Can We Undo Harms from the Past?

Developing a Theory of Change to Redress Consequences of Serious Childhood Neglect

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Table of Contents

Table List

Figures List

Abstract

The study's aim was to build a foundational theory of change to inform interventions for children who experience neglect. The research question was: *What key elements of a theory of change can inform choice and/or design of interventions to help children recover from the harms of serious neglect?*

The literature review, including one publication of a scoping review and one paper accepted for publication on a systematic review, described harms from neglect, mechanisms of harm, a small number of studies on interventions, and mechanisms of recovery. Findings confirmed that child neglect is prevalent, harmful and yet there remains a scarcity of research on interventions with children post-neglect.

I employed mixed methods integrating qualitative and quantitative methods applying a critical realist grounded theory approach. My two-phase study began with interviews with four experts in neglect, followed by an online survey of 216 professionals across 10 countries and carers in Australia. Disciplines of professional respondents included social workers, psychologists, teachers, community workers, medical professionals, allied health, and other therapists. The survey asked respondents to describe a child they had worked with or cared for who experienced physical, emotional, medical, supervisory, developmental, cultural, or global/multiple neglect.

A critical realist approach involved a focus on mechanisms of harm and recovery. The quantitative analysis, using descriptive, logistic regressions, and cluster analyses, along with qualitative analysis using grounded theory coding, enabled exploration of the possibilities, regularities, and patterns to inform the theory of change to contribute to children's recovery from neglect.

Findings included expanding the range of neglect subtypes normally covered in research, especially developmental and cultural neglect. Applying an ecological-systems and biopsychosocial and cultural lens, the study provided a proposed foundational theory of change to support recovery for children post-neglect. Future work would build on this theory of change and apply it in specific practice settings.

Statement of Authorship

Except where reference is made in the text of the thesis, this thesis contains no material published elsewhere or extracted in whole or in part from a thesis accepted for the award of any other degree or diploma. No other person's work has been used without due acknowledgment in the main text of the thesis. This thesis has not been submitted for the award of any degree or diploma in any other tertiary institution.

As referenced in the text of the thesis, material published and accepted for publication, elsewhere where I am a co-author include:

Jackson, A. L., Frederico, M., Cleak, H., & Perry, B. D. (2022). Childhood neglect and its implications for physical health, neurobiology and development – A scoping review of the literature, Developmental Child Welfare, *4*(2), 114–135. https://doi.org/10.1177/25161032221088042

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Contribution Table for Published and Forthcoming Publications

Co-Author Name	Jackson et al (2022) Scoping review		Jackson et al (2023) Systematic review	
	Contribution	Percentage of Contribution	Contribution	Percentage of Contribution
Annette Jackson	Conception and design, screening of literature, writing, presentation	70%	Conception and design, screening of literature, writing, presentation	70%
Margarita Frederico	Critical review and interpretation	10%	Screening of literature, critical review and interpretation	10%
Helen Cleak	Critical review and interpretation	10%	Screening of literature, critical review and interpretation	10%
Bruce D. Perry	Contribution of knowledge, writing, review and interpretation	10%	Contribution of knowledge, review and interpretation, final reviewer	10%

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Acknowledgement of Country

I have lived, worked, and studied over the course of this study on the lands of the Wurundjeri people of the Kulin Nation and the lands of the Braiakaulung people of the Gunai Kurnai Nation. I want to pay my respects to the Elders past, present, and emerging and to those of other Indigenous peoples.

Pronouns

I use she/her pronouns and recognise this is a choice. When it is not clear in terms of respondents, or descriptions of children I have used they/them pronouns.

Abbreviations

Abbreviations Used in Study

Acronym	Descriptor
ABC	Attachment and Biobehavioral Catchup
ARC	Attachment Regulation and Competency
BEIP	Bucharest Early Intervention Program
CALD	Culturally and linguistically diverse
CBCL	Child Behavior Checklist
CCYP	Commission for Children and Young People
CPP	Child-Parent Psychotherapy
CPS	Children's protective services
DDP	Dyadic Developmental Psychotherapy
DFFH	Department of Families, Fairness and Housing (Victoria, Australia)
DHHS	Department of Health and Human Services (Victoria, Australia)
EMDR	Eye Movement Desensitization Reprocessing
FCAV	Foster Care Association of Victoria.
FHF	Fostering Healthy Futures
IY	Incredible Years program
LAC	Looking After Children
LCA	Latent class analysis
MST	Multisystemic Therapy
NMT	Neurosequential Model of Therapeutics
OOHC	Out-of-home care
OTs	Occupational therapists
PCIT	Parent Child Interaction Therapy
TFCBT	Trauma-Focused Cognitive Behavioural Therapy
TEP	The Equilibrium Project
VACCA	Victorian Aboriginal Child Care Agency

1. Introduction

Childhood neglect is not new, rare, or benign. Neglect is prevalent and harmful to children in diverse ways and can have ramifications in adult life indicating children do not simply grow out of its effects. There is research on prevention of neglect and its consequences yet there remains minimal study on interventions for children impacted by neglect (Proctor & Dubowitz, 2014).

Many professionals from child welfare, health, allied health, mental health, early childhood education and care, schools, and Indigenous[1] and other cultural-specific services likely work with children who have experienced neglect. It is also probable that many foster parents and kinship carers are caring for children who have been neglected. Despite a call for the use of evidence-based practice for children who have experienced neglect (e.g., Daniel et al., 2011; National Child Traumatic Stress Network, 2017; World Health Organization, 2015), the lack of such evidence or other research on interventions for these children represents a major stumbling block. My intent is to build a foundation for a theory of change to elucidate what elements interventions need to have to help children recover from neglect. Such a theory of change could also inform further research on interventions and their outcomes.

Chapter 1 details my rationale, objective and aims of my study, defines key terms, and outlines my methods and thesis structure in light of my career context as a researcher and practitioner in this field.

Rationale

This study was based on three propositions informed by the literature and my professional experience and tested through the conduct of the study.

1. Neglect is one of the most prevalent forms of child maltreatment in many countries (e.g., Australian Institute of Health and Welfare, 2022; Fallon et al., 2021; U.S. Department of Health & Human Services Administration for Children and Families, 2022; United Kingdom Statistics Authority, 2022).
2. Neglect, and its various subtypes, can be very harmful for children across various domains (Hildyard & Wolfe, 2002; Jackson et al., 2022; Maguire et al., 2015).

[1] I use the term Indigenous when referring to Indigenous children and communities from any country. When referring to Australian Aboriginal and/or Torres Strait Islanders, I use the term Aboriginal, unless otherwise specified.

3. There is a scarcity of research on interventions with children who have suffered neglect, and this reflects an unsatisfactory gap in knowledge on recovery (Allin et al., 2005; Berry et al., 2003; Daniel et al., 2011; DePanfilis, 2006; Department of Community Services, 2006; Proctor & Dubowitz, 2014; Sesar & Dodaj, 2021; Tanner & Turney, 2006; Taussig et al., 2013).

Despite the unquestionable importance of prevention and early intervention in response to the risk of neglect, we must also work to help children who have already been neglected in their recovery. The *United Nations Convention on the Rights of the Child* (1989) requires a commitment from Governments to prevent child abuse and neglect and to protect children when these occur, and also to take measures that "promote physical and psychological recovery and social reintegration of a child victim of any form of neglect … Such recovery and reintegration shall take place in an environment which fosters the health, self-respect and dignity of the child" (Article 39).

Objective, Aims and Research Question

My objective in undertaking this study was to contribute to an understanding of what could help children in their recovery from the impact of neglect. My overarching aim was to build a theoretical and practice foundation for a theory of change that could inform interventions for children post serious neglect. Furthermore, this work could inform policy and service development and future research.

My study aims included:

1. To explore how serious neglect and its impacts are conceptualised by those working with or caring for children who have experienced neglect, including professionals from different disciplines and carers.
2. To discover and describe approaches used by professionals and carers that aim to reduce or redress the harmful consequences of neglect and consider what factors may influence these approaches.
3. To build the foundations of a theory of change that aims to alleviate the consequences of serious neglect for children and to consider what further research is required to complete this theory of change.

My overarching research question was:

> *What key elements of a theory of change can inform choice and/or design of interventions to help children recover from the harms of serious neglect?*

Definitions

Child Neglect

Child neglect is one of the most pervasive and prevalent forms of maltreatment and is recognised as a public health and human rights issue on an international scale (Appleton, 2012; Krug et al., 2002). Neglect is commonly understood as an act of omission (Gough, 2005) and has proven as difficult to define as good or adequate parenting (Chiang et al., 2022; Dubowitz, Pitts, et al., 2005; Horwath, 2013). To define neglect requires a shared social understanding of what children need to be safe, develop and thrive. This differs not only from an individual, family, community, and cultural perspective, but evolves over time along with community and cultural values and changing expectations and technology. What is reasonable to expect from a parent and what happens in child development falls along a continuum, with no agreed cut-off to denote neglect. Children's needs also change depending on their age, functioning and broader environment (Perry, 2002).

A contentious question in the literature is whether neglect is about what parents or other caregivers fail to provide (i.e., omission), or what the child does not receive (i.e., unmet needs) (Daniel et al., 2011; Dubowitz, Pitts, et al., 2005; Scott, 2014; Stowman, 2005; Straus & Kantor, 2005). Dubowitz et al. (1993) advocated for a broader ecological-based definition of neglect based on the child's unmet needs to "see an overriding and common purpose that all disciplines and professionals share in defining child neglect: to ensure the adequate care and protection of children" (p. 12).

For the purpose of this study, neglect is conceptualised as when children have not had their essential needs met by those in a position to do so (Dubowitz, 2009; Frederico et al., 2006; Perry, 2004). The second part of the phrase distinguishes neglect from severe poverty, or other external factors which rob both the child and caregiver of the possibility of the child's needs being met. Serious neglect is when neglect occurs to the extent there is significant harm. It usually signifies greater chronicity, severity, and breadth of harms (Frederico et al., 2006; Jackson et al., 2022).

Dubowitz, Newton, et al. (2005) noted the heterogeneity of neglect suggests that definitions should consider multiple subtypes. The subtypes include an overlapping list of physical, emotional, supervisory, environmental, educational, medical, dental neglect, and abandonment (e.g., Barron & Jenny, 2011; Daniel et al., 2011; Dubowitz, Pitts, et al., 2005; Mennen et al., 2010). There is also institutional neglect, for example, that occurred in some Eastern European orphanages in the 1990s (e.g., Nelson et al., 2014; Rutter et al., 2010).

In this study, I include two neglect subtypes, not readily found in the literature, and contend they are likely recognised in practice. The first is *developmental neglect* which includes everything covered by educational neglect as well as the absence or insufficient experiences such as play, exposure to language, physical activities, and other developmental stimulation. A potentially more contentious inclusion is that of *cultural neglect*, which is found to have various meanings in the literature. I propose cultural neglect is where a child is denied key aspects of cultural identity and connection and so may experience significant harm (Jackson et al., 2022). See Appendix 1 (page 388) for a description of each neglect subtype.

Another question to consider on child neglect is whether it is an objective reality or a social construction. Consistent with a critical realist paradigm (Danermark et al., 2019), I assert neglect is both an actual and a social construct. Neglect and parenting are heavily influenced by perception, interpretation, and context. These constructs can only be understood in their social, cultural, gendered, intersectional, and developmental context. I contend, children of certain ages and development need a certain level of care to survive, be healthy, grow, and learn. A child can die or become seriously ill due to neglect, regardless of the individual or society's understanding of neglect, though we may look elsewhere for the cause. On the other hand, many children have received a child protective services (CPS) intervention and been removed from their homes due to neglect, where this may be better understood as both disadvantage and an abuse of power. Poverty (e.g., Schumaker, 2014), racism (e.g., Cantey et al., 2022; Human Rights Equal Opportunity Commission, 1997), and sexism (e.g., Strega et al., 2008) are examples of confounding factors that may be more influential than the presence of neglect.

Interventions

Horwath (2013) noted that not only is neglect difficult to define but so too is intervention. In their systematic review on treatment interventions for children who experienced neglect, Allin et al. (2005) defined intervention as "any therapeutic manoeuvre aimed at treatment" (p. 498). Macdonald et al. (2016), in their systematic review on treatment for maltreated children, focused on psychosocial interventions as "ways of helping that do not rely on drugs" (p. xxvii). For the purpose of this study, interventions were defined as actions undertaken by a professional of any discipline or field of practice and by carers of children that include a therapeutic intent or an intent to make positive changes for the child. Interventions include strategies or actions that work directly with the child, or through others in the child's microsystems, to benefit the child. They may be individual, dyadic, family, group, or work focused to change the child's day-to-day environment. Formal interventions were defined as those with documentation of their constituent parts and how they are implemented. They may or may not have an evidence-base.

Formal interventions may be described as a program or model of practice, treatment approach, or a practice element that is a discrete action within a formal intervention. They could be psychosocial, biological, cultural, or other form of intervention. They may also target systemic or structural factors impacting on the child or their caregivers, such as through advocacy, but for the purposes of this study, hold a particular child at the centre of the intervention. An informal intervention includes actions undertaken by carers or professionals with or for the child, and not formally documented as interventions.

Recovery

Recovery has been described in numerous ways though rarely defined. It was commonly described in terms of improved functioning, developmental, and positive experiences. Examples pertaining to child neglect include "reducing mental health symptoms" (Widom, 2013, p. 5); "improve the daily lived experience of children" (Horwath, 2013, p. 2); "acceleration in development" (Schor & Holmes, 1983, p. 73); and "ameliorate the negative impact of prior adverse experiences and to foster resilience among children with a wide range of functioning in cognitive, social, emotional, and behavioral domains" (Taussig et al., 2013, p. 61).

Recovery may mean something different to the child, family, caregiver, professional, or community. Recovery could, for example, be children meeting their genetic and biological potential, achieving certain goals which impact on one or more domains, healing, or experiencing and participating in a more positive quality of life. Defining recovery from neglect was one of the questions I sought to explore through this research. Taking into account the definitions of neglect, recovery is likely to include the children's needs being met; the opportunity for them to reach their developmental potential; and make sense of their own experience.

Theory of Change

There are many overlapping terms and descriptors for theory of change or program theory and for the purposes of this study I used definitions put forward by Funnell and Rogers (2011). They described program theory as having two components: (1) theory of change; and (2) theory of action. Theory of change aims to unpack mechanisms by which change is believed to occur through an intervention or strategy. Theory of action describes how the intervention activates the theory of change. The focus in my study is on the building blocks for a theory of change. This emphasis on the possible mechanisms underlying a problem and possible solutions is one of the mainstays of a realist approach which also forms part of this study's method (Pawson & Tilley, 1997). Treatment theory, as described by Lipsey (1993), is a similar concept to theory of change, as it "attempts to describe the process through which an intervention is expected to have

effects on a specified target population" (p. 31). Elements of treatment theory, according to Lipsey, include specifying what needs to change; what is needed to affect such change; the change process and how this adjusts to individual and contextual factors; and the expected outputs.

Funnell and Rogers (2011) describe diverse approaches to program theory and theory of change and recognise its adaptability when used thoughtfully, strategically and purposefully. As this study aims to propose a foundational theory of change, my intent differs from normal processes whereby a set program or intervention is under consideration. In this context, my purpose is to produce the foundations of a theory of change, that can then be populated and completed depending on the context of the service, discipline and nature of role with the children. Whether it is with an individual child in mind, implementing or designing an intervention, developing a program, or consulting on a policy direction, the intent for this foundational theory of change is for it to offer a starting point to help answer "What can we do to help this child, or these children recover from neglect?"

Approach to this Study

To address my objective for this study, my approach was to apply critical realist grounded theory using mixed methods. Critical realism maintains reality is objective and subjective and how we make sense of reality is through subjective experience (Bhaskar, 2011; Danermark, 2019). This is consistent with my ontological stance. Critical theory, including critical realism, emphasises emancipatory goals focusing on structural and anti-oppressive responses to problems rather than person-specific explanations (Payne, 2005). I held an applied theory-in-practice intent. My assumption is with better understanding across the individual, micro-, meso-, exo-, and macrosystems comes practical utility (Bronfenbrenner, 1979). For the purpose of helping children and guiding those who help children, my study has a pragmatic orientation located in practice settings and in the child's home (See Appendix 1 for glossary of terms, page 388).

Grounded theory supports the construction of theories, typically through qualitative analysis (Corbin & Strauss, 2008). In line with critical realism, I was interested in an integrated mixed method approach to data collection and analysis incorporating quantitative and qualitative data to provide opportunities for comparison and expanding ideas (Bryman, 2006). Critical realist grounded theory brings critical realism and grounded theory together and is used to build explanatory theory (Oliver, 2012).

A critical realist ground theory approach has the potential to produce theory that portrays fullness of experience, reveals taken-for-granted meanings (Charmaz, 2005) and has the

> ‘grab’ (Glaser, 2002) to help people feel they can explain what they see. In the busy and complex worlds in which they operate, this may be the kind of research to which social workers can attend. (Oliver, 2012, p. 384)

The data was sought from three sources:

1. The nature and mechanisms of harm from neglect and the nature of models of intervention and their underlying mechanisms of recovery were explored through a literature review.
2. Semi-structured interviews with leading experts in the field of neglect were conducted to examine these questions in more detail.
3. An online survey with open and closed-choice questions was disseminated to professionals from a range of countries and disciplines and to carers in Australia.

The intent was to hold a series of focus groups with professionals and carers to synthesise the findings from the semi-structured interviews and surveys and collectively construct a draft theory of change. These focus groups did not occur, however, due to the COVID-19 pandemic and associated restrictions. For example, preliminary consultation with the Victorian Aboriginal Child Care Agency (VACCA) and the Foster Care Association of Victoria (FCAV) had advised that focus groups with Aboriginal professionals and foster parents should be in person given potentially sensitive nature of the discussion and different approaches to engagement required. Such face-to-face groups were no longer possible in Victoria, Australia due to extensive lockdowns over 2020 and 2021. Similarly, due to the level of disruption and uncertainty as a result of COVID-19 being experienced around the world it was considered ill-timed to ask people to participate in focus groups. The timelines for completion of the study did not allow for further delays. The lack of focus groups led to a greater reliance on the interviews and survey data and so became a two-phase study. Applying critical realist grounded theory including both quantitative and qualitative data and analysis throughout the study led to a proposed foundational theory of change that could be applied by professionals from a range of disciplines and roles, and by carers and those who support their role with children who have experienced neglect.

My Context

I have 40 years of experience as a social worker in practice, research, and management roles in services such as in CPS, out-of-home care (OOHC), family preservation, and therapeutic, services in Victoria, Australia. I was also a foster parent. Through my experiences, I have encountered countless children who lived with neglect in various forms and severity and many parents who struggled to not neglect their children’s needs. I reviewed child death inquiries for

systemic implications where neglect was a hallmark of children's lives and sometimes implicated in their death. I sat with parents who mourned their own histories of neglect whilst still searching for someone to meet the chasm of unmet needs, whether it be a new partner, another child, a case manager, or clinician. I was in government and non-government roles where the service and legal system's failure to meet certain core needs of children were to varying degrees acknowledged. I was a clinician sitting with children whose experience of neglect over many domains meant they were missing the building blocks needed to help them make sense of their lives. As a foster parent, I was often left not knowing which needs children had learnt not to expect to be met. These and other experiences have influenced my approach to this study. Primarily, my interest has been in the practice implications for anyone working or caring for a child who has experienced the sustained neglect of their essential needs. I am focused on both the child in front of us who needs a response and the broader systemic factors that may help or hinder our efforts.

I have explored perspectives on cultural neglect in this study and so it is important to acknowledge I am a non-Indigenous Australian woman living on the land of the Braiakaulung people of the Gunai Kurnai Aboriginal nation. As someone with primarily Anglo-Celtic ancestry living in an invaded and colonised country, my perspective of culture and cultural safety or lack thereof is different to many children and families involved in the CPS and OOHC systems in Australia and other countries who are routinely subjected to individual and systemic racism. I recognise much of the cultural abuse and cultural neglect, such as in relation to removal of Aboriginal children from their families and communities as part of the Stolen Generations (Human Rights Equal Opportunity Commission, 1997; The Healing Foundation, 2020), was carried out by those in social work or other roles similar to mine. I am aware my own judgement, assumptions, and actions over the years working in these fields reflected racism borne from 'white privilege'.

Thesis Outline

My thesis consists of eight chapters and appendices.

Chapter 2 (page 10) comprises an extensive literature review on the nature and prevalence of neglect and its associated harms, and mechanisms of harm from neglect and potential recovery pathways. This chapter also includes two embedded publications in peer-reviewed journals.

Chapter 3 (page 83) describes the research design and method for this study. This includes discussion on the study's approach using critical realism and grounded theory and limitations in the study design.

