Changing the Life Trajectories of Australia's Most Vulnerable Children

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The Early Years Education Program (EYEP) Model

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The Early Years Education Program (EYEP) Model

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Executive summary

The research context

This report describes the Early Years Education Program (EYEP), which is an Australian model of early years education and care designed to meet the educational and developmental needs of infants and toddlers living with significant family stress and social disadvantage. EYEP was initiated by the Children's Protection Society (CPS), an independent not-for-profit child welfare organisation based in the north-east of Melbourne which was founded in 1896. CPS, as a large, well-established community services organisation including a family services team with expertise in child protection, was well placed for recruiting children and families along with other Child First and welfare agencies and Maternal and Child Health professionals.

The impact of EYEP is being evaluated through a Randomised Controlled Trial (RCT) as part of the Early Years Education Research Program (EYERP). At the commencement of the trial, the researchers understood that EYEP was the first RCT of an early years education and care program in Australia.

Addressing the problem of inequality in skill development for children who are exposed to significant family stress requires a different model of education and care than is available within universal early childhood services. In a review article in Science, Professor Jack Shonkoff of the Center on the Developing Child at Harvard University argues that whereas existing programs for children from disadvantaged backgrounds mainly focus on providing enriched learning experiences for children and parenting education for mothers, a better approach for redressing inequalities in skill development would come from 'linking high-quality pedagogy to interventions that prevent, reduce, or mitigate the disruptive effects of toxic stress on the developing brain' (Shonkoff, 2011, p. 982).

Intergenerational trajectories of disadvantage and poor outcomes in multiple domains for children living with significant family stress and social disadvantage including the risk of abuse and neglect meet the criteria

for identification as a 'wicked problem' (Rittel & Webber 1973). Action to redress intergenerational disadvantage and risk through high quality research such as an RCT, supports addressing identified ethical, social and economic imperatives (Tapper & Phillimore 2012).

The aims of EYEP

The over-arching aim of the EYEP model is to provide education and care experiences for young children living with significant family stress and social disadvantage that will enable them to begin formal schooling developmentally equivalent to their peers with the knowledge, skills and attributes needed for ongoing successful learning. A guiding principle for the EYEP model is that these children have the same rights to educational and social participation and to expect similar academic achievement levels and life trajectories as their peers.

The target population

The EYEP is designed for children under three years of age at enrolment who are at heightened risk of, or who have experienced, abuse and neglect and are already demonstrating problems in emotional and behavioural regulation, delays in development, and whose families struggle to participate in universal early education and care services.

The research report describing EYERP participants shows that the children in the study were, on average, living with significantly more disadvantage compared with children living in low socioeconomic status (SES) households who participated in the Longitudinal Study of Australian Children (Tseng et al. 2017). They had lower birth weights, and at the time of enrolment into the trial when aged between birth and three years, they had compromised language, motor skills and adaptive behaviour development. Their parents were much more likely to be jobless, young parents, with less financial resources and higher likelihood of suffering severe psychological distress having experienced an extraordinary number of stressful life events beyond their control.

Developmental and learning delays at an early age mean that children lack the necessary building blocks and foundations for subsequent learning (Cunha & Heckman 2007; Heckman 2008; Heckman & Mosso 2014). Deficiencies in cognitive, emotional and social skills before the age of five therefore are likely to persist into later life and become the basis of problems such as low education attainment, unemployment, teenage pregnancy, and involvement in crime (Capsi et al. 2016; Knudsen et al. 2006).

The EYEP Model of education and care

The EYEP model is designed to provide vulnerable infants and toddlers with a predictable, nurturing and responsive interpersonal environment that will facilitate all facets of their development and learning—cognitive, language, emotional, social and physical—to build the children's capacity for full participation in society. The model meets the challenge issued by Shonkoff as EYEP is designed to address the impacts of toxic stress on the developing brain and to provide high quality pedagogy in an enriched early learning and care environment. The model can therefore be considered a tertiary level intervention, equivalent to intensive care in the health services' sector.

The EYEP model transcends traditional professional knowledge silos and utilises multi-disciplinary professional knowledge, skills and expertise. Qualified and experienced professionals in early education, infant mental health, and family support services work collaboratively with families and children to implement the model.

The key elements of EYEP are relational pedagogy, infant mental health, attachment theory, nutrition, parent engagement and the interface with family support services. The unique features and the level of intensity and duration of the EYEP model, including the employment of full-time, qualified educators, with an embedded infant mental health clinician/consultant and family services practitioner as part of the staff team; a rigorous relationship-based curriculum informed by trauma and attachment theories; individualised case planning in consultation with parents and other agencies, and the ongoing training, professional development, and reflective supervision for staff, contrasts clearly with universal education and care services in Australia.

As this report discusses, all elements of the model are critical to its implementation.

EYEP: Pedagogy and practice

The education model in EYEP is a pedagogically driven, relational, ethical, reflective teaching and learning model that is child focused. The principles of the Australian Early Years Learning Framework provide the foundation for guiding pedagogy and curriculum development in the model. These principles are (1) Secure, respectful and reciprocal relationships; (2) Partnerships; (3) High expectations and equity; (4) Respect for diversity and (5) Ongoing learning and reflective practice (Commonwealth Department of Education, Employment and Workplace Relations 2009).

EYEP relational pedagogy draws on different theoretical approaches and knowledge domains including theories on teaching and learning, educational psychology, developmental psychology and social pedagogy. Relational pedagogy has the characteristic of an alliance and of being in solidarity with children and their families. Planned, unhurried, play-based learning experiences within a well-resourced environment, and respectful, responsive and reciprocal relationships and interactions are intentionally designed to protect, promote and engage each child's body, mind and spirit.

Conclusion

Tackling education inequality and the lifelong economic and other problems that flow from this inequality is a serious issue in Australia. As the National Partnership Agreement on Early Childhood Education states, 'early childhood is a critical time in human development' setting pathways with 'life long impacts' (COAG 2009, p.3).

Many reports and reviews identify a lack of high-quality research evidence to inform policy and practice reforms that would improve life chances and opportunities for the most disadvantaged and at risk children. The model detailed in this report underpins the EYERP randomised controlled trial, which is designed to build the evidence base in a way that has not been attempted previously in Australia.

1. Introduction

Early childhood is a critical time in human development. There is now comprehensive research that shows that experiences children have in the early years of life set neurological and biological pathways that can have life-long impacts on health, learning and behaviour. There is also compelling international evidence about the returns on investment in early childhood services for children from disadvantaged backgrounds.
(Council of Australian Governments (COAG 2009, p. 3)

This report describes the Early Years Education Program (EYEP) which is an Australian model of early years care and education designed to meet the educational and developmental needs of infants and toddlers living with significant family stress and social disadvantage. The conceptual frameworks underpinning the model, and the key elements (staffing, structure, processes and content) that are designed to achieve the aims of EYEP are discussed in this report.

EYEP was initiated by the Children's Protection Society (CPS), an independent not-for-profit child welfare organisation based in the north-east of Melbourne which was founded in 1896. CPS, as a large, well-established community services organisation including a family services team with expertise in child protection, was well placed for recruiting children and families along with other Child First and welfare agencies and Maternal and Child Health professionals. Associate Professor Brigid Jordan and Dr Anne Kennedy designed the program with the support of CPS and the leadership team at the CPS centre.

The impact of EYEP is being evaluated through a Randomised Controlled Trial (RCT) as part of the Early Years Education Research Program (EYERP) (Jordan et al. 2014; Tseng et al. 2017; Tseng et al. 2018). EYEP opened in 2010 with a small number of children enrolled in a pilot program. The pilot was used to refine the program model and research design (for example, testing the feasibility of data collection processes). Enrolment of children into the EYEP trial commenced in early 2011 and concluded in early 2016. The last child completed the program at the end of 2018. The University of Melbourne Human Research Ethics Committee approved the EYEP trial (HREC 1034236). At the time it commenced, the EYEP trial was the first RCT of an early years care and education intervention in Australia (Tapper & Phillimore 2012).

In addition to the randomised controlled trial, CPS commissioned an ethnographic study by Charles Sturt University in order to provide extensive qualitative descriptive data about the program in action and the lived experience of children, families and educators (Fordham 2016; Fordham & Kennedy 2017).

Section 2 provides the background and motivation for the development of the EYEP model. Sections 3 and 4 explain the aims of the research and the targeted population for the study. Section 5 presents an overview of the EYEP model followed by a detailed discussion of the conceptual framework and practices of the model in Section 6. Section 7 discusses the structures and processes that are essential to support reflective practice, professional learning and the wellbeing of staff working in the EYEP. Section 8 summarises the essential elements of the model in providing a targeted, 'intensive care' approach to meeting the needs and rights of children living with significant disadvantage and risk.

