that have demonstrated that trauma-informed program implementation leads to meaningful social and emotional outcomes in the short or long-term for children and their families, or address the cost-benefit analyses of such programs [22, 53, 54]. An example of a well-received and used trauma-informed program that requires additional research evidence, is the concept of a 'Health Passport' as an intervention to improve consumer-provider communication and minimise additional systemic trauma for consumers who have experienced trauma and adversity. This 'passport' can include details about infants and young children and their family contexts, their conditions, trauma reminders and experiences and how to best manage them, and can be used across all sectors to minimise the trauma of having to relive and retell their story and to reduce cross sectoral fragmentation. [55]

Universal preventive intervention:

Universal preventive interventions are suitable for all children (and their caregivers) to prevent (1) exposure to adverse childhood experiences and/or (2) development and escalation of traumatic stress responses.

Relational health: The research evidence is clear that a public health approach is needed to proactively strengthen and support core parenting skills to build relational health (i.e. safe, stable and nurturing relationships) to buffer adversity and build resilience across the lifespan [51, 56]. The adoption of contemporary health promotion interventions, specifically the use of text messaging, from the infant's perspective, to deliver psychoeducation and strategies to support parenting behaviours, parental mental health and promote early relational health (e.g. Connecting2u, SMS4dads), have demonstrated acceptability and feasibility in improving maternal confidence [57] and supporting the transition to fatherhood [58]. The latter outcome is particularly important because fathers play an important role in the development and well-being of their infants and young children but early childhood services are predominantly delivered to mothers. The *Triple P-Positive Parenting Program* is a good example of a universal primary prevention program with a very strong evidence base for improving parenting practices and confidence and positive child development outcomes [56]. The *Circle of Security (COS) Parenting Program* is another widely used preventative intervention to promote early relational health [59].

Workforce development: Recognising that early childhood educators serve as vital points of contact for young children and families, enhancing educators' knowledge and skills to identify signs of stress and trauma responses in young children enables early intervention and place-based supports. An example of targeted workforce development in Queensland is the Birdie's Tree Early Learning Program (BTELP), which is designed to increase the capacity and capability of the early childhood workforce to proactively and responsively support children's disaster resilience and recovery [60]. BTELP has been evaluated across a range of Queensland and New South Wales early education and care settings and has demonstrated the value of providing practical strategies and resources to support educators in responding to the needs of young children and their families in the context of disruptive and potentially traumatic events [60, 61].

Information provision: There are now several excellent evidence-based information provision interventions developed in Australia for different trauma populations and in different formats (e.g. print materials, self-directed websites, videos, animations, interactive online games, therapeutic storybooks) to support young children and caregivers and the social support systems surrounding them (e.g., early childhood educators, medical staff, disaster response teams, mental health clinicians, and other community providers) (e.g., Emerging Minds Community Trauma Toolkit, Birdie's Tree, Healing Foundation, Blue Knot). The advantages of information provision interventions are that they are generally inexpensive and require few resources and demands. However, research suggests that to optimise effectiveness and to reduce costs and burden of delivery, information provision interventions are best targeted towards children and families presenting with initial high levels of distress and/or other risk-factors [62, 63].

Screening and assessment: There has been considerable controversy and debate over screening for ACEs due to the lack of consensus regarding what ACEs to screen for and what thresholds to use, ethics of screening when no clear evidence-based interventions are available, and the risk of harm/retraumatisation (e.g. mandatory reporting to child protection services). A recent systematic review found no studies to date have demonstrated the efficacy,

safety, and cost-effectiveness of screening for ACE's at a population level as there is limited evidence that screening improves accurate identification of exposure to adversity or improved mental health outcomes for the child or caregiver [64]. However, due to the high incidence of trauma and the importance of early intervention, PTSD treatment guidelines recommend that the inclusion of questions about exposure to trauma and adversity should be included routinely as part of psychosocial assessment in mental health care settings [65]. If trauma exposure is endorsed, the child should be screened for the presence of PTSD symptoms [65]. Research and treatment guidelines also recommend implementing brief screening tools for PTSD and other psychosocial outcomes as a simple and cost-effective method for identifying children and parents who should continue to be monitored or referred for more comprehensive targeted assessment or treatment following acute trauma [66-68]. Finally, given the accumulating evidence showing positive childhood experiences can also prevent or buffer the effects of stress and adversity, it is recommended that protective and compensatory experiences (PACEs) are also screened for (e.g. child strengths, supportive relationships, community connectedness, enriching environments) [69, 70].

Targeted Early Intervention:

Targeted preventive interventions in the trauma context are aimed at individual children and families who have been identified as having identifiable risk factors (e.g., parent distress, relationship challenges, adversity) and/or experiencing acute posttraumatic stress. Targeted preventive interventions have also been identified as the most effective approach for intervening in the intergenerational transmission of relational trauma [7]. The review recommended that systematic trauma-informed attachment-focused interventions in health and social service settings are provided to address parental trauma and strengthen the parent-infant relationship.