Chapters 4 to 6 details the results of the study. Chapter 4 (page 110) describes the respondents in the interviews and surveys, and the children described in the surveys. Chapter 5 (page 126) describes the nature and implications of neglect and mechanisms of harm drawing on both qualitative and quantitative analysis of interviews and survey data. Chapter 6 (page 178) describes the interventions and strategies used to help children recover and possible mechanisms for recovery.

Chapter 7 (page 238) includes a discussion on the findings as they pertain to the research questions and aims of the study. Using critical research analyses along with program theory, this chapter presents a proposed foundational theory of change.

Chapter 8 (page 316) is the conclusion where I detail the contributions of this study's approach and findings, highlight limitations and my recommendations for future work.

Summary

The complexity of child neglect highlights the need for research to advance understanding to inform practice and policies whether the focus be prevention, identification, intervening with families, or helping children in their recovery. It is the latter that has received the least attention and is the focus of my work. The propositions behind my study were that neglect is prevalent and harmful and the scarcity of research on interventions with children who have suffered neglect reflects an unsatisfactory gap in knowledge on recovery. I applied a critical realist grounded theory in a mixed method design which led to a proposed foundational theory of change. This work is expected to inform caregiving, professional practice, service development, policy, and future research.

2. Literature Review

In this chapter, I present a review of literature on child neglect and recovery germane to this study's aims and research questions (Box 2-1). The chapter is divided into six sections, beginning with a description of the approach and methods used in the literature review.

Topics covered in Section 2 are the nature and subtypes of child neglect, its prevalence, and context. Section 3 describes the literature pertaining to the harms associated with neglect including a publication on the harmful impacts of neglect: *Childhood neglect and its implications for physical health, neurobiology and development—A scoping review of the literature*. Section 4 focuses on the mechanisms described in the literature to explain how neglect contributes to these harms. Section 5 describes some of the models and interventions used with children who have experienced neglect, including a publication of a systematic review: *Interventions to support children's recovery from neglect—A systematic review.* Section 6 explores the literature on mechanisms that may explain how recovery may occur.

Box 2-1

The Literature Review as per the Aims and Research Questions of this Study

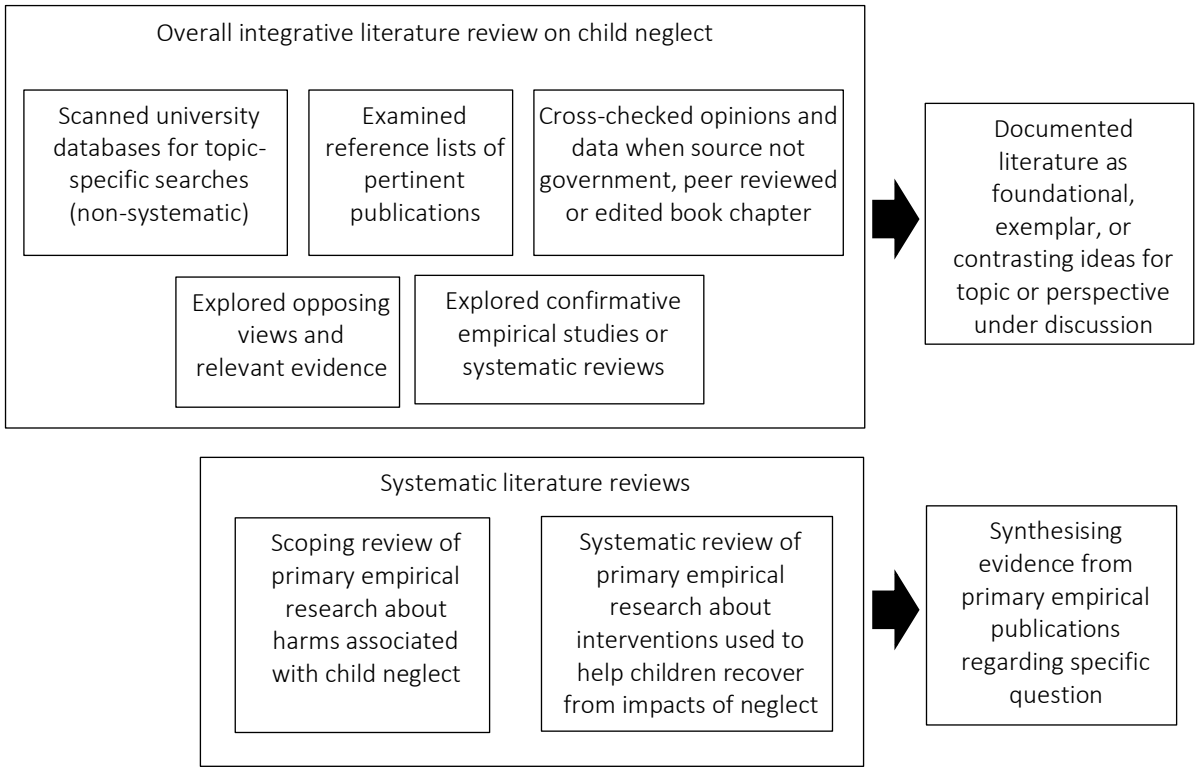
Aims	*Guiding questions and sections of the literature review*
1. To explore how serious neglect and its impacts are conceptualised by those working with or caring for children who have experienced neglect, including professionals from different disciplines and roles and foster parents. 2. To discover and describe approaches used by professionals and carers that aim to reduce or redress the harmful consequences of neglect and consider what factors may influence these approaches.	1. How is the phenomenon of serious neglect and its impact on children described in the literature? (Sections 2 and 3) 2. What are the mechanisms by which children may be harmed according to the literature? (Section 4) 3. What models or interventions are described in the literature that are used to help children recover from the consequences of serious neglect? (Section 5) 4. What are the mechanisms that could be involved in recovery from the impacts of neglect according to the literature? (Section 6)

Section 1: Approach to the Literature Review

I undertook an integrative literature review drawing on theoretical and empirical literature to underpin a comprehensive understanding of the phenomena (Whittemore & Knafl, 2005) including child neglect, its impact on children, recovery from those impacts, and mechanisms of harm and recovery. The aim was to be descriptive, not exhaustive. I have not covered the causes of neglect or universal prevention strategies unless relevant to the context. When exploring more narrowly defined questions on the extent and quality of the evidence available, I used a systematic review or scoping review methodology (Figure 2-1).

Figure 2-1

Overview of Approach to Literature Review



The sources were primarily peer-reviewed journals, edited book chapters, and government websites and documents. Government sources were used when describing prevalence, government policies or systems, or as part of the conceptual discussion. No additional screening was undertaken in terms of type of study, rigour, or originality. Unless otherwise stated, data searches were not limited by date, although priority was given to more recent publications. The most common databases searched were PsycINFO, Medline, ERIC, Embase, and Sociological Abstracts. Google Scholar was used on occasion, and it is noted when this occurred. Methods used in the scoping literature review and systematic literature review are described in those publications.

Section 2: Nature and Prevalence of Child Neglect

Nature of Child Neglect

The definition of neglect is typically informed by its purpose, such as when used for legal, research, policy, or service delivery (Watson, 2005). The debate on whether the definition should be narrow or broad is usually in the context of child protective services' (CPS) thresholds where there is concern on over- or under-intervening in the lives of children and families (English et al.,

2005; Wald, 2015). The definition of neglect for the purpose of this study needs to be broad to guide practice and service design, whilst not erroneously labelling children and families.

A commonly mentioned debate on the definition of neglect is whether parents have failed to provide for their children, in terms of omission of care (Straus & Kantor, 2005), or whether it is about children's unmet needs (Dubowitz, Newton, et al., 2005). Tang (2008) acknowledges that Dubowitz and colleagues' approach to the definition is very broad but contends it is worth the challenge to define these unmet needs. In contrast, Wald (2015) argues the definition by Dubowitz et al. is too broad and beyond the scope of CPS to respond to all of children's needs, thus illustrating the definition must be informed by its purpose. The definition posited for this study in Chapter 1 (page 3) is more aligned to that of Dubowitz et al. Focusing on children's unmet needs is more conducive to considering approaches to their recovery.

Defining neglect is understandably contested, especially given the complexities associated with deciphering its objective and subjective nature. Objectively, there are many examples of serious, even life-threatening harms associated with neglect (Brandon, Bailey, et al., 2014; Frederico et al., 2006). This places neglect within the 'actual' domain as described under critical realism (Bhaskar, 2008). The way neglect is defined, understood, experienced, assessed, and responded to is a social construction (Gupta, 2017; Turney, 2000), and so it is also in Bhaskar's 'empirical' domain. Contentious areas highlighting neglect as a social construction include its interface with poverty (Gupta, 2017; Scott, 2014; Wald, 2015); different cultural perspectives (Blackstock et al., 2020; Cunneen & Libesman, 2000; Laird, 2016; Tang, 2008); its gendered nature with neglect often positioned as the fault of mothers (Berry et al., 2003; Scott, 2014; Turney, 2000); and the thresholds of CPS and courts' decision-making (Brandon, Glaser, et al., 2014; Dickens, 2007; Gupta, 2017).

An example of this complexity is that neglect is culturally and historically defined (Jaggs, 1986; Sinha et al., 2013; Tomison, 2001). As laws and policies are the purview of the dominant culture, this can include imposing definitions without recognition of variations across cultures in child rearing practices (e.g., Frankland et al., 2010; Newton, 2019).

Neglect is not a single construct. It is multidimensional and heterogenous (Dubowitz, Newton, et al., 2005; Straus & Kantor, 2005; Tang, 2008). Its dimensions include severity, frequency, duration, subtypes, and pervasiveness (Barron & Jenny, 2011; Straus & Kantor, 2005). Dubowitz, Newton, et al. (2005) noted the heterogeneity of neglect suggests any definition should consider multiple subtypes. There is little agreement, however, on categories of subtypes (Dubowitz et al., 1993; Horwath, 2013; Mennen et al., 2010; Tang, 2008).

Typologies of Neglect

Although neglect is sometimes treated as monolithic (Esposito et al., 2021), it is made up of overlapping subtypes. The most common neglect subtypes found in the literature were physical, emotional, supervisory, environmental, educational, medical, abandonment, and institutional neglect (Barron & Jenny, 2011; Daniel et al., 2011; Jackson et al., 2022; Mennen et al., 2010; Nelson et al., 2014; Rebbe, 2018). There is also system neglect, such as when children's needs are not met due to systemic or service-based decisions or lack of decisions (Blackstock, 2016; Jolly, 2018; Slee, 2012) (Appendix 1, page 388).

A commonly noted feature of neglect in the literature is the co-occurrence of neglect subtypes (e.g., Barron & Jenny, 2011; Black & Oberlander, 2011; Dubowitz et al., 2002). This may be described as global or pervasive neglect, although global neglect is often associated with institutional neglect (e.g., Rutter & English and Romanian Adoptees (ERA) study team, 1998). Perry and Pollard (1997) defined global neglect as "when a history of relative sensory deprivation in more than one domain was obtained (e.g., minimal exposure to language, touch and social interactions)". Perry et al. (2016) later described these experiences as "extreme total global neglect", possibly to further differentiate the children whose experiences were at the extreme end.

Initially, two neglect subtypes—*developmental* and *cultural*—appeared rarely in the literature, and yet I assumed they were familiar constructs in the lexicon of practice, at least within my professional circle in Australia. I re-examined the literature therefore with three questions in mind (Table 2-1).

Table 2-1

Questions to Explore Literature Regarding Developmental Neglect and Cultural Neglect as Constructs

	Questions of the literature	Method
1.	Were these terms found in the literature?	Scanned Embase, ERIC, Medline, Sociological Abstracts, PsycINFO databases and Google Scholar (2010 to 2023).
2.	Did literature provide context or other terms or descriptors for similar construct?	Integrative literature review on neglect using proposed definitions to explore confirmation or contraindicators for the construct.
3.	Were there examples of subtype in literature?	Integrative literature review for examples where concept was described.

Developmental Neglect

The developmental neglect definition I used in the online survey I designed in this study was "child's developmental needs not met, e.g., not supported in education, play, other necessary developmental stimulation".

This definition was informed by an initial search in the literature. Hegar and Yungman (1989) described developmental neglect as depriving "children of experiences necessary for growth and development, including supervision and services or care to promote education, health, and mental health" (p. 210). In their definition, developmental and supervisory neglect overlapped. In the academic database search I found the term developmental neglect was rarely used, with an exception being about children who, when over-indulged, did not have opportunities to develop in certain areas (Clarke et al., 2017). Despite this referring to a different cohort than likely covered in this study, their definition was consistent with the construct proposed. "Developmental neglect is failing to provide the environment in which children can accomplish the developmental tasks associated with each developmental stage in ways that interfere with their ability to thrive" (Clarke et al., 2017, para. 3).

Tang (2008) maintained only two neglect subtypes are needed in a neglect typology, that is physical neglect (not meeting needs for a healthy body) and psychological neglect (not meeting needs for a healthy mind). She argued "developmental neglect as currently defined is so broad that it seems to encompass all possible subtypes of neglect, and thus has lost its specificity as a subtype" (p. 373). Tang raised a useful point on the breadth of the term and yet the examples provided under physical and psychological neglect did not appear to adequately describe some of the neglect that could be covered under developmental neglect (e.g., play). Just as developmental neglect may be considered too broad, so can limiting the subtypes.

A Google Scholar search found 216 reports that mentioned developmental neglect, of which 42 were consistent with child neglect. The use of this term, however, often appeared synonymous with general neglect, in line with Tang's (2008) caution, or as a form of emotional neglect. After sifting through the references, four publications described a similar construct to that used in this study. Three publications, including a research proposal, listed developmental neglect as a subtype (Flaherty, 2013; Gobind, 2013; Inger, 2020), and one provided an example of developmental neglect (Rosenfeld et al., 2011).

My exploration of whether there were phrases denoting a similar construct to developmental neglect, but without using the same term, yielded more results. Some definitions of neglect incorporated the concept of developmental neglect, such as English et al. (2005) who described several ways in which lack of developmental stimulation could have harmful consequences. Horwath (2013) included stimulation as a dimension of parenting capacity, and the associated type of neglect was "failure to provide a stimulating environment with opportunities for learning and intellectual development for both pre- and school-age children, including language and communication, play, social opportunities, and attendance at school" (p. 19). Other

subtypes of neglect sometimes incorporated aspects of developmental neglect such as Franz's (2015) definition of physical neglect, which includes lack of sensory and tactile stimulation and social integration. Not meeting a child's learning needs are often reported in the literature as either educational neglect (e.g., DePanfilis, 2006; Horwath, 2013; Van Wert, Fallon, et al., 2017) or psychological or emotional neglect (e.g., Cohen et al., 2017; Sibanyoni, 2018; Tang, 2008).

In searching for examples, I found numerous descriptions of developmental neglect, though not all named as such. Bowlby (1952), for example, provided the following illustration which includes both emotional and developmental neglect when he compared institutional care to family care. Sadly, much of this description could also apply to children living with their family:

> The child is not encouraged to individual activity because it is a nuisance; it is easier if he stays put and does what he is told. Even if he strives to change his environment he fails. Toys are lacking: often the children sit inert or rock themselves for hours together. Above all, the brief intimate games which mother and baby invent to amuse themselves as an accompaniment to getting up and washing, dressing, feeding, bathing, and returning to sleep – they are all missing. In these conditions, the child has no opportunity of learning and practising functions which are as basic to living as walking and talking. (Bowlby, 1952, p. 55)

There were many examples in research papers where neglect included not encouraging play or not playing with children (e.g., Allen & Oliver, 1982; Brandon et al., 2013; Hildyard & Wolfe, 2002; Woodruff, 2012). The importance of play for children cannot be overstated as a need (e.g., Bowlby, 1952; De Bellis, 2005), and a human right (United Nations, 1989). McQuillan et al. (2020), for example, wrote play provides a means for children learning about the everyday in the real-world, practicing with words and objects and encouraging exploration and higher order cognitive skills.

Cultural Neglect

The definition I used in the online survey for cultural neglect was "child's cultural needs not met, such as no or limited access to cultural identity, connection to community, cultural safety". This definition was informed by consultation with the Victorian Aboriginal Child Care Agency (VACCA) and literature on cultural safety (Bamblett & Lewis, 2007).

I found 318 records that used the term 'cultural neglect', primarily through Google Scholar. There appeared to be four different uses (Table 2-2).

The usage most relevant for this study was when children's cultural needs were not met. I listed all 14 studies describing this aspect of neglect. The other applicable use of the term was when a community's cultural needs were not met. For both these types of cultural neglect, there were examples from the literature of Indigenous children in Australia, New Zealand, Africa, and Canada; and African American, Hispanic, and people migrating from one country to another. As evidenced by these different uses of the term, there is an apparent contranym between the cultural neglect denoting a child, adult or community's cultural needs not being met; compared to when it describes a person's cultural beliefs leading to other needs not being met.

Table 2-2

How Cultural Neglect was Described in the Literature

Uses of 'cultural neglect'	References
Children's cultural needs not being met, such as children in OOHC, children leaving OOHC, and children in schools not having their cultural needs recognised and attended to	Bright (2012), Harald (2017), Kohoutek (2011), Kufeldt et al. (2021), Malatji and Dube (2017), Nayir et al. (2019), Oakes et al. (2020), (Parkinson et al., 2017), Topham (2022), Turner (2022), Van der Walt (2018), Webb and Mashford-Pringle (2022)
A community or group of adults' needs not being met, such as not accessing health care, culturally insensitive service provision, language, and "stealing identity" (Mousa, 2014, p. 88)	Arce (2020), Cremer (2020), Landon-Smith (2016), Masters-Awatere and Gosche (2017), Mataia-Milo (2017), Mousa (2014), Weerasinghe (2012)
An individual or community's cultural beliefs contributing to neglect of certain groups within the culture, such as beliefs about women, hygiene practices, emotional expression	Dhyani and Goyal (2016), Knutson (2014), McCarthy (2015), Tarasova (2020)
An individual or community neglecting aspects of their own culture, such as the arts, literature, the environment	Attfield and Giuffre (2018), Frawley (2018), Jones (2012), Pressler (2011)

Note. OOHC = out-of-home care

I could not locate empirical studies testing the concept of cultural neglect as a neglect subtype, as the literature found were primarily theoretical or discussion papers. Parkinson et al. (2017) in their systematic review on research about risk factors for neglect also reported: "No evidence was found in this review of reviews regarding cultural neglect or how oppression, trauma, or migration may influence a child's risk of experiencing neglect" (p. 37).

The variable use of the term cultural neglect, coupled with its relative absence from the broader literature on child neglect, is a confounding factor when exploring the meanings and presence of cultural neglect for children experiencing other forms of neglect. It was rarely defined or described in unambiguous detail in the literature. One of the exceptions was by Parkinson et al. (2017): "Cultural and/or spiritual neglect is likely to be a particular risk for children forcibly

removed from their parent(s) unless deliberate provisions are made to ensure a child's continuing connection to culture" (p. 13).

I searched for evidence or discussion of cultural neglect like that applied in this study. I based the construct of cultural neglect on two premises:

1. Neglect is about a child's essential needs not being met (Dubowitz, 2009; Frederico et al., 2006).
2. Children having access to their own culture and what it represents is an essential need and a human right (Shonkoff & Phillips, 2000; United Nations, 1989, 2007).

The *Convention on the Rights of the Child* emphasises children's culture in the context of education and play and highlights particular groups to ensure they have access to their culture; namely, children from "ethnic, religious or linguistic minorities or persons of Indigenous origin" (p. 9), children with disability, and children in OOHC (United Nations, 1989).

Aligned to this construct, I explored the nature of children's cultural needs to gauge potential implications if not met. According to various descriptions of culture and cultural needs in the literature, culture enables communication and to anticipate, interpret and understand certain behaviours. It provides the context in which children are born, grow, live, and participate. Faith-based culture and language are other important factors to consider (deVries, 1996; Gough & Lynch, 2002; Lewis & Ghosh Ippen, 2004; Subica & Link, 2022). Children's cultural needs are influenced by the degree to which they can access the shared ideas, ways of communication, beliefs and values, and knowledge identified as important in their cultural community. Another common way of expressing cultural need is having a sense of belonging and connection to people within their cultural community (e.g., Dubnewick et al., 2018; St. Vil, 2009).

As cultural needs likely differ from one culture to another (Hughes, 2006), they cannot be generalised across cultures. I focused on Australian Aboriginal culture as an example. The Secretariat of National Aboriginal and Torres Strait Islander Child Care (2012) described the cultural needs of Aboriginal children as needing to know where they came from in terms of family and cultural history; who they are; who they belong to; where they belong in terms of land, skies, and waterways; what they can do to express their culture; and what they believe in terms of cultural values and practices. These reflect identity and belonging to time, place, and people. They illustrate the inextricable linkages between biopsychosocial and cultural domains described in the definition of Aboriginal health as "not just the physical well-being of an individual but refers to the social, emotional and cultural well-being of the whole Community in which each individual is able to achieve their full potential as a human being" (National Aboriginal Health Strategy, 1989).