2. Background[1]

Intergenerational trajectories of disadvantage and poor outcomes in multiple domains for children living with significant family stress and social disadvantage including the risk of abuse and neglect meet the criteria for identification as a 'wicked problem' (Rittel & Webber 1973). The importance of children's experiences in the first years of life for life-time outcomes is now well recognised (Moore et al. 2017; Shonkoff 2011). Early life experiences have a fundamental influence on brain architecture, the developmental expression of genetic potential and physiology. The most salient environmental influences for infants and young children are their caregiving relationships and the degree of stress that they live with.

Prolonged exposure to physical, emotional and/or sexual abuse and traumatic experiences early in life have been identified as causing profound long-term adverse effects on brain development, including self-regulation capacities and the ability to cope with stress (Centre for the Developing Child 2016; Evans, Davies & DiLillo 2008; Perry 2002; Shonkoff 2010; Shonkoff 2012).

Disruption to brain development in turn affects the ability to learn, with recent studies, for example, showing that self-regulation is linked to the development of literacy and numeracy skills (Koenen et al. 2011; Raver et al. 2011). Compromised development of cognitive and social skills early in life can lead to entrenched disadvantage in later years. Skill development is dynamic and hierarchical. Delays in development at an early age mean that children lack the necessary building blocks and foundation for subsequent learning (Cunha & Heckman 2007; Heckman 2008; Heckman & Mosso 2014). Deficiencies in cognitive and social skills before the age of five therefore are likely to persist into later life and become the basis of problems such as low education attainment, unemployment, teenage pregnancy, and involvement in crime (Capsi et al. 2016; Knudsen et al. 2006).

Early adversity has also been linked to physiological disruptions such as alterations in immune function (Bierhaus et al. 2003; Currie & Widom 2010; Nicholson et al. 2012), to an increased risk of lifelong physical and mental health problems, including major depression, heart disease and diabetes (Campbell et al. 2014; Centre on the Developing Child 2016; Enguland et al. 2015) and to a variety of health-threatening behaviours in adolescence and adulthood (Ford et al. 2011; Rothman et al. 2008).

Addressing the problem of inequality in skill development for children who are exposed to significant family stress requires a different model of education and care than is available within universal early childhood services. In a review article in *Science*, Shonkoff argues that whereas existing programs for children from disadvantaged backgrounds mainly focus on providing enriched learning experiences for children and parenting education for mothers, a better approach for redressing inequalities in skill development would come from 'linking high-quality pedagogy to interventions that prevent, reduce, or mitigate the disruptive effects of toxic stress on the developing brain' (Shonkoff 2011, p.982).

Having a model that addresses the educational and developmental needs of at-risk children is a critical policy issue in Australia for several reasons. First, the size of the at-risk population of children in Australia is substantial. It has been estimated, for example, that in 2016–17 there were 53,277 pre-school children receiving child protection services (Australian Institute of Health and Welfare 2018). Second, at-risk children in Australia currently seem the group least likely to be accessing early years education and care services (Biddle, Seth-Purdie & Crawford 2017). Third, while evidence from trials of demonstration programs such as Perry Preschool and Abecedarian provide insights into the potential impact of early years programs, those trials were undertaken in the United States, and the populations covered were largely African-American and lived in small cities in the 1960s (Campbell & Ramey 1994; Campbell &

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[1] This section draws on the Background section of the reports from the EYEP Trial (Tseng et al. 2018 and Tseng et al. 2019)

Ramey 2008; Schweinhart et al. 2005). The relevance of this existing evidence to Australia is uncertain (Penn & Lloyd 2007; Productivity Commission 2014).

A snapshot survey undertaken by CPS in 2008 revealed that only 16% of vulnerable children involved with CPS services at the time were enrolled in any form of early years' service, and only 50% of eligible four-year-olds were enrolled in kindergarten. The data indicated that vulnerable children engaged with secondary and tertiary level family services were not proportionally represented in universal services, such as kindergartens and childcare. Initiating the EYEP became a focus for CPS as they sought to redress the issue that the children most in need and who could potentially benefit the most, appeared to be missing out on early education experiences.

3. The aims of EYEP

The over-arching goal of the EYEP model is to provide education and care experiences for children living with significant family stress and social disadvantage that will enable them to begin formal schooling developmentally equivalent to their peers with the knowledge, skills and attributes needed for ongoing successful learning. A guiding principle for the EYEP model is that these children have the same rights to educational and social participation and to expect similar academic achievement levels and life trajectories as their peers.

The program has a dual focus: first, addressing the consequences of significant family stress on children's emotional and behavioural regulation and brain development; and second, redressing learning deficiencies.

The "toxic stress" model articulated by Shonkoff and colleagues describes how family and social disadvantage become biologically embedded within the child and can lead to enduring negative outcomes (Shonkoff 2009). Experiences during early life affect the physiological systems underlying stress responses, including the hypothalamic–pituitary–adrenal (HPA) axis. Toxic stress is defined as the "strong, frequent, and/or prolonged activation of the body's stress response systems in the absence of the buffering protection of adult support" (Shonkoff 2009, p. 2256). Toxic stress therefore alters the architecture of the brain and the functioning of the biological stress response system "…stress response systems are over-activated, maturing brain circuits can be impaired, metabolic regulatory system and developing organs can be disrupted, and the probabilities increase for long term problems in learning, behaviour, physical and mental health" (Shonkoff 2011, p. 982).

The foundation of EYEP is a holistic model of care and education that goes beyond the provision of a high-quality learning environment by drawing on the knowledge and skill base of the field of infant mental health—including neuroscience, developmental psychology, attachment theory and findings from studies of the impact of emotional trauma on young children. It involves direct intervention with a child to address his or her identified needs, reverse developmental delays, and reduce the impact of risk factors and adverse events and meets Shonkoff's criteria of a program that both addresses the impact of toxic stress on the developing brain and provides high quality pedagogy in an enriched early learning and care environment.

The curriculum for EYEP is designed to align with *'Belonging, Being and Becoming: The Early Years Learning Framework for Australia'* (EYLF), (Department of Education, Employment and Workplace Relations 2009) and the National Quality Standard (NQS) (Australian Children's Education and Care Quality Authority 2011) that were developed to guide and set standards for early years quality provision in education and care in Australia. Alignment with the EYLF and the NQS is important if learnings from the trial are to be adopted into universal service provision.

The EYEP model is designed to provide a standard of education and care, well beyond the minimum standards and regulations prescribed in the National Quality Framework (Australian Children's Education and Care Quality Authority 2012).

4. The target population

The EYEP is designed for children at heightened risk of, or who have experienced, abuse and neglect and are already demonstrating problems in emotional and behavioural regulation, delays in development, and whose families struggle to participate in universal early education services. The model can therefore be considered a tertiary level intervention, equivalent to intensive care in the health service sector.

Criteria for eligibility for the EYERP trial were chosen with the aim of evaluating its impact on children exposed to significant family stress and social disadvantage. Children were required to be aged less than 36 months, assessed as having two or more risk factors as defined in the Department of Human Services 2007 *Best Interest Case Practice Model*, and be currently engaged with family services or child protection services and have early education as part of their care plan. The list of risk factors consists of twenty-four 'Child and family risk factors' and nine 'Parent risk factors'. Risk factors include having teenage parents, parental substance abuse, parental mental health difficulties, and the presence of family violence. A full list of risk factors is included as Appendix 2.

Informed by the neuroscience of child development, the EYEP model requires enrolment before the age of three as it is designed as an early intervention and prevention program. Participation in the program provides the child with access to an enriched learning environment, high quality pedagogy and curriculum, corrective early relationship experiences, and reduced exposure to highly stressful family environments. Families pay no fees for attendance to ensure that parents are not deterred from enrolling their child in EYEP.

The characteristics of the children and families who were recruited in to the EYERP trial are described in Tseng et al. (2017). The EYEP profile report shows that the children were living with significantly more disadvantage compared with children living in low SES households who participated in the Longitudinal Study of Australian Children (LSAC). In addition, they had lower birth weights, and at the time of enrolment into the trial when aged between birth and three years they had compromised language, motor skills and adaptive behaviour development. Their parents were much more likely to be jobless, young parents, with less financial resources and higher likelihood of suffering severe psychological distress having experienced an extraordinary number of stressful life events beyond their control.

5. Overview of the EYEP model

EYEP deliberately addresses the consequences of toxic stress on children's brain development by using relational pedagogy, informed by attachment theory and infant mental health concepts including knowledge about the impact of trauma on infants and toddlers, as the conceptual framework underpinning the model of education and care. Individualised and differentiated teaching and caring strategies are created to reduce the behavioural and emotional dysregulation resulting from living with toxic stress so that the children are able to become successful learners. The use of attachment theory and relational pedagogy recognises that children need stable relationships, responsive caregivers and attention to emotional wellbeing and social competence for language and cognitive skills to flourish (National Scientific Council on the Developing Child 2004).