Interventions such as Interaction Guidance and Video Interaction Project (VIP) use video feedback to support behaviour change in families with infants and young children, including those who have experienced trauma and adversity, with evidence supporting improvements in parent/caregiver interaction skills with consequential improvement in child development [71, 72].

There is also a strong evidence-base to support nurse home visiting programs to promote family wellbeing, parenting skills, and early childhood development. The *Nurse-Family Partnership* (NFP) is an evidence-based community health program that has consistently shown that having specially educated nurses regularly home visiting first-time mothers and families affected by social and economic inequality contributes to measurable, long-term positive outcomes for child development (e.g. reduce risk of child abuse and neglect and emergency department visits for accidents and poisonings, less emotional and behavioural problems) [73]. An Australia version of NFP, [Australian Nurse Family Partnership Program](#), is currently being delivered in 3 Aboriginal and Torres Strait Islander communities in Queensland. An Australian relationship-based home visiting program, *right@home*, which is delivered by highly trained child and family health nurses to specifically tackle early adversity is also being trialed in Queensland [74]. The *Baby One Program* (BOP) is a family-centered, Indigenous healthworker-led, home-visiting model of care, delivered in Queensland Cape York remote communities. The program aims to give Aboriginal and Torres Strait Islander infants and young children the best start in life and support family health [75].

The *CARE Trauma Resilience Intervention* is a brief targeted early intervention (2-3 sessions) that was developed for families where a young child (1-5 years) has experienced a traumatic event and experiencing mild to moderate levels of traumatic stress. The program was originally developed for injured children [76] but has since been adapted and currently undergoing evaluation in paediatric intensive care unit (PICU) and natural disaster contexts. A multi-site (Brisbane and Zurich) randomised control trial (RCT) has provided evidence for the efficacy of the CARE intervention at preventing persistent PTSD and functional impairment in very young injured children [77].

Clinically indicated treatment:

Clinically indicated treatment refers to evidence-based interventions designed to specifically treat trauma-related disorders (e.g. PTSD) and comorbidities (e.g. anxiety) and/or trauma directly related to parenting and attachment related trauma. The delivery of these types of interventions requires specialist training and experience in trauma and infant-parent clinical intervention.

Current Australian and international PTSD treatment guidelines recommend *trauma-focused cognitive behavioural therapy (TF-CBT)* and *Eye Movement Desensitization and Reprocessing (EMDR)* therapy as effective treatments for children and adolescents following trauma exposure [66, 78]. However, the evidence base supporting the efficacy and effectiveness of treatments for trauma-related disorders in young children is still insufficient. TF-CBT has the largest evidence base for treating preschool aged children (3-6 years of age) diagnosed with PTSD following interpersonal and single-event trauma. A recent systematic review described the evidence for TF-CBT as meeting criteria as a “level two” or “probably efficacious” intervention for young children [79]. To date, there is insufficient empirical evidence demonstrating the efficacy of EMDR and play therapy [66]. Notably, in the review of evidence-based treatment for PTSD, no trials have investigated treatments specifically for Aboriginal and Torres Strait Islander peoples [28].

Attachment-based interventions use the caregiver-child relationship as the main mechanism of change. One such intervention is *Child-Parent Psychotherapy (CPP)*, a psychodynamic dyadic treatment designed to improve psychological and relational functioning in trauma-exposed young children (e.g. family violence, child maltreatment) and their primary caregivers. CPP involves 50 joint parent-child sessions and individual parent sessions. Evidence from 5 RCTs has shown that CPP contributed to significant reductions in child PTSD symptoms and behaviour problems and mother’s posttraumatic avoidance [80-83]. Other indicated evidence-based treatment programs that have been recommended to treat children presenting with trauma related disorders (e.g. PTSD, anxiety, oppositional defiant disorder) and to repair strained or compromised relationships and parenting practices during early childhood include Attachment and Biobehavioural Catch-up (ABC; [84]) and Parent-Child Interaction Therapy (PCIT) [85] [51].

What does this research mean for policymakers

This paper highlights the large body of research that exists in the neurobiological, behavioural, psychological, and social sciences that has contributed to substantial advances in our understanding of the circumstances that contribute to and influence whether infants and young children have the best start in life or will be significantly disadvantaged. This coupled with major changes in the social, political, and economic circumstances under which families are raising infants and young children – changes in family structure and gender roles, the context of parental work and its impact on family life, the growing importance of the availability and quality of early childhood education and care, growing awareness and changing attitudes towards cultural safety and disability and ethnic diversity, a pandemic and its impacts – has created the potential to disrupt the status quo of siloed approaches and fragmented policy and service environments. The research is clear and an innovative, integrated, multi-layered, cross-sectoral approach is required. This paper challenges government to take the presented integrated science of early childhood development and the impacts of trauma and adversity to inform the design, implementation, and ongoing evaluation of more coherent and effective policies and practices.