> Every child needs guidance through a map of their personal identity, in order to feel safe in their 'skin' and to feel good about who they are. In order to support Aboriginal and Torres Strait Islander children's cultural needs, we need to understand that culture is a powerful force that helps to 'grow up' the child. (Secretariat of National Aboriginal and Torres Strait Islander Child Care, 2012, p. 3)

Cultural safety is an increasingly documented term in a range of contexts, such as in a scoping review on culturally safe practices with family violence (Allice et al., 2022) and in a child protection model for Aboriginal children in hospital, known as *Daalbirrwirr Gamambigu (Safe Children) Model* (Flemington et al., 2022). A commonly cited definition of cultural safety was by Ramsden and Whakarumhauis (1990), as cited by Williams (1999): "an environment which is safe for people; where there is no assault, challenge or denial of their identity, of who they are and what they need. (p. 213)

The literature has various descriptions of cultural abuse or cultural trauma, which when applied to children often incorporate elements of cultural neglect (e.g., Black et al., 2022; Frankland et al., 2010; Menzies, 2019; Victorian Aboriginal Child Care Agency, 2010). In the State of Victoria, Australia, a guide to implementing child safe principles draws a link between cultural abuse and cultural neglect when postulating racial discrimination can "constitute neglect of a child" (Commission for Children and Young People, 2022, p. 14). Muriel Bamblett (Australian Aboriginal Elder) stated:

> Culture is as necessary to a sense of meaning and identity as air is to living. Culture is the air our minds breathe. Culture is our eyes onto the world. And when you lose your air you suffocate and when you lose your eyes you stumble blindly and lose your way. (Bamblett cited in Frankland et al., 2010, p. 36)

Bamblett and Lewis (2007) wrote that cultural identity was core to understanding children's best interests. Recognising the paramountcy of safety and that children should not live in fear, starve, or in other ways be neglected or abused, they argued to deny children's cultural identity impacts their attachment needs, emotional development, education, and health. "Every area of human development which defines the child's best interests has a cultural component. Your culture helps define HOW you attach, HOW you express emotion, HOW you learn and HOW you stay healthy" (Bamblett & Lewis, 2007, p. 49).

Though not labelled as such, there were many examples of cultural neglect in government reports and other literature, such as "He … experienced multiple placements that failed to nurture his cultural identity or adequately address his trauma" (Commission for Children

and Young People, 2021, p. 288). In a report that reviewed the circumstances of all Aboriginal children in OOHC in Victoria, Australia, there were numerous instances where information on children being Aboriginal were not communicated to other services nor acted upon (Commission for Children and Young People, 2016).

Prevalence and Context of Neglect

Calculating the prevalence of neglect, as well as other forms of maltreatment, is not straightforward and is only indicative (Gilbert et al., 2009). Although influenced by factors other than prevalence (Tajima et al., 2004), CPS records remain the most available data measure across many countries. Utilising CPS data, neglect is often reported as the most prevalent form of maltreatment in high-income countries, such as in the United States (U.S. Department of Health & Human Services Administration for Children and Families, 2022), Canada (Fallon et al., 2021), and England (United Kingdom Statistics Authority, 2022). In Australia, neglect was the second highest primary maltreatment type (Australian Institute of Health and Welfare, 2022).

Notably, in the first epidemiological retrospective study of its type in Australia, the Australian Child Maltreatment Study (ACMS) found a relatively low prevalence rate of neglect (8.9%) compared to other forms of maltreatment, such as emotional abuse (30.9%). Nonetheless, this study suggests the rate of neglect in the population is substantially higher than reported in the CPS data where neglect was calculated as being substantiated for 0.19% of the population (Australian Institute of Health and Welfare, 2022). Applying an adapted form of the Juvenile Victimization Questionnaire (Finkelhor et al., 2005) the ACMS categorised emotional unavailability, “Did any of your parents often ignore you, or not show you love and affection?”, as emotional abuse not emotional neglect (Mathews, Meinck, et al., 2023, p. 6). This item was reported for 21.6% of the sample (Mathews, Pacella, et al., 2023) and if it had been categorised with other neglect items would have significantly increased the overall prevalence rate of neglect.

It is well documented that structural and social factors lead some children to more likely be reported to CPS than others and this confounds the picture on the prevalence of maltreatment, especially neglect (Commission for Children and Young People, 2016; Sinha et al., 2021). Poverty, homelessness, inequality, power imbalances, more public visibility of what occurs in the home, systemic and individual racism, historical trauma, and practice approaches and risk assessment tools not designed for particular populations, are examples of factors which lead certain groups to be at risk of disproportionate levels of CPS involvement (e.g., Blackstock et al., 2020; Gupta, 2017; Jud et al., 2015).

A prime example of disproportionality of certain cultural groups involvement in CPS systems are Indigenous children in colonised countries disproportionately represented in CPS and OOHC data (Sinha et al., 2021). In Australia, for every non-Aboriginal child, there were 8.2 Aboriginal children with substantiated maltreatment and 12.4 Aboriginal children for whom neglect was substantiated (Australian Institute of Health and Welfare, 2022). The First Nations/Canadian Incidence Study of Reported Child Abuse and Neglect reported First Nations children were investigated for neglect at six times the rate of non-Aboriginal children (Sinha et al., 2012). In the USA, American-Indian or Alaska Native children were the highest proportion of children with substantiated neglect (12.9 times per 1000 in population), followed by African American children (9.8 times per 1000), and Hispanic children (6.2 times per 1000) compared to non-Hispanic White children (5.5 times per 1000) (Children's Bureau, 2020).

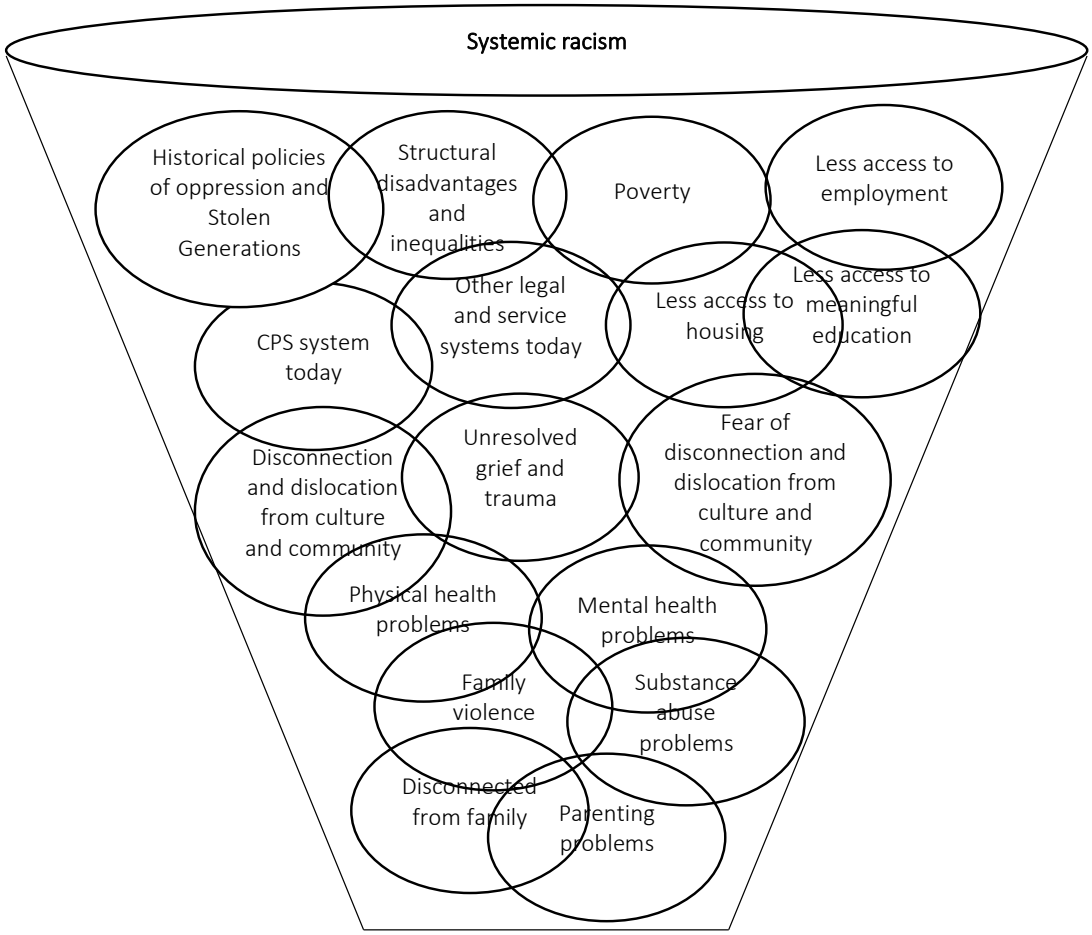
Although official data systems underestimate the incidence of neglect (Gilbert et al., 2009), there are certain cultural groups, such as Indigenous children, where neglect may be an unwarranted description of the child's situation, and thus an over-estimation of the rate of Indigenous children who have been neglected. Government reports and other research have described historical and current factors that contribute to the over-representation of Aboriginal children in CPS and OOHC in Australia (Bamblett & Lewis, 2007; Cunneen & Libesman, 2000; Dodson, 1994; Human Rights Equal Opportunity Commission, 1997; Jackson et al., 2001; Malin et al., 1996; Nelson & Allison, 2000; Newton, 2019; Watson, 2005; Yeo, 2003). There are parallel stories behind the over-representation of Indigenous peoples in CPS in other colonised countries (Libesman, 2004; Sinha et al., 2012). There are also factors to consider for other cultural groups such as children from culturally and linguistically diverse communities (CALD) in Australia, and African American and Hispanic Americans in the USA (e.g., Cantey et al., 2022; Hughes, 2006; Sinha et al., 2021).

Aboriginal families are not immune to the biopsychosocial factors that contribute to neglect; however, many interrelated factors increase their risk of being disproportionately subjected to substantiations by CPS. These emanate largely from macrosystemic factors such as systemic racism, oppressive practices, and structural disadvantages (Bamblett & Lewis, 2007; Cunneen & Libesman, 2000; Dodson, 1994; Human Rights Equal Opportunity Commission, 1997; Malin et al., 1996; Newton, 2019). Figure 2-2 represents a mind map I drew, informed from the literature, of factors which can generate mechanisms that contribute to an Aboriginal child being neglected or to an Aboriginal family being judged as neglectful. The map illustrates the chaotic and interconnected nature of these structural and systemic factors over time and place for many children, families and communities. These factors do not apply to every Aboriginal child and

family, but they are particularly likely to be factors for Aboriginal children and families involved with the CPS system.

Figure 2-2

A Mind Map of Factors Contributing to Over-Representation of Aboriginal Children Substantiated with Neglect



Section 3: Harms Associated with Neglect

My literature review of primary research into the harms for children and adults associated with child neglect including the methodology and the results relating to physical health, neurobiology, and development is presented in Part 1 (Jackson et al., 2022); (further information about the studies reviewed are in Appendix 2, page 394). Appendix 3 (page 417) contains the permissions. The results pertaining to relationship, emotional health, mental health and behavioural problems of the scoping review is presented in Part 2 (further information about the studies reviewed are in Appendix 4, page 418).

Numerous studies show neglect being associated with a multitude of biopsychosocial problems. There is, however, no post-neglect syndrome and not every child who experiences

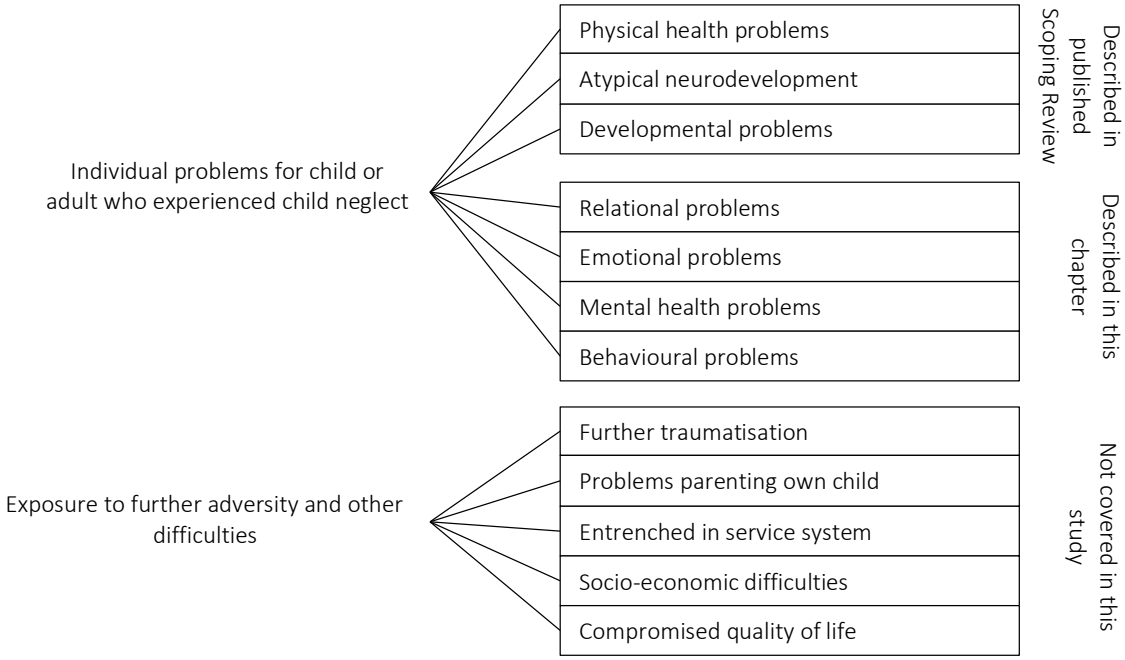
neglect will have lasting effects (Glaser, 2011). The diverse consequences of neglect mirror the diversity of what children need to develop to their potential (Gough, 2005). Hence, neglect can have significant physical, developmental, emotional, mental health, social, cultural, and behavioural consequences for children and on some occasions be fatal (Brandon, Bailey, et al., 2014; Hildyard & Wolfe, 2002; Jackson et al., 2022; Maguire et al., 2015; Naughton et al., 2017). "The significance of child neglect … should come as no surprise, given that a lack of parental care and nurturance—hallmarks of neglect—poses one of the greatest threats to children's healthy growth and well-being" (Hildyard & Wolfe, 2002, p. 680).

Part 1: Scoping Literature Review Findings on Physical Health, Neurobiology and Development

The overall scoping review found 314 out of 345 studies (91%), using different research methods with different populations, that reported child neglect predicted a variety of harms for children and adults. The research methods included longitudinal and cross-sectional studies, prospective and retrospective studies, with 22.9% using a comparison or control group. As the original scope of the search was not confined to any one type of harm, I grouped the harms into categories which I developed from my analysis of the literature and applying a biopsychosocial approach. I categorised these into: (i) individual problems for children or adults; and (ii) those leading to exposure to other adversities. Figure 2-3 shows this categorisation associated with child neglect, including problems discussed in the published review, problems covered in this chapter, and problems out of scope for this study. The problems categorised as in scope, were used to inform this study's online survey design (see Chapter 3, page 97).

Figure 2-3

Categorisation of Problems Associated with Child Neglect in the Scoping Literature Review



Research Review

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Childhood neglect and its implications for physical health, neurobiology and development—A scoping review of the literature

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Abstract

There is much evidence of the many risks posed by childhood neglect. A scoping review of the literature found 467 articles on 345 studies from 38 countries reporting a large number of problems for children and adults associated with childhood neglect. After describing the broader scoping review, this paper presents findings specific to physical health, neurobiology and development. Across different neglect sub-types, different populations and different research methods, the weight of research demonstrates substantial risk from neglect including, at the most extreme, fatal outcomes for children. Physical health problems associated with neglect cover many health areas including the cardiovascular, respiratory and central nervous systems for children and adults. Studies from neuroscience have also shown wide-ranging atypical neurobiological structures and networks following different neglect sub-types especially for children exposed to institutional neglect. Similarly, studies have reported many developmental outcomes associated with neglect especially related to cognitive development. Physical health, neurobiology and general development are interrelated in healthy childhood and in the presence or aftermath of childhood neglect.

Keywords

Child neglect, health, development, neurobiology, impact, scoping review

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Introduction

Child neglect is frequently recognized as a major risk for children's health and wellbeing, yet remains overshadowed in research and policies by the more emotionally charged physical and sexual abuse (McSherry, 2011; Wald, 2015). Although there remain many unanswered questions about neglect, Daniel (2015) argues the need to better exploit existing research. For example, the wealth of research exploring many potential consequences of child neglect for children and adults is in contrast to the dearth of evidence on how such research is applied in policy and practice.

The authors undertook a scoping literature review to map the possible consequences of any type of child neglect to better inform policy and program design. As the scale of the review was too large for a single article, this paper is the first of a multi-publication approach and is in two parts. The first covers an overview of the broader scoping review in terms of method and overall findings. The second part describes the findings for the implications of childhood neglect for children and adults specific to physical health, neurobiological structures and associated networks, and developmental functioning.

Neglect is defined as when a child's essential needs have not been met, to the extent it is likely to lead to significant harm (Dubowitz, 2009; Frederico et al., 2006). This emphasizes the concept of harm, regardless of who has not met the child's needs. It also recognizes that the human child is born into this world completely reliant on their caregivers to keep them safe, fed and nurtured and to enable their growth and development as they explore the wider world. The question therefore remains—what happens when these fundamental needs are not sufficiently met.

The sub-types of neglect are a means of categorizing children's unmet needs with varying and often overlapping descriptions. Neglect sub-types include physical, environmental, emotional, supervisory, medical, developmental, educational neglect, and abandonment (Barron & Jenny, 2011; Brandon et al., 2013; Frederico et al., 2006). Institutional neglect, such as occurred in some Eastern European child institutions in the 1990s, is another sub-type reflecting a combination of pervasive physical, emotional and social deprivation (Almas et al., 2012).

No one knows how many children experience neglect or other forms of maltreatment. Prevalence measures are indicative at best. Utilizing Child Protection Service (CPS) data, neglect is often reported as the most prevalent form of maltreatment in high-income countries, such as in the United States and(U.S. Department of Health & Human Services, 2021), Canada (Fallon et al., 2021), and England (United Kingdom Statistics Authority, 2021). In Australia, neglect is the second highest primary maltreatment type (Australian Institute of Health and Welfare, 2021).

Amongst several literature reviews on neglect, a small number have explored its harms. A thematic review by Hildyard & Wolfe, (2002) described implications of neglect for children and adults' cognitive and social-emotional development and behaviors. They did not describe their methodology for the review. Hildyard & Wolfe, (2002) concluded there was a convergence of harmful short and long-term effects of neglect during different age-groups.

Maguire et al. (2015) undertook a systematic review on features in children aged five to 14 years who experienced neglect and/or emotional abuse. They searched between 1947 and 2012 across 18 databases and 8 websites and journals of all languages. Although they included papers from any Organization for Economic Co-Operation and Development (OECD) countries, only publications from the USA, Spain, Israel, and Canada were in their final tally, with the majority from the USA. The findings were about both neglect and emotional abuse, not all of which were separated, yet the authors reported some distinct findings about neglect. Overall, they reported 26 studies from 30 articles finding concerns for children's behavior, attachment style, social interactions, emotional wellbeing, cognitive functions, memory, and academic performance. All of these concerns were associated with neglect with or without emotional abuse.

The same team (Naughton et al., 2017) completed a rapid review of studies between 1990 and 2014 which asked adolescents about their experiences of neglect or emotional abuse. This review found 19 publications on 13 studies that met the criteria. Although any OECD country was in scope, only studies from the USA and Canada met the criteria. The reviewers were able to separate out neglect-specific results and found adolescents who experienced neglect reported significant difficulties with mental health, social relationships, and substance misuse. No significant findings were found between the adolescents' experience of neglect and school performance or participation.

This paper initially describes the scoping review of studies published 2000 to 2021 exploring harms associated with neglect, including all types of child neglect, any type of harm and whether the harms were present during their childhood and possibly into their adult life. Due to the large number of results generated, this is the first of a multi-publication approach. This review examines implications of child neglect for children and adults' physical health, neurobiology, and developmental functioning. The initial choice on these domains was informed by the sequential and integrated nature of physical health, neurobiology, development, functioning and wellbeing (Anda et al., 2006). This decision was also influenced by the previous literature reviews' emphasis on emotional, social and behavioral areas of concern.

