Emerging Minds.

National
Workforce
Centre for Child
Mental Health

What is infant mental health, why is it important, and how can it be supported?

DR KRISTEL ALLA AND DR TRINA HINKLEY

What is this resource about?

All infants experience mental health, on a continuum from healthy to unwell. Infancy is a critical time for children to build strong confidence and security in their environment, so they can develop positive emotional, social, physical and mental health. And yet, most Australian parents acknowledge they do not know how to recognise or respond to mental health struggles in young children (Rhodes, 2017).

This resource aims to raise the awareness in practitioners who are not specialists in infant or child mental health, that infants can struggle with mental health and that their caregivers need support when early signs of problems appear. This resource will help practitioners to:

- develop understandings of infant mental health so that they can have conversations with caregivers about their infants' social and emotional wellbeing
- start conversations with caregivers around infant mental health and navigate through the support options available
- identify interconnected factors that impact on infant mental health; and
- gain greater awareness of signs that infants might be struggling and strengthen their capacity to detect potential issues.



Who is this reasource for?

This resource is for practitioners who work with infants and/or their caregivers. It will be particularly useful for practitioners who are not specialists in infant mental health, such as maternal and child health nurses, childcare workers, early childhood teachers, social workers and general practitioners.

Key messages

- Infant mental health is distinct from child or adult mental health. This means it can have different effects on infants and requires different support.
- Symptoms of infant mental health struggles vary and may include physiological, emotional and social symptoms.
- Early identification and support of infant mental health can promote recovery and resilience.

This resource was co-produced with:





The National Workforce Centre for Child Mental Health (NWC) is funded by the Australian Government Department of Health under the National Support for Child and Youth Mental Health Program.

Introduction

Every year, over 300,000 babies are born in Australia (Australian Bureau of Statistics [ABS], 2020). Infancy (from birth to 12 months) is a unique time of rapid growth, when the brain develops in ways that will affect health and wellbeing over the lifetime (Friedman et al., 2015). This is also when infants develop cognitive, language, self-regulation and psychosocial skills (Burger, Hoosain, Einspieler, Unger, & Niehaus, 2020; Cusick & Georgieff, 2016).

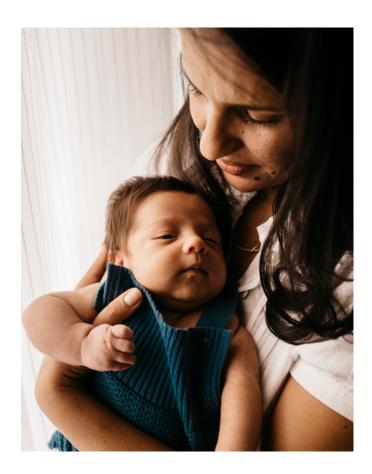
Experiences in infancy are particularly important because they may affect development. Risk factors, harmful experiences and events can lead to mental health problems (Zeanah Jr & Zeanah, 2019). Therefore, minimising risk factors and supporting the best mental health possible for infants may help prevent later problems.

Infant mental health problems mostly present as behavioural and emotional problems (Zeanah Jr & Zeanah, 2019). However, a recent study of around 2,000 Australian parents found that only 35% were confident that they would recognise the signs of mental health struggles in their children. Fewer than half knew where to get help if these issues occurred (Rhodes, 2017). When signs of mental health issues in infancy are not recognised, young children are unlikely to receive the support they need and therefore may continue to struggle throughout childhood. Supporting caregivers to recognise the signs of mental health struggles in their infants is a key step to infants and families receiving the help they need.

Practitioners who work with infants and their families are encouraged to have conversations with caregivers about their child's world, relationships and environment. It is through these conversations that they will be able to identify and respond to infant mental health struggles to minimise the risk of later problems (Zeanah Jr & Zeanah, 2019).

Why is infant mental health important?

Precursors to common and severe mental disorders that develop later in life are established during the key developmental periods in infancy and early childhood (McLuckie et al., 2019). Most leading causes of mortality (e.g. heart and respiratory diseases, cancers, lung and liver diseases, diabetes) and adult diagnosis of mental disorders (e.g. depression, substance use) can be tracked back to poor mental health in infancy and early childhood (Hughes et al., 2017; Zeanah Jr & Zeanah, 2019).



The cost of poor infant mental health in Australia is unknown. However, mental illness across all age groups costs about \$10.6 billion annually (\$420 per person in 2018–19) and increases by about 3% per calendar year in Australia (Australian Institute of Health and Welfare [AIHW], 2021). Australian research shows that young children (infants, toddlers and primary school children) experiencing mental health problems have the lowest access and use of specialist mental health services (Emerging Minds, 2019). This means that a significant number of infants experiencing mental health problems are not getting the help they need, and this may contribute to health care costs as they age.

An improved focus on addressing mental health problems early in life could potentially prevent significant human and service costs and improve the ability of children to participate fully in life. Because of this, practitioners need to monitor for early warning signs that infants may be struggling with mental health problems. Prevention and early intervention have well-established benefits, are cost-effective, and avoid extensive use of mental health services if later problems escalate (see also section 3.1 following) (Bagner, Rodríguez, Blake, Linares, & Carter, 2012; Bayer et al., 2009; Knudsen, 2004; McLuckie et al., 2019). Early intervention is more successful than intervening later (Bagner et al., 2012; McLuckie et al., 2019).

1. What is infant mental health?

Key messages

- Infant mental health is a child's capacity to experience and express emotions, foster relationships, explore the environment and learn.
- Infant mental health is dynamic and changes over time in response to internal and environmental influences.
- Infants can be viewed as moving along a 'continuum' of mental health that has four points: healthy, coping, struggling and unwell.
- Signs of being unwell may include changes to behaviours (feeding, crying and sleeping) or physiological signs (heart or respiratory rate).
- Infants who experience poor mental health are at greater risk of developing physical and mental health problems later in life. Poor mental health during infancy may contribute to large human and service costs for Australia.

1.1 Infant mental health defined

Different disciplines ascribe different age groups to the term 'infant' (Zeanah Jr & Zeanah, 2019). For the purposes of this resource, we consider infants as aged from birth to 12 months.

Infant mental health (sometimes referred to as infants' 'social and emotional wellbeing') is primarily concerned with how infants experience the world around them. Infant mental health and wellbeing develop in the context in which they are cared for, and are highly dependent on this context. Specifically, infant mental health is 'the young child's capacity to experience, regulate, and express emotions, form close and secure relationships, explore the environment and learn' (Zero to Three, 2001).

Infant mental health is dynamic and changes over time. The Australian National Children's Mental Health and Wellbeing Strategy proposes a continuum of children's experiences of mental health that infants and children may move along over time (National Mental Health Commission, 2021). These are presented in Table 1.