This theory of change underpins the EYEP model. EYEP is a holistic model of education and care with a strong conceptual foundation and all elements must be implemented as a coherent program for children in circumstances of vulnerability for them to enter school as confident learners and developmentally equal to their peers.

Children participate in EYEP from Monday to Friday for five hours each day, for 50 weeks a year for three years. Daily attendance provides the continuity and intensity of experience for children and families that relationship-based pedagogy and attachment informed care-giving requires (Britto et al. 2018).

A three year 'dose' of participation was decided for the RCT. Three years was a time frame that was feasible for the 0–3 age group and provided the opportunity to learn about the optimal length of intervention. The EYERP research team is collecting data at 12, 24 and 36 months after randomisation and after 6 months of school attendance. Results from the trial will indicate whether a shorter dose than three years might be enough, whether every year up to 3 years has a positive impact in benefit-cost terms, or whether attendance in the EYEP model should be maintained until school commencement.

The core elements of the EYEP model are summarised in Table 1 and the conceptual underpinning and rationale for different features and the details on how to implement the elements are discussed in Section 6.

Table 1. Core Elements of the EYEP Model
PARTICIPANTS
Children are living with significant family stress and social disadvantage
Children are enrolled before their third birthday
Families pay no fees for attendance
PROGRAM
Children participate for 5 hours per day, 5 days per week, 50 weeks of the year for 3 years
High staff to child ratios
Small group sizes
Small centre size
Consistent with and exceeds Australian NQF regulations and the NQS standard
Orientation, transitions within and beyond the program informed by attachment theory
PEDAGOGY
Rigorously developed curriculum that enacts the EYLF Principles and practices at exceeding level
Primary educator model

Relational pedagogy informed by infant mental health knowledge base (including attachment and trauma theory)

Individualised education plans with 12 weekly goal setting and review with each family

STAFF — see Figure 2

Early childhood diploma and degree qualified educators

Room educators employed full-time

Senior infant mental health clinician/consultant employed for a minimum of 2 days a week

Pedagogical leader employed full-time

Centre co-ordinator employed full-time

Family services practitioner employed for a minimum of 2 days a week. (This presumes families remain engaged with their referring family service agency).

Qualified cook employed for 3–4 hours per day

Office manager/receptionist employed full-time

Relief educators from a regular pool of qualified educators for lunchtimes, sick leave, holiday leave cover

NUTRITION

75% of children's daily nutritional requirements provided through meals and snacks

Support for breastfeeding

PARTNERSHIP WITH PARENTS

Focus on active engagement of parents as collaborative partners in educating their children

Parents attend with child as part of orientation process

Parents encouraged to visit

Parents participate in 12 weekly goal setting and review meetings

Dedicated space for parents in the centre

Collaborative practice with other agencies working with a child and family

PROFESSIONAL DEVELOPMENT AND SUPERVISION OF STAFF

Regular, formal reflective supervision for all staff including the leadership team

Fortnightly infant mental health consultation for each room led by EYEP infant mental health clinician/consultant

Bi-monthly multidisciplinary practice workshop with whole staff and early childhood curriculum advisor and infant mental health clinician/consultant

Professional development program focused on high quality pedagogy and infant mental health

CENTRE BUILDING AND SPACES

Purpose designed building and equipment that meets and exceeds NQF indoor and outdoor space and resource requirements.

Offices for leadership team, private meeting room, safe car parking for families, parent space, educator meeting and planning spaces, well equipped kitchen and child and family friendly foyer

6. The conceptual framework and practices of the EYEP model

The contribution of the conceptual framework and each element of the EYEP model of education and care and the strategies used to achieve the aims of EYEP are described in the following sections. The key elements of EYEP are relational pedagogy, infant mental health, attachment theory, nutrition, parent engagement and the interface with family support services (Figure 1). Although these are discussed in turn, the model is a multi-disciplinary model that joins up different knowledge bases and therefore all the elements are inter-linked and this is reflected in the discussion that follows.

6.1 Early years education pedagogy

In the development of EYEP model, the term 'relational pedagogy' was adopted to encapsulate the centrality of relationships for supporting children's development, learning and wellbeing. Social pedagogy research and theorisation from the United Kingdom (Moss 2006), North America (Hinsdale 2016; Reeves & Le Mare 2017) and Nordic countries (Aspelin 2012; Aspelin 2014) informed the EYEP's approach to relational pedagogy. Research confirms that when educators understand and attend to the ethics of the relationships they develop and nurture with young children and their families, children develop secure attachments and progress as learners (Aspelin 2014; Bingham & Sidorkin 2004; Brooker 2009). Relational pedagogy has the characteristic of an alliance and of being in solidarity with children and their families. As the philosopher and educationist Malaguzzi whose work inspired the exemplary early childhood education projects in Reggio Emilia, Italy explains:

> Of course, education is not based solely on relationships; however, we consider relationships to be the fundamental organising strategy of our educational system. We view relationships, not simply as a warm, protective backdrop or blanket but as a coming together of elements interacting dynamically toward a common purpose (Malaguzzi & Gandini 1993, p.10).

The common purpose underpinning the EYEP model is to support children's learning and development while redressing the impact of toxic stress on their developing brains. Planned, unhurried, play-based experiences within a well-resourced environment, and respectful, responsive and reciprocal relationships and interactions, are intentionally designed to protect, promote and engage each child's body, mind and spirit.

The education model in EYEP is a pedagogically driven, ethical, reflective teaching and learning model that is child focused and uses the principles and practices of the Australian *Early Years Framework* as the foundation for curriculum development. EYEP pedagogy draws on different theoretical approaches and knowledge domains

Figure 1. Key Elements of the Model
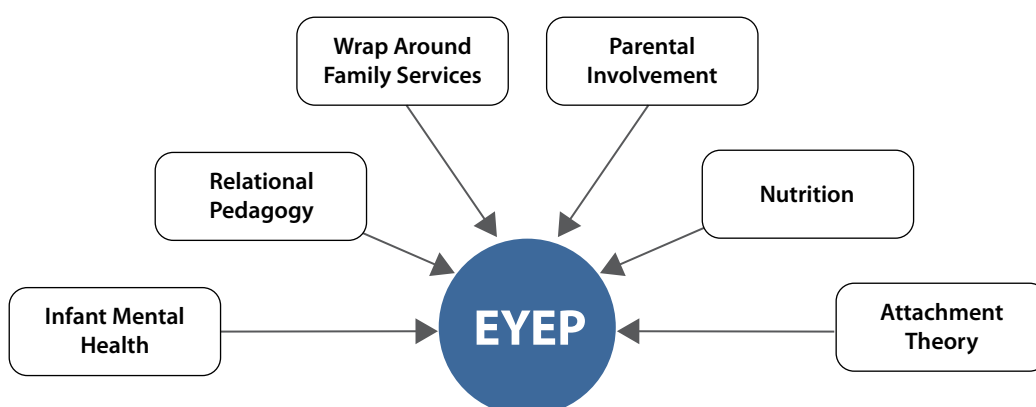
including theories on teaching and learning, educational psychology, developmental psychology, and social pedagogy.

The EYEP model recognises education and care as two sides of the one coin—educating children through a caring, relationship focused, ethical approach, and caring for them by educating with intentionality and responsiveness. Relational pedagogy provides a balanced and dynamic approach to early education by considering three important elements in pedagogy and curriculum: (1) understanding the rationale behind pedagogical decisions and practices; (2) planning the processes of how best to educate young children; and (3) recognising the importance of curriculum content. Each of these components is considered and enacted through using an infant mental health and an early childhood education lens.

Relational pedagogy requires educators being attuned to each child, following, guiding and extending their learning with careful consideration of their interests, abilities and strengths. These shared and sustained learning interactions between a child and an educator are likened to a 'dance' where both the adult and child experience taking the lead and following as they learn together:

> *"…. interactions are contingent on the child's actions or interactive bids, knowing each child and taking cues from the child and the group about when to expand on the child's initiative, when to guide, when to teach, when to intervene—and when to watch, wait, and applaud a child's efforts and eventual success"* (Lally 2003, p. 35).

Individual consultations for educators and staff meetings with the infant mental health clinician/consultant, the early childhood curriculum consultant and the centre's pedagogical leader support educators' critical reflection on the practice implications of using these two lenses to inform pedagogical decision making. For example, in the EYEP model, intentional pedagogy supporting children and families' orientation into and transitions in and out of the centre are based on careful attention to relevant theories and evidence based best practice from both an infant mental health and an early childhood education perspective as will be discussed further in this report.