Method

The overarching question for this review was to discover what the possible harms of neglect were, before narrowing to a smaller selection of harms for more in-depth exploration. A scoping review design was considered most applicable given the breadth of this question exploring all types of neglect and possible harms. A scoping review is well-equipped when mapping the overall methodologies, measures, and populations involved in exploring open questions (Munn et al., 2018). Studies were included when their design was considered logical and proportionate to the research question and conclusions. This review maps the relevant literature rather than attesting to the weight of evidence, as consistent with a scoping review Arksey & O'Malley, 2005).

Five stages of this scoping review were (1) identifying the question, (2) identifying relevant studies, (3) study selection, (4) charting the data, and (5) collating, summarizing and reporting results (Arksey & O'Malley, 2005). Stage 1 identified the question as What is known from research about any type of childhood neglect and its possible impacts or aftermath. Childhood was defined as birth to 18 years of age. Some studies including adolescents went up the 19-year-olds. Whilst neglect was experienced in childhood, the implications identified in these studies may have presented in child- or adulthood.

Stage 2 was a comprehensive search of five databases: EMBASE, ERIC, Medline, PsychINFO, and Sociological Abstracts, as well as following leads from reference lists and professional networks. Search terms were child*, neglect*, impact*, and consequence*. The terms impact* and consequence* imply causation, but most studies recognized causation could only be inferred. An initial attempt at using additional search terms such as outcome* and effect* led to too many results with little apparent additional value. The terms used in this review appeared to achieve sufficient results to provide an informed scoping review. Table 1 describes the inclusion and exclusion criteria.

For Stage 3, publications about primary studies were selected. When multiple publications were about the one study reporting similar results, the publication with the most detailed data is listed.

For stage 4, publications were mapped on an Excel spreadsheet outlining method and findings by type of problem, study population, and neglect sub-types. This paper describes the findings, in accordance with Stage 5, beginning with an overview of the scoping review results and then focusing on problems with physical health, neurobiology, and developmental functioning.

Table 1. Inclusion and exclusion criteria for broader scoping review.

Inclusion Criteria
Published in English
Published between 2000 and 2021
A primary study, including unpublished dissertations, using any method
Results included data on aftermath of childhood neglect or significant issues associated with neglect for children and/or adults
Exclusion Criteria
Published in language other than English
Subjects not human
Results did not distinguish between neglect and other forms of maltreatment
Harms or consequences were not about the individual
Study did not describe issues as a potential aftermath of neglect, instead focused on prevalence, prevention or interventions
Article was an editorial, commentary, literature review, or conference paper

Stages 2 to 4 were completed by the first author in the research team who employed multiple checks on the analysis. Nonetheless this is a limitation of the methodology.

Results

Results of the broader scoping review

This scoping review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses-Protocol (PRISMA-P) (Moher et al., 2015). Shown in Figure 1, 3,582 references were identified through the literature search in Stage 2. Stage 3 removed 490 duplicates and then excluded 2,220 references as not meeting the criteria, such as not involving research or not about child neglect. Some papers had multiple reasons for being screened out but are counted only once in Figure 1. After reading full-text articles and dissertations a further 405 were excluded as per stage 3, leaving 467 publications on 345 studies in the scoping review.

As portrayed in Figure 2, these studies covered 38 countries. Most were from the USA (45.8%), followed by Canada (8.1%), Australia (6.4%), Germany (6.4%), China and Taiwan (5.5%), the United Kingdom (5.5%), The Netherlands (3.8%), and Brazil (3.2%). Six studies had participants from multiple countries.

Types of research design in the studies in this review are portrayed in Table 2; also indicating whether a comparison group was part of the design. Comparison groups were not relevant for forensic, hospital, and community samples.

Examples of longitudinal studies relevant to this scoping review included the following:

- post-institutionalization studies of Romanian children and comparison groups (see Nelson et al., 2007; O'Connor et al., 2000);
- studies exclusively on children who experienced child maltreatment, such as the National Survey of Child and Adolescent Well-Being (NSCAW) (see Christ, et al., 2017);
- studies following groups of children into adulthood who experienced child maltreatment along with at-risk and community-based comparison groups, such as Longitudinal Studies of

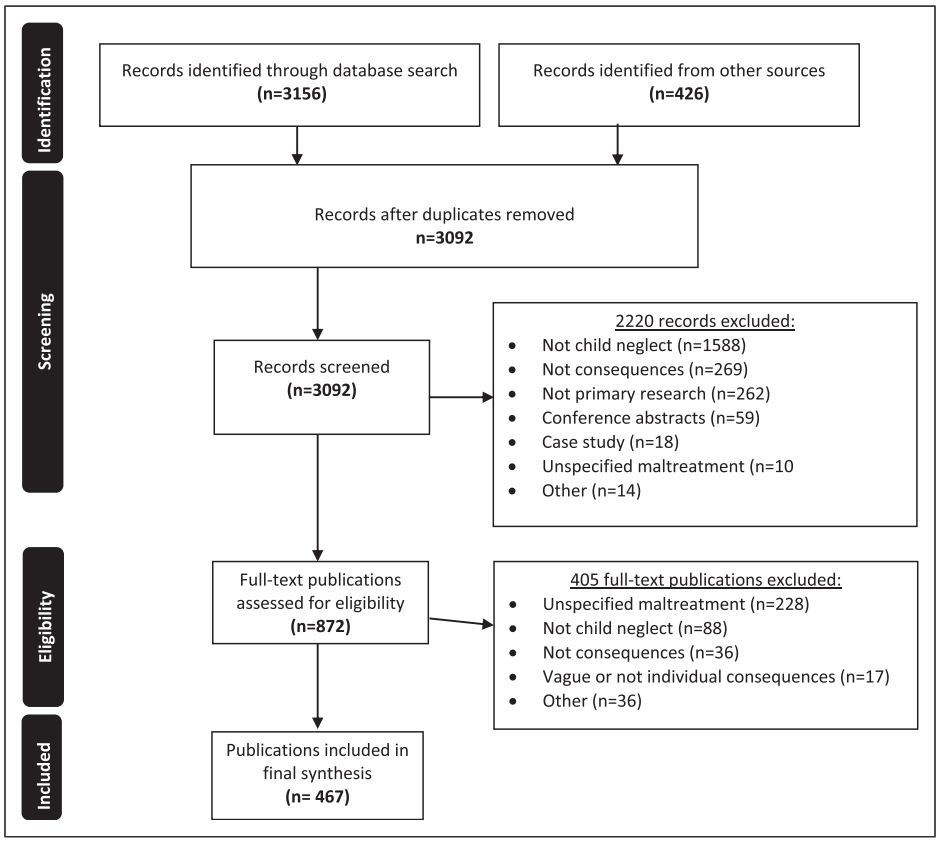

Figure 1. PRISMA diagram of screening process and overall results for scoping review.

Child Abuse and Neglect involving five separate studies (LONGSCAN) (see O'Hara et al., 2015) and studies led by Widom (see Widom et al., 2015);

- studies following children from at-risk community populations, such as the Minnesota Longitudinal Study of Risk and Adaptation (see Johnson et al., 2017); and
- broader community-based or population-based studies, such as the 1958 British cohort study (see Power et al., 2015), the National Longitudinal Study of Adolescent Health (AddHealth) (see Shin & Miller, 2012), and the Mater Hospital study (see Mills et al., 2013).

As seen in Table 3, populations under study varied in age-range and types of population. Examples of clinical populations were children or adults in receiving services from mental health, alcohol or drug treatment or other specialist health services. At-risk groups in the community included young people or adults who were homeless, exposed to stressors other than child abuse or neglect, and those with particular health or mental health concerns but not involved in clinical services.

In the 67 studies involving the CPS population, 22 (32.8%) studied children in out-of-home care, with the remaining usually involving a combination of children at home and in care, although not always clear. Studies involving both children and adults were in three categories. Some cross-sectional studies covered a wide age-range beginning in childhood. One cross-sectional study

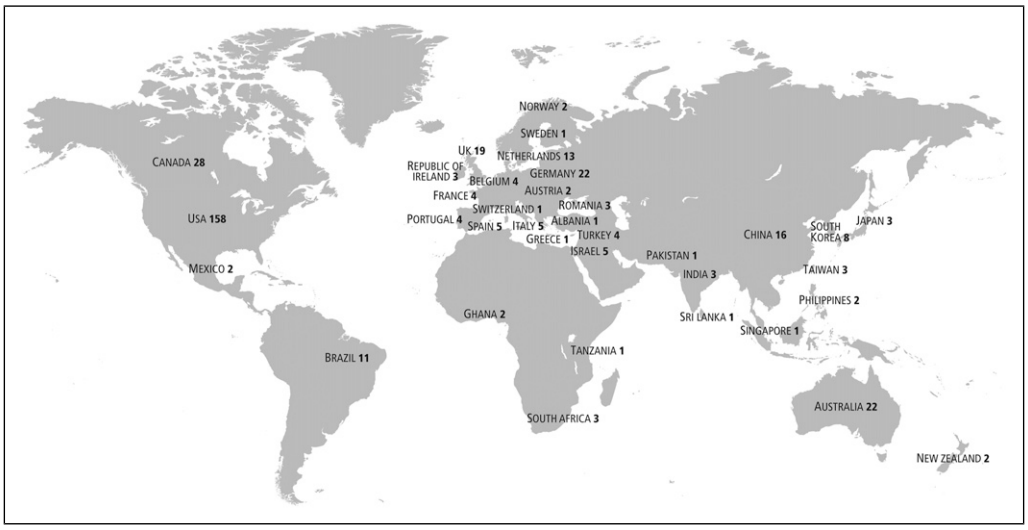

Figure 2. Geographic location of publications.

Table 2. Type of research design in studies in scoping review.

	Comparison group	No Comparison group	Forensic or hospital sample	Community sample	Total
Longitudinal study	9 (11.4)	25 (20.2)	0	28 (21.4)	62 (18)
Longitudinal study—cross-sectional component	8 (10.1)	7 (5.6)	0	11 (8.4)	26 (7.5)
Cross-sectional study	61 (77.2)	81 (65.3)	0	91 (69.5)	233 (67.5)
Retrospective record reviews	1 (1.3)	11 (8.9)	11 (100)	1 (0.8)	24 (7)
Total (%)	79	124	11	131	345

Table 3. Cohorts Participating in Studies in Scoping Review by Type and Age Group.

	Children	Adults	Both	Total
CPS	61 (40.1.1)	1 (0.6)	5 (14.7)	67 (19.4)
Criminal justice	12 (7.9)	6 (3.8)	4 (11.8)	22 (6.4)
Clinical services	15 (9.9)	51 (32.1)	5 (14.7)	71 (20.6)
Post-institutional care	10 (6.6)	1 (0.6)	0	11 (3.2)
Hospitalized	5 (3.2)	0	0	5 (1.5)
Fatalities	8 (5.3)	0	0	8 (2.3)
At-risk in community	11 (7.2)	14 (8.8)	5 (14.7)	30 (8.7)
Community	30 (19.7)	86 (54.1)	15 (44.1)	131 (38)
Total	152	159	34	345

(%) CPS = Child Protection Services.

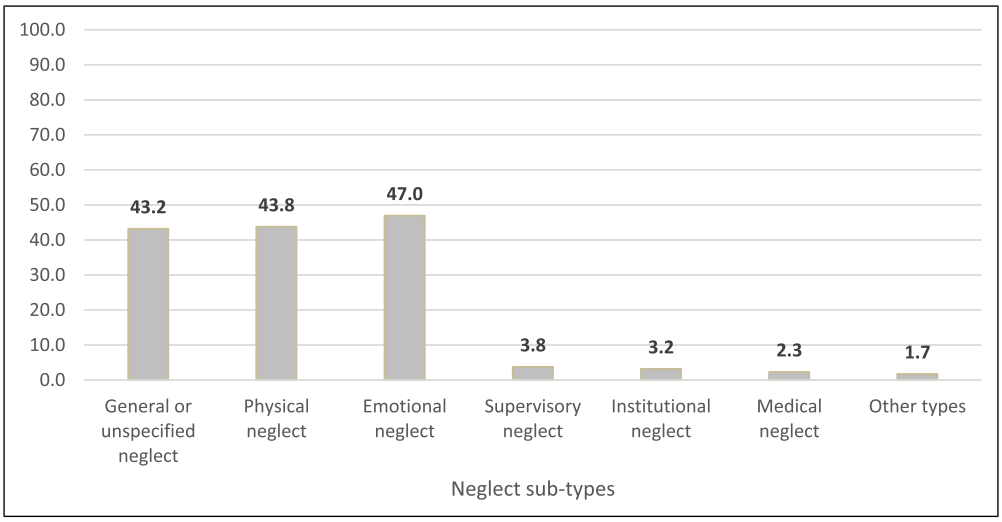

Figure 3. Neglect sub-types in studies identified in scoping review (*N*=345).

involved both mothers and their children having experienced childhood neglect. Many (41.2%) longitudinal studies began in childhood or adolescence and continued into adulthood.

Most studies included male and female participants (*n*=278, 80.6%), with a very small number explicitly including non-binary participants (*n*=5, 1.4%). Another seven (2%) included "other" or not known gender. Seventeen studies (4.9%) focused solely on males, 35 on females (10.1%) and two (0.6%) on transgender participants. One study did not specify gender.

Measures of neglect. Categorization of neglect sub-types was usually taken directly from the retrieved studies. When there was no such description, it was categorized by the authors of this review as "general neglect."

The most frequent type of measure used for child neglect were validated measures completed by adults, adolescents or workers (*n*=222, 64.3%). The most common was the Childhood Trauma Questionnaire (CTQ) (Bernstein & Fink, 1998) (*n*=130, 37.7%), and the Adverse Childhood Events Scale (ACES) (Dong et al., 2004), which includes items from the CTQ (*n*=45, 13%). Both these measures have items on physical and emotional neglect, but not other neglect sub-types. Twenty-one studies (6.4%) used some form of structured survey or interview guide but where the questions were not from a referenced or validated measure. Some questions were informed by items in validated measures, other research or clinical interviews, but it is not possible to attest to their validity. This includes two longitudinal studies (AddHealth and the 1958 British Cohort Study) that have revisited their assessment of the presence of maltreatment types over time (Power et al., 2015; Shin & Miller, 2012).

The other frequent measurement of neglect was through Child Protection and Care records (*n*=70, 20.3%). Seventeen studies (4.9%) extracted data from CPS or other records and then applied the Maltreatment Classification Coding Scheme (English et al., 2005). Other measures of neglect included reviews of medical or forensic reports (*n*=16, 4.6%), clinical reports (*n*=7, 2%), and the child's institutionalization experience considered equivalent to neglect (*n*=7, 2%).

Over half the studies (56.8%) distinguished between types of neglect (See Figure 3). The sub-types most commonly described were emotional neglect and physical, consistent with the CTQ and ACES measures.

Implications of neglect for children and adults. Measures of the possible problems facing children and adults who experienced child neglect were even more varied than measures of neglect. Unlike measures of neglect, studies often used multiple measures depending on the scope of their research question. Measures included formal records such as health, CPS and criminal justice records; forensic reviews and autopsies; standardized psychometric measures such as for cognitive assessments; other validated questionnaires completed by young people, adults, professionals or multi-informants, and current assessments, such as neural imaging, clinical assessments, and medical and educational tests. As with neglect measures, unvalidated and unreferenced measures were used in some studies. The validity of these depended in part on the nature of the problem under study. For example, case records in a child protection file are a reasonable measure about where the child is living and whether they are attending school. However, such notes may be less reliable measures about whether the child has a mental health diagnosis. There is further description of these measures in the next section when looking at the more in-depth analysis of the three domains that are the focus of this paper, namely physical health, neurobiology and development.

Three hundred and fourteen studies (91%) reported a relationship between child neglect with one or more identified problems. Problems experienced by the children or adults in the aftermath of neglect can be categorized as physical health issues, atypical neurobiology, developmental problems, attachment and relationship problems, emotional problems, mental health problems, behavioral problems, further traumatization, parenting problems, more entrenched involvement with the service system, compromised quality of life, and socio-economic difficulties.

Results on physical health, neurobiology, and development

The remainder of this paper describes results for physical health, atypical neurobiology, and developmental problems. In 141 studies from 26 countries that explored these three domains, 121 (91.5%) reported significant associations with child neglect.

Physical health problems. Seventy-six publications on 62 studies reported associations between childhood neglect and wide-ranging physical health problems for children and adults (Table 4). These included problems implicated the cardiovascular system, respiratory system and central nervous system. They included sensory processing difficulties, serious illnesses, infectious diseases, metabolic and hormonal differences, injuries, skin problems, and oral health problems as well as health-risk behaviors. Studies identifying physical health issues ranged in age from early infancy through to older adults, with at least two studies including participants in their nineties. The citations for the studies that reported significant or non-significant findings regarding neglect and physical health is available in Supplementary Table 4a.

Eleven articles reported physical neglect, supervisory neglect and medical neglect as causes of fatality identified by a medical professional, a legal determination or through a formal case review. Children as young as six-weeks-old were reported to have died due to neglect. Most of these studies did not report measures of statistical significance; but counted the number of fatalities where neglect had evidently led or contributed to a child's death. An exception was the 1958 British cohort longitudinal study which, applying statistical tests of significance, reported child neglect increased the risk for premature death in adults (Rogers et al., 2021). Neglect-related causes of death included insufficient food leading to malnutrition, avoidable accidents, poor supervision, drowning, asphyxiation, dehydration or heat stroke from being left alone in a car, withholding lifesaving medical treatment and suicide.

Table 4. Associations between physical health problems and child neglect.

Physical Health problems	Child or adult participants	Neglect Sub-types	No of studies reporting significant findings	No of studies reporting non-significant findings
Fatality	Child/Adult	GN, PN, SN, Med, Aband	11	
Cardiovascular issues (e.g., high heart rate, hypertension, high blood pressure, heart disease)	Child/Adult	GN, PN, EN	11	3
Respiratory problems (e.g., Chronic Obstructive Pulmonary Disease, lung functioning)	Child/Adult	GN, PN, EN	3	1
Central nervous system health problems (e.g., cerebral hemorrhage, multiple Sclerosis)	Child/Adult	PN, EN	2	
Pain and pain-related ailments (e.g., Fibromyalgia)	Child/Adult	GN, PN, EN	4	1
Sensory processing problems	Child/Adult	GN, IN, PN, EN	3	
Diabetes	Child/Adult	GN, PN, EN	2	1
Cancer	Adult	PN, EN	1	
Oral health problems	Child/Adult	GN, Med	2	
Skin problems	Child/Adult	GN, EN	2	
Infectious diseases (e.g., HIV, STDs)	Child/Adult	GN, EN	5	2
Hormonal problems (e.g., late puberty, more menopause symptoms)	Child/Adult	GN, PN, EN	3	
Unwanted or youth pregnancies	Adult	GN, PN, EN	2	
Sleep problems	Child/Adult	GN, PN, EN, IN	5	1
Shorter height	Child/Adult	GN, IN	5	
Non-organic failure to Thrive, malnutrition or underweight	Child	GN, PN, IN	5	1
Higher BMI or overweight	Child/Adult	GN, PN, EN, SN	9	7
Less physically active	Adult	GN	2	
More likely or early onset cigarette smoking	Child/Adult	GN, PN, EN, SN	11	3
Serious injuries	Child	GN, PN, SN	4	1
Hospital admissions	Child	GN, SN, Med	2	
General poor health or multiple health problems	Child/Adult	GN, PN, EN, SN	6	1

General neglect=GN; Emotional neglect=EN; Physical neglect=PN; Institutional neglect=IN; Supervisory neglect=SN; Medical neglect=Med; Abandonment=Aband.

Two health issues that showed variation in findings of significance were cigarette smoking and higher Body Mass Index (BMI). Eleven of 14 studies (78.6%) found neglect to increase the predictability of or early age cigarette smoking. Nine of 16 studies (62.5%) reported neglect to be significantly associated with higher BMI or being overweight for children and adults. In contrast, five of six (83.3%) studies reported neglect as significantly associated with children being underweight or malnourished. In all, 21 studies reported on atypical weight of which 14 (66.7%) reported significant results. Duncan et al. (2015) initially reported significant associations between neglect and both overweight and underweight but not when adjusted for other maltreatment types and other co-variants.

The 17 remaining health problems identified in these studies were, in the main, significantly associated with child neglect. Eight health problems where some studies reported non-significant findings, although the majority found significant results were: cardiovascular problems (90.9%), respiratory problems (75%), pain (57.1%), diabetes (66.7%), infectious diseases (80%), sleep problems (83.3%), injuries (80%), and poor health or multiple illnesses (90.9%).

Neurobiological differences. The scoping review found 26 articles on 23 studies with significant associations between neglect and atypical neurobiology (see Table 5). Studies ranged in population size from 10 (Chugani et al., 2001) to 537 children (White et al., 2017). Most of these studies focused on children, with the youngest being eight-months-old (Perry, 2002) and the other children ranging from three to 18 years. The oldest adults in the studies were 49-years-old (Widom et al., 2018). Studies used instruments such as neural-imaging scans (e.g., Positron Emission Tomography (PET), Magnetic Resonance Imaging (MRI) and computed tomography (CT Scans) or pathology tests, such as urine, saliva, and blood tests for neurochemical reactions such as cortisol or oxytocin. Table 5a in the Supplementary file has the citations for the 14 neurobiological areas that were the focus of one or more studies.