Options for reform

Engage Lived Experience Wisdom

For effective and enduring change, it is crucial to engage families with infants and young children and communities with lived trauma experience to support the design and implementation of trauma-informed policies and responses. This will ensure families have a strong voice and choice to participate in designing effective approaches to address trauma, adversity, and the associated consequences. This can be affected by increasing funding and cross-sectoral enhancements to the Lived Experience Workforce and supporting the establishment of Lived Experience Led organisations to work with families experiencing trauma and distress.

Closing the Gap

There is a legacy of unresolved and historical trauma that continues to impact Aboriginal and Torres Strait Islander infants, young children, and their families. Connection to culture, strong kinship systems and country are protective and are central to the health, wellbeing and healing of Aboriginal and Torres Strait Islander peoples. To ensure that Aboriginal and Torres Strait Islander infants and young children ‘grow up strong’ a family-focused, holistic – body, mind, spirit - and ecological approach is required in consultation with and drawing on the wisdom of Aboriginal and Torres Strait Islander Elders, Leaders, and stakeholders, with trauma-informed policies and services, as well as

trauma-specific care. It is crucial to support self-determination of the well-being of Aboriginal and Torres Strait Islander infants and young children and their families and empower communities to find their own solutions for healing and recovery from trauma. By ensuring cultural considerations are embedded in policy and practice, Aboriginal and Torres Strait Islander infants, young children and families will have better access to culturally safe and responsive services provided by a culturally competent and confident workforce. This can be affected by increasing investment in and training of an Aboriginal and Torres Strait Islander workforce in the perinatal and early childhood periods of life, including midwives, child health nurses, health workers and liaison officers; as well as partnering with communities and investing in local, culture and trauma informed programs to support families and better outcomes for infants and young children.

Overcoming barriers to access and creating culturally credible trauma-recovery environments

Infants and young children from refugee and asylum-seeking backgrounds experience ongoing disadvantage and social exclusion because their families struggle to overcome significant barriers to accessing appropriate trauma-informed services to support the best biopsychosocial development for their infants and young children. Barriers to service utilisation include a mismatch with cultural understanding and practices, distrust of services, poverty, health and settlement issues, fear of child protection and legal systems, language, and racism. It is essential to plan and adopt an ecological approach in the context of a community engagement model that includes consultation, relationship and community capacity building, collaborative and flexible service design, and delivery. Culturally appropriate and developmentally focused interventions are required to maximise healing and trauma recovery opportunities for infants and young children. Such responses will require financial free and transport support for families to access services, investment in a well-trained, ethnically and trauma informed workforce and language services to work in partnership with ethnic communities to overcome these barriers and ensure that families have access to what they need for settlement and trauma recovery.

Support equitable experience and access

The environments in which infants and young children are born and grow can promote or compromise healthy developmental outcomes. Many experiences in infancy and early childhood cause trauma and adversity and are associated with poor outcomes later in life. These include being raised with exposure to poverty, housing instability, food insecurity, parental/caregiver job insecurity and unemployment, racism, parental mental illness and/or substance misuse, poor physical environments, community violence, and war. These social determinants of health are the source of considerable stress for families with infants and young children. Government policies, investments and services can reduce these sources of stress and the ongoing costs of trauma, by investment in housing, the environment, transport, affordable medical care, employment opportunities and supporting food security. Social protection reduces social inequities and is essential in protecting infants and young children and at a minimum should assist families to lead dignified lives and at its best should help achieve their full potential. This is a complex longitudinal problem requiring an integrated cross-sector approach with government and non-government and private partnerships around shared planning and goals.

Meet complex needs of vulnerable, at-risk families in the context of their family and local community

The emotional well-being of infants and young children is dependent on the functioning and capacity of their parents/caregivers, families, and the communities in which they live. It is therefore imperative that we consider the prevention and treatment of the impacts of trauma and adversity on infants and young people in the context of their families and communities. The relationships that infants and young children have within these contexts are crucial to their mental health and well-being and have the capacity to impact outcomes both positively for growth and negatively for harm. These influences are dynamic and are responsible for the balance between risk and resilience that will ultimately shape not only the future of the infant and young child but also the productivity or trauma they will contribute to society in the future. A single intervention or program is not going to reduce an infant or young child's risk of or repair the impacts of experienced trauma and adversity. An integrated ecological and biopsychosocial response, focussed on building safe, stable, and nurturing relationships, is critical to improve outcomes for individuals, but also to break cycles of intergenerational transmission of trauma and provide long-term societal benefits in health, well-being, child welfare, crime, and productivity. This integrated approach needs to be vertical (universal, targeted and indicated, including primary, secondary, and tertiary prevention and

interventions) and horizontally across sectors. These long-term benefits for Queensland will require considerable investment both downstream to treat the existing impacts of early childhood trauma on individuals and their families and communities, but at the same time upstream investment is imperative to break the cycles of intergenerational trauma and create beneficial outcomes for a better future for all Queenslanders.