Because these definitions are not specific to infants, additional information has been added to the table to illustrate how the definition applies more specifically to infants

Table 1: The continuum of children's and infants' experiences of mental health

Point on the continuum	General description	Infant-specific description
Healthy	Children experience a state of positive mental health and wellbeing.	Infants experience a state of positive mental health and wellbeing.
Coping	Children experience challenges to their mental health but are equipped with the mental resources to manage these effectively.	Infants may experience challenges but have the nurturing support and care to be able tohelp them cope with these challenges.
Struggling	Children experience challenges to their mental health, and but are not managing these effectively and need additional support.	If infants are struggling with their mental health, they and their families will need additional support.
Unwell	Children experience mental illness and considerable challenges to their wellbeing. They need additional support to manage and recover.	Mental illness is not usually diagnosed in infants. However, infants who show substantial signs of struggling will require extra support for themselves and their families.

As infants move up and down the continuum, their experiences will differ based on individual and environmental circumstances, and as their relationships with caregivers change (Zeanah et al., 2017). Various risk and protective factors contribute to their movement along the continuum (National Mental Health Commission, 2021).

1.2 Understanding mental health in infants

Infant mental health can only be understood alongside what is happening in an infant's family and environment. This 'whole-child' approach recognises that what is happening in one area of an infant's life can affect other areas (Emerging Minds, 2020). This section provides some of the key issues to consider when working with infants and their families.

Mental health in infants is linked to infant-caregiver attachment

Infant mental health is understood in the context of their attachment relationships with their caregivers (McLuckie et al., 2019). The infant-caregiver attachment relationship is shaped by how responsive caregivers are in meeting the basic emotional and physical needs of infants, including whether they engage, talk and play with their infant. An infant's positive mental health depends on their caregivers consistently and reliably meeting their needs and providing a nurturing environment (Coyne, Powell, Hoffman, & Cooper, 2019; Emerging Minds, 2021a). Infants are dependent on their caregivers for survival and development, which means that these relationships have the biggest impact on infants' mental health (Lyons-Ruth et al., 2017; Simpson et al., 2016).

Infant attachments or emotional connections to caregivers can be categorised as secure or insecure. Secure relationships provide the comfort, protection, stability and responsiveness that infants need for their optimal development and wellbeing (Benoit, 2004; Finelli, Zeanah Jr, & Smyke, 2019). Infants learn emotional regulation and expression, positive strategies to manage stress, and develop resilience and optimal social functioning (Barlow, Bennett, Midgley, Larkin, & Wei, 2015; Moore, Arefadib, Deery, Keyes, & West, 2017). Practitioners may notice that infants with secure caregiver attachments are likely to receive prompt, warm responses from their caregivers, and smile and look happy when picked up (Finelli et al., 2019; Mannesto, 2021).

Insecure attachment occurs when the infant's emotional and social needs are not consistently met, predisposing infants to mental health problems (Teicher & Samson, 2016). In these relationships, caregivers are unavailable and/or unpredictable, and tend not to comfort nor alleviate an infant's distress (Moore et al., 2017). Practitioners may notice signs of difficulties with caregiver attachment such as infants behaving inconsistently towards caregivers (e.g. alternatively clingy or dismissive) and difficulties separating from caregivers (e.g. being clingy) (Cook et al., 2017).



Practitioners are encouraged to have sensitive and non-stigmatising conversations with caregivers about the impacts of their relationships with their infant. Providing support, reassurance or guidance in the form of information or resources may help caregivers promote secure attachments that lead to positive mental health for their infants (Emerging Minds, 2021a). Example strategies include:

- controlled play that allows for bonding, for the infant to experience positive encounters with caregivers and for caregivers to show support and responsiveness (Government of South Australia, 2020)
- promoting a two-way 'conversation' by repeating the sounds the infant makes (Emerging Minds, 2018a)
- speaking to the infant using a calm and soothing voice when they are upset, and gently rocking them for comfort (Emerging Minds, 2018a); and
- a simple responsive activity such as smiling back to the infant to tell them they are special, teach them that their caregiver can be trusted, and contribute to building secure relationships (Government of South Australia, 2020).

What are the signs of positive mental health in infants?

Healthy infants show signs of managing their emotions effectively with the support of their caregiver, communicate well with their caregivers, and actively explore their environment (Zeanah Jr & Zeanah, 2019). Positive mental health in infants is optimal emotional, cognitive, social and physical development (Peters, Skirton, Morgan, & Clark, 2019). It means that the infants are meeting their developmental milestones for their age and show signs of social competence (capacity to adapt to social and environmental demands). Examples of mentally healthy infants include communicating actively with their caregivers, keeping eye contact, smiling and laughing, feeding and sleeping well, and being interested in their environment (Zeanah Jr & Zeanah, 2019).

What are the signs of mental health struggles in infants?

Signs that infants are unwell or struggling are typically less obvious than those for older children. Key physiological or behavioural changes that may indicate mental health struggles in infants may also be normal behaviours for infants at certain developmental stages, particularly with sleeping and eating behaviours.

Sleeping: Infants who are unwell or struggling may experience consistent difficulty with sleeping, such as trouble falling asleep or sleeping for short times (Austin, Highet, & Group, 2019; Cook et al., 2020).

Feeding and eating: Infants who are unwell or struggling may refuse to eat or may overeat (Schechter, Willheim, Suardi, & Rusconi Serpa, 2019; Wotherspoon, Hawkins, & Gough, 2009), or experience reflux or gastric distress (Austin, Highet, & Group, 2019).

Arousal and vigilance: Responses to external stimuli may differ in infants who are unwell or struggling compared to typically developing children from similar cultural or ethnic backgrounds (Poulou, 2015; Tully, 2020). Examples include how alert the infant is to potential threats, or higher than normal arousal to events (DeJong & Wilkinson, 2019).

Disengaged: Infants may present as:

- · appearing passive or disengaged
- not wanting to make eye contact
- · not wanting to be held
- having difficulty calming down when upset, or staying upset for longer than appropriate



- not making noises often (cooing or babbling)
- being fussy (screaming, whining, crying easily or continually)
- · seeming distressed, restless or grumpy; or
- not crying or making few attempts to get their needs met (being fed, nappy changes) (Cook et al., 2017; Lawson & Quinn, 2013).

Responses to sensory stimulation (noises, sights and touch): Infants may under-respond (e.g. become numb or withdrawn) or over-respond (e.g. show heightened emotions or concerning behaviour, be easily startled) if they are struggling (DeJong & Wilkinson, 2019).

Common misunderstandings around infant mental health

Helping caregivers to understand that infants do experience mental health, and that their infant may struggle with their mental health, can promote earlier support. However, understanding that infants may be mentally unwell can be difficult, due to stigma and misunderstandings that surround mental health (Zeanah Jr & Zeanah, 2019). Examples of common misconceptions are included on the next page.