Neurobiological differences can generally be classified as structural, such as smaller brain size, connectivity between structures, or neurochemical. As reported in Table 5, smaller head circumference was reported for children who had experienced severe or global neglect. The corpus callosum was reported in two studies to be smaller, whereas one study did not find a significant difference. Only one study reported a smaller hippocampus to be associated with institutional neglect, whereas two studies did not find significant differences. Four of five studies (80%) reported significant findings in terms of lower cortical volume or cortical atrophy, whereas one did not find this to be significant.

When considering some of the limbic structures, three of five studies (60%) reported the amygdala was more likely to be larger for children who experienced neglect, especially the right amygdala. One of these studies (Mehta et al., 2009) also found the left amygdala was smaller for those exposed to institutional neglect. An example where significant differences between the amygdala and neglect were not found was by Hodel et al. (2015). They found amygdala volume was not significantly associated with institutional neglect when adjusted for other factors, such as age, sex, intercranial volume and age of adoption.

One study reported reduced hippocampal volume associated with institutional neglect (Hodel et al., 2015), whereas two studies study did not find this to be significant with a similar cohort Some structural differences associated with neglect were only found for boys (Roth et al., 2018; Teicher et al., 2004).

Two studies examined connectivity between multiple neural structures; and both reported significant findings with different populations. In a cross-sectional study, McKenzie (2017) explored patterns of neural connection for young adolescents who had been adopted from institutions

Table 5. Associations between atypical neurobiology and child neglect.

Atypical neurobiology	Child or adult participants	Neglect Sub-types	No of studies reporting significant findings	No of studies reporting non-significant findings
Smaller head circumference	Child	GN (global), IN	3	
Smaller corpus callosum	Child	GN, IN	2	1
Smaller cortical volume, cortical atrophy	Child/Adult	EN, IN	4	
Smaller hippocampal volume	Child	IN	1	2
Larger amygdala volume (especially right	Child	IN, EN	3	1
Smaller left amygdala	Child	EN	1	
Decreased metabolism in cortex, amygdala, hippocampus, brainstem	Child	IN	1	
More connectivity between amygdala and some cortical areas, and between cortical areas and less connectivity in others	Child/Adult	IN, GN	2	
Greater activation in amygdala, hippocampus	Child	GN, EN	2	
Higher allostatic load and other plasma-related stress biomarkers	Adult	GN, PN, EN	2	
Reduced neuroendocrine markers (e.g., serotonin, melatonin, endorphins, adrenocorticotropin)	Child	GN	1	
Lower cortisol levels	Child/Adult	GN, PN	3	
Higher cortisol levels	Child	IN, GN	2	1
Lower oxytocin levels	Adult	PN, EN	1	

General neglect=GN; Emotional neglect=EN; Physical neglect=PN; Institutional neglect=IN.

in comparison to children raised with their biological families. Compared to children who had not been adopted from an institution, the post-institutionalization group were significantly more likely to have a stronger connection between the amygdala and parts of the cortex, such as the prefrontal cortex and the anterior cingulate cortex. Children who had been institutionalized were more likely to have less connectivity between the amygdala and the insula. No other areas of the brain were found to be significantly associated with neglect once adjusted for other variables. In a longitudinal study of a community sample at the ages of 16- then 19-years, similar findings of atypical connectivity between brain areas were found associated with previous neglect (Rakesh et al., 2021).

Nine studies reported significant associations between neglect and lower or higher neurochemical markers. When exploring atypical cortisol levels, five of six studies (83.3%) found significant although contrasting results, with three studies reporting lower cortisol levels and two reporting elevated levels.

Developmental problems. Neglect was reported in 65 publications about 58 studies to predict concerns for children's development including implications in their adult life (Table 6 and Supplementary Table 6a). Some studies focused on one aspect of development whereas other

Table 6. Associations between developmental problems and child neglect.

Developmental problems	Child or adult participants	Neglect Sub-types	No of studies reporting significant findings	No of studies reporting non-significant findings
Speech and language difficulties	Child/Adult	GN, IN	8	1
Delays in gross or fine motor development	Child	GN, Med, IN	4	
Cognitive problems (e.g., lower IQ, problems with reading, mathematics, vocabulary, perceptual reasoning)	Child/Adult	GN, PN, IN, SN, EN, Aband	25	1
Academic issues (e.g., low grades, school readiness, not attending, leaving school earlier)	Child/Adult	GN, PN, EN	14	
Memory problems (e.g., working memory, visual memory, pattern recognition, verbal memory)	Child/Adult	GN, PN, IN, Aband, EN	12	
Attention, concentration problems	Child/Adult	GN, IN, PN	6	
Executive functioning problems, impulsivity, problem solving	Child/Adult	GN, PN, EN, IN	11	1
Moral reasoning	Child/Adult	PN, EN	3	
Self-care functionality	Adult	PN	1	
Capacity to associate cues with reward	Child	IN	1	

General neglect=GN; Emotional neglect=EN; Physical neglect=PN; Institutional neglect=IN; Medical neglect=Med; Abandonment=Aband; Supervisory neglect=SN.

studies canvassed several domains. Most populations participating in the studies (62.7%) were children; with the youngest participant at two-months of age. Most developmental studies (74.6%) used standardized or otherwise validated measures, such as the Wechsler Intelligence Scale for Children (Wechsler, 2003) and the Child Behavior Checklist for Children (Achenbach, 1991). Other measures included clinical assessments, education or medical records and unreferenced measures. Table 6a in the Supplementary report provides the citation details for the significant and non-significant findings.

Most of the developmental concerns were different aspects of cognitive development including executive functioning, memory, attention and speech and language. There were very few studies non-significant findings in relation to neglect and development. One example was speech and language where eight of nine (88.9%) studies on speech and language found significant results.

In studies that explored cognitive development, only one reported non-significant findings for child neglect. Dubowitz et al. (2002), in one LONGSCAN study, found neglect was not associated with poor cognitive development compared to other at-risk children aged three- and five-years-old. However, O'Hara et al. (2015) reporting on the merged dataset across the LONGSCAN studies and using different standardized measures found children aged four-years-old who experienced only neglect were at higher risk for poor cognitive development in terms of verbal intelligence, compared to children who experienced multiple types of maltreatment. Another study with mixed findings was by Nolin and Ethier (2007). They reported significant associations for children who experienced just neglect or neglect and physical abuse with poor cognitive development compared to the control

group. However, they found children who experienced only neglect performed better than children who experienced neglect and abuse as well as the control group in problem solving and planning (executive functioning skills). In the remaining developmental problems described in Table 6, all studies retrieved in this review reported some significant findings.

Discussion

Broader scoping review

Three hundred and forty-five studies, applying different methods with different populations from different countries, converged in finding child neglect predicted multiple risks for children and adults. As this scoping review was purposefully broad in its initial scope about types of neglect and possible harms, some general findings are noteworthy.

Measures of neglect ranged from substantiations by CPS through to self-report or reports by others using validated or unvalidated measures. Validated measures were commonly restricted to only two types of neglect, namely physical and emotional neglect, thereby limiting the analysis of other possible neglect sub-types.

Institutional neglect can be a particularly vague construct and is rarely described in-depth apart from the Romanian studies (see Almas et al., 2012; Mehta et al., 2009). Caution should be used when routinely applying the concept of neglect for children living in institutions without sufficient description of their experience or other neglect measures. Some studies have noted important differences between institutions and over time (Munoz-Hayes et al., 2011). Another consideration is whether the post-neglect experience is comparable between institutional and other neglect sub-types. McKenzie (2017) noted there was usually greater distinction between children's experience in institutions and their later placement in enriched care compared to children who experienced chronic intrafamilial neglect. They found both groups of neglected children reported more physical health and developmental problems than the comparison group, although noted some differences between the two neglect groups. For example, children who experienced intrafamilial general neglect were more likelly to have lower cognitive scores than the institutionalized group (Spratt et al., 2012), whereas the institutionalized group were more likely to have a smaller head circumference (Miller et al., 2015). They noted children adopted from institutions were often younger when they left the neglectful environment than the other group, signifying the duration of neglect exposure was less (Spratt et al., 2012). Some studies used the children's age of leaving the institution as a covariant in logistic regressions or as a means of sub-dividing the cohort (e.g., Hodel et al., 2015; McKenzie, 2017). Studies on institutional neglect are one of the rare type of studies that attempt to quantify the duration of the neglect experience. Overall, few studies in this review, other than those on institutional neglect reported on duration or other dimensions such as severity or age of onset of neglect.

Health, neurobiology, and development

This article focused on the physical, neurobiological, and developmental domains, yet the diversity within these domains impacted by neglect, was also striking. With the exception of the evidentiary processes involved in determining cause of death, most findings reported in this review could only infer association rather than causal relations. Even longitudinal studies with control groups did not contend they could conclusively prove that the problems experienced were caused by neglect. The range of populations and methodologies in the longitudinal studies both add to the breadth of

research as well as requiring caution when comparing findings. Longitudinal studies offer valuable opportunities to explore these issues over time and age-groups, although many of the longitudinal studies only reported on a cross-section of the analysis in relation to questions pertaining to neglect. The consistency of findings across the studies pointing to the range and depth of problems when neglect was a feature in childhood is compelling and strongly suggests child neglect is a risk factor for many physical health, neurobiological and developmental issues not only in childhood but reaching into adulthood.

At the most extreme, neglect was reported a direct or indirect cause of death. Studies concluded that whilst death resulting from neglect was not common, it was notable for too many children (Knight & Collins, 2005). Brandon et al. (2013) described six pathways where neglect contributed to the death of a child, namely (1) malnutrition through physical neglect, (2) medical advice not followed, (3) foreseeable avoidable accidents through supervisory or environmental neglect, (4) sudden unexpected death in infancy where there was evident neglect or an unsafe environment, (5) physical assault where neglect masked other dangers, and (6) suicide following chronic neglect or isolation. The first three pathways describe potential direct causes of death, with the remaining three indicating neglect within the family context could indirectly contribute to loss of life.

Children whose death was contributed to by neglect ranged in age from infancy to adolescence, although younger children were particularly vulnerable. Also noteworthy, was that not all children who died as a result of severe neglect, were known to CPS (Brandon et al., 2013; Knight & Collins, 2005; Welch & Bonner, 2013). These studies did not conclude that neglect is likely to be fatal but that it can be, and that practitioners and policy makers must be cognizant of this possibility (Brandon et al., 2013; Chang et al., 2016).

Health problems were wide-ranging including difficulties linked with multiple systems throughout the body. Some studies identified plausible causal relations between neglect and health problems, such as injuries and oral health problems directly linked with neglect. Other health problems, such as infectious diseases, whilst not considered a direct result of neglect, suggest complex pathways.

By way of example, the association between child neglect and atypical weight was multi-directional as studies reported links with being underweight or overweight. Linkages between neglect and underweight can be explained in part through an understanding of malnutrition and the logical results of insufficient food (e.g., Brandon et al., 2013). Possible mechanisms between neglect and overweight were also explored, such as when a child is not sufficiently supervised (e.g., Clark et al., 2014; Knutson et al., 2010); implications on reward pathways in response to food cues (e.g., Imperatori et al., 2016); or stress leading to increased food intake or decreased physical activity (e.g., Whitaker et al., 2007). Some studies noted that the findings for neglect and overweight differed depending on the person's age, suggesting age as a moderating factor (e.g., Knutson et al., 2010; Power et al., 2015).

As with physical health in general, weight is likely to interact with other health issues. For example, Power et al. (2015) commented on the negative association between smoking and BMI. Although many studies attempted to control for different possible co-variants such as other health issues, this was not done universally; nor was it always possible. The potential range of multi-directional relationships with the cardiovascular system, respiratory system, sensory processing problems, pain, and sleep difficulties are just some of the complex issues to consider.

The neurobiological structural, connectivity, and neurochemical differences reported as significantly associated with neglect are varied; implicating many regions of the brain and suggesting several mechanisms for how neglect may impact the child's developing brain. One proposed mechanism involves the impact of neglect on the neurobiology of developing stress-response

systems. A set of key "stress-related" neurotransmitter networks including dopaminergic, serotonergic, and noradrenergic originating in lower parts of the brain, play a major role in providing developmental input to "upstream" areas of the developing brain (see Beeghly et al., 2016; Saboory et al., 2020). The regulation and functioning of these key neurotransmitter networks are very sensitive to early life stressors and inconsistent or absent "regulatory" presence of an attentive, attuned caregiver. Some of the observed effects of early life neglect may be related to the cascading impact on higher areas of the organizing brain (e.g., cortex) and result in functional vulnerability related to altered reactivity and functioning of these important networks (Hambrick et al., 2019).

Another likely effect of neglect is the impact that abnormal, inconsistent or absent experiences during key times early in life (i.e., sensitive periods) may have on the organization and expression of the genetic potential of a range of neural networks and their related functions (Nelson & Gabard-Durnam, 2020). This is related to activity-dependence in the development of key neural networks also referred to the "*use it or lose it"* principle (Perry, 2002, p. 84). For example, where a child is not exposed to sufficient nurture, play or language or other essential developmental inputs, areas of the brain primarily responsible for mediating these functions will likely be underdeveloped and function in a less than optimal fashion (Perry, 2002).

Most studies reporting on neurobiology had small sample sizes, possibly influenced by the limited availability, high cost and intrusive nature of some neural-imaging technology. The number of studies on institutionalized children, which is considered one of the more serious forms of neglect, may limit the findings being generalizable to the more common forms of neglect occurring in the community. Nonetheless, Table 5 shows several studies reported on atypical neurobiology for children who experienced intrafamilial neglect.

Studies reported a consistent picture of children struggling with various aspects of development, especially cognitive development. Problems with memory, executive functioning, learning difficulties, intelligence, and capacity to hold attention were some examples. Problems were also reported with speech and language and fine and gross motor development. As suggested by Chugani et al. (2001) and Perry (2002), it is probable that many developmental concerns are associated with neurobiological differences. Whether due to high levels of stress or the "use it or lose it" principle, children's development is highly dependent on the level of stimulation and activation in their environment.

Overall, these studies on different populations ranging in age and country of origin reported multiple associations between general neglect, or one or more neglect sub-types with physical health problems, atypical neurobiology and developmental problems. A difficulty in this review was the lack of distinction of neglect sub-type in 43% of the studies. The studies that did denote different sub-types were usually about institutional neglect, or emotional neglect and physical neglect. Some variation in results between neglect sub-types was found in a small number of studies. For example, Majer et al. (2010) found significant associations between physical neglect and impaired spatial working memory and pattern recognition memory, but non-significant findings with emotional neglect. Despite the limited exploration of multiple sub-types of neglect, this scoping review suggests neglect should not be considered a single phenomenon but is rather a heterogenous set of experiences likely to have variable impacts.

A small number of studies reported gender as a moderating factor influencing whether different neglect sub-types were significantly associated with the problem under study. For example, Jewkes et al. (2010) found emotional neglect increased the likelihood of women contracting an STD but not men. Clark et al. (2014) reported that women exposed as children to supervisory neglect were more likely to have a higher BMI than those not exposed. This was not found for men. In an ACES study, Strine et al. (2012) found smoking was significantly more likely for women who had experienced

physical neglect than those who had not, which was not found for men. Teicher et al. (2004) reported that children who experienced neglect were more likely to have a smaller corpus collosum and that there was a substantially greater effect size for boys.

A number of the publications that reported no significant findings associated with neglect, initially found significance until adjusted for other variables, such as Nikulina and Widom (2014). Overall, there were too few examples of studies reporting no significance with neglect to discern particular patterns, other than there were more non-significant findings for the physical health domain than the other two domains.

Limitations

There are several limitations within the extant research on problems associated with neglect and of scoping reviews in general. Although studies unclear in their method or findings were excluded, this review does not describe variations in quality of the research. When researchers concluded that the correlations or effect sizes were too small to be meaningful, these studies were not included. It would be of value to analyze further the non-significant or contrary findings. The relatively low number of studies reporting non-significant findings may be indicative of both publication bias towards statistically significant findings and the process of database searching inadvertently not identifying these studies when reviewing abstracts.

The categorization of harms was done by the authors and is inevitably subjective and reductionist. The inter-relatedness of the possible categories makes this particularly complex. For example, the neurobiological basis for many physical, developmental, emotional, social, and behavioral problems is well-documented (see Anda et al., 2006).

This review included studies focused solely on neglect or where they were able to distinguish results associated with neglect from other forms of maltreatment and adversities. Nonetheless, neglect and abuse are inherently difficult to separate given their common co-occurrence (Lamers-Winkelman et al., 2012). Various statistical analyses such as logistic regression were used to adjust for other variables including other types of maltreatment and some studies chose to focus only on children who had experienced neglect. However, the construct of neglect cannot be artificially separated from the frequent other adversities that co-occur. For example, many studies controlled for socio-economic status, but poverty and its social, emotional and physical ramifications are difficult to truly control for when studying neglect (McSherry, 2004). These and other potentially confounding factors must always be considered when exploring implications of neglect for practice and policy.

This review used a limited number of search terms due to the large number of possible results. As such it is likely some studies were missed. Even more problematic was the exclusion of studies not published in English likely to have led to informative studies not being included.

A limitation in this review was that only the first author conducted the scoping review methodology. This was ameliorated to some degree through the involvement of the other authors in discussions throughout the process and in the final reporting but remains a limitation.

Further research

Twenty years earlier, Hildyard & Wolfe, (2002) recommended further research including longitudinal studies to explore the long-term effects of neglect. This review has benefited from the increased number of studies on this topic including longitudinal studies, however questions remain.

As mentioned, greater specificity about the neglect sub-type and greater opportunities to identify other types of neglect would be a valuable contribution to future research, rather than the more generic construct. For example, understanding that neglect is when a child's essential needs are not met, suggests that other core needs should become subject of study, such as cultural neglect (see Bamblett et al., 2012). Similarly, most studies did not distinguish severity, duration, chronicity or developmental timing of neglect, all of which are important factors in animal models of developmental deprivation and stress exposure (McKenzie, 2017). Incorporating age of onset of neglect into the design would be particularly informative.

Although many studies examined gender as a potential variable as well as age and socioeconomic status, these remain ongoing issues for research. A smaller number of studies focused on race (e.g., Nikulina & Widom, 2014), and an even smaller number looked at any differences for members of the lesbian, gay, bisexual, transgender, queer, and intersex community (e.g., Suarez et al., 2021). People with disability were a focus in a small number of studies but these appeared more about prevalence than untangling the implications of neglect (e.g., Barber & Delfabbro, 2009). Engaging these populations in research also requires consideration of appropriate measures and methodologies. The call for more attention to intersectionality in both research and practice is important for child neglect as well as child maltreatment in general (Nadan et al., 2015). Consideration should be given as to whether children from particular cultural identity, gender or sexuality identity or abilities may experience both the neglect and its aftermath in nuanced ways. This may also point to application of traditional or new interventions to support recovery such as the cultural specific solutions described by Abdullah et al. (2020). This review did not explore whether problems associated with neglect can be ameliorated or resolved through intervention and this remains a largely unanswered question in research.

Conclusion

Neglect is rarely an act of commission but emanates from a disruption or absence of a quality caregiving relationship. This scoping review illustrates that child neglect poses a potent risk not only during childhood but beyond. The studies reviewed identified that neglect can be life-threatening or life-altering. Even with limiting the focus on physical health, neurobiology and development, studies point to children and adults being impacted by neglect across many aspects within those domains. Although the nature of the studies did not enable claims of causality, they point to strong links between neglect and a plethora of problems that follow. The variety of populations and age groups in these studies support the relevance of these findings across different practice and policy settings and contexts.

There are several likely mechanisms for these harms rather than attempting to narrow down to one. A central point is reflected in the definition of neglect, that is, neglect is primarily about children's fundamental needs not being met. The risks of harm for children and adults who experience neglect emphasizes the need for more focus on prevention as well as intervention with the children, caregivers, schools, and community.

How many studies will it take for more action to help children who have suffered neglect reach their developmental potential? The studies of adults who experienced child neglect demonstrate children do not simply "grow out" of the ramifications of neglect. Despite the ongoing need for quality research, this scoping review demonstrates there is enough evidence available to better inform practice and policies and that such action is overdue.