To prevent and reduce the risk of trauma in early childhood an integrated universal public health approach to support all is required and is fundamentally an approach to promote relational health in families and communities.

- Consistent health promotion messaging - investing in an engaging multimedia health promotion campaign would increase awareness and educate families and communities about early childhood adversity and the impacts of trauma on infants and young children for example, modelling a campaign on the successful Queensland Health 'Dear Mind' campaign.
- Text messaging programs such as SMS4Dads and Connecting2u have been demonstrated to be effective in sharing health promotion messages in with families in Queensland and require secure recurrent funding.
- Government investment is critical to:
 - create safe and inviting community play spaces
 - to continue reading programs such as First Five Forever
 - to ensure access to affordable quality childcare
 - roll-out universal child health services across Queensland
 - deliver free kindergarten programs for all children
 - provide access to Kids Safe resources and Pepi-Pods Program for safe sleeping
 - provide universal distribution of Birdie's Tree Natural Disaster resources and Early Learning Program to child-care centres across Queensland.
- Across sectors, investment in community programs as breast feeding, play and music groups, and positive parenting build crucial parenting skill.

To target those infants and young children most at risk, an approach is required of identifying and screening and then addressing barriers to positive long-term outcomes such as the social determinants of health. This requires investment in the development of consistent screening and surveillance programs that can be implemented across sectors including maternity and child health settings, general practice, paediatric inpatient and outpatient, private practice, and child care settings. This would identify those infants and young children at risk. Additionally, investment in targeted home-visiting of at risk families during pregnancy and early childhood by child health nursing and allied health staff, child development clinics, allied health staffing in child care centres, and programs such as Video-Interaction Project (VIP), is crucial to support early intervention. A targeted intervention for infants and young children in Queensland, *CARE Trauma Resilience Intervention*, is being implemented on a small scale at the Queensland Children's Hospital but would require substantial funding to roll-out further. Social isolation, parental mental health and problematic alcohol and other drug use, and difficulty accessing services remain significant contributors to poor outcomes that need to be addressed. Collaborative partnerships between governments and community service providers need to be developed to invest in place-based service provision such as Child and Family Hubs which provide families access to a wide range of supports and services in one place. This provides safe and accessible services, service integration and reduction in service fragmentation, and social and peer supports and social connectedness.

Treatment for symptomatic infants and young children will be required where repair of the impacts of trauma and adverse experiences is required. Such treatments take time and require investment in workforce trained in trauma-informed, culturally, and emotionally safe service delivery. Treatment programs such as Attachment and Behavioural Catch-up (ABC), Parent Infant Interaction Therapy (PCIT), Child Parent Psychotherapy (CPP) and TF-CBT (Trauma-focused CBT) require training and significant investment to make them available to Queensland infants and young children. However, such programs are crucial to break the intergenerational transmission of trauma and adversity. Any attempts to meet the complex needs of families with infants and young children who are at risk of or who have experienced trauma must be done in partnership with them and their communities, respecting personal diversities and their cultural and ethnic contexts.

Building a trauma-informed workforce

There is an urgent need to improve the capacity and capability of the early childhood workforce to respond to the impacts of trauma during early childhood. Infants and young children do not exist in isolation and require systems of care to support them. It is therefore essential to take a cross-sector approach to workforce development in early childhood. To provide trauma-informed, culturally, and emotionally safe service delivery, it is crucial to build and retain an appropriately trained and remunerated cross-sector workforce. Building such a workforce requires a common philosophical, cultural, and trauma informed approach across sectors, with a common purpose and approach to training and organisational commitment to support staff. If we are to identify and manage the effects of trauma in infants and young children, then we require a well-educated and trained workforce with the appropriate knowledge and skills to care for them. This requires substantial financial investment across government, non-government, and private sectors, to recruit and train a sufficient workforce and retain them by providing ongoing support and appropriate remuneration. It is essential to pay the workforce in accordance with the skill and responsibility they have in caring for infants and young children who have experienced trauma in their most formative years.

Integrate research and evaluation to continue to grow evidence of effective strategies and need

As this paper has highlighted, the prevalence and impacts of trauma and adversity in infants and young children is a hidden problem. Due to minimal data and investment in research in mental health and trauma for the 0-4 population across Australia and internationally, we have a limited evidence base of the trauma impacts on the mental health and wellbeing, and biopsychosocial needs and supports for this population. At best we are extrapolating from the evidence available for children 5-6 years old. However as discussed early childhood is a critical developmental time and understanding the impact of trauma in this foundational period is crucial and requires a well-documented evidence base. The Australian Institute of Health and Welfare (AIHW) has limited data/reports available regarding trauma in the early childhood cohort. The National Outcomes and Casemix Collection (NOCC) for mental health does not collect data for children under 48 months. It is crucial to invest in research and evaluation for this cohort so that we can establish a clear picture of the prevalence of trauma and its impact and can develop, evaluate, and implement effective culturally and trauma informed strategies to address this need and contribute to the emerging global evidence base.