Misconception: Infants are too young to develop mental health problems

Infants can have mental health problems, although mental disorders are not typically diagnosed in children younger than two years (Bagner et al., 2012; von Klitzing, 2017; Zeanah et al., 2017). Early signs of mental health struggles in infants refer mainly to behaviours that are outside normal development (Bagner et al., 2012). However, the range of what is considered normal behaviour for infants is large because they develop so rapidly (Zeanah et al., 2017). Deviations from normal mental health can be identified in the first six months of life. These deviations are a key predictor of an infant's risk for developing mental disorders later in life (Côté et al., 2009; Lyons-Ruth et al., 2017).

Misconception: Infants 'grow out' of their mental health issues

Strong evidence shows that early mental health problems in infants are not transitory; and without intervention, they may persist or worsen (Bagner et al., 2012; Briggs-Gowan, Carter, Bosson-Heenan, Guyer, & Horwitz, 2006). For example, a study of over 1,100 12- to 23-month-olds who were experiencing mental health, behavioural or emotional problems found that those problems persisted in 55% of children after one year (Briggs-Gowan et al., 2006). Therefore, infants who are struggling or unwell, and their caregivers, require support to ensure their problems do not continue into later childhood.

Key considerations and reflections

One key consideration is that infant mental health symptoms also overlap with physical health concerns – or might be part of a particular developmental period rather than a mental health symptom. This overlap can make it challenging to determine if infant behaviours are signs of mental health struggles or a phase of development. Clarifying these issues requires a specialised, comprehensive assessment by a trained practitioner. Practitioners who are not trained mental health professionals can play a valuable role in working with caregivers to identify concerns and refer to specialists for assessment. They can also help identify potential influences impacting infant mental health, support caregiving skills and utilise the family's strengths. (Emerging Minds, 2020)

Where an infant displays behaviour that might suggest they are struggling with their mental health, the questions in Box 1 may be useful.

Box 1: Reflection questions

- What are some of the questions you can ask caregivers to build context around what's going on for the infant and the caregivers? How can you approach and discover the 'whole child' and the elements that can impact on their mental health?
- What would you like to know about the infantcaregiver(s) relationship? What are some of the ways that they connect with each other? What are the strengths or vulnerabilities in these relationships that could be supported?
- How are things going for the infant and caregivers now, and over the past few months or a year? Have there been any changes happening in their lives? How have they managed these changes? What happens when things are tough? What happens when things go well? How has the infant been reacting to changes?
- When the infant is happy or unhappy, how do caregivers react?
- When you think about the infant's experiences, difficulties or behaviour, where might they sit on the mental health continuum? How many areas of their lives are affected: is it a few vulnerabilities, or many?
- How pervasive, severe or persistent are the potential issues they are experiencing? Are the struggles happening rarely or frequently? What about the intensity of these experiences?

2. What are the key factors that influence infant mental health?

Key messages

- Infant mental health can be understood within the context of risk and protective factors
- These factors can be considered at the individual child, family/caregiver, and environmental levels.
- Some key factors include infant-caregiver attachment, caregiver mental illness, exposure to poverty and conflict, and domestic and family violence.

Infant mental health can be understood within the context of what is happening in the infant's environment and caregiver relationships (Bagner et al., 2012). Awareness of risk and protective factors in these key areas can help support infant mental health (Zeanah Jr & Zeanah, 2019). These factors, together with genetics, personality and temperament, combine to affect an infants' mental health (Bayer et al., 2009; Zeanah Jr & Zeanah, 2019).

2.1 Risk and protective factors for infant mental health

Factors that may influence and change the mental health and development of infants are called 'risk factors', when the impacts are negative or disruptive (e.g. family violence), or 'protective factors', when impacts are positive or desirable (e.g. supportive caregiver relationships). It is important to know that:

- Certain types of risk and protective factors can be predictive of infants developing mental health issues.
- Risk and protective factors often co-exist and can interact to contribute to mental health. Effects can be cumulative, which means that when multiple factors are present they can amplify each other (Lawless, Coveney, & MacDougall, 2014).
- Risk factors (e.g. adverse experiences such as neglect or abuse) can help to identify infants who are at higher risk of developing problems.
- The nature, timing, intensity and accumulation of risk and protective factors matter.



 Supporting mental health in infants includes addressing risk factors and promoting protective factors. Support strategies may simultaneously target one or several factors (Arango et al., 2018; Piccolo & Noble, 2019; Zeanah Jr & Zeanah, 2019).

Factors that influence infant mental health fall into several domains:

- individual factors (e.g. infant behaviour, biology)
- family and caregiver factors (e.g. relationships, family support); and
- community, social and physical environment factors (e.g. access to housing, poverty, social beliefs and norms around infant mental health) (Berens & Nelson, 2019; Piccolo & Noble, 2019).

Individual factors

Common individual risk factors that negatively influence infant mental health include birth complications, preterm delivery, low birth weight, infections and brain injury (Arango et al., 2018).

These individual risk factors can negatively affect the infant's cognitive, psychosocial and behavioural outcomes (Richter et al., 2017). Additionally, a difficult temperament in infancy predicts later externalising behaviour problems, aggression and the development of major depressive disorders (Bagner et al., 2012).

Meeting developmental milestones can be protective against the development of infant mental health problems. However, adverse experiences in infancy (e.g. maltreatment, traumatic events, prolonged stress) can negatively affect immune, metabolic and endocrine systems and may affect an infant's stress response system (Berens & Nelson, 2019). These risk factors may also contribute to mental health problems (Koss & Gunnar, 2018; Lyons-Ruth et al., 2017).

Family and caregiver factors

High quality infant-caregiver attachment provides the strongest protective effects for infant mental health and is the strongest predictor of mental health outcomes (Benoit, 2004). Infants who experience loving infant-caregiver relationships that are warm and attuned to their needs are likely to have better mental health outcomes than infants who have poorer relationships. Abusive or neglectful caregiving often leads to mental health problems (Bayer et al., 2009; Zeanah Jr & Zeanah, 2019).

Infant-caregiver relationships can buffer or exacerbate the effects of biological and environmental risk factors (Bayer et al., 2009). For example, environmental stressors (e.g. family dislocation in conditions of war, family violence or parental conflicts) are more likely to result in mental health problems for infants if caregiving relationships are compromised (Lyons-Ruth et al. 2017).

Other family-level risk factors include caregiver mental health issues and substance use, caregiver chronic illness, low socio-economic status, becoming a parent at a young age, and a caregiver history of abuse or neglect (Piccolo & Noble, 2019; Zeanah Jr & Zeanah, 2019). Family-level protective factors include positive relationships with siblings (if they are present), supportive caregiving, and caregiver secure employment (Lawless et al., 2014).

There is strong evidence that prenatal influences can have risk and protective effects for mental health problems in infants (Murray, Halligan, & Cooper, 2019; Spry et al., 2020). For example, a mother's history of alcohol or substance use, or depression, can predict emotional and behavioural problems in infants (Letcher et al., 2020). A mother's prenatal stress has been linked to capacities for stress and emotion regulation in infants, as well as the quality of infantmother relationships (Slade, Slade, & Zeanah, 2019).