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Despite the description in the literature of multiple neglect subtypes (page 13), research on the harms associated with neglect as described in the scoping literature review focused on emotional, physical, or unspecified neglect. No research was found on associations between developmental neglect or cultural neglect with child or adult problems, although there were many findings of developmental harms and one explicit finding of cultural harm. Most studies reported in the scoping review did not describe severity, duration, age of onset, or the context in which neglect occurred. Exceptions were the studies on institutional neglect (e.g., Spratt et al., 2012) and some of the qualitative reviews on death or serious injury resulting from neglect (e.g., Brandon et al., 2013).

There were a myriad of findings in the scoping review relating to physical health, atypical neurobiology, and developmental problems. This illustrated the diversity of problems experienced by children and adults, for example, some problems had multidirectional associations, most notably children being underweight (Brandon et al., 2013; Chugani et al., 2001; Iwaniec et al., 2003; Munoz-Hayes et al., 2011; O'Connor et al., 2000) and children and adults being overweight (Clark et al., 2014; Clemens et al., 2018; Imperatori et al., 2016; Knutson et al., 2010; Nagl et al., 2016; Power et al., 2015; Schulte et al., 2021; Shin & Miller, 2012; Whitaker et al., 2007) (see further information in Appendix 2, page 394). Another noteworthy implication from the review was although certain problems often co-occurred and appeared interrelated such as problems with pain and sleep (Nasir et al., 2012; Smith & Haythornthwaite, 2004), few studies explored their associations. In their study on pain and maltreatment, Beal et al. (2020) discussed the links with pain and sleep disturbance but limited their description to sleep as a symptom of posttraumatic stress. The only study found on pain and child neglect that mentioned sleep problems was by McPhie et al. (2014) who included problems with pain in their measure of psychological distress, but again did not report on specific results. In a different example, children with speech and language and fine or gross motor problems were often correlated (Gonzalez et al., 2019), yet only two studies in the scoping review explored both sets of problems and found both present (Chugani et al., 2001; Helder, 2009). These studies were on children in institutions.

Part 2: Scoping Literature Review Findings on Relationships, Emotional Health, Mental Health and Behavioural Problems

The second part of the scoping literature review, that was not published, was on the associations between neglect and problems with relationships, emotions, mental health, and behaviours.

Relationship Problems

Fifty studies were found that explored child neglect and problems with relationships, of which 46 (92%) reported one or more associations (Table 2-3). The nature of relational problems studied can be categorised in to those which examined children or adults' capacity for relationships, such as social skills, empathy, and ability to recognise other people's emotions; and those which examined the nature of their relationships, such as current family functioning, romantic relationships, peer relationships, student-teacher relationships, and gang affiliation. Studies reporting the most findings about neglect and relationships were in terms of children or adults having attachment problems, poor social skills, and peer relationships.

All studies exploring neglect and attachment reported one or more significant findings, three of which reported mixed findings. Two studies reported significant findings for adult attachment problems with emotional neglect but not for physical neglect (Higgins et al., 2018; Van Assche et al., 2020). The third study reported significant findings between general neglect and insecure attachment for children but non-significant findings for disorganised attachment (Bovenschen et al., 2016). Half the studies on attachment focused on children's attachment style or other attachment difficulties, with one study on children and adults, and the remaining five on adults only. Six studies reported on attachment and general neglect, four on emotional neglect, three on institutional neglect, and three on physical neglect. For example, in a study on 846 university students, Unger (2011) found those who experienced general neglect were more likely to have attachment anxiety. In a study on 74 kindergarten children, Venet et al. (2007) found those who experienced general neglect were more likely to have avoidant attachment and have more indicators of disorganised attachment.

All studies found exploring associations between neglect and poor social skills reported one or more significant findings, including two with mixed results (Gil et al., 2009; Logan-Greene & Semanchin Jones, 2015). Gil et al. reported physical neglect was associated with poor social functioning in adulthood but not emotional neglect. Logan-Green and Semanchin Jones found physical neglect was associated with poor social development in children but not supervisory neglect. Most studies on neglect and social skills were with children (n = 8, 72.7%). Most were about general neglect (n = 7, 63.6%), followed by institutional neglect (n = 4, 36.3%), and physical neglect (n = 3, 27.3%). A data linkage study on 19,203 five-year-old children by Bell et al. (2018) found children who experienced general neglect were more likely to have poorer social development than their peers. Only one study reported an association between emotional neglect and poor social skills, where they found young adolescents who experienced emotional or

general neglect were described by parents as having lower social functioning (Cohen & Thakur, 2021).

Ten studies reported results on neglect and poor peer relationships; with seven finding significant associations with general, emotional, or physical neglect and three studies reporting no associations. An example of a peer relationship problem was adults reporting low levels of trust in peers and poor communication (Clarke, 2015). Another study reported that the higher the level of neglect the increased risk of relational maladjustment with peers (Kwak et al., 2018). Two studies, one with adults (Segal, 2014) and one with children (Choe, 2021), reported on the association between neglect and problems with friendships (see Appendix 4, page 418).

Table 2-3

Associations Between Relational Problems and Child Neglect

Relational problems	Child or adult participants	Neglect subtypes for significant findings	No of studies reporting significant findings	No of studies reporting non-significant or opposite findings
Attachment	Child/ Adult	GN, IN, PN, EN	12	3
Social skills	Child/Adult	GN, IN, PN, EN	11	2
Current family functioning, sibling relationships	Child/Adult	PN, EN	3	
Peer relationships	Child/Adult	GN, EN, PN	7	3
Gang or antisocial affiliation	Child/Adult	GN	2	1
Hostility	Adult	PN	1	1
Recognising others' emotions	Child/Adult	GN, PN	3	1
Agreeable/compassion	Child/Adult	EN, PN	1	1
Perception of others	Child	GN	1	
Perceived support and acceptance	Child/Adult	GN, PN	2	
Closeness	Adult	GN	1	
Student-teacher relationships	Child	GN	3	
Intimate or romantic relationships	Adult	GN	3	1
Extraversion (capacity for and enjoying relationships)	Child/Adult	PN, EN, Med	3	2
Social withdrawal	Child/Adult	GN, PN, EN	4	1
Self-other differentiation	Child	EN	1	

Note. GN = general neglect, EN = emotional neglect, PN = physical neglect, IN = institutional neglect, Med = medical neglect.

Emotional Problems

There were 93 studies related to neglect and emotional problems, of which 87 (93.6%) reported significant associations (Table 2-4). The most commonly reported emotional problems were internalising problems, which covered emotional and mental health problems, most commonly mentioned by the Child Behavior Checklist (CBCL) (Achenbach, 1991), and problems with coping under stress, emotional regulation, and self-esteem (see Appendix 4, page 418).

Twenty-seven studies reported significant associations between different neglect subtypes and internalising problems. Of eight studies that had non-significant findings for internalising problems, two reported significant associations with emotional neglect but not physical neglect (Dubowitz et al., 2002; Zeller et al., 2015). Another study reported emotional neglect was predictive of internalising problems yet found physical neglect was predictive of not having internalising problems (Jose & Cherayi, 2020). Most studies reporting significant associations with internalising problems were with general neglect (n = 17, 63%) and children (n = 18, 66.7%).

There were 13 studies on the association between neglect and stress reactivity or not coping, all but one reporting at least one significant association. There were various measures for reactivity to stress, such as the Ways of Coping Questionnaire (Folkman et al., 1986), Perceived Stress Scale (Cohen et al., 1983), Connor-Davidson Resilience Scale (Connor & Davidson, 2003), and the Children's Global Assessment Scale (Shaffer et al., 1983). The most commonly reported neglect subtype associated with not coping was emotional neglect (n = 7, 53.8%), followed by physical neglect (n = 4, 30.8%), and general neglect (n = 3, 23.1%). Six (46.2%) studies focused on adults, four (30.8%) on children, and four (30.8%) on both. Examples included: a study on 718 Chinese adolescents where physical and emotional neglect were associated with less resilience (Shao et al., 2021); a study of 99 adolescents and young adults which found emotional and physical neglect moderated momentary stressors increasing the likelihood of children having negative affect (Rauschenberg et al., 2017); and a study on how young adolescent males coped with the stress of confinement in youth justice custodial settings in China, where emotional neglect but not physical neglect was associated with coping less well (Zhao, 2021).

Thirteen studies were found that explored neglect and emotional regulation, with 11 reporting significant associations. The most frequently used measure for emotional regulation found was the Difficulties in Emotional Regulation Scale (Gratz & Roemer, 2004) which was used for five of the six studies focused on adults. No consistent measure was used for children. The neglect subtypes were evenly spread between physical, emotional, and general neglect, with one

study on institutional neglect (Tottenham et al., 2010). Five studies reporting significant associations were focused on children with another two involving children and adults.

The 10 studies that explored neglect and self-esteem all reported at least one significant finding. The three studies which reported mixed findings were Oshri et al. (2017), Silva and Calheiros (2020), and Zeller et al. (2015). The measures used in these studies focused on self-esteem (e.g., the Rosenberg Self-Esteem Scale (Rosenberg, 1965)) or self-worth (e.g., Self-Perception Profile for Adolescents (Harter, 1985)). The most commonly associated neglect subtype with low self-esteem or self-worth was emotional neglect (Clark et al., 2021; Clarke, 2015; Klein, 2014; Silva & Calheiros, 2020; Waldron et al., 2018; Wang et al., 2020; Zeller et al., 2015). Six studies focused on adults and another two involved both adults and children.

There were several studies reporting on neglect and emotional difficulties where only one study found significant associations. Examples were: general neglect associated with low cultural pride (Hodson et al., 2006), emotional neglect but not physical neglect, associated with less gratitude (Wu et al., 2018), and emotional neglect associated with low reward sensitivity (Babad et al., 2021).

Table 2-4

Associations Between Emotional Problems and Child Neglect

Emotional problems	Child or adult participants	Neglect subtypes for significant findings	No of studies reporting significant findings	No of studies reporting non-significant or opposite findings
Internalising symptoms	Child/Adult	GN, IN, PN, EN, Environ, Med	27	9
Emotional regulation	Child/Adult	GN, IN, PN, EN	11	3
Not coping, reactivity to stress	Child/Adult	GN, PN, EN	12	6
Anger expression	Child/Adult	PN, EN, SN	4	1
Distress	Child/Adult	GN, PN, EN	6	3
Fear of future, hopelessness	Adult	GN, PN, EN	3	3
Emotional processing	Child/Adult	EN, PN	4	1
More callous, less conscientious	Child/Adult	EN, PN	7	3
Self-efficacy	Child/Adult	EN, PN	5	1
Food insecurity, low enjoyment of food	Child/Adult	Med	1	1
Understand emotions	Child/Adult	GN, PN	3	1
Self-esteem, self-worth	Child/Adult	GN, PN, EN SN	10	4
Self-perception of academic achievement	Child/Adult	GN, EN	2	
Self-compassion	Adult	EN, PN	2	1
Cultural pride	Child	GN	1	
Perceived stigma	Child	GN	1	
Less gratitude	Adult	EN	1	1

Loneliness	Child/Adult	PN, EN	2	
Somatic expressions of emotional health	Child/Adult	PN, EN	4	2
Reward sensitivity	Adult	PN, EN	1	1
Shaming sexual beliefs	Adult	GN	1	
Excessive phone use	Child	EN, GN	2	
Gambling problems	Adult	PN	1	1
Suggestibility	Child	GN	1	
Lower spirituality	Adult	EN	1	

Note. GN = general neglect, EN = emotional neglect, PN = physical neglect, IN = institutional neglect, Med = medical neglect, SN = supervisory neglect, Environ = environmental neglect.

Mental Health Problems

The highest number of studies found in the scoping literature review across all domains were on neglect and mental health problems (n = 148), with 131 (88.5%) reporting one or more associations (see Appendix 4, page 418). Seventy-eight studies (52.7%) used standardised measures, such as Beck's Depression Inventory (Beck et al., 1996), the Alcohol Use Disorders Identification Test (AUDIT) (Saunders et al., 1993), and the Trauma Symptom Checklist (Briere, 1996); 50 studies (33.8%) used clinical assessments; 22 (14.9%) used both; and the remainder used government records or unreferenced measures. Descriptions of mental health problems should, therefore, not be considered diagnoses.

Commonly reported mental health problems associated with neglect included depression, alcohol and other drug problems, posttraumatic symptoms, anxiety, and suicidality (Table 2-5). Fifty-three of 59 (89.8%) studies reported one or more associations between neglect and depressive symptoms. Most studies reported an association with depression and emotional neglect (n = 44, 74.6%), followed by physical neglect (n = 25, 42.4%). Most were on adults but five studies focusing on children and adolescents reported significant associations between neglect and depression in childhood (de Oliveira et al., 2018; Hermenau et al., 2015; Jimeno et al., 2021; Shao et al., 2021; Watkins, 2014; Zeller et al., 2015).

The second most frequent category of mental health problems was alcohol and/or other drug problems. There were 32 studies overall, with 29 (90.6%) reporting one or more associations with neglect. This includes studies reporting on alcohol (e.g., Wiehn et al., 2018), cannabis (e.g., Abajobir et al., 2017), and substance abuse in general (e.g., Brockie et al., 2015). Nineteen studies reporting associations with alcohol and/or other drug usage with emotional neglect, followed by 14 studies regarding physical neglect, and 10 for general neglect. Most of these studies were in regard to adults (53.1%) or adults and children (28.1%). There were, however, seven studies focusing on children or adolescents of which two included children under 12-years-old (Duprey et al., 2017; Taussig, 2002).

There were 21 studies reporting on neglect and anxiety symptoms, of which 18 (85.7%) found one or more significant associations. Fifteen studies (71.4%) reported associations between emotional neglect and anxiety and five (23.8%) with physical neglect. Doucette et al. (2016) and Negriff (2020) reported on anxiety in children, with the remainder focusing on adults or both.

Twenty-eight studies were found that explored whether neglect was associated with posttraumatic stress symptoms and 18 (64.3%) reported significant results. In terms of neglect subtypes, 11 studies reported associations for posttraumatic stress with emotional neglect, nine with physical neglect, and six with general neglect. Only one study focused on children (n = 100 preschool-aged children) and reported an association between neglect and posttraumatic stress (Brockie et al., 2015; Fusco & Cahalane, 2013). Another three studies involved children and adults (Brockie et al., 2015; Cecil et al., 2017; Negriff, 2020).

Table 2-5

Associations Between Mental Health Problems and Child Neglect

Mental health problems	Child or adult participants	Neglect subtypes for significant findings	No of studies reporting significant findings	No of studies reporting non-significant or opposite findings
Mental health symptoms (general)	Child/Adult	GN, IN, PN, EN	17	3
Alcohol and/or other drug problems	Child/Adult	GN, PN, EN, SN	29	10
Alexithymia	Adult	GN, PN, EN	6	1
Anhedonia	Child	EN	1	
Anxiety symptoms	Child/Adult	GN, PN, EN	18	10
Depression symptoms	Child/Adult	GN, PN, EN, SN	53	20
Mood disorders (general)	Child/Adult	GN, PN, EN	4	2
Suicidality	Child/Adult	GN, PN, EN, SN, Med, Aband	18	5
Self-harming behaviours	Child/Adult	GN, PN, EN	7	4
Posttraumatic symptoms	Child/Adult	GN, PN, EN	18	12
Dissociation	Child/Adult	GN, PN, EN, Environ	7	3
Bipolar disorder	Adult	GN, PN, EN	4	
Schizophrenia	Adult	GN, PN, EN	4	
Body dysmorphic disorder	Adult	EN	1	
Somatoform disorder	Adult	EN	1	1
Eating disorder or symptoms	Child/Adult	GN, PN, EN	6	5
Personality disorders or symptoms	Child/Adult	GN, PN, EN, SN	11	4
Opposition defiant or conduct disorder	Child	GN	2	
Obsessive compulsive	Child/Adult	PN, EN	3	3
Psychosis or related symptoms	Adult	GN, PN	5	2

Note. GN = general neglect, EN = emotional neglect, PN = physical neglect, IN = institutional neglect, Med = medical neglect, SN = supervisory neglect, Aband = abandonment

Behavioural Problems

From 80 studies, 72 (90%) found one or more associations between child neglect and child and adult behavioural problems (Table 2-6). The most frequently identified issues were externalising behaviours, criminal behaviours, use of aggression or violence, and sexual behaviours that placed the child at risk (see further information in Appendix 4, page 418).

There were 36 studies found exploring the association between neglect and externalising behaviours or behavioural problems in general, 35 (94.6%) reported one or more significant associations. The most common measure used was the CBCL (Achenbach, 1991) and the Youth Self-Report (Achenbach & Rescorla, 2001) with 16 studies using one or both. Twenty-seven studies that found associations between externalising behaviour and neglect were focused on children and adolescents with another five that also covered adults. Only two studies focused solely on adults. Some of the studies explored externalising or problematic behaviours for children as young as three-years-old (Dubowitz et al., 2002; Pino et al., 2015; Spratt et al., 2012; Wong et al., 2021). Most studies described the association with general neglect (n = 20, 54.1%), followed by emotional neglect (n = 10, 27%) and then physical neglect (n = 8, 21.6%)

Twenty-one studies were found reporting on neglect and criminal or offending behaviours, of which 20 had one or more significant findings. Nine studies focused on adolescents with another six covering adults and adolescents. Thirteen studies reported significant associations between general neglect and offending behaviours, seven with physical neglect, and four with emotional neglect.

There were 19 studies found that reported on whether neglect was associated with use of aggression or violence towards others, of which 15 found significant results. Eight studies focused on children and another study included children and adults. Several studies found significant results for children under the age of 12-years-old (Knutson et al., 2005; Kotch et al., 2008; Shaffer et al., 2009; Spratt et al., 2012; Talbott, 2000; Van Wert, Mishna, et al., 2017). General neglect was the most commonly found neglect type (n = 9, 47.4%), followed by physical neglect (n = 5, 26.3%) and emotional neglect (n = 3, 15.8%).

Although some studies used a generic description of sexual risk-taking behaviours, examples of specific sexual behaviours placing children at risk included early onset of sexual activity, multiple sexual partners, and sexual risk-taking behaviours. These could also be characterised under physical health and emotional problems, as could sexual exploitation. Seven studies explored the association between neglect and sexual behaviours placing the child at risk, all of which reported at least one significant finding. For example, the study by Widom and

colleagues reported on early sexual activity in adolescence (Wilson & Widom, 2008) and high-risk sexual activity in adulthood (Wilson & Widom, 2011). All the studies involved adults with three including adolescents. There was a fairly even spread between general neglect (n = 4), emotional neglect (n = 3) and physical neglect (n = 2) (see further information in Appendix 4, page 418).

Table 2-6

Associations Between Behavioural Problems and Child Neglect

Behavioural problems	Child or adult participants	Neglect subtypes for significant findings	No of studies reporting significant findings	No of studies reporting non-significant or opposite findings
Externalising problems (general)	Child/Adult	GN, IN, PN, EN, Environ	33	9
Aggression, violence	Child/Adult	GN, PN, EN, Environ	15	6
Violent offending	Child/Adult	GN, EN	6	1
Sexual offending and other behaviours	Child/Adult	GN, PN	4	1
Criminal offending (general)	Child/Adult	GN, PN, EN, SN	20	3
Sexual behaviour placing self at risk	Child/Adult	GN, PN, EN	7	3
Sexual exploitation	Child/Adult	GN, EN	2	1
Risk-taking	Adult	PN	1	1
Fire lighting	Child	GN	1	0
Instigating family violence	Adult	GN, PN, EN	6	0
Running away	Child/Adult	GN	3	1

Note. GN = general neglect, EN = emotional neglect, PN = physical neglect, IN = institutional neglect, SN = supervisory neglect, Environ = environmental neglect

There are many possible intersections between the difficulties experienced by children and adults associated with child neglect. This is best illustrated through some large longitudinal studies, such as those using the dataset developed by Widom and colleagues where they reported on a wide-range of interrelated physical, developmental, relational, emotional, mental health, and behavioural problems in adult life associated with childhood neglect (Chen et al., 2011; Colman & Widom, 2004; Horan & Widom, 2015a, 2015b; Kaufman, 2003; Milaniak & Widom, 2015; Nikulina & Widom, 2013, 2014; Nikulina et al., 2012; Raphael & Widom, 2011; Widom et al., 2012; Widom et al., 2014; Widom et al., 2018; Widom et al., 2013; Widom & Maxfield, 2001; Wilson & Widom, 2008, 2010, 2011; Young & Widom, 2014).

What is evident from this large body of research identified in the scoping literature review is that child neglect is not only harmful during childhood, but many harms continue to leave their mark in adult life.

Section 4: Mechanisms for Harms Associated with Neglect

I drew on the scoping review of harms associated with neglect for discussion of possible explanations of how the harms occurred as a result of neglect (i.e., mechanisms of harm) posited by the various authors. As neglect impacts on multiple domains, I explored the literature for explanations by applying a biopsychosocial and cultural lens. Engel (1977) wrote when applying a systems perspective to challenge the biomedical model, that the distinction between health and illness is unclear "for they are diffused by cultural, social, and psychological considerations" (p. 132) (see Appendix 1, page 388).