Reduce fragmentation of policies and services to survive a constantly changing political landscape

- Queensland needs all levels of government to commit to science-based policy formation, centred around the science-based principles of supporting nurturing relationships, reducing external sources of stress on families, strengthening core life skills, repairing relationship ruptures and the impacts of trauma and adversity.
- A whole of government approach that cuts across traditional departmental and agency silos and funding streams, to encourage integrated care, led by one identified Minister, is critical if trauma and adversity in infants and young children is to be successfully prevented and treated.
- A whole of government commitment to review funding models and regulatory structures is required. Economists have demonstrated the value of upstream investment in quality early childhood programs with between 7-13% return for every dollar invested, depending on the programs. It is also critical to address the large costs and often long waiting lists to access community mental health services. The limited number of Medicare Benefits Schedule (MBS) sessions available through Better Access are insufficient to deliver evidence-based trauma interventions.
- Bipartisan support and commitment for longitudinal policies and plans that transcend electoral cycles are essential to overcome constantly changing political and social landscapes.
- Strong, trusted, respectful, and effective funded collaborations between governments and private and community partners and stakeholders, who are well-positioned to provide individualized prevention, intervention, and treatment strategies, are fundamental for effective change.
- A well-resourced public health approach, beyond singular, panacea programs toward a layering of interventions that are integrated, both vertically across intensity of need and horizontally across sectors, will overcome the impacts of trauma and adversity on infants and young children and their parents/caregivers, to promote safe, stable, and nurturing communities, families, and relationships.
- Culturally safe co-design with families that honours diversity and self-determination should be at the heart of all policy and service planning.

References

1. World Health Organisation, *Improving early childhood development: WHO Guideline – Summary*. 2023: Geneva.
2. World Association Infant Mental Health, *Position Paper on the Rights of Infants*. 2016: WAIMH Perspectives in Infant Mental Health. <https://perspectives.waimh.org>.
3. Convention on the Rights of the Child, *United Nations Treaty Series* 1989, Available at: <https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-child>.
4. National Scientific Council on the Developing Child, *Excessive Stress Disrupts the Architecture of the Developing Brain: Working Paper No. 3. Updated Edition*. 2014: https://developingchild.harvard.edu/wp-content/uploads/2005/05/Stress_Disrupts_Architecture_Developing_Brain-1.pdf.
5. Healing Foundation, *Growing Our Children Up Strong and Deadly: Healing for Children and Young People*. 2015: Retrieved from: <https://healingfoundation.org.au/app/uploads/2017/02/Growing-our-Children-up-SINGLES-updated-2015.pdf>.
6. Dudgeon, P., Watson, M., & Holland, C., *Trauma in the Aboriginal and Torres Strait Islander Population*. Australian Clinical Psychologist, 2017. **3**(1): p. 19-30.
7. Isobel, S., et al., *Preventing intergenerational trauma transmission: A critical interpretive synthesis*. J Clin Nurs, 2019. **28**(7-8): p. 1100-1113.
8. National Scientific Council on the Developing Child, *The Timing and Quality of Early Experiences Combine to Shape Brain Architecture: Working Paper No. 5*. 2007.
9. Shonkoff, J.P., *From neurons to neighborhoods: old and new challenges for developmental and behavioral pediatrics*. J Dev Behav Pediatr, 2003. **24**(1): p. 70-6.
10. Tierney, A.L. and C.A. Nelson, 3rd, *Brain Development and the Role of Experience in the Early Years*. Zero Three, 2009. **30**(2): p. 9-13.
11. Nelson, C.A., 3rd, et al., *Cognitive recovery in socially deprived young children: the Bucharest Early Intervention Project*. Science, 2007. **318**(5858): p. 1937-40.
12. Harden, B.J., A. Buhler, and L.J. Parra, *Maltreatment in Infancy: A Developmental Perspective on Prevention and Intervention*. Trauma Violence Abuse, 2016. **17**(4): p. 366-86.
13. Berger, E., et al., *Early childhood professionals' perspectives on dealing with trauma of children*. School Mental Health, 2023. **15**(1): p. 300-311.
14. Chu, A., et al., *Trauma in early childhood: Empirical evidence and clinical implications*. Development and Psychopathology, 2011. **23**(2): p. 397-410.
15. Crandall, A., et al., *ACEs and counter-ACEs: How positive and negative childhood experiences influence adult health*. Child Abuse Negl, 2019. **96**: p. 104089.
16. Han, D., et al., *A systematic review of positive childhood experiences and adult outcomes: Promotive and protective processes for resilience in the context of childhood adversity*. Child Abuse Negl, 2023. **144**: p. 106346.
17. Moore, T.G., et al., *Early childhood development and the social determinants of health inequities*. Health Promot Int, 2015. **30 Suppl 2**: p. ii102-15.
18. Commonwealth of Australia, *National Strategic Framework for Aboriginal and Torres Strait Islander Peoples' Mental Health and Social and Emotional Wellbeing*. 2017: Canberra: Department of the Prime Minister and Cabinet.
19. Berry, O.O., A. Londoño Tobón, and W.F.M. Njoroge, *Social determinants of health: the impact of racism on early childhood mental health*. Curr Psychiatry Rep, 2021. **23**(5): p. 23.
20. National Scientific Council on the Developing Child. 2023: Place Matters: The Environment We Create Shapes the Foundations of Healthy Development: Working Paper No. 16.
21. Campbell, F., et al., *Early childhood investments substantially boost adult health*. Science, 2014. **343**(6178): p. 1478-85.
22. Atkinson, J., *Trauma-informed services and trauma-specific care for Indigenous Australian children. Resource sheet no. 21. Produced for the Closing the Gap Clearinghouse*. 2013: Canberra: Australian Institute of Health and Welfare & Melbourne: Australian Institute of Family Studies.
23. DeCandia, C. and K. Guarino, *Trauma-informed care: An ecological response*. Journal of Child and Youth Care Work, 2020. **25**: p. 7-32.
24. Lamb, C., M. Sims, and Y. Nishida, *Constructing Early Childhood Services as Culturally Credible Trauma Recovery Environments: An Exploration of Participatory Barriers and Enablers for Refugee Families*. 2019, University of New England.
25. Coello, M., et al., *Relationship building, collaboration and flexible service delivery: The path to engagement of refugee families and communities in early childhood trauma recovery services*. Children Australia, 2017. **42**(3): p. 142-158.
26. De Young, A.C., J.A. Kenardy, and V.E. Cobham, *Trauma in Early Childhood: A Neglected Population*. Clinical Child and Family Psychology Review, 2011. **14**(3): p. 231-250.
27. Scheeringa, M.S., et al., *Toward Establishing Procedural, Criterion, and Discriminant Validity for PTSD in Early Childhood*. Journal of the American Academy of Child & Adolescent Psychiatry, 2001. **40**(1): p. 52-60.