Protective effects for infant mental health include the mother's health behaviours during pregnancy such as nutrition and exercise, as well as her experiences of safety and support (Dismukes, Shirtcliff, & Drury, 2019; McMillan, May, Gaines, Isler, & Kuehn, 2019). It is possible that fathers' or male caregivers' characteristics and behaviours may impact infant mental health. However, this is not well-investigated or reported in the evidence base to date.

Community, social and physical environment factors

Wider community and cultural norms and social relationships can also influence infant mental health (McLuckie et al., 2019; Sax Institute, 2020). For example:

- Community risk factors include social conditions such as violence, poverty, limited educational and economic opportunities, high unemployment and lack of access to adequate housing (Lawless et al., 2014; Piccolo & Noble, 2019; Zeanah Jr & Zeanah, 2019).
- Natural disasters such as bushfires, floods, cyclones and severe storms may be risk factors for poor mental health in infants (Emerging Minds, 2018b).
- Factors such as air quality and pollution also have links to mental health effects in infants (Rylander, Øyvind Odland, & Manning Sandanger, 2013).

Environmental protective factors include strong social support networks, access to medical care and mental health services, and family-friendly policies (McLuckie et al., 2019).

Table 2 presents a summary of the key risk and protective factors for ease of reference.

Table 2: Risk and protective factors in infant mental health

Domains	Risk factors	Protective factors
Individual factors	 Birth complications, preterm delivery, low birth weight, infections and brain injury (Arango et al., 2018). Adverse experiences: maltreatment, traumatic events, prolonged stress (Berens & Nelson, 2019). Difficult temperament (Bagner, 2021). 	Meeting physical development milestones (Emerging Minds, 2020).
Family and caregiver factors	 Caregiver mental health issues and substance use, chronic illness, low socio-economic status, becoming a parent at a young age, history of abuse or neglect (Piccolo & Noble, 2019; Zeanah Jr & Zeanah, 2019). Family violence and parental conflicts (Lyons-Ruth et al. 2017). 	 High quality infant-caregiver attachment (Benoit, 2004). Positive relationships with siblings, supportive caregiving, and caregiver secure employment (Lawless et al., 2014). Mother's health behaviours during pregnancy: healthy nutrition and exercise, her experiences of safety and support (Dismukes et al., 2019; McMillan et al., 2019).
Community, social and physical environment factors	 Social conditions: violence, poverty, limited educational and economic opportunities, high unemployment and lack of access to adequate housing (Lawless et al., 2014; Piccolo & Noble, 2019; Zeanah Jr & Zeanah, 2019). Natural disasters: bushfires, floods, cyclones and severe storms (Emerging Minds, 2018). Environmental factors: air quality and pollution (Rylander et al., 2013). 	Access to medical care and mental health services, family-friendly policies (McLuckie et al., 2019).

2.2 Why do risk and protective factors matter?

Awareness of risk and protective factors can assist practitioners to identify and support families and infants who experience mental health issues, or may be at risk of poor mental health. Being able to identify these factors may help practitioners to provide recommendations to caregivers about what they can do in their home and family life to support their infant (Letcher et al., 2020). All recommendations should aim to minimise risk factors and enhance protective factors (Commonwealth of Australia, 2006).

When engaging with a family, practitioners may become aware of how many risk and protective factors apply in an infant's situation (Zeanah Jr & Zeanah, 2019). Infants exposed to multiple risk factors may need referrals to services that target those particular factors (Bagner et al., 2012; Zeanah Jr & Zeanah, 2019). The reflection questions presented below (see Box 2) may support practitioners to consider risk or protective factors an infant is exposed to, and their potential impact.

Box 2: Reflection questions

- What are some of the risk factors that the infant is exposed to in their family and community relationships? What about the physical environment?
- What are some of the protective factors that the infant is exposed to? Could some protective factors lessen the impact of risk factors?
- How might you talk to caregivers about risk factors without adding stigma or shame?
- How can you help caregivers consider their infant's social and emotional wellbeing needs, even where they live with adversity?
- How might conversations about protective factors help increase caregiver confidence, and help families to consistently implement supportive strategies?
- Take time to also consider caregivers. What are some of the risk or protective factors they may experience?

3. How can practitioners and caregivers support the mental health of infants?

Key messages

- Infant mental health is best supported through a combined approach that includes both early intervention and prevention activities.
- Early intervention and prevention efforts that address mental health issues in infancy are cost-effective. They also have better success in helping infants before problems worsen.
- Infant mental health care supports an understanding of the 'whole-child', including physical and environmental aspects of care and caregiver attachment.

3.1 Key strategies for practitioners

Prevention and early intervention

Prevention initiatives focus on preventing or delaying the development of (diagnosable) mental disorders or unfavourable outcomes (Commonwealth of Australia, 2006; Emerging Minds, 2021b). Prevention efforts aim to identify and change risk and protective factors before infants show any signs of mental health problems. Example strategies include:

- minimising risk factors such as mental illness in caregivers, or improving protective factors such as infant-caregiver attachment (Emerging Minds, 2019); and
- identifying and addressing behaviours that may indicate mental health problems, such as sleeping or feeding issues (Zeanah Jr & Zeanah, 2019).

Early intervention focuses on reducing the duration and potential harm of early mental health problems in infants (Commonwealth of Australia, 2006; Emerging Minds, 2021b). Early interventions address current distress and any caregiving challenges (Rayce, Rasmussen, Klest, Patras, & Pontoppidan, 2017; Zeanah Jr & Zeanah, 2019).

Because of the strength of association between infant-caregiver attachment and poor infant mental health, early intervention programs often focus on developing healthy infant-caregiver relationships.

They do this by supporting caregivers to overcome difficulties they experience and improve their responses to the infant. This, in turn, can improve the trajectory of their relationship (Coyne et al., 2019). Such programs may include teaching caregivers effective skills to build caring, nurturing and responsive attachment relationships, as well as relational skills and communication (Bayer et al., 2009; Rayce et al., 2017). Caregiving programs may also take various formats, such as video vignettes, psychological therapy sessions, or teaching games and activities (Barlow, Bergman, Kornør, Wei, & Bennett, 2016). These intervention efforts can also address existing risk factors in the infant's broader family and community (McLuckie et al., 2019; Zeanah Jr & Zeanah, 2019).

Guiding principles for infant mental health practice

Key principles that can guide practitioners to support infant mental health are summarised below (Emerging Minds, 2019; Zeanah Jr & Zeanah, 2019). This information should be considered in the context of symptoms of infant mental health and the risk and protective factors that may influence infant outcomes.

Whole system approach: Access to multiple services and treatments in various settings may be needed to meet the mental health needs of infants. For instance, if housing, poverty or caregiver mental health are concerns, families may need support from social services and adult mental health services, as well as caregiving programs, to enhance the infant-caregiver attachment and relationship.