I also applied Bronfenbrenner's (1979) ecological-systems perspective which is a multidimensional, multisystemic, and multidirectional perspective. It attends to influences over time, transitions, interconnections, and identifies risk and resilience factors. Much of the literature regarding neglect uses an ecological-systems perspective (e.g., Black et al., 2007; Daniel et al., 2011; De Bellis, 2005; DePanfilis, 2006; Horwath, 2013; Perry et al., 2002; Tanner & Turney, 2006). The ecological-systems perspective draws attention to the interconnected nature of mechanisms across the biopsychosocial or cultural domains. Mechanisms of how neglect can harm children are mainly activated in microsystems, as that is where children directly experience the presence or absence of others (Stith et al., 2008). When understanding how neglect occurred and why the child's family may not be sufficiently present to provide the child with the essentials for developmental tasks, larger and more distal systems come into play, such as exo- and macrosystems (Horwath, 2013) (see Appendix 1 for glossary, page 388).

Harms through the Developing Brain

Discussion on the neurobiological mechanisms of neglect were primarily on the impact of neglect on the developing brain or its impact on the stress-response system (De Bellis, 2005; Perry, 2008).

The child's brain is developing and becoming organised; unlike an adult's brain which is, for the most part, already developed and organised (Perry & Pollard, 1998). The rapidity of brain development is greatest in younger children (Giedd & Rapoport, 2010) which makes it responsive and sensitive to the environment. The child's brain processes an enormous amount of information channelled through the senses and is primed to use this information to develop and strengthen the relevant neural pathways (Perry et al., 1995). When children's microsystems consist of safe, caring adults who are predictably responsive to their needs, their brain absorbs and processes information about certain relationships being safe, stimulating, rewarding, and trustworthy. It is how children learn to be loved and to love, to play and to communicate. When a

child's environment is one of neglect, chaos and other adversity, this plasticity becomes a source of vulnerability (Perry, 2002; Shonkoff & Phillips, 2000). "The very same neurodevelopmental sensitivity that allows amazing developmental advances in response to predictable, nurturing, repetitive and enriching experiences make the developing child vulnerable to adverse experiences" (Perry, 2002, p. 88).

Certain parts of the brain develop at different rates at different ages (Giedd & Rapoport, 2010; Perry et al., 1995). The brain develops sequentially and hierarchically beginning with less complex lower areas (e.g., brainstem), to more complex areas (e.g., cortex). Optimal development of more complex brain systems requires healthy development of the less complex brain systems (Perry et al., 1995). As the brain is going through the most rapid and substantive growth in the early years, it is particularly vulnerable when not exposed to sufficiently organising and necessary experiences for development (Black & Oberlander, 2011; Perry, 2008). There are different critical periods for different brain-mediated functions, such as vision, language, regulation of anxiety, and abstract thought (Perry et al., 1995). Perry (2002) defined neglect from a neurobiological perspective as "the absence of critical organizing experiences at key times during development" (p. 88).

A related concept is that parts of the brain are *experience-expectant* where certain developmental tasks will not happen—or not as expected—unless a specific type of experience occurs during that period (Glaser, 2000; Nelson et al., 2014; Shonkoff & Phillips, 2000). Another neuroscientific tenet is that brain development and changes to the brain are *experience-dependent* or *use-dependent,* enabling the child's brain to develop capabilities suited for the environment (Perry, 2008). Children are born with an over-abundance of neurons and in the first few years develop a vast array of synaptic connections between neurons. Over time, a number of neurons die, and synapses are resorbed when not sufficiently activated or used (De Bellis, 2005; Perry & Pollard, 1998). Although this is part of healthy neurodevelopment, if the child does not receive necessary stimulation and inputs, this 'use it or lose it' principle describes a mechanism for how neglect impacts the brain and associated functions (Perry, 2002).

Studies have reported different patterns of neglect have different implications for the developing brain. As shown in the scoping literature review, for example, 23 studies found significant associations between child neglect and atypical neurobiology (Jackson et al., 2022) (see page 22). Studies showed children who had experienced serious neglect were more likely to have, for example, smaller head circumference (Miller et al., 2015; O'Connor et al., 2000; Perry, 2002); a smaller corpus callosum (Sheridan et al., 2012; Teicher et al., 2004); smaller hippocampal

volume (Hodel et al., 2015); and atypical amygdala volume (Mehta et al., 2009; Roth et al., 2018; Tottenham et al., 2010).

Harms through the Stress-Response System

The human stress-response system is essential for survival, yet an over-activated stress-response system can lead to numerous negative consequences. According to De Bellis (2005): "It is hypothesized that there are multiple mechanisms through which neglect can cause anxiety and that this anxiety activates biological stress response systems and contributes to adverse brain development" (p. 153). Similarly, Dozier et al. (2008) contended: "The lack of a caregiver, the loss of a caregiver, or neglect from a caregiver may pose challenges for the infant in regulating the stress system" (p. 848).

As described in the scoping review (page 22), 16 studies reported associations between neglect and parts of the brain or neurochemistry involved in mediating the stress-response system. Chugani et al. (2001) found early global deprivation was associated with dysfunctions in brain areas known to also be impacted by prolonged stress. Neglect was also found to increase vulnerability to stressors through chronic activation of the Hypothalamus-Pituitary-Adrenal system (Bruce et al., 2009). Some studies reported atypical cortisol in response to different neglect subtypes (Bruce et al., 2009; Gunnar et al., 2001; Gunnar & Quevedo, 2007; Queiroz et al., 1991).

Perry et al. (2016) described state dependent functioning as a mechanism by which anyone facing a stressor or threat will change their internal state to adapt to the event. When the reactivity of a child has become sensitised due to "patterns of extreme, unpredictable or prolonged stress activation" (Perry et al., 2016, p. 135), overreactions to even mild stressors are common.

Harms through Psychosocial and Cultural Development

An example of a psychosocial mechanism of harm from neglect is recognising a nurturing caregiver's response to a stressed or distressed child can shield the child from further adversity and provide the child a source of co-regulation. The absence of such a response can exacerbate a difficult experience to one of overpowering threat (Gunnar & Quevedo, 2007). Another psychosocial explanation is when neglect is experienced as a series of losses and absences leading to grief, anger, rejection, and hopelessness (Bloom, 2000).

Black and Oberlander (2011) described how understanding the developmental tasks associated with children's age and developmental stage sheds light on implications if these tasks

are not achieved due to neglect. A hallmark of attachment theory, is the developmental task for young children to learn that certain adults will provide comfort and safety through proximity and nurturance, referred to as the safe haven, and provide them with a secure base to explore their environment (Cassidy, 2008). If children are not given the requisite consistency, availability, and nurturance to develop this sense of safety and security, they are less likely to achieve the developmental tasks of seeking comfort and exploration (Black & Oberlander, 2011; Cassidy, 2008). Related to attachment, neglect can create problems in the development of affect regulation due to an absence of modelling or co-regulation by the caregiver (Jennissen et al., 2016; Shipman et al., 2005). Problems with affect regulation can in turn impact other psychosocial functions (Cicchetti & Toth, 1995). As with many psychosocial explanations, there are intersecting neurobiological descriptions (Tottenham et al., 2010).

A cultural factor at a macrosystem level is systemic racism. Systems have disallowed or hampered children accessing cultural supports and buffers necessary to build resilience (Frankland et al., 2010). Children removed from home and cultural community are particularly at risk if their culture has been withheld or ignored (Parkinson et al., 2017). In these situations, there is likely to be a higher burden on children to make sense of any clashes or constraints on cultural expression that could result in a form of acculturative stress (Berry, 2006; Schwartz et al., 2010).

Applying Erikson's (1965) psychosocial model of human development, Table 2-7 summarises the five stages of childhood plus the first adult stage and what is needed for the individual to master these developmental tasks. Whilst recognising the role of biology, Erikson's approach to developmental maturation emphasised environmental influences, including parental, social, and cultural relationships. Each of Erikson's stages have implications for how neglect can cause harms to children's development of identity, connection, confidence, and sense of self if their psychosocial needs are not met.

Table 2-7

Summary of First Six Stages of Psychosocial Development

Stage of development	Ages	Focus of the stage	Key questions	What is involved in resolution of challenge	Core ego strength of child
Stage 1	Birth to 18 months	Trust versus mistrust	Can I trust people around me?	Through caregivers' response to child's physical and emotional needs, child gains trust in people being predictable	Hope – ability to trust
Stage 2	18 months to three years	Autonomy versus shame	Can I do things myself or do I need	As child becomes more mobile, caregivers provide opportunities for growth, exploration, and boundaries	Will – building self-control

		and doubt	others to help me?	and limits within cultural mores	
Stage 3	Three to five years	Initiative versus guilt	Am I good or bad? Can I try new things, or will I fail?	Child identifies with caregiver and imitates or competes with them as they increase mobility, language and play	Purpose – building and pursuing goals
Stage 4	Six to 11 years	Industry versus inferiority	How can I be good or bad?	Child's social world expands through school, friendships and neighbourhood. Child compares self with others, strives for mastery over tasks and draws conclusions of self and competency	Competence
Stage 5	12 to 18 years	Identity versus confusion	Who am I?	Develop consistent self-image or ego identity. Adolescent may experience an identity crisis and not know who they are, where they belong	Fidelity – Sense of self and others
Stage 6	18 to 40 years	Intimacy versus isolation	Will I be loved, or will I be alone?	Develop close intimate relationships including but not only romantic or sexual relationships.	Love

Note. Source: Erikson (1965), Erikson (1971)

Section 5: Models and Interventions Towards Recovery from Neglect

A systematic literature review was undertaken to discover primary research on interventions for children who experienced neglect. The description of models and interventions applied to children who experienced neglect was intended to inform the foundational theory of change. The wide-ranging nature of the domains impacted by neglect suggest corresponding wide-ranging fields of practice could be involved, though there does not appear to be a contest for the territory. The review found professionals likely working with children who have been neglected include social workers, medical practitioners, occupational therapists, speech pathologists, psychologists, psychiatrists, early childhood educators, nurses, dentists, and teachers (Anderson, 2005; Balmer et al., 2010; Burgess et al., 2012; Damashek et al., 2011; Dubowitz, 2009; Horwath, 2013; Jenny & the Committee on Child Abuse and Neglect, 2007; Lines et al., 2023; Milburn et al., 2008; Scivoletto et al., 2011; Snow, 2009). If neglect is the absence or insufficiency of children's needs being met (see Chapter 1, page 3) and this includes daily needs, then those with a daily caregiver role, such as foster parents and kinship carers are pivotal in redressing harm (Pasztor et al., 2006; Turner et al., 2022).

Models Applicable to Neglect

There are a small number of systemic models that inform intervention, to varying degrees, for children exposed to neglect. These include the Neurosequential Model of Therapeutics (NMT; Perry & Hambrick, 2008); the Attachment, Self-Regulation, Competency

(ARC) framework (Blaustein & Kinniburgh, 2010); and the Framework for Recognition, Assessment, and Management of Emotional Abuse (FRAMEA; Glaser, 2002, 2011) . The NMT approach was the most documented model I found through searching PsycINFO, Medline, ERIC, Embase, Sociological Abstracts, and Google Scholar, and most explicitly discusses neglect and child recovery.

Neurosequential Model of Therapeutics (NMT)

NMT guides intervention planning by helping clinicians understand the neurobiological mechanisms of how maltreatment, including neglect, leads to harmful consequences and what can influence change from an ecological-systems, relational, and neurodevelopmental perspective (Perry, 2006, 2020). This model challenges the assumption that one hour a week of therapy is sufficient to provide the necessary nature, pattern and intensity of experience required to lead to substantive change in the face of serious neglect and other pervasive adversities (Perry, 2006). NMT guidance begins with creating or strengthening the child's broader social environment so that a "therapeutic web" is formed to support safety and positive change. This aims to enlist the formal and informal networks to support the therapeutic intent. The next focus is the child's key relationships within their microsystems, such as parents, caregivers, and other family. Attention is then on the child whilst continuing to involve caregivers and the therapeutic web to implement the processes of change (Perry & Dobson, 2013). As NMT is not an intervention in itself and works across all forms of child trauma, neglect and adversity, there has not been an attempt at this time to garner evidence as to its effectiveness in supporting interventions specific to child neglect. There is, however, a growing body of research, demonstrating its relevance with this cohort of children, including a paper of which I was a co-author (e.g., Hambrick et al., 2019; Jackson et al., 2019; Zarnegar et al., 2016).

Attachment Regulation and Competence (ARC) framework

The ARC framework places the multiple consequences of child abuse and neglect in the construct of complex trauma. Areas of impairment for children as a result of complex trauma include problems with attachment, biology, affect dysregulation, dissociation, behavioural regulation, cognition and self-concept (Cook et al., 2005).

Through a process of expert consensus six core components for intervention were identified requiring a degree of sequencing as follows:

1. Safety: establishing and enhancing internal and environmental safety.

2. Self-regulation: enhancing capacity to modulate arousal and restore equilibrium following dysregulation.
3. Self-reflective information processing: developing ability to engage attentional processes and executive functioning to construct self-narratives, to reflect on past and present experience, to strengthen capacity for anticipation and planning, and to facilitate decision making.
4. Traumatic experiences integration: transforming, integrating or resolving traumatic memories, reminders and associated problems to reduce or remove functional impairments.
5. Relational engagement: repairing, restoring or creating effective working models of attachment, and applying these to current interpersonal relationships.
6. Positive affect enhancement: strengthening sense of self-worth, esteem and positive self-appraisal (Cook et al., 2005).

According to Blaustein and Kinniburgh (2010), children who have experienced complex trauma including neglect, require a model that is flexible, embedded in a developmental and social context and equipped to respond to a range of trauma including current exposure. They described the ARC model as a component-based framework, grounded in theory and research about the impacts of trauma, and the importance of working with the child-in-context. The ARC model provides a guide to inform choice and timing of interventions.

Framework for Recognition, Assessment, and Management of Emotional Abuse (FRAMEA)

FRAMEA is a conceptual framework developed by (Glaser, 2002, 2011) in response to emotional abuse and emotional neglect. Glaser conceptualises emotional neglect as a subtype of psychological maltreatment rather than a subtype of neglect. She contends that therapeutic interventions will vary depending on the type of maltreatment and subtype. Glaser (2011, p. 871) refers to the goals of intervention being: "*curtailing the maltreatment, preventing recurrence and ameliorating the harmful effects*."

FRAMEA has four tiers of concern; namely, social and environmental risk factors, caregiver risk factors, harmful caregiver-child interactions, and the child's functioning at the centre. Although FRAMEA approaches intervention from a different angle than NMT they share the premise of starting with social, environmental, and relational factors before individual interventions (Glaser, 2011; Perry & Dobson, 2013).

FRAMEA provides a platform to consider interventions including statutory intervention. The principles listed to support children living with their family are primarily cognitive and

emotional-oriented and assume the child is developmentally ready to respond to these strategies. Principles include acknowledging the child's experiences, explaining the parents' difficulties to the child, problem solving to help the child cope with the experience, working with the child's emotions, such as self-blame or low self-esteem, enabling the child to have a meaningful, enduring relationship with at least one positive adult and ensuring the child is supported to meet educational potential (Glaser, 2011)

Systemic Approaches

The ecological-systems perspective utilised throughout this chapter to shed light on harms from neglect is also applicable when considering recovery. The NMT, ARC, and FRAMEA models each employ aspects of systemic and ecological thinking (e.g., Glaser, 2011; Hambrick et al., 2018; Kinniburgh et al., 2005). Given the multiple domains in which neglect occurs, there is a commensurate need to marshal resources across multiple settings and systems. Tanner and Turney (2006) noted for both the child and the family: "The ecological-systems literature suggests that when statutory agencies provide the social support that is missing for neglecting families, the most helpful interventions are those which mirror the everyday relationships, and networks taken for granted by many families" (pp. 127–128). They gave examples of creating networks of supportive relationships including friendships for the child. Others systemic implications include:

- Systemic thinking to enable problems being understood in interaction with each other (Kozlowska & Hanney, 2003).
- Collaboration and multidisciplinary approaches (Bithoney, 1991; Black & Oberlander, 2011; Cicchetti & Toth, 1995; Daniel et al., 2013; DePanfilis, 2006; Dicker & Gordon, 2006; Frederico et al., 2006; Miller, 2014; Perry et al., 2002).
- Effective and accurate information sharing, role clarity, shared language, mutual professional training, and frequent meetings such as care teams and case conferences (Frederico et al., 2006; Horwath, 2013).
- Recruiting the community, cultural group, school, friendship circles, and services to support the therapeutic intent around the caregivers and child (Horwath, 2013; Perry & Dobson, 2013).

Interventions to Help Children Recover from Neglect

A rationale for this study was the dearth of literature describing or researching child-centred interventions aimed at redressing the harmful consequences to the child (Allin et al.,

2005; Berry et al., 2003; Daniel et al., 2011; DePanfilis, 2006; Department of Community Services, 2006; Proctor & Dubowitz, 2014; Sesar & Dodaj, 2021; Tanner & Turney, 2006; Taussig et al., 2013).

Systematic Literature Review on Children's Recovery from Neglect

In a previous systematic literature review on interventions with child neglect, the authors concluded there was no evidence of effective treatment for children impacted by neglect (Allin et al., 2005). My publication of a systematic review applies similar terms and expanded databases to see whether the situation had changed in the last two decades (Jackson et al., 2023). My systematic review was more exclusive as the research reviewed had to distinguish between children who experienced neglect and those who had not. It describes the method undertaken in accordance with the protocol registered with PROSPERO (International Prospective Register of Systematic Reviews – Registration No. CRD42017068362A).

Of six interventions from six studies described in eight papers, only four interventions reported positive outcomes for children. These were a foster care intervention for children from Romanian institutions, the Bucharest Early Intervention Program (BEIP; Bos et al., 2011; Fox et al., 2011; Stamoulis et al., 2017); an attachment-based intervention, Attachment Biobehavioral Catchup (ABC; Bernard et al., 2015); a community-based intervention, The Equilibrium Project (TEP; Scivoletto et al., 2011); and a classroom-based intervention, Say-Do-Say Correspondence Training (Pino et al., 2019) (supplementary data in Appendix 5, page 459). These studies either researched neglect as a single construct or focused on one neglect subtype. Given evidence that different neglect subtypes predict different problems for children, there is a call to consider specific neglect subtypes when exploring interventions (Allin et al., 2005; Taussig et al., 2013).

Review

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Interventions to Support Children's Recovery From Neglect—A Systematic Review

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Abstract

Earlier reviews to discover research on interventions for children after neglect have concluded little was available, despite the well-documented prevalence and harmful effects of neglect on children. We revisited this question through a systematic literature review to discover the state of research on interventions for children who have experienced neglect. We searched MEDLINE, PsycINFO, ERIC, Sociological Abstracts and EMBASE for studies published between 2003 and 2021. Studies were included if neglect could be distinguished, and child outcomes reported. Eight reports describing six studies about six interventions were identified. These studies differed in interventions, age-groups, definitions of neglect, and outcomes. Four studies reported positive child outcomes though with varying degree of quality. More research is needed to inform a coherent theory of change following neglect. There remains an urgent need for research on interventions to help children recover from neglect.

Keywords

neglect, child, intervention studies, treatment, systematic review

Child neglect is one of the most pervasive forms of maltreatment (e.g., Australian Institute of Health and Welfare, 2022; Fallon et al., 2021; U.S. Department of Health, 2022) and a major public health and human rights issue (Krug et al., 2002). There is substantial evidence of the deleterious effects of child neglect including physical, developmental, emotional, behavioral, and social consequences (Jackson et al., 2022; Maguire et al., 2015; Naughton et al., 2017). This paper is a systematic review on interventions for children who experience difficulties as a result of neglect. It aims to inform ideas for a theory of change to underpin available or emerging interventions applied to this population.

A confounding issue is the lack of agreed definition of neglect (Dubowitz et al., 2005). In this article, neglect refers to when a child's essential needs are not met (Daniel et al., 2013; Dubowitz, 2009; Frederico et al., 2006). Neglect comes in many forms and its subtypes include physical, emotional, medical, supervisory, educational neglect, and abandonment. Institutional neglect, such as occurred in some Eastern European child institutions in the 1990s, is another subtype involving pervasive physical, emotional, and social deprivation (Nelson et al., 2014). Another complex factor when defining neglect is, despite its strong correlation with poverty, it is recognized as a separate phenomenon (Wald, 2015). Whether it is a causal, contributing, or confounding factor with neglect, poverty can leave its own mark and should be recognized in its own right in interventions with families and children (Tanner & Turney, 2006).