28. Phoenix Australia, *Specific Populations and Trauma Types: Aboriginal and Torres Strait Islander Peoples in Australian Guidelines for the Prevention and Treatment of Acute Stress Disorder, Posttraumatic Stress Disorder and Complex Posttraumatic Stress Disorder*. 2020, Melbourne: Phoenix Australia.
29. Australian Institute of Health and Welfare, *Australia's children*. Cat. no. CWS 69. 2020: Canberra: AIHW.
30. Chamberlain, C., et al., *Supporting Aboriginal and Torres Strait Islander Families to Stay Together from the Start (SAFeST Start): Urgent call to action to address crisis in infant removals*. Aust J Soc Issues, 2022. **57**(2): p. 252-273.
31. Mathews, B., et al., *The prevalence of child maltreatment in Australia: findings from a national survey*. Medical Journal of Australia, 2023. **218**(S6): p. S13-S18.
32. Queensland Fire and Emergency Services, *Queensland 2021/22 State Disaster Risk Report*. 2022, Brisbane. <https://www.disaster.qld.gov.au/qermf/Pages/Assessment-and-plans.aspx>.
33. Woolgar, F., et al., *Systematic review and meta-analysis: Prevalence of posttraumatic stress disorder in trauma-exposed preschool-aged children*. Journal of the American Academy of Child & Adolescent Psychiatry, 2022. **61**(3): p. 366-377.
34. Carrion, V.G., et al., *Toward an empirical definition of pediatric PTSD: the phenomenology of PTSD symptoms in youth*. J Am Acad Child Adolesc Psychiatry, 2002. **41**.
35. De Young, A.C., et al., *Prevalence, comorbidity and course of trauma reactions in young burn-injured children*. Journal of child psychology and psychiatry, and allied disciplines, 2012. **53**(1): p. 56-63.
36. Scheeringa, M.S., *Untangling psychiatric comorbidity in young children who experienced single, repeated, or Hurricane Katrina traumatic events*. Child & Youth Care Forum, 2015. **44**(4): p. 475-492.
37. Hiller, R.M., et al., *Research Review: Changes in the prevalence and symptom severity of child post-traumatic stress disorder in the year following trauma - a meta-analytic study*. J Child Psychol Psychiatry, 2016. **57**(8): p. 884-98.
38. Lawrence, D.M., et al., *The association between child maltreatment and health risk behaviours and conditions throughout life in the Australian Child Maltreatment Study*. Med J Aust, 2023. **218 Suppl 6**: p. S34-s39.
39. Pacella, R., et al., *Child maltreatment and health service use: findings of the Australian Child Maltreatment Study*. Medical Journal of Australia, 2023. **218**(S6): p. S40-S46.
40. Scott, J.G., et al., *The association between child maltreatment and mental disorders in the Australian Child Maltreatment Study*. Medical Journal of Australia, 2023. **218**(S6): p. S26-S33.
41. Fry, D., et al., *The relationships between violence in childhood and educational outcomes: A global systematic review and meta-analysis*. Child Abuse & Neglect, 2018. **75**: p. 6-28.
42. Larson, S., et al., *Chronic Childhood Trauma, Mental Health, Academic Achievement, and School-Based Health Center Mental Health Services*. Journal of School Health, 2017. **87**(9): p. 675-686.
43. Brown, E.A., et al., *Review of a Parent's Influence on Pediatric Procedural Distress and Recovery*. Clinical Child and Family Psychology Review, 2018. **21**(2): p. 224-245.
44. Scheeringa, M.S. and C.H. Zeanah, *A relational perspective on PTSD in early childhood*. Journal of Traumatic Stress, 2001. **14**(4): p. 799-815.
45. Burgess, A., et al., *Meta-analysis found high rates of post-traumatic stress disorder and associated risk factors in parents following paediatric medical events*. Acta Paediatr, 2021. **110**(12): p. 3227-3236.
46. Wilcoxon, L.A., R. Meiser-Stedman, and A. Burgess, *Post-traumatic Stress Disorder in Parents Following Their Child's Single-Event Trauma: A Meta-Analysis of Prevalence Rates and Risk Factor Correlates*. Clin Child Fam Psychol Rev, 2021. **24**(4): p. 725-743.
47. De Young, A.C., et al., *Prospective Evaluation of Parent Distress Following Pediatric Burns and Identification of Risk Factors for Young Child and Parent Posttraumatic Stress Disorder*. Journal of Child and Adolescent Psychopharmacology, 2014. **24**(1): p. 9-17.
48. Long, D.A., et al., *Post-traumatic stress and health-related quality of life after admission to paediatric intensive care: Longitudinal associations in mother-child dyads*. Australian Critical Care, 2024. **37**(1): p. 98-105.
49. Brown, E.A., et al., *Impact of Parental Acute Psychological Distress on Young Child Pain-Related Behavior Through Differences in Parenting Behavior During Pediatric Burn Wound Care*. Journal of Clinical Psychology in Medical Settings, 2019. **26**(4): p. 516-529.
50. Brown, E.A., et al., *The role of parental acute psychological distress in paediatric burn re-epithelialization*. British Journal of Health Psychology, 2019. **24**(4): p. 876-895.
51. Garner, A. and M. Yogman, *Preventing Childhood Toxic Stress: Partnering With Families and Communities to Promote Relational Health*. Pediatrics, 2021. **148**(2).
52. Schulman, M. and C. Menschner, *Brief: Laying the Groundwork for Trauma-Informed Care*. 2018: Center for Health Care Strategies. Retrieved from: https://www.traumainformedcare.chcs.org/wp-content/uploads/Brief-Laying-the-Groundwork-for-TIC_11.10.20.pdf.
53. Bendall, S., Phelps, A., Browne, V., Metcalf, O., Cooper, J., Rose, B., Nurse, J. and N. & Fava, *Trauma and young people. Moving toward trauma-informed services and systems*. 2018: Melbourne: Orygen, The National Centre of Excellence in Youth Mental Health.