Collaborative practice: Best practice involves practitioners working collaboratively with infants and caregivers, including families in decision making. This recognises that families are experts in their own lives and leads to more relevant treatment options and effective outcomes. The approach prioritises curiosity and non-judgemental engagement with families. Using this approach, practitioners would ask caregivers what their preferences may be for various types of support or intervention (e.g. location, format) and then provide opportunities that align with those preferences.

Whole-child approach: Practitioners can best help infants when they consider their mental health in their broader social and environmental contexts. Infant-aware practice reflects on the experiences of infants, their biological features (medical, physical, genetic) and psychological characteristics (emotional expressions, behaviours). It also means asking questions about the strengths and vulnerabilities of their family, community and physical environment (see reflection questions in Box 2).



Focus on relationships: Infants need stable and responsive relationships with caring adults (and siblings, where relevant) to thrive. This means consulting caregivers about the quality of their relationships with their infants and observing their interactions. Where possible, work to understand the family's daily lives and show genuine interest. This supports mutual trust that can help foster conversations around the strengths and vulnerabilities families have (see reflection questions in Box 1).

Strengths-based approach: A strengths-based approach focuses on identifying and promoting strengths or protective factors that influence infant mental health (see section 3.1 above for information on protective factors). Practitioners can build confidence and competence in families by having conversations with caregivers about what they and their family are doing well, rather than just where they are struggling. This may include helping caregivers to identify where they can bring their strengths from one part of their life or relationships into new aspects of their relationship with their infant.

Resilience building: Essential to good infant mental health is the ability to adapt to and recover from stressful events. The key to developing and practising these capacities is through a responsive relationship with caregivers. Practitioners can help build resilience in infants by teaching caregivers how to communicate with the infant under stressful circumstances, and doing this in consistent and nurturing ways. This could be practised through role-play scenarios between the professional and caregiver, printed materials or video vignettes. Caregivers may need examples of the types of responses that are most supportive of their infant in stressful circumstances.

Children's rights: Children's rights to protection, support and adequate care are important in promoting their mental health. Practitioners have the responsibility to work for the best interests of infants, being mindful that children's rights also include the right to be brought up by their own family and maintain direct contact with their caregivers on a regular basis when it is safe to do so.

Key considerations for referrals

Referrals to other practitioners: Practitioners may need to conduct an initial review of the infant in their care. This should at least involve developing an understanding of the key aspects of an infant's wellbeing and development including the strengths and vulnerabilities that influence it (Emerging Minds, 2019). If sufficient concern exists about how the infant presents, or the context in which they are receiving care, a referral to specialist services may be needed to link the family with further support. Some relevant service providers may include maternal and child health nurses, mental health clinicians, allied health professionals, counsellors, paediatricians, neuropsychologists, and psychologists or psychiatrists trained in infant mental health.

Referrals for more information: Practitioners may also wish to refer caregivers to telephone services or online platforms. These can provide caregivers with additional information about how to support their infants' mental health. Examples include:

- raisingchildren.net.au Online resource for caregivers with advice about raising children of all ages, including infants.
- <u>Early Childhood Australia</u> Resources written by early childhood professionals for caregivers.
- Australian Association for Infant Mental Health

 Resources for caregivers and early childhood practitioners on supporting infant-caregiver relationships.

Each state and territory have targeted infant mental health and caregiving support programs. Local government websites usually list available clinical and community services.

Community services available across Australia include Communities for Children, funded by the Australian Government Department of Social Services. This program focuses on prevention and early interventions to advance child development and family function in disadvantaged communities.

3.2 Key strategies for caregivers

Practitioners can support caregivers in two main ways: teaching caregivers how to support the mental health of their infants (psychoeducational role), and providing support to caregivers themselves (to clarify their needs and facilitate service access). Some suggestions for specific strategies that practitioners can use to support caregivers are outlined below.

Caregivers supporting their infant's mental health

- Practitioners are recommended to have sensitive and non-stigmatising conversations with caregivers to improve their knowledge of infant's social and emotional development and developmental stages, and help them decide when to seek help and how to access help if they need it. The questions in Boxes 1 and 2 may provide some starting points for these conversations.
- Practitioners may refer caregivers to specialist caregiving assistance programs to improve their knowledge on how to interpret emotional and social cues from, and communicate with, their infant (Newman et al., 2016). For example, the Australian Association of Infant Mental Health has a list of specialist programs and training for infant mental health that may be useful. This includes the program Circle of Security that teaches caregivers how to create positive attachments to their infants by focusing on improving their reflective capacity (Coyne et al., 2019).
- raisingchildren.net.au includes a list of relevant services and providers in each state/territory.
- When offering advice or guidance, consider how the caregiver prefers to receive information. This may be online, printed or verbal information.

Caregiver emotional support and self-care

Sometimes discussions may reveal the caregiver's own emotional, social or mental health struggles. At times, this may include their personal history of abuse or neglect. In these circumstances, caregivers may need emotional or other supports from a specialist, such as a psychologist, counsellor or family therapist (DeJong & Wilkinson, 2019; Hardy, 2016). Practitioners may use their networks for referrals for caregivers, or access information about supporting families through various platforms (see a list of resources below). Self-care initiatives, such as stress-reduction activities or peer supports, may also be useful (Emerging Minds, 2018b).

There is a tendency to focus on mothers or female caregivers when it comes to infant mental health. However, fathers or male caregivers also have a critical role in building stronger families and supporting infant mental health (Morgan & Naylor, 2018; Tully, 2019). Practitioners can help foster the role of male caregivers by including them in consultations and family discussions and promoting father-inclusive practices in service provision (Emerging Minds, 2019). One way to do this may be through telepractice, so that both male and female caregivers can attend sessions with practitioners from wherever they are located.

Box 3 provides an opportunity for practitioners to consider and reflect on various aspects of their practice that may support better outcomes for referrals and caregiver self-care.

Box 3: Reflection questions

- How healthy is your professional network of referral services? Are there particular gaps in your network that could benefit from being addressed? Does your network include referral pathways for infants and caregivers and for different types of issues such as those referred to above?
- How do you currently focus on infants and engage families in your practice? Where are your strengths in this area, and where are your opportunities to grow your skills? How can you expand your strengths?
- How do your assessment processes support you to consistently ask questions about an infant's social and emotional wellbeing?
- How are risk and protective factors considered in your initial conversations with caregivers? Are there ways you would like to improve these processes?
- In what ways are a focus on infant mental health included in your current supervision processes? Could this be improved? In what ways?



Summary

All practitioners, including non-mental health specialists, have a key role to play in supporting infants, and their families, who may be experiencing mental health struggles. Infants have developmental and mental health needs that may require support to ensure optimal outcomes. Support efforts should be directed towards the promotion of a secure infant-caregiver relationship. However, it is also important to adapt a 'whole of family' approach and work in the context of a range of risk and protective factors to address infant mental health. Early and timely referral to support from relevant practitioners is necessary to help infants who are struggling with their mental health to move towards enjoying 'healthy' development and wellbeing.