6.1.1 Centre design, size and spaces

The EYEP model requires a setting that is purposefully designed to provide safe, welcoming, child and family friendly spaces to support and stimulate children's learning, development and wellbeing. This means providing indoor and outdoor spaces beyond the minimum requirements of the national regulations. A spacious entry foyer, a separate space for children to sleep, staff planning and meeting rooms, offices for the leadership team, safe car parking for families, and a parent space are important to the overall design and purpose of the centre. In order to provide the right environmental and ethical milieu, the EYEP model determines that the maximum number of children who can be enrolled is between 36–42 children.

The maximum group size for each room in the model is based on an understanding of the impact of group size on children's learning outcomes as well as on educators' and children's stress levels (McQuail et al. 2003; Munton et al. 2001; Wertfein, Spies-Kofler & Becker-Stoll 2009).

The EYEP model has high staff to child ratios as well as small group sizes. The ratio is one educator to three children for the birth to three years age group and one educator to six children aged over three years. These ratios are higher than the national regulations. Research indicates that when young children are living with significant social and economic stresses, disadvantage and risk factors, they require close access to their primary educator, which can only be provided when there is a high ratio of staff to children. Young children thrive in childcare settings when they receive individualised and responsive attention from caring and skilled educators. High ratios of qualified, experienced and skilled adults to children, support this level of quality in early childhood care and education settings (Center on the Developing Child at Harvard University 2011; Munton et al. 2002; Vandell & Wolfe 2000).

6.1.2 EYEP staff team and leadership

EYEP has an explicit aim to transcend knowledge silos and utilise multi-disciplinary professional knowledge, skills and expertise.

The staffing model includes a pedagogical leader and a centre coordinator both of whom have graduate qualifications and extensive experience in early childhood

Figure 2. Staff requirements in the EYEP model

Pedagogical Leader Full-Time	Centre-Coordinator Full-Time	Infant Mental Health Clinician/ Consultant 0.4 FTE	Family Services Practitioner 0.4 FTE	**Leadership Team**

Room Leader/ Teacher	Room Leader/ Teacher	Room Leader/ Teacher	Room Leader/ Teacher	Office Manager/ Receptionist Full-Time	Cook	Regular small pool of eduators for leave
Educator	Educator	Educator	Educator			

education and care. In addition, the model requires an in-house senior infant mental health clinician/consultant, and a family services practitioner (both part-time). These four positions comprise the leadership team. The co-ordinator role includes oversight of the day to day running of the centre including ensuring compliance with regulations, oversight of ongoing quality improvements, and attending to staffing issues. The pedagogical leader has responsibility for monitoring, supporting and leading the pedagogical practices in the centre. These two complementary roles are critical for the day-to-day and overall quality of the children and families' lived experiences in the centre.

In the EYEP model, all educators should be qualified, with each room leader holding a bachelor's degree in early childhood, supported by a co-educator with a Diploma qualification in early childhood. The model responds to the research evidence on the importance of educator's qualifications in the provision of quality education and care programs for young children. In a review of quality determinants in early education and care, Huntsman (2008) found that the link between educators' qualifications, process quality and outcomes for children could be considered the strongest finding in research on quality in early childhood education and care. Similarly, the Campbell Systematic Review on ECEC quality found a significant correlation between higher quality early childhood education and care programs and educators' qualifications (Manning 2017).

The model also requires that they are experienced educators and employed full-time. As relational pedagogy and attachment theory are core pillars of EYEP, employing full-time educators providing all the education and

care experiences for the children is required to ensure continuity of each child's experience.

A full-time office manager is required to attend to reception duties and provide administrative support to the leadership team. The multiple and complex challenges faced by the children and families; the 'open door' policy for parent/caregivers whereby they are welcome to spend time with their child in the centre, and the ongoing liaison and collaborative work with external agencies engaged with the children and their families means that this role requires high level interpersonal and administrative skills. Other roles—cook, inclusion support workers for children who qualify for additional inclusion support, sick leave cover—need to be staffed by people with ongoing contracts. Cover for unplanned absences should come from a small, regular pool of relief staff familiar to the children and their families.

6.1.3   Individualised education planning and goal setting

The EYEP emphasises a holistic approach by monitoring and supporting children's learning, development and wellbeing across the five learning outcomes in the national Early Years Learning Framework (EYLF):

1. Children have a strong sense of identity
2. Children are connected with and contribute to their world
3. Children have a strong sense of wellbeing
4. Children are confident and involved learners
5. Children are effective communicators.

Educators document, monitor and assess each child's learning over time using a systematic, collaborative planning and documenting cycle approach. A hallmark of the collaborative partnership approach to pedagogy is the 12-weekly shared learning and development goal setting and planning meetings for each child that involves parents, educators and other professionals working with the child and family. These meetings review the child's progress as a learner, articulate the learning goals parents and educators would like to achieve for the children and identify shared actions appropriate for educational progress. The goals and actions are agreed to, documented and reviewed every 12 weeks. This collaborative approach to planning for children's learning supports clarity of shared purpose and processes, and reflects a focus on high expectations for children as learners within the centre and at home.

The educational programs in EYEP are teacher led in collaboration with co-educators, children and families. The educators are considered lead professionals in the model, which means they lead the planning and review meetings and are encouraged to take an authoritative stance in communication with other agencies or professionals such as child protection or family support services. The sustained and meaningful interactions between EYEP educators and children and families, supported by regular consultation with the infant mental health consultant/clinician, means that educators have a nuanced and informed understanding of developmental and learning achievements and challenges, as well as issues with emotional and behavioural regulation and family relationships for each child. In addition to reviewing learning goals and achievements, the meetings may also involve negotiating with other services for a case-plan that addresses a child's educational, physical, emotional needs, safety and wellbeing. This collaborative approach leads to a more integrated and informed case-plan so that services and professionals are not operating in isolation with separate case plans, goals and targets (Fordham & Kennedy 2017).

Educators use the child's individual learning goals to plan the curriculum using play-based approaches and intentional and differentiated teaching strategies to support each child's learning and development across the five outcomes of the EYLF. Educators are thoughtful about their interactions with children as relationships are central for supporting children's emotional development

and capacity for behavioural regulation. Purposeful, warm greetings and a clear idea of the routines and opportunities of the day are essential components of the model, which help to give children a sense of security, predictability and consistency. Educators are sensitive to experiences of continuity and discontinuity for the children within the centre (e.g. preparing the children for an educator's holiday break or return from sick leave) and in their home lives. Responsive caregiving with a focus on the child's subjective experience and an understanding of the child's defences against emotional pain and trauma responses is critical. Making the most of every moment for learning through mutually enjoyable, engaging and sustained learning encounters and ensuring every interaction with a child is meaningful, are key pedagogical strategies employed to make a positive difference to children's learning and development. For example, regarding language understanding and skills, intentional teaching strategies might include using correct pronunciation and not using 'baby talk'— (e.g. 'nana' for 'banana'); introducing and using more complex descriptive language; building vocabulary; engaging in enjoyable conversations with children; highlighting sounds in words and using rhymes and singing to improve language fluency and articulation. Educators use a "serve and return" framework for interactions with children in order to sustain joint involvement experiences and shared conversations that respond to their interests, strengths and abilities (Center on The Developing Child 2016). Educators attend to the dynamics of the child's relationship with them recognising the importance of helping the child recover from and be involved in the repair of any ruptures in their interactions and relationship (Tronick & Gianino 1986).

6.1.4 Transitions

Research has identified the importance of recognising and responding to the different demands of, and impact on children of both horizontal and vertical transitions that occur before they begin school and when they transition into school (Brostrom 2002; Dockett & Perry 2001; Fabian & Dunlop 2007; Kagan 2003; Seung Lam & Pollard 2006). While most transition research has focused on children from four to five or six years of age, there are implications in this research for policies and protocols connected with transitions in the EYEP model. Children living in families and communities where there are significant levels of disadvantage and risk factors face greater challenges in

coping with transitions (Mills 2004; Rosier & McDonald 2011; Smart et al. 2008). In response to these issues, transition practices in the EYEP model also draw on attachment and trauma theories.

Transitions located within the contexts of early childhood settings involve individual and collective processes, where individual children, families, educators and peer groups are actively participating in and adapting to different stages and the contextual layers embedded in transitions. Vertical transitions in particular involve changes in identity, relationships, and roles for children (Seung Lam & Pollard 2006). In the EYEP model, children are supported individually and collectively as they make transitions into or out of the centre or into a new room, as well as everyday transitions such as arrival and departure times or moving from indoor to outdoor experiences. Thoughtfully planned and well supported transitions to a new primary educator can equip a child with the skills to be able to cope with changes in teachers and peer groups in later educational settings such as preschool or school (Fabian & Dunlop 2002; Fabian & Dunlop 2007).