54. Sun, Y., et al., *Trauma-informed Interventions in Early Childhood Education and Care Settings: A Scoping Review*. Trauma Violence Abuse, 2024. **25**(1): p. 648-662.
55. Lee, L.K., et al., *The Patient Passport Program: An Intervention to Improve Patient-Provider Communication for Hospitalized Minority Children and Their Families*. Acad Pediatr, 2016. **16**(5): p. 460-467.
56. Sanders, M.R., *Development, Evaluation, and Multinational Dissemination of the Triple P-Positive Parenting Program*. Annual Review of Clinical Psychology, 2012. **8**(1): p. 345-379.
57. Philipson, A., *Connecting2u Text Messaging Intervention: Connecting baby, family and community*. International Journal of Integrated Care, 2018.
58. Fletcher, R., et al., *Supporting men through their transition to fatherhood with messages delivered to their smartphones: a feasibility study of SMS4dads*. BMC Public Health, 2017. **17**(1): p. 953.
59. Huber, A., E. Hawkins, and G. Cooper, *Circle of Security*, in *Encyclopedia of Couple and Family Therapy*, J. Lebow, A. Chambers, and D.C. Breunlin, Editors. 2018, Springer International Publishing: Cham. p. 1-6.
60. Keleher, S.L.M., *Conversations, collaborations and connections: Supporting early childhood disaster resilience through professional learning*. 2024: [Unpublished doctoral dissertation]. Central Queensland University.
61. Keleher, S., Baldwin, A., De Young, A., Hoehn, E., & Alcorn, N. , *Birdie and the Northern Rivers floods: Collaborating for resilience in early childhood*, in [Poster presentation]. Australian Disaster Resilience Conference, Brisbane, Qld, Australia. 2023.
62. Kassam-Adams, N., et al., *A pilot randomized controlled trial assessing secondary prevention of traumatic stress integrated into pediatric trauma care*. J Trauma Stress, 2011. **24**.
63. Kenardy, J.A., C.M. Cox, and F.L. Brown, *A web-based early intervention can prevent long-term PTS reactions in children with high initial distress following accidental injury*. J Trauma Stress, 2015. **28**.
64. Loveday, S., et al., *Screening for Adverse Childhood Experiences in Children: A Systematic Review*. Pediatrics, 2022. **149**(2).
65. Phoenix Australia, *General considerations when working with children and adolescents*. 2020, Australian Guidelines for the Treatment of Acute Stress Disorder, Posttraumatic Stress Disorder and Complex PTSD, Melbourne.
66. Phelps, A.J., et al., *Australian guidelines for the prevention and treatment of posttraumatic stress disorder: Updates in the third edition*. Australian & New Zealand Journal of Psychiatry, 2022. **56**(3): p. 230-247.
67. Kramer, D.N., M.B. Hertli, and M.A. Landolt, *Evaluation of an early risk screener for PTSD in preschool children after accidental injury*. Pediatrics, 2013. **132**(4): p. e945-e951.
68. Griffin, B.R., et al., *Co-design of a paediatric post-trauma electronic psychosocial screen*. J Pediatr Nurs, 2024. **76**: p. 52-60.
69. Ronis, S., et al., *Profiles of Early Childhood Adversity in an Urban Pediatric Clinic: Implications for Pediatric Primary Care*. Children (Basel), 2023. **10**(6).