Recommended resources for practitioners

Emerging Minds e-learning

- Understanding child mental health This short course explores mental health for children aged O-12 years. It will help practitioners to identify the factors that support positive mental health in children, and to understand how the different parts of a child's world interact to influence their social and emotional wellbeing.
- Promoting infant and toddler mental health with parents – This short course explores the ways practitioners can support parents, by providing reassurance, guidance, information or resources to promote positive mental health in their infants.
- Building blocks for children's social and emotional wellbeing – This course for practitioners explores important concepts and ideas related to child mental health and development, and investigates the child's social and emotional wellbeing within the context of their family, community and networks.

Emerging Minds webinars

- Infant and perinatal wellbeing: Risk and resilience factors – This video, featuring Dr Andrea Baldwin from the Queensland Centre for Perinatal & Infant Mental Health, outlines some of the things infants and young children need to get the best start in life. It also discusses some of the strengths and vulnerabilities that can affect their responses to disaster.
- The effects of adverse experiences on children –
 This webinar uses a case study to explore the key
 characteristics of adverse childhood experiences,
 their prevalence and their impact on children
 in Australia. It also presents strategies that
 practitioners can use to support caregivers and
 children to make sense of adversity, to promote
 resilience and recovery.

Emerging Minds podcasts

- What is infant and child mental health? Dr Nick Kowalenko, a child and adolescent psychiatrist, talks infant and child mental health; what it looks like when things are going well and when things are not going so well; and the importance of the early years.
- Insights on infant sleep General practitioner and Medical Director of Possums & Co charity Dr Pamela Douglas discusses what the latest insights from neuroscience, anthropology and maternal and infant research tell us about infants' needs around sleep, and how sleep can become a more harmonious experience for families.

- How can a national workforce approach support children's social and emotional wellbeing? – In this episode, the Director of Emerging Minds Brad Morgan discusses why the mental health of children often flies under the radar, and the approach that Emerging Minds is taking to support practitioners and other professionals to strengthen children's mental health.
- An interview with Resilience Resilience is a crucial part of positive mental health in infants and children. It is important that people who work with children have a sound understanding of the factors that help children grow, stay strong and remain present.

Other resources from Emerging Minds

- What is infant and child mental health (and why is it important)? – This article supports practitioners in developing an understanding of how to recognise influences, potential risk factors, positive opportunities and parenting skills and strengths that affect infant and child mental health.
- Sharing information with parents about children's social and emotional wellbeing: A step-by-step approach This resource outlines how practitioners in health, education and community service settings can share high-quality information with parents about children's social and emotional wellbeing and mental health in an engaging and respectful way.
- Reframing children's mental health: A
 communications toolkit This toolkit is intended
 for child mental health experts and organisations
 who communicate about children's mental
 health to assist in creating messages that
 resonate and inspire positive change. It has been
 developed from research about how practitioners
 understand children's mental health, and how their
 understanding impacts their support for policies
 to promote better mental health outcomes for
 Australia's children.
- Engaging fathers in early childhood services This
 paper provides information about the importance
 of engaging fathers in early childhood services. It
 provides useful tips that practitioners can include
 to increase their knowledge, skills and confidence in
 engaging fathers.

Other resources

- Child Family Community Australia The CFCA is the resource library of the Australian Institute of Family Studies on infant and child mental health. It includes links to various articles, topical snapshots and practice guides relevant to infant mental health.
- raisingchildren.net.au This national organisation provides resources for practitioners on mental health and how to work with caregivers of young children.
- Centre for Social and Early Emotional Development

 This centre at Deakin University provides a range of resources such as animations, videos, links to research, books and web talks for practitioners and caregivers on the social and emotional development of infants and young children.
- Beyond Blue Beyond Blue's practice guide for building resilience in children aged 0–12 helps practitioners to promote children's resilience, and highlights the best ways to help children build resilience through everyday strategies. It aims to create a shared understanding of children's resilience and raise community awareness about it more broadly.

Useful links to organisations that specialise in infant mental health

- Australian Association for Infant Mental Health –
 This is a national organisation of professionals who work with infants, young children and their families.

 AAIMH organises regular national conferences as well as workshops and seminars to enhance knowledge about social and emotional development in O-3 year olds, and to develop skills to assist families and communities to build nurturing and strong relationships with their infants and young children. They produce guidelines to support infant mental health professionals and caregivers.
- Queensland Centre for Perinatal and Infant
 Mental Health This organisation aims to support
 practitioners, caregivers and communities to have
 the confidence, knowledge, skills and resources to
 support their own wellbeing and raise emotionally
 healthy and resilient children. Their website includes
 a number of links to services and resources for
 health professionals and families.
- World Association for Infant Mental Health This international organisation promotes education, research and study of the effects of mental, emotional and social development during infancy on later normal and psychopathological development.
- Zero to Three This international organisation based in the US works to ensure that babies and toddlers benefit from the early connections that are critical to their wellbeing and development.

The website has a number of resources for professionals who work with caregivers on how to support the development of social and emotional health and other skills in infants and young children.

Recommended resources for caregivers

- Beyond Blue Healthy Families This website
 provides information for caregivers, guardians and
 grandparents on how mental health conditions
 present in young children and how to promote
 their resilience. There are also resources on how
 caregivers, or those who are about to become
 caregivers, can support their own mental health.
- raisingchildren.net.au This national organisation provides resources such as guides, articles and videos for caregivers of children of all ages, including newborns and infants. These resources cover a range of topics related to infant development, including the signs that infants are struggling with mental health covered in this article.
- Early Childhood Australia This national early childhood advocacy organisation provides resources written by early childhood practitioners for caregivers. It includes various articles and tipsheets relevant to infants and young children; for example, on how to support healthy eating, sleeping and overcoming separation anxiety.
- Zero to Three This is a resource for caregivers on how to support the development of mental health and communication skills in infants and young children.
- Australian Association for Infant Mental Health
 This website has resources for caregivers on supporting their infants, including a resource framed as a letter from an infant to their caregiver.
- Emerging Minds This resource will help caregivers in communicating with their baby during 'tough times' (e.g. relationship conflicts or separation, illness, financial difficulties, job stress, etc.), so that they feel secure and nurtured.

Authors and acknowledgements

Dr Kristel Alla is a Knowledge Translation Specialist, and Dr Trina Hinkley is a Research Fellow at the Australian Institute of Family Studies (AIFS). Special thanks to Dr Daniel Moss, Michele Hervatin and Dr Nerida Joss for their helpful feedback on the drafts.

Views expressed in this publication are those of the individual authors and may not reflect those of the Australian Institute of Family Studies or the Australian Government.