The EYEP model requires educators to be mindful about the impact of transitions on children by supporting them as they learn how to deal with the emotional and social impact of the potential losses, gains and disruptions involved in transitions (Lazarus & Folkman 1987). The EYEP model recognises the importance of careful planning for these changes with factors such as the emotional resources of the children involved, the goodness of fit between individual educators and parents as well as the child, and the best outcomes for children individually and as a group being important considerations. Explicit naming of the feelings of loss involved in moving from one primary educator to another and from one group of children to another, and the acknowledgement of the significance and importance of these feelings can be reparative for children whose life circumstances mean they are often subject to sudden and traumatic loss without explanation or the emotional support to mourn these losses. Educators in the EYEP model should be skilled at recognising signs or changes in children's behaviour that indicate a transition might be undermining a child's sense of wellbeing and agency and know how to address this promptly in collaboration with a family or another professional such as a family support practitioner.

Connected to the EYEP's attention to transition matters is the model's strategies for supporting the daily arrival and departures of the children and families. Environmental, temporal and staffing elements are considered in this planned approach to daily transitions. The model requires an environment with a purposefully designed foyer that provides a safe, welcoming and child friendly space where families and children enter and depart from each day. Specially selected play materials are provided in this space in recognition that some children choose to play with these items as part of their transition into and from the centre each day. Unhurried time is provided in this space for children and families; time for greetings and farewells, conversations with staff and each other, and for 'transition' play into and out of the centre by the children.

This part of the model requires that an educator is present throughout the arrival and departure process within the foyer of the building. The educator's role during the arrival and departure times is critical for supporting safe and welcoming transitions through providing individualised, warm and positive greetings and farewells to every child and family. These purposeful interactions have an important function, containing the distress that the children and families bring with them from home and providing a bridge between home and the centre. The receptionist/educator requires the skills to notice which families have had a stressful morning, who might be arriving in emotional turmoil and is able to provide nurturance, a safe haven and transitional zone until families and children feel settled and calm and the child is ready to join their group. The co-ordinator is also available to provide support to families during this time. Room leaders and educators are in the children's rooms but may come to the foyer if needed for a particular child.

6.2 Infant mental health

The term "Infant Mental Health" was first used by Selma Fraiberg (a social worker and psychoanalyst) in Michigan, USA in the 1970s. The term 'Infant' referred to children under three years of age, "Mental" included social, emotional and cognitive domains and "Health" referred to the well-being of young children and families (Weatherston 2000). Infant mental health is a field of research and clinical practice focused on the optimal social and emotional development of infants and toddlers within the context of

secure, stable relationships with caregivers (Zeanah C. & Zeanah P. 2009).

The field draws on several knowledge domains; developmental psychology and infant research, psychoanalytic theory, attachment theory, and neurobiology to understand infant emotional and social development and functioning, and to inform preventative and therapeutic interventions. The infant mental health perspective recognises that infants have an emotional life, that they are alert and capable learners and can remember experiences from birth. Healthy infant-parent relationships are critical for infant mental health, and parents' relationships with their own parents as children fundamentally influences their care of their own children. Infants and young children face key developmental tasks in terms of mental health—to experience, regulate and express emotions; form close and secure interpersonal relationships; explore the environment and learn (Zero to Three 2002).

The EYEP model includes an infant mental health clinician/consultant employed for two days a week, as an integral member of the staff team who shares office space with the educators at the centre. Qualifications for this role are a qualified mental health professional with advanced training in infant and child mental health, who is a senior practitioner with at least seven years of experience working in direct clinical care within an infant mental health service and with experience providing secondary consultation to non-mental health agencies working with infants and toddlers. The role is designated 'infant mental health clinician/consultant' to indicate that the role is clinical and consultative and a core role within the EYEP staff and leadership team. Being on-site facilitates getting to know each child over time through informal interactions and observations including observation of separations from and reunions with families at the beginning and end of the day, in addition to formal observation of each child within the room during the program. This regular presence also enables families to seek a direct consultation with the clinician/consultant. This embedded infant mental health approach contrasts with other models that have, for example, visiting psychologists providing reflective supervision for staff.

The EYEP model is infused with infant mental health knowledge and practices at multiple levels and furthers

the EYEP aim of providing a rich learning environment by contributing to the relational pedagogy and program planning. One role of the infant mental health consultant is to provide an infant mental health perspective on the program implementation, anticipating issues or practices and protocols that may have emotional saliency for children and families living with family stress and social disadvantage to ensure that the program maximises the emotional wellbeing of the children and families.

The infant mental health clinician/consultant contributes to the second EYEP aim of redressing and preventing harms from toxic stress. They conduct an infant mental health assessment for each child as the first step in their attendance at EYEP. This assessment includes the child's mental state, their emotional regulation difficulties and strengths, any trauma exposure and traumatic stress responses, the history of their attachment relationships and disruptions to the relationship with their primary caregiver as well as the current dynamics of that relationship, family history, parent's perspective on behavioural issues, mental health problems or disorders and social functioning including peer relationships. The assessment of the child and family is shared with educators so that they are aware of the child's subjective experience, any trauma responses and the family situation. This assessment provides critical information for planning the child's orientation to EYEP. It highlights how the child's emotional regulation strategies might facilitate or impair learning and informs each child's individual case plan in terms of caregiving and relational pedagogical strategies. Educators will use this knowledge to assist with emotional and behavioural regulation, address developmental and mental health problems and to develop the child's emotional resources and relationship skills to enable them to participate in the group and learn. The strategy is about expanding the educators' relational based pedagogy using deeper knowledge about infants' emotional responses to stress and trauma and how attachment relationships work. This enables educators to work with the children in a way that ensures that they achieve optimal developmental and learning outcomes and are successful learners in universal settings in the future. Drawing on these additional knowledge bases means that educators can use knowledge about infant emotional regulation and defences against emotional pain to understand the "insides" of behaviour to help the children regulate emotions. Responses by educators to behavioural dysregulation issues is informed by an

understanding of the internal world and subjective experience of the child and the dynamics of the child's attachment relationships at home as well as the relationship with the educator.

The EYEP model makes infant mental health knowledge and skills available to a population of children and families not typically able to sustain engagement or attendance at Child and Adolescent Mental Health Services. Most services rely on parents to be the agents of change for children, whereas the EYEP model involves intervening directly with the child to assist children with their emotional, behavioural, learning and social difficulties.

The infant mental health clinician/consultant is available at the request of a parent or educator to undertake further observations or consultations about individual children if new or ongoing concerns about emotional distress or behavioural or relationship issues would benefit from their input. The consultant is also available to attend the 12-weekly review and goal setting meeting, and to advise about referrals for specialist help if indicated.

6.3 Attachment theory

The most salient environmental influence for infants and young children is their primary caregiving relationships. Interpersonal interactions are the primary source of experiences (positive and negative) that shape the developing brain and therefore influence development and learning. Optimal emotional and behavioural regulation is achieved by infants with the scaffolding provided by their primary caregiver (Hofacker & Papousek1998; Tronick 1986) in moment to moment interactions in the context of everyday care and is the foundation for mental health throughout life. The dynamics of the attachment relationship between an infant and their primary care-giver becomes internalised as an internal working model of attachment (Bowlby 1969) and this becomes the template for future relationships (Ainsworth 1989; Main, Kaplan & Cassidy 1985). The internal working model of attachment has implications for an individual's social connectedness, social participation and capacity to use community resources (Jordan 2009).

Attachment is a fundamental, in-born, biologically adaptive "motivational system" that drives the infant to create a few, selective attachments in their life (Bowlby 1958). Attachment behaviours (sucking, clinging,

following, crying, and smiling) have the "external" goal of maintaining an infant's physical proximity to a caregiver and an "internal" goal of achieving feeling secure. The attachment relationship refers to an enduring emotional bond with an adult caregiver who is responsible for comforting, supporting, nurturing, and protecting the child. A secure attachment relationship is characterised by a child feeling free to orient and move between the caregiver and the environment according to prevailing circumstances. A child who feels safe and secure is free to explore their environment and will approach the world with curiosity and engagement, which stimulates physical, cognitive, and social/emotional development and learning. Conversely, if the child is in pain, anxious or afraid, or senses danger, the child with a secure attachment relationship with their caregiver will not hesitate to return to their caregiver for refuelling, comfort and nurturance i.e. they are able to use their caregiver as a safe base. Children with insecure attachment relationships are more likely to experience a reduced sense of security in their environments, with less exploration and engagement with the world and thus are less available for learning and less able to navigate the relationships required to benefit from community resources. Children with a disorganised attachment relationship with their care-giver are likely to have experienced trauma, to struggle with emotional and behavioural regulation, to be hypervigilant and preoccupied with issues of safety therefore having little capacity to engage fully in learning opportunities.