70. Morris, A.S. and J. Hays-Grudo, *Protective and compensatory childhood experiences and their impact on adult mental health*. World Psychiatry, 2023. **22**(1): p. 150-151.
71. Fukkink, R.G., *Video feedback in widescreen: A meta-analysis of family programs*. Clinical Psychology Review, 2008. **28**(6): p. 904-916.
72. Mendelsohn, A.L., et al., *Use of videotaped interactions during pediatric well-child care: impact at 33 months on parenting and on child development*. J Dev Behav Pediatr, 2007. **28**(3): p. 206-12.
73. Olds, D.L., et al., *Long-term effects of home visitation on maternal life course and child abuse and neglect. Fifteen-year follow-up of a randomized trial*. Jama, 1997. **278**(8): p. 637-43.
74. Goldfeld, S., et al., *Nurse Home Visiting for Families Experiencing Adversity: A Randomized Trial*. Pediatrics, 2019. **143**(1).
75. Campbell, S., et al., *Implementing the Baby One Program: a qualitative evaluation of family-centred child health promotion in remote Australian Aboriginal communities*. BMC Pregnancy and Childbirth, 2018. **18**(1): p. 73.
76. De Young, A.C., et al., *Coping with Accident Reactions (CARE) early intervention programme for preventing traumatic stress reactions in young injured children: study protocol for two randomised controlled trials*. Trials, 2016. **17**: p. 362.
77. Haag, A.C., et al., *Preventive intervention for trauma reactions in young injured children: results of a multi-site randomised controlled trial*. Journal of Child Psychology & Psychiatry, 2020. **61**(9): p. 988-997.
78. ISTSS Guidelines Committee, *Posttraumatic stress disorder prevention and treatment guidelines*. 2018: International Society for Traumatic Stress Studies.
79. McGuire, A., R.G. Steele, and M.N. Singh, *Systematic review on the application of trauma-focused cognitive behavioral therapy (TF-CBT) for preschool-aged children*. Clinical Child and Family Psychology Review, 2021. **24**(1): p. 20-37.
80. Lieberman, A.F., P. Van Horn, and C.G. Ippen, *Toward evidence-based treatment: Child-parent psychotherapy with preschoolers exposed to marital violence*. Journal of the American Academy of Child & Adolescent Psychiatry, 2005. **44**(12): p. 1241-1248.
81. Lieberman, A.F., C. Ghosh Ippen, and V.A.N.H. P, *Child-parent psychotherapy: 6-month follow-up of a randomized controlled trial*. J Am Acad Child Adolesc Psychiatry, 2006. **45**(8): p. 913-918.

82. Hagan, M.J., et al., *Parent and Child Trauma Symptoms During Child-Parent Psychotherapy: A Prospective Cohort Study of Dyadic Change*. *J Trauma Stress*, 2017. **30**(6): p. 690-697.
83. Gosh Ippen, C., C.R. Noroña, and A.F. Lieberman, *Clinical considerations for conducting Child-Parent Psychotherapy with young children with developmental disabilities who have experienced trauma*. *Pragmatic Case Studies in Psychotherapy*, 2014. **10**(3): p. 196-211.
84. Dozier, M. and K. Bernard, *Attachment and Biobehavioral Catch-up: Addressing the Needs of Infants and Toddlers Exposed to Inadequate or Problematic Caregiving*. *Curr Opin Psychol*, 2017. **15**: p. 111-117.
85. Thomas, R. and M.J. Zimmer-Gembeck, *Parent-child interaction therapy: an evidence-based treatment for child maltreatment*. *Child Maltreat*, 2012. **17**(3): p. 253-66.