References

Arango, C., Díaz-Caneja, C. M., McGorry, P. D., Rapoport, J., Sommer, I. E., Vorstman, J. A. et al. (2018). Preventive strategies for mental health. *The Lancet Psychiatry*, 5(7), 591–604. Available here.

Austin, M., Highet, N., & Group, E. W. (2019). Mental health care in the perinatal period: Australian clinical practice guideline 2017. Melbourne: Centre of Perinatal Excellence.

Australian Bureau of Statistics (ABS). (2020). Births. (CAT No. 3101.0). Canberra: ABS. Available here.

Australian Institute of Health and Welfare (AIHW). (2021). Mental health services in Australia. Canberra, ACT: AIHW. Available here.

Bagner, D. M., Rodríguez, G. M., Blake, C. A., Linares, D., & Carter, A. S. (2012). Assessment of behavioral and emotional problems in infancy: A systematic review. *Clinical child and family psychology review, 15(2), 113–128.* Available here.

Barlow, J., Bennett, C., Midgley, N., Larkin, S. K., & Wei, Y. (2015). Parent-infant psychotherapy for improving parental and infant mental health: A systematic review. *Campbell Systematic Reviews*, 11(1), 1–223. doi:10.4073/csr.2015.6

Barlow, J., Bergman, H., Kornør, H., Wei, Y., & Bennett, C. (2016). Group-based parent training programmes for improving emotional and behavioural adjustment in young children. Cochrane Database of Systematic Reviews, 8, CD003680. Available here.

Bayer, J., Hiscock, H., Scalzo, K., Mathers, M., McDonald, M., Morris, A., ... Wake, M. (2009). Systematic review of preventive interventions for children's mental health: What would work in Australian contexts? *Australian & New Zealand Journal of Psychiatry, 43(8), 695–710.* Available here.

Benoit, D. (2004). Infant-parent attachment: Definition, types, antecedents, measurement and outcome. *Paediatrics & Child Health*, 9(8), 541–545. Available here.

Berens, A. E., & Nelson, C. A. (2019). Neurobiology of fetal and infant development: Implications for infant mental health. In C. H. Zeanah Jr (Ed.), Handbook of infant mental health (4th ed., pp. 41–62). New York: Guilford Press.

Briggs-Gowan, M. J., Carter, A. S., Bosson-Heenan, J., Guyer, A. E., & Horwitz, S. M. (2006). Are infant-toddler social-emotional and behavioral problems transient? Journal of the American Academy of Child & Adolescent Psychiatry, 45(7), 849–858. Available here.

Burger, M., Hoosain, M., Einspieler, C., Unger, M., & Niehaus, D. (2020). Maternal perinatal mental health and infant and toddler neurodevelopment: Evidence from low and middle-income countries. A systematic review. *Journal of Affective Disorders*, 268(1), 158–172. Available here.

Commonwealth of Australia. (2006). A national approach to mental health – from crisis to community: First report. Canberra: Commonwealth of Australia. Available here.

Cook, A., Spinazzola, J., Ford, J., Lanktree, C., Blaustein, M., Cloitre, M., ... van der Kolk, B. A. (2017). Complex trauma in children and adolescents. *Psychiatric Annals*, 35(5), 390–398. Available here.

Côté, S. M., Boivin, M., Liu, X., Nagin, D. S., Zoccolillo, M., & Tremblay, R. E. (2009). Depression and anxiety symptoms: Onset, developmental course and risk factors during early childhood. *Journal of Child Psychology and Psychiatry*, 50(10), 1201–1208. Available here.

Coyne, J., Powell, B., Hoffman, K., & Cooper, G. (2019). The circle of security. In C. H. Zeanah Jr (Ed.), Handbook of infant mental health (4th ed., pp. 500-513). New York: Guilford Press.

Cusick, S. E., & Georgieff, M. K. (2016). The role of nutrition in brain development: The golden opportunity of the 'first 1000 days'. The Journal of Pediatrics, 175, 16–21. Available here.

DeJong, M., & Wilkinson, S. (2019). Assessment of mental health problems in children following early maltreatment: What will the new diagnosis of complex PTSD add? Developmental Child Welfare, 1(4), 360–373. Available here.

Dismukes, A. R., Shirtcliff, E. A., & Drury, S. S. (2019). Genetic and epigenetic processes in infant mental health. In C. H. Zeanah Jr (Ed.), *Handbook of infant mental health (4th ed., pp. 63–80). New York: Guilford Press.*

Emerging Minds. (2018a). Communicating with your baby during 'tough times'. Adelaide: Emerging Minds. Available here.

Emerging Minds. (2018b). A general practitioner's guide to supporting children's mental health in the short term following a disaster or traumatic event. Adelaide: Emerging Minds. Available here.

Emerging Minds. (2019). Keeping child mental health in mind: A workforce development framework for supporting infants, children and parents. Adelaide: Emerging Minds. Available here.

Emerging Minds. (2020). What is infant and child mental health (and why is it important)? Adelaide: Emerging Minds. Available here.

Emerging Minds. (2021a). *Building blocks for children's* social and emotional wellbeing. Adelaide: Emerging Minds. Available here.

Emerging Minds. (2021b). Our work: Prevention and early intervention. Adelaide: Emerging Minds. Available here.

Finelli, J., Zeanah Jr, C. H., & Smyke, A. T. (2019). Attachment disorders in early childhood. In C. H. Zeanah Jr (Ed.), Handbook of infant mental health (4th ed., pp. 452–466). New York: Guilford Press.

Friedman, M.A, Karlamangla, A.S., Gruenewald, T., Koretz, B., & Seeman, T.E. (2015). Early life adversity and adult biological risk profiles. Psychosomatic Medicine, 77(2), 176–185. Available here.

Government of South Australia. (2020). Practice approach: Trauma lens for children and young people. Adelaide: Government of South Australia, Department of Child Protection.

Hardy, R. (2016). Why is infant mental health so important? The Guardian. Available here.

Hughes, K., Bellis, M. A., Hardcastle, K. A., Sethi, D., Butchart, A., Mikton, C., ... Dunne, M. P. (2017). The effect of multiple adverse childhood experiences on health: A systematic review and meta-analysis. *The Lancet Public Health*, 2(8), e356–e366. Available here.

Knudsen, E. I. (2004). Sensitive periods in the development of the brain and behavior. *Journal of Cognitive Neuroscience*, 16(8), 1412–1425. Available here.

Koss, K. J., & Gunnar, M. R. (2018). Annual research review: Early adversity, the hypothalamic-pituitary-adrenocortical axis, and child psychopathology. *Journal of Child Psychology and Psychiatry*, 59(4), 327–346. Available here.

Lawless, A., Coveney, J., & MacDougall, C. (2014). Infant mental health promotion and the discourse of risk. Sociology of Health & Illness, 36(3), 416–431. Available here.