Secure attachment relationships are promoted when the caregiver is warm, accepting and sensitive to the child's experiences and point of view, attuned to their emotional experience, responsive and reliable. Responsiveness is especially important when the child is distressed or alarmed. More recent research has identified the importance of high reflective functioning in the caregiver for the development of a secure attachment relationship with the child (Fonagy 2018).

For EYEP to achieve its aims, the program needs to provide the children with a safe base, relationships with their educators that provide a sense of security and facilitate exploration and learning, and experiences that help build a secure internal working model of attachment.

The design of EYEP model builds on the EYLF concept and valuing of belonging, by drawing on attachment theory

in the (1) adopting of a primary caregiving model for the educator-child relationship, (2) establishing high educator to child ratios (meaning less children per educator), (3) having an individualised orientation process for each child, and (4) the policy for the attendance of newborns and infants under 6 months of age.

6.3.1 Primary educator model

The EYEP primary educator model builds on the approach described by the National Infant and Toddler Child Care Initiative (2010):

> "Within the early years education field primary caregiving is defined as when an infant or toddler enters care, one caregiver is designated as primary for the child. This caregiver will, to the extent possible and practical in a group care setting, be the one to care for and respond to the child's needs" (p. 32).

However, primary caregiving:

> "…does not mean that one person cares for an infant or toddler exclusively" (Lally et al. 2003, p. 33).

Each child is allocated a primary educator when enrolled in EYEP so that the child can build a secure attachment relationship with an adult outside the family. Bowlby (1969) described how all children, given the opportunity, form a hierarchy of attachment relationships. The aim is for educators to be in this hierarchy supplementing (not replacing) the relationships within the child's family. For an adult to be an attachment figure they need to spend significant time with the infant or young child and be experienced as a reliable source of safety and comfort. In the EYEP model the primary educator is continuously present and provides the daily education and care for the child. Allocating a primary educator means that children have a 'go to' person available to respond sensitively to distress and to function as a secure base to support their exploration. The high level of social disadvantage and family stress means that children attending EYEP are likely to be experiencing disrupted and compromised attachment relationships within their family. In addition to the primary educator model (which requires high staff—child ratios) facilitating an enriched learning environment and acting as a secure base for children to be successful learners, the educator-child relationship is the vehicle

for the children to meet the EYEP goal of recovery and prevention of harms from toxic stress.

Furthermore, an educator being consistently available as a secure base for the child gives the child an experience and internal working model of relationships based on attachment security (rather than defensive hyper-vigilance or avoidance). This will enable the child to approach future relationships with peers, teachers, and other adults in the community with an attitude of trust, and confidence about having reciprocal interactions and relationships where their views and preferences matter.

The primary educator role is a significant responsibility for educators who are making a commitment to the child and family that involves being reliably available and emotionally open to really listening to the child's experiences in a non-defensive way. The EYEP model relies on the recruitment and retention of qualified, experienced and committed staff. Staff retention and continuity is critical for EYEP to provide children with the experience of an ongoing educator who is emotionally and physically available as a secure base and supplementary attachment figure. Requests for study leave or other planned absences are carefully considered in terms of the impact on the child's developing relationship with the educator, the impact of any absence on the child and the dynamics of the whole group in the room if that educator is absent and a relieving educator must be employed. Although each child has a primary educator this relationship is not exclusive. Children should develop strong relationships with the other children and the other educators in their room. (The structures and processes to facilitate best practice for staff retention and ongoing professional development and learning are described in Section 7).

The EYEP goal of providing an enriched learning and care environment is augmented by the EYEP focus on providing a secure base for children to facilitate their exploration and learning and using educational strategies that address the anxieties driving children's individual style of emotional and behavioural regulation especially those behaviours that might be labelled 'challenging behaviours,' and which sometimes lead to exclusion in universal settings.

6.3.2 Attachment theory-informed orientation to attendance at EYEP

In the EYEP model, each child has a developmentally informed gradual orientation to the program with an individualised attendance plan drawn up with parents after the infant mental health assessment is completed. For infants under 6 months of age a parent is required to be at the centre with the child until the child reaches 6 months of age. This practice is in recognition of the primacy of the mother/primary caregiver-child attachment relationship, the goal of the model to support this relationship, to support breastfeeding, and the recognition of the need for one-to-one care for newborns in the first months of life. The orientation process for the older children is designed to facilitate the development of the child's relationship with their allocated primary educator as a secure base before they face the challenge of separation from their mother for the daily attendance at EYEP. It usually involves several visits of varying duration for most days of the week for many weeks until the child is ready for separation. The introduction of short separations (initially minutes and increasing to hours) is titrated based on the child's reaction to the separations (capacity to use educator for comfort, ability to explore the environment and participate in learning opportunities when their mother is not present) until full independent attendance for five hours a day for 5 days a week is achieved. Depending on the age of the child, their attachment history and the dynamics of the parent-child relationship, this process can take up to three months.

6.4 Parent engagement and participation

The National Quality Standard and the National Early Years Learning Framework affirm parents as "children's first and most influential educators" (Department of Education, Employment and Workplace Relations 2009, p. 5) and the benefits of enacting collaborative partnership approaches with families for supporting and improving outcomes for children (Australian Children's Education and Care Quality Authority 2011, p. 147). These concepts are foundational to parent participation and engagement in the EYEP model.

EYEP is designed to maximise family participation and minimise attrition levels through a range of intentional strategies. Although the intervention is child-focused and not designed to target specific parenting behaviours,

engagement with parents and the development of sustained, ethical partnerships is a core principle. Careful attention is paid to ensure the development of reciprocal and equitable partnerships with parents (or primary care-giver if child is in kinship or foster care). This partnership approach recognises that families and educators learn from and with each other with the shared goal of achieving the highest developmental and educational outcomes for the children. The EYEP model recognises parents' right to feel a strong sense of welcome and to visit the centre at any time (including after their child has graduated from the program such as visiting during school holidays).

The model addresses a variety of barriers that might otherwise exist for families taking advantage of early education services such as affordability; and inter-personal barriers including beliefs and attitudes on the part of service providers that might compromise engagement (Moore et al. 2011). Transport assistance is not routinely provided in the model but it is possible if needed at times because of particular family circumstances or barriers.

Trauma-informed practice, and the infusion of infant mental health knowledge and skills, means that educators are equipped and supported to work with parents presenting with issues that would often prevent their children attending early education services. These include unpredictable life circumstances, chaotic lifestyles; mental health and substance abuse issues; family violence; insecure housing arrangements; and challenging behaviours.

The relational pedagogy and attachment focus of the model means that educators are thoughtful and mindful about their interactions with parents and that their approach is relational rather than instrumental. The model recognises that if educators' relationships with parents can build parents' emotional resources and provide them with support, this will increase the emotional resources parents have available to meet their children's needs and to be effective as the child's most important educator.

The infant mental health assessment conducted at the time of enrolment provides an opportunity for parents to share concerns about their children, their own health and wellbeing and the circumstances in which they are parenting. This assessment is discussed with the educators, so they are aware of the family history, parent's perspectives on behavioural issues and parents'

own challenges in terms of their physical health, mental health and life stresses. It is completed prior to the child's orientation to and attendance at EYEP, which means that the parents' first encounter with the program is with a highly trained and skilled mental health professional experienced in engaging, assessing and establishing a therapeutic alliance with children and families living with complex personal and social issues.

The orientation and attendance plan for the child is designed to help the child experience EYEP as a safe base and fulfils a similar role with parents enabling them to gradually build a trusting, collaborative, working relationship with the educator of their child. The open-door policy means that new parents can observe the interaction of the educators with other children and parents, experience the ethos of the centre and witness the respect educators have for children. Parents observe relational pedagogy in practice and how staff sensitively manage emotional upset and behavioural dysregulation. Thus, by the time their child is ready to attend independently, parents should know the person they are entrusting their child to, have developed a good working partnership with them and have a sound foundation for future everyday conversations about their child's progress or concerns at home for example.

The individualised gradual orientation process has benefits for parents as well as children. There is a focus during this process on trying to understand each parent's point of view and how their past experiences (family experiences and experiences with helping agencies) are likely to influence their interactions with EYEP (Fraiberg 1980). This careful attention to relationships with parents is important for facilitating parent's commitment to their child's attendance and to support their confidence and ability to use community-based health, educational and social services. EYEP staff actively encourage and support parents to be advocates for their children for example by attending transition meetings with parents when children are commencing primary school so that parents feel confident to discuss any concerns with teachers.

Home visits are not regularly programmed but educators or other team members can undertake home visits if indicated or requested by parents. If parents agree, all children should receive at least one home visit early in their attendance as part of relationship building and to help

create a bridge between the child's experiences at home and the centre.

6.5 Wrap around family services

The minimum requirement for the EYEP model is for a family services practitioner employed as a core member of the team for at least two days a week. It is also recommended that the community caseworker involved with the child and family at the time of enrolment in EYEP remains working with the child and family while they have continuing needs. The role of the family services practitioner includes being available to families for consultation and liaison with the statutory and voluntary services involved with the child and family.

Families living with significant disadvantage and multiple family stresses are often engaged with multiple services. Although there have been efforts through strategies such as co-location to integrate services and make them family centred, health, welfare and education services often remain quite segregated from the child and family point of view. Many children who are clients of family service agencies do not participate in early education and care services. When children do participate their educators are often the professional most informed about the child's health, development, emotional functioning and family relationships (given their contact for many hours a day several days a week). However, educators are rarely invited to contribute to family service or statutory case planning processes. In addition, there is the potential for conflicting advice to be given to parents about behavioural issues from educators and their family service providers. The EYEP model involves collaborative practice formally enacted between parents, the EYEP educator and the child's community case manager and other workers.

At the time that EYEP was developed there was limited use of therapeutic frameworks, attachment theory or trauma theory, and infant mental health perspectives within family support services and the universal education and care sector. Family support services tend to address the family as generic unit rather than being child-focused. Their focus has been on reducing parental factors that lead to risk or vulnerability for the child rather than direct interventions with the child to improve their development and learning. Most family service agencies have limited opportunities to get to know the children in their service and to appreciate

their subjective experience—perhaps an hour once a week or fortnight. In contrast, early years' educators have many hours of interactions several days a week and thus have a unique and valuable perspective about the child. Educators are often aware of what might trigger behavioural dysregulation or unregulated affect, as well as what helps a child to feel better and safe.

6.6 Nutrition

The importance of meeting children's daily nutritional requirements while they are in the centre is an essential element of the EYEP model in response to the evidence on the links between children's health, wellbeing, learning and nutrition (Maalouf et al. 2013; Neelon et al. 2012; Summerbell et al. 2014). Attention to nutrition in the model is also linked with the centre's commitment to exceeding the National Quality Standard in Quality Area 2: Children's health and safety (Australian Children's Education and Care Quality Authority 2011). The Foodbank's 2017 *Hunger Report* identified that 22% of children in Australia are living in 'food insecure' households where families struggle to meet their children's nutritional requirements on a regular basis (Foodbank 2018).

The core features of the model concerned with nutrition include: the adoption of a healthy eating policy; the appointment of a qualified cook for three to four hours per day; meeting 75% of children's nutritional needs each day; support for breast feeding; collaborative approaches

between the cook and the educators and children and collaboration with families in menu development and other food experiences such as cooking with the children.

In addition to meeting children's physical and health needs, the nutritional program in the EYEP recognises the significance of feeding for infants and mealtimes for older children as important social and emotional events in young children's lives (Liu & Stein 2013). The nutritional policy embodies a nurturing ethos and is an antidote to the psychological and physical harms arising from experiences of deprivation.

Education about healthy eating is embedded throughout the curriculum and supported by practical experiences such as growing, harvesting and cooking vegetables from the children's garden. Establishing routines and the collaboration associated with preparing and sharing meals together support children's sense of security and belonging as well as developing their social skills and growing capacity for skills such as independent eating (Gubbels et al. 2015).

Breast feeding is supported by the policy that infants under 6 months of age can only participate in EYEP accompanied by their primary caregiver. This is to support the development of the attachment relationship between the infant and their primary caregiver and applies to bottled-fed babies as well as those breastfeeding.

7. Structures and processes to support and scaffold the work of EYEP educators

Educating and caring for infants and toddlers is both rewarding and demanding work. Under the best of circumstances, the intensity of the infant and toddler's emotional life in addition to the constancy of caregiving can be tiring, requires patience and a capacity for adults to remain calm, reflective and measured in their responses especially in highly emotionally charged encounters with children in their care. These challenges are potentially overwhelming when the group of children includes one or two who are vulnerable. In a group where all the children are vulnerable the task is more intense and challenging.

Frequently children attending EYEP (and their parents) will begin the day at the centre very distressed or in crisis. Notwithstanding the high educator—child ratios and a relationship-based pedagogy, the raw and unprocessed distress that may arrive with the children every day from their family environment, creates an intense and demanding work environment for educators. Responding thoughtfully and sensitively to children's emotional dysregulation for many hours a day can be draining.

The EYEP model of education and care requires the employment of qualified, experienced and committed staff. Staff retention is critical for EYEP to provide children with educators who are emotionally and physically available as a secure base and supplementary attachment figure. Several structures and processes are built into the design of EYEP to support staff wellbeing and to assist them to manage the potential vicarious traumatisation they experience through being regularly exposed to and empathising with children's and families' trauma (Morrison 2007). Attention is paid to the impact of trauma and emotional and behavioural dysregulation at each level of education and care—within the children's rooms, the impact on individual staff members, between staff, between children and in the educator—child relationship.

The model requires investment in ongoing professional development of educators, provision of reflective supervision, high standards of transparent accountability and communication, cultural competence and ethical practice.

Children participate in EYEP for 5 hours per day from 9:30am to 2:30 pm. A critical part of the model is that educators have ten hours per week (out of the children's rooms) available for daily morning team meetings, staff meetings, individualised curriculum planning, peer consultation, reflective supervision, professional development and training, infant mental health consultation sessions, multidisciplinary workshops, liaison with children's family caseworker or other professionals engaged with the child and family and the 12-weekly case-planning and goal setting meetings.

The objective of these strategies is to ensure program fidelity and high-quality relational pedagogy as well as to minimise staff stress, and foster staff well-being.

7.1 Professional development

The EYEP model requires new educators to receive introductory professional development sessions focused on attachment theory and key infant mental health concepts regarding emotional and behavioural regulation and traumatic stress responses. Individual educators engage in relevant externally sourced professional development depending on personal interest and their individual professional development plan.

7.2 Staff meetings

Brief team meetings led by the leadership team are held at the start of each day. These attend to daily management matters (e.g. an educator away on unexpected sick leave) and any issues challenging a particular child or family at that time. Two-hour staff meetings are held monthly and are attended by all staff.

7.3   Individual reflective supervision for staff

In a practice derived from social casework and infant mental health settings, the EYEP model requires that each educator receives weekly, formal, scheduled individual reflective supervision from an appropriately qualified member of the EYEP leadership team. The need for additional informal debriefing when required is also recognised and supported. The EYEP model requires reflective supervision at every level of the program for all staff (including the office manager/receptionist). A trusted senior colleague such as the centre co-ordinator or pedagogical leader can provide supervision provided they have had personal experience of reflective supervision and appropriate supervision training. The EYEP infant mental health clinician/consultant requires monthly consultation from an external infant mental health clinical consultant to reflect on and support their practice. The family services practitioner also requires regular external supervision.

Fenichel (1992) defined supervision and mentorship as 'relationships for learning' (p.9). Reflection, collaboration, regularity and relationship-based, are the defining characteristics of best practice reflective supervision. The ability to understand and use parallel process is another important element:

> "Reflective Supervision/Consultation (RSC) is distinct due to the shared exploration of the parallel process. That is, attention to all of the relationships is important, including the ones between practitioner and supervisor, between practitioner and parent, and between parent and infant/toddler. It is critical to understand how each of these relationships affects the others. Of additional importance, reflective supervision/consultation relates to professional and personal development within one's discipline by attending to the emotional content of the work and how reactions to the content affect the work" (Michigan Association for Infant Mental Health 2019).

Weatherston and colleagues (Weatherston D, Weigand R & Weigand B 2010) describe the essential components of reflective supervision/consultation as:

1. The establishment of a trusting relationship between supervisor and practitioner,
2. Consistent and predictable meetings times,
3. Attention to details about the infant, parent and emerging relationship,
4. A listening and emotionally present stance by the supervisor,
5. Elements of teaching, guidance, nurturance and support,
6. The integration of emotion and reason and
7. Working toward the reflective process being internalised by the supervisee.

EYEP educators are not therapists but have a therapeutic role. Strained, compromised or disturbed parent-child relationships are the sources of harm and reduced capacity in the children. The educator-child relationship and educator-parent relationship are the medium for change. Educators' understanding of children's individual behavioural responses to learning opportunities (e.g. approach or avoidance) in the context of emotional development, trauma history, attachment relationships, and family experiences enables them to design learning opportunities that can be grasped by the child. This understanding is based on careful observation of the child and receptivity to their verbal and nonverbal communications. The respectful responsive caregiving and teaching builds the child's sense of agency.