Lawson, D. M., & Quinn, J. (2013). Complex trauma in children and adolescents: Evidence-based practice in clinical settings. *Journal of Clinical Psychology, 69(5), 497–509.* Available here.

Letcher, P., Greenwood, C. J., Romaniuk, H., Spry, E., Macdonald, J. A., McAnally, H., ... Olsson, C. A. (2020). Adolescent and young adult mental health problems and infant offspring behavior: Findings from a prospective intergenerational cohort study. *Journal of Affective Disorders, 272, 521–528.* Available here.

Lyons-Ruth, K., Todd Manly, J., Von Klitzing, K., Tamminen, T., Emde, R., Fitzgerald, H., ... Watanabe, H. (2017). The worldwide burden of infant mental and emotional disorder: Report of the task force of the world association for infant mental health. *Infant Mental Health Journal*, 38(6), 695–705. Available here.

Mannesto, J. M. (2021). The role of caregiving sensitivity and play behavior in a children's museum context. Durham: University of New Hampshire. Available here.

McLuckie, A., Landers, A. L., Curran, J. A., Cann, R., Carrese, D. H., Nolan, A., ... Carrey, N. J. (2019). A scoping review of mental health prevention and intervention initiatives for infants and preschoolers at risk for socio-emotional difficulties. *Systematic Reviews*, 8(1), 183. Available here.

McMillan, A. G., May, L. E., Gaines, G. G., Isler, C., & Kuehn, D. (2019). Effects of aerobic exercise during pregnancy on one-month infant neuromotor skills. *Medicine and Science in Sports and Exercise (February)*, 1–29. Available here.

Moore, T., Arefadib, N., Deery, A., Keyes, M., & West, S. (2017). The first thousand days: An evidence paper. Summary. Melbourne: The Royal Children's Hospital. Available here.

Morgan, K., & Naylor, S. (2018). The influence of fathers on children's mental health. Report from the Association of Infant Mental Health (AIMH) Conference, 29 September 2017. Available here.

Murray, L., Halligan, S., & Cooper, P. (2019). Postnatal depression and young children's development. In C. H. Zeanah Jr (Ed.), Handbook of infant mental health (4th ed., pp. 172–186). New York: Guilford Press.

National Mental Health Commission. (2021). Draft national children's mental health and wellbeing strategy. Canberra: National Mental Health Commission. Available here.

Newman, L. K., Judd, F., Olsson, C. A., Castle, D., Bousman, C., Sheehan, P., ... Everall, I. (2016). Early origins of mental disorder: Risk factors in the perinatal and infant period. *BMC Psychiatry*, 16(1), 270. Available here.

Peters, J., Skirton, H., Morgan, J., & Clark, M. (2019). How do parents perceive and utilize knowledge of their infant's mental health? A systematic review. *Journal of Child Health Care*, 23(2), 242–255. Available here.

Piccolo, L. R., & Noble, K. G. (2019). Poverty, early experience, and brain development. In C. H. Zeanah Jr (Ed.), Handbook of infant mental health (4th ed., pp. 157–171). New York: Guilford Press.

Poulou, M. S. (2015). Emotional and behavioural difficulties in preschool. Journal of Child and Family Studies, 24(2), 225–236. Available here.

Rayce, S. B., Rasmussen, I. S., Klest, S. K., Patras, J., & Pontoppidan, M. (2017). Effects of parenting interventions for at-risk parents with infants: A systematic review and meta-analyses. *BMJ Open, 7(12), e015707.* Available here.

Rhodes, A. (2017). Child mental health problems: Can parents spot the signs? Melbourne: Royal Children's Hospital Melbourne. Available here.

Richter, L. M., Daelmans, B., Lombardi, J., Heymann, J., Boo, F. L., Behrman, J. R., ... Darmstadt, G. L. Lancet Early Childhood Development Series Steering Committee. (2017). Investing in the foundation of sustainable development: pathways to scale up for early childhood development. *The Lancet*, 389(10064), 103-118. Available here.

Rylander, C., Øyvind Odland, J., & Manning Sandanger, T. (2013). Climate change and the potential effects on maternal and pregnancy outcomes: An assessment of the most vulnerable – the mother, fetus, and newborn child. *Global Health Action, 6(1), 19538.* Available here.

Sax Institute. (2020). Evidence check: Mental wellbeing risk and protective factors. Available here.

Schechter, D. S., Willheim, E., Suardi, F., & Rusconi Serpa, S. (2019). The effects of violent experiences on infants and young children. In C. H. Zeanah (Ed.), *Handbook of infant mental health (4th ed., pp. 219–238)*. New York: Guilford Press.

Simpson, T. E., Condon, E., Price, R. M., Finch, B. K., Sadler, L. S., & Ordway, M. R. (2016). Demystifying infant mental health: What the primary care provider needs to know. Journal of Pediatric Health Care, 30(1), 38–48. Available here.

Slade, A., Slade, L. S., & Zeanah, C. H. (2019). Pregnancy and infant mental health. In C. H. Zeanah Jr (Ed.), Handbook of infant mental health (4th ed., pp. 25–40). New York: Guilford Press.

Spry, E., Moreno-Betancur, M., Becker, D., Romaniuk, H., Carlin, J. B., Molyneaux, E., ... McIntosh, J. (2020). Maternal mental health and infant emotional reactivity: A 20-year two-cohort study of preconception and perinatal exposures. Psychological Medicine, 50(5), 827–837. Available here.

Teicher, M. H., & Samson, J. A. (2016). Annual research review: Enduring neurobiological effects of childhood abuse and neglect. *Journal of Child Psychology and Psychiatry*, 57(3), 241–266. Available here.

Tully, L. (2019). Engaging fathers in early childhood services. Adelaide: Emerging Minds. Available here.

Tully, L. (2020). Identifying social, emotional and behavioural difficulties in the early childhood years. Adelaide: Emerging Minds. Available here.

von Klitzing, K. (2017). Should we diagnose babies? Some notes on the launch of the new zero to five classification system. WAIMH Perspectices in Infant Mental Health. Available here.

Wotherspoon, E., Hawkins, E., & Gough, P. (2009). Emotional trauma in infancy (CECW Information Sheet No. 75E). Toronto: University of Toronto Factor–Inwentash Faculty of Social Work. Available here.

Zeanah, C. H., Carter, A. S., Cohen, J., Egger, H., Gleason, M. M., Keren, M., ... Oser, C. (2017). Should we diagnose babies? No! Should we diagnose disorders in babies? Yes! WAIMH Perspectices in Infant Mental Health. Available here.

Zeanah Jr, C. H., & Zeanah, P. D. (2019). Infant mental health: The clinical science of early experience In C. H. Zeanah Jr (Ed.), Handbook of infant mental health (4th ed., pp. 5–24). New York: The Guilford Press.

Zero to Three. (2001). Definition of infant mental health. Washington, DC: National Center for Clinical Infant Programs.





com.au

Visit our web hub today!