Overwhelmed parents with their own history of trauma may struggle to regulate their emotions in interactions with the staff of the centre as well as with their children, especially when staff are advocating strongly for the needs of the child to take priority over a parent's own needs or the issues facing other family members. Parents may feel disappointed, betrayed, confronted, affronted, or frustrated when progress is slow, or when their child's attendance at EYEP does not bring as much psychological relief as anticipated. These feelings may lead parents to be critical or demanding in their interactions with educators. Given these challenges, the work of the educators requires the scaffolding offered by the reflective supervision focus on the web of relationships and attention to parallel relationships.

7.4   Infant mental health consultations for each room

At a regularly scheduled time each fortnight, the educators in each room meet as a group with the infant mental health clinician/consultant for one-and-a-half hours. This provides an opportunity to think about individual needs of the children within that room, the relationships between children or between families, the dynamics between the educators within the room, and the relationships between

educators and the children. The focus of the consultation is responsive to the issues brought by the educators and ranges from concerns about an individual child (for example, behaviour, social interactions with others, sleeping, eating, or learning issues) to whole room issues (for example, impact of transitions such as orientation of a new child, or issues in establishing routines for the whole group).

Infant mental health knowledge and skills can provide containment for educators in challenging times and may provide alternative ways of thinking about the meaning of behaviours or communications expressed by the children. For example, if a child is engaging in challenging behaviours or is withdrawn and unable to participate in learning, this forum is the place where the trauma and attachment informed pedagogical approaches can be discussed, refined and recalibrated. Where an individual child is not the focus, the meetings can be used to discuss and plan for the emotional impact and response to anticipated challenges such as transitions to a new room or farewelling an educator going on maternity leave. As the infant mental health consultant is a core team member, located at the centre and working several days a week they are also available for informal consultation with individual educators about individual children as needed.

7.5 Multi-disciplinary practice consultations — Building relational pedagogy

The literature on the benefits of collaborative practice between professionals with different expertise and experience provides a strong rationale for the EYEP model (Anning 2005; Horwath & Morrison 2007; Wong et al. 2014). The EYEP multidisciplinary approach to co-constructing shared goals and planned actions to improve outcomes for children and families requires a high level of professional trust, cooperation and coordination to achieve its aims.

The model requires regular two-hour multi-disciplinary practice workshops with the infant mental health clinician/consultant, the pedagogical leader, the family services practitioner and the whole staff group. The focus of these meetings is to bring together the knowledge base and skills of the disciplines of early years education and infant mental health and social casework. This is a forum where the challenges and the need for innovation in implementing the EYEP model can be reflected on. Different understandings of learning, behaviour and development are discussed as are the different norms between education, mental health and family services settings and practice.

8. Discussion

The EYEP model is designed to provide vulnerable infants and toddlers with a predictable, nurturing and responsive interpersonal environment that will facilitate all facets of development and learning—cognitive, language, physical, emotional and social development to build their capacity for full participation in society. It meets the challenge issued by Shonkoff, to "combine cognitive-linguistic enrichment with greater attention to preventing, reducing or mitigating the consequences of significant adversity on the developing brain" (Shonkoff 2011, p. 982). This is precisely what EYEP is designed to do.

Universal early years education and care settings under current funding and governance arrangements in Australia struggle to meet the highly complex needs of the EYEP cohort of children. In the EYEP model we have designed a program with key elements not present in universal settings to provide direct intervention to the child to prevent and redress the outcomes from exposure to adverse early experiences.

The unique features and the level of intensity and duration of the EYEP model, including the employment of full-time, qualified educators, with an embedded infant mental health clinician/consultant and family services practitioner as part of the staff team; a rigorous relationship-based curriculum informed by trauma and attachment theories; individualised case planning in consultation with parents and other agencies; and the ongoing training, professional development, and reflective supervision for staff, contrasts clearly with universal education and care services in Australia.

All educators could benefit from learning about improving ways to sustain the engagement and enhance the learning of children and families living with significant family stress and disadvantage in universal early education and care services. However, this would not fully address the needs of the most vulnerable children, as they require the dual focus on both high-quality education and the child's mental health to reverse intergenerational trajectories of marginalisation and poor outcomes.

For children to begin formal school (Prep/Foundation grade) developmentally equivalent to their peers with the knowledge, skills and attributes needed for ongoing successful learning EYEP needs to be implemented with fidelity to all elements of the model.

EYEP is an intensive model. If education and care is an investment in children's health, learning, development and mental health, then costs need to be compared to the personal, economic and social costs of not intervening with children living with significant family stress and social disadvantage. From a human rights perspective, children living with significant family stress and social disadvantage have the same rights to tertiary services as children who are born with a serious health issue for whom Australia rightly provides a continuum of health services from primary care to intensive care.

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Appendix 1

Staff involved in delivery of the Early Years Education Program and the research trial

Children's Protection Society/Kids First
Presidents

➤	Alice Hill	2005–2008
➤	Tim Mulvany	2008–2011
➤	Alice Hill	2011–2013
➤	Jane Munro	2013–2016
➤	Bernard Murphy	2016–2018
➤	Sandy Forbes	2019–present

CEOs

➤	Bernadette Burchell	2006–2011
➤	Dave Glazebrook	2011–2012
➤	Aileen Ashford	2013–present

Assistant to Research/Governance Committee

➤ Margaret Farquharson

Management/team leaders/administration/ infant mental health

➤	Aisha Bal	Cath McPhee
➤	Natalie Bou-Ghosn	Shannan Mudie
➤	Dianne Camilleri	Diana Pellegrino
➤	Nichola Coombs	Monica Robertson
➤	Liz Dullard	Madeleine Saffigna
➤	Liza Farquhar	Janet Williams-Smith
➤	Joanne Kitto	

Educators

➤	Sohayla Asari	Barbara Lacey
➤	Sandra Athanasoupolos	Nerissa Linklater
➤	Robyn Ball	Jennifer Lovrek
➤	Lisa Barbaro	Lisa McKibbin
➤	Natalie Boardman/O'Dath	Sarah Meldrum
➤	Helen Brand	Chiara Perri
➤	Jacquelyn Clark	Catherine Quirk
➤	Marylin Ellis	Sonia Shard
➤	Val Farmer	Erin Maree Sharp
➤	Pnita Holthouse	Jenny Voogt
➤	Tina Howard	Jaymi-Lee Warren
➤	Donna Kavanagh	Jane Cecelia William

Cooks

➤	Lea Bautista	Gabbie Mantini
➤	Patrick Carmody	Edwina Pleming
➤	Anne Flack	Marcela Ramos

Researchers

➤	Andrew Bevitt	Leng Lee
➤	Steph Brophy	Lauren McCabe
➤	Tamera Clancy	Jonathan Reyes
➤	Megan Clark	Jane Sheehan
➤	Nichola Coombs	Xuan Vu
➤	Mael Guillou	Kerry Ware
➤	Penny Hartmann	

Appendix 2

Victorian Department of Human Services 2007 Best Interest Case Practice Model – List of risk factors to healthy child development

Child and family risk factors

- family violence, current or past
- mental health issue or disorder, current or past (including self-harm or suicide attempts)
- alcohol/substance abuse, current or past, addictive behaviours
- disability or complex medical needs eg. intellectual or physical disability, acquired brain injury
- newborn, prematurity, low birth weight, chemically dependent, foetal alcohol syndrome, feeding/sleeping/settling difficulties, prolonged and frequent crying
- unsafe sleeping practices for infants eg. Side or tummy sleeping, ill-fitting mattress, cot cluttered with pillows, bedding or soft toys which can cover an infant's face, co-sleeping with sibling or parent who is on medication, drugs/alcohol or smokes, using other unsafe sleeping place such as a couch or exposure to cigarette smoke
- disorganised or insecure attachment relationship (child does not seek comfort or affection from caregivers when in need)
- developmental delay
- history of neglect or abuse, state care, child death or placement of child or siblings
- separations from parents or caregivers
- parent, partner, close relative or sibling with a history of assault, prostitution or sexual offences
- experience of intergenerational abuse/trauma
- compounded or unresolved experiences of loss and grief

- chaotic household/lifestyle/problem gambling
- poverty, financial hardship, unemployment
- social isolation (family, extended family, community and cultural isolation)
- inadequate housing/transience/homelessness
- lack of stimulation and learning opportunities, disengagement from school, truancing
- inattention to developmental health needs/poor diet
- disadvantaged community
- racism
- recent refugee experience

Parent risk factors

- parent/carer under 20 years or under 20 years at birth of first child
- lack of willingness or ability to prioritise child's needs above own
- rejection or scapegoating of child
- harsh, inconsistent discipline, neglect or abuse
- inadequate supervision of child or emotional enmeshment
- single parenting/multiple partners
- inadequate antenatal care or alcohol/substance abuse during pregnancy

Wider factors that influence positive outcomes

- sense of belonging to home, family, community and a strong cultural identity
- pro-social peer group

Changing the Life Trajectories of Australia's Most Vulnerable Children

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