Notwithstanding its prevalence and harms, child neglect continues to elude the level of research undertaken on other types of maltreatment. In particular, there is a dearth of research about whether children recover from the impact of neglect and what interventions might support recovery (Allin et al., 2005; Berry et al., 2003; Daniel et al., 2011; DePanfilis, 2006; Department of Community Services, 2006; Proctor & Dubowitz, 2014; Sesar & Dodaj, 2021; Tanner & Turney, 2006; Taussig et al., 2013). The limited research available is largely focused on the important question of interventions to prevent neglect, yet research has not sufficiently explored interventions that redress the harms already experienced by the child. Taussig et al. (2013) noted:

> Given the adverse consequences of neglect, one might expect to find several evidence-based interventions aimed at ameliorating the impact of neglect on social and emotional functioning. Unfortunately, few programs were found to demonstrate efficacy for

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> neglected youth. Even rarer are programs that demonstrated efficacy for certain subtypes of neglect, despite different subtypes predicting different symptomatology. (p. 57)

The high frequency and impact of neglect signifies an imperative to prevent and mitigate its consequences. A primary step in intervention following neglect is to safeguard the child from further neglect (Daniel et al., 2011; Horwath, 2013). Horwath (2013) describes several interventions with evidence of effectiveness in working with families to prevent neglect occurring or re-occurring. These include SafeCare® (Gershater-Molko et al., 2002), an enhanced version of Triple P-Positive Parenting Program (Sanders et al., 2004), an enhanced Incredible Years (IY) program (Webster-Stratton & Reid, 2010), and Multisystemic Therapy (MST; Brunk et al., 1987). Horwath (2013) and Daniel et al. (2011) also note children not able to be protected from further neglect within the family home, may be placed by child protective services (CPS) in out-of-home care on a time-limited or permanent basis.

A proposition underpinning this paper is that for all the importance of preventing further neglect by improving economic and social conditions, working with families, or providing alternative care, this is unlikely to sufficiently address existing impacts for children. Although interventions with families, such as those mentioned above, aim to prevent further neglect, most research on these interventions do not report child outcomes. On a positive note, there is substantial research on various interventions for many child-specific problems including biopsychosocial problems associated with neglect. Most of that research, however, does not explore if outcomes differ depending on whether the child experienced neglect. It is not known, therefore, whether existing evidence-based treatments or other approaches are effective with children who experience neglect. The question remains, should knowing the child experienced neglect inform which interventions to use and how they are applied? We contend the answer is yes based on the following premises:

1. Knowing the etiology of the child's problems informs which mechanisms were at play leading to the problem (Bush et al., 2016). Children who never developed a sleep routine due to neglect, for example, may have a longstanding dysregulated arousal system that differs from children who had a regulated arousal system, and then were exposed to significant stressors or trauma through abuse (Semsar et al., 2021).
2. Mechanisms involved in how neglect leads to certain difficulties can inform mechanisms to target through intervention (Center on the Developing Child, 2016; Lipsey & Pollard, 1989; Perry & Pollard, 1998). Developing sleep routines for children who never had one, for example, requires different interventions than helping children overcome fears of hearing noises in the night. There are existing interventions available for both problems but recognizing the foundation of the problem can inform the optimal choice of intervention (Tinker, 2019).
3. The intrapsychic experience and meaning of neglect for the child can provide an undercurrent for other problems (Naughton et al., 2017). For example, children with difficulties trusting others who believes "no one loves me" has different challenges than children with trust problems who believes "daddy gets angry when he drinks."

Lipsey and Pollard (1989, p. 31) concept of treatment theory "attempts to describe the process through which an intervention is expected to have effects on a specified target population". They contend the aim is to define and describe the problem, intervention, mechanisms by which the intervention would impact the problem, and outcomes as precisely as possible. This concept influenced the theory of change approach to designing an intervention or its evaluation (e.g., Astbury & Leeuw, 2010; Funnell & Rogers, 2011).

In 2005, Allin and colleagues undertook a systematic literature review on the treatment of child neglect. Of 697 studies on treatment of neglect, five focused on children; namely, therapeutic child care (Culp et al., 1987), play therapy (Reams & Friedrich, 1994; Udwin, 1983), resilient peer training (Fantuzzo et al., 1996), and MST (Brunk et al., 1987). Allin and colleague's review concluded there was some limited evidence for positive outcomes for children who had experienced neglect. Most of the studies reviewed did not distinguish outcomes for children who experienced neglect compared to other forms of maltreatment, therefore, it was not possible to ascertain whether the children with positive outcomes were those who experienced neglect.

The only study which separated findings between neglect and other maltreatment was by Brunk et al. (1987). They reported positive findings for children who experienced neglect between MST and the control intervention in terms of changes in parental responses. However, they did not find positive changes in the only child-specific measure used, which was about passive non-compliance. Allin et al. (2005) concluded "effectiveness of treatment for children exposed to neglect alone (i.e., without co-occurring abuse) cannot be determined from the existing literature" (p. 499).

For this systematic review, treatment, therapy, or interventions referred to any effort aimed to help a child achieve positive outcomes in the aftermath of neglect. While interventions may have included or focused on families or other caregivers, results were needed on child outcomes. This review aimed to identify any interventions used to help children recover from the negative sequelae of neglect in any of its forms. It was hoped this would shed light on possible mechanisms leading to recovery and inform a theory of change to support the development and use of interventions.

Method

The search protocol for 'A systematic review of interventions to help children recover from the impacts of neglect' was registered under PROSPERO (International Prospective Register of Systematic Reviews – Registration No. CRD42017068362A). It was twice updated on PROSPERO given changing timelines due to the COVID-19 pandemic. This review was part of a Ph.D. study through La Trobe University, with no external funding.

This systematic review was based on an open exploratory design regarding all neglect subtypes, interventions, research-type, or child-focused outcomes. Allin et al. (2005) were similarly inclusive. Though this review, similar to Allin et al., included studies where neglect co-occurred with other forms of maltreatment, this review excluded studies where it was not possible to separate neglect from other maltreatment.

Key search terms by Allin et al. (2005) were 'child neglect', 'child maltreatment', 'treatment', 'therapy', and 'intervention.' This review did not include 'maltreatment' as it was considered too broad and led to too many records which did not meet the criteria. The most common search phrase was 'child* AND neglect* AND (treatment OR therapy OR intervention)'. Table 1 describes the inclusion and exclusion criteria for this review.

The type or quality of the study was not a reason for exclusion but informed discussion on its implications. There were no apparent conflicts of interest involved in this systematic review. Some articles published by one or more of the reviewers were included in the initial screen but did not meet criteria for inclusion. Multiple reviewers were involved at each stage.

In addition to searching the same databases as Allin et al. (2005), namely Medline, PsycINFO, and ERIC, this review searched Sociological Abstracts and EMBASE. The Cochrane Collaboration and Campbell Review were also reviewed but no studies were identified. Two other records were found separate to the database search. The final database search occurred in May 2022. One record was identified in January 2023.

As Allin et al. (2005) searched for studies from 1980 to May 2003, this review searched from 2003 to 2021. All titles and abstracts retrieved were independently screened by two reviewers, with duplicates removed. Articles that appeared to meet the criteria were read by four reviewers to determine if they met the criteria. A fifth reviewer moderated any disagreement, which occurred in one instance. An Excel spreadsheet was used to track all records, reports and decisions throughout the process. The review team consisted of four experienced social workers as well as a child and adolescent psychiatrist.

This systematic review protocol used PRISMA (Preferred Reporting Items for Systematic review and Meta-Analysis Statement) (Page et al., 2021). Figure 1 shows the flow from 3897 records initially screened, then distilled to 64 reports read in detail. This identified eight reports on six studies about six interventions which met the criteria.

Findings

Many reports in the first screening phase were manifestly unrelated to child neglect and included topics such as clubfoot or tropical diseases. Of the reports on child neglect, a large number focused on prevalence or consequences. Most reports on interventions highlighted parental behavior change with no description of child outcomes. The 64 reports identified as possibly meeting the search criteria are described in a supplementary file. The most common reason for exclusion was a

Table 1. Inclusion and Exclusion Criteria for Systematic Review.

Inclusion criteria
Published in English
Published between 2003 and 2021
A primary study, including unpublished dissertations, using any method
Study included any form of child neglect (on own or co-occurring with other maltreatment)
Children who experienced neglect with or without other forms of maltreatment were distinguished in data or 100% of sample
Children from birth to 18th birthday
Children living with family, alternative care, or other living arrangements
Study was about an intervention with child or with family
Results included one or more child-specific outcomes
Exclusion criteria
Published in language other than English
Subjects not human
Results did not distinguish between neglect and other forms of maltreatment
Study did not describe interventions post or during neglect, in other words, were focused on prevention, prevalence, or consequences
Report was an editorial, commentary, literature review, or conference paper

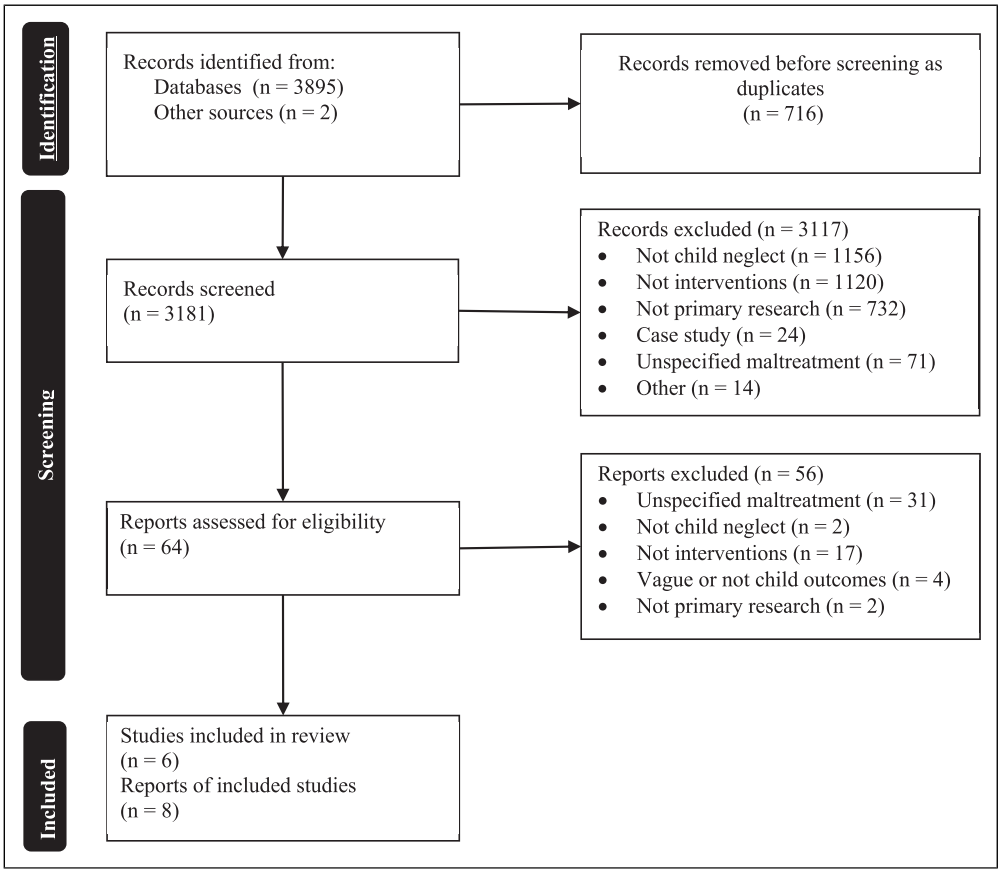

Figure 1. PRISMA flow diagram for record search for this systematic review. *Note.* Categorization of number of articles excluded at either initial screening or eligibility phase is indicative. There were often multiple reasons for excluding an article but only the primary one was listed.

lack of distinction between children who were neglected compared to other maltreatment (71%) experiences.

Table 2 details the six interventions described by the eight reports that met the criteria for this review. Three of these reports detailed the Bucharest Early Intervention Project (BEIP) (Bos et al., 2011; Fox et al., 2011; Stamoulis et al., 2017). The remaining five reports described separate interventions, three of which had other reports included in the initial screen but not in the final review. For example, the Attachment Biobehavioral Catchup (ABC) model (Bernard et al., 2015) was also the subject of research where neglect had not been distinguished (Bernard et al., 2012). Similarly, a report by Taussig et al. (2013) on Fostering Healthy Futures (FHF) was included in this review, whereas a later article (Taussig et al., 2019) did not distinguish neglect. This illustrates that exclusion from this review was not a statement on the intervention nor the quality of the study, but whether the report met the search criteria. The remaining interventions were The Equilibrium Project (TEP) (Programa Equilíbrio), by Scivoletto et al. (2011) and the Say-Do-Say Correspondence Training. The interventions overlapped in certain characteristics but did not share common features. The children involved directly or indirectly in the interventions ranged from 5 months to 19-years-old.

Bucharest Early Intervention Program (BEIP)

The three reports focused on the BEIP study described different outcomes data from the same randomized control trial (RCT) (Bos et al., 2011; Fox et al., 2011; Stamoulis et al., 2017). This study was strong methodologically utilizing randomization between a treatment and control group, a community comparison group, longitudinal follow-ups, and a variety of standardized measures. The inclusion of these reports on the BEIP study was predicated on the well-documented evidence of extreme social deprivation experienced by children raised in such institutions (Nelson et al., 2014), rather than specific measures denoting the children's experience of neglect.

In the BEIP study, children from Romanian institutions were randomly assigned to a foster care program in Romania (treatment), or a 'care as usual' control group. There was also a never-institutionalized comparison group of children in Romania. Children were under 30-months-old at the beginning of

Table 2. Description of Studies Deemed to Meet Criteria for Inclusion (n = 8).

Citation	Participant Description	Study Design	Measures of Neglect	Intervention	Child Outcome Measures	Child-Focused Findings
Bernard et al. (2015)	101 infants (5–34 mths, M = 17.6 mths) involved with CPS, living with parent/s	RCT (post-tests)	CPS records (no subtypes)	ABC, parent coaching in home (10 Weeks)	Saliva tests for cortisol levels	Tx showed more typical cortisol production than CG
Bos et al. (2011)	136 children at three ages (30, 42, 54 mths) from Romanian institutions	RCT – longitudinal study (episodic tests)	Assessment of caregiving environment in institution (institutional neglect)	BEIP foster care intervention (up to 54-mths-old)	Attachment: Strange situation procedure, disturbances of attachment interview. Emotional reactivity: Lab-TAB. Mental health diagnosis – PAPA; cheek swabs for DNA	Tx showed more secure attachment, less reactive attachment disorder symptoms, fewer internalizing difficulties than CG
Fox et al. (2011)	103 8-year-old children from Romanian institutions	RCT – Follow-up longitudinal study (episodic tests)	Assessment of caregiving environment in institution (institutional neglect)	BEIP foster care intervention (up to 54-moths-old)	Attachment: Continuous rating of security of attachment. Caregiving environment, ORCE. Language – REEL, intelligence – WISC	Tx showed higher verbal comprehension and marginally higher IQ scores than CG, especially for children who remained in original placement
Linares et al. (2006)	128 children in foster care (3–10-year-olds)	RCT	CPS records, MCS	IY and co-parenting sessions with biological and foster parents (12 weeks)	Child behaviors: CBCL, ECBI, SESBI-R	No significant child-focused findings but a trend for less behavioral problems
Pino et al. (2019)	10 children in kindergarten (5 neglected, 5 not)	Pre- and post-intervention and CG with single case experimental design	Neglect indicators by Arruabarrena et al. (1993); CPS data	Say-do-say correspondence training	Percentage of time children behaved inappropriately per session	Tx found percentage of time acting inappropriately was reduced to level of CG
Scivoletto et al. (2011)	351 children/adolescents living on streets or in shelters (aged from 3 to 19 years; M = 12.5 years) 68% male	Follow-up post-treatment, mixed method	No specified measure, but part of diagnostic phase using ICD-10 codes	TEP, tailored intervention, multi-disciplinary intensive support in community	Case records: Reunification, school attendance, drug usage, behavior, psychiatric diagnosis, (descriptive non-standardized measures)	Statistically significant findings not sought. Outcomes included stability, school attendance, reduced drug usage, and behavioral problems
Stamoulis et al. (2017)	123 children at 42 and 64-moths-old from Romanian institutions	RCT – Follow-up longitudinal study	Assessment of caregiving environment in institution (institutional neglect)	BEIP foster care intervention (up to 54-moths-old)	Longitudinal resting EEG data of task-independent functioning	Lower connectivity in aberrantly hyperconnected networks and higher connectivity for aberrantly hypoconnected networks children in Tx compared to CG
Taussig et al. (2013)	144 children in foster care (9–11-year-olds; M = 9.92 years)	RCT	Court and casework records and MCS on physical neglect and its severity	FHF Manualized skills group and one-to-one mentoring (9-moths)	Trauma symptoms, behavior, coping, sense of opportunity, self-worth, and social network: TSCC, CBCL, TRF, TCI, SPC, PML	No evidence that Tx effects were stronger for children who were more severely physically neglected

Programs: ABC = Attachment Biobehavioral Catchup, BEIP = Bucharest Early Intervention Project, FHF = Fostering Healthy Futures, IY = Incredible Years, TEP = The Equilibrium Project.
Measures: CBCL = Child Behavior Checklist, DNA = deoxyribonucleic acid, ECBI = Eyberg Child Behavior Inventory, EEG = electroencephalogram, ICD = International Statistical Classification of Diseases and Related Health Problems, MCS = Maltreatment Classification System, ORCE = Observational Record of the Caregiving Environment, PAPA = Preschool Age Psychiatrist Assessment, PML = People in my Life, REEL = Receptive-Expressive Emergent Language scale, SESBI = Eyberg Child Behavior Inventory-Revised, SPC = Self-Perception Profile for Children, TCI = The Coping Inventory, TRF = Teacher Report Form, TSCC = Trauma Symptom Checklist for Children, WISC = Wechsler Intelligence Scale for Children.
Other abbreviations: CG = control group, CPS = child protective services, RCT = randomized control trial, Tx = treatment group.

the study. As foster care was scarce in Romania, a program informed by a USA-based model and supplemented by local Romanian knowledge was created. This model emphasized training carers, providing material and emotional support by social workers, and access to specialist input such as pediatricians to assist the children and carers. "This approach, focused on providing enhanced *experiences* for the child, made the [foster] parent-child relationship the central component of the intervention, in keeping with contemporary research and practice" (Nelson et al., 2014, p. 102). The intervention phase concluded when the child reached 54-months-old and their placement was transferred to local Romanian services, as foster care had become more established. Although the intervention phase ceased, the child's placement did not, and neither did the study (Nelson et al., 2014). The control group were children whose planning was not influenced by the study and who were either placed in a different foster care program, reunited with family, or remained in the institution.

Findings from Report 1. Bos et al. (2011) reported on the findings regarding 136 children's mental health assessed at baseline and then at 30-, 42-, and 54-months of age. In follow-up assessments, children in the BEIP treatment group were more likely than the control group to demonstrate secure attachments and showed fewer symptoms consistent with reactive attachment disorder. The treatment group also showed greater positive affect and fewer internalizing symptoms, although no significant difference was found for externalizing symptoms.

Findings from Report 2. Fox et al. (2011) continued the analysis on a reduced sample of 103 children due to attrition, with a focus on cognitive intelligence, including follow-up when the children were eight-years-old. There was a consistent pattern of children in the treatment group having higher sub-scale scores in the Wechsler Intelligence Scale for Children–IV (WISC–IV; Wechsler, 2003) compared to the control group, noting that verbal comprehension was the only scale with significant difference. Fox and colleagues found children placed in the BEIP foster care intervention before 26-months-old were more likely to show higher cognitive scores. Further analysis indicated one of the mediating variables was security of attachment at 42-months-old and that children placed in the treatment group before 26-months-old were more likely to have age-typical intelligence.

Findings from Report 3. Stamoulis et al. (2017) described the findings of brain electrical activity of children at ages 42- and 96-months examining task-independent brain networks. These are neural networks activated when a person is not undertaking a task, such as when their eyes are closed. These assessments were undertaken using a resting-state electroencephalogram (EEG). The study identified two aberrantly connected neural networks for children in the treatment and control groups compared to the never-institutionalized group, particularly at 96-months-old. They found children in the control group were more atypical than those in the treatment group, suggesting the BEIP foster care program had some positive impact. The impacted parieto-occipital gamma network and the frontotemporal network are involved in cognitive functioning, such as memory, visual-motor learning, visual processing, social communication, and language.

Attachment and Biobehavioral Catchup (ABC)

As part of a larger RCT on the ABC model with children who experienced abuse and neglect, Bernard et al. (2015) focused on neglected children. Infants and their parents were randomly assigned into either the ABC treatment group or the control group using Developmental Education for Families (DEF).

The ABC intervention consisted of 10 weekly home-based sessions by coaches with parents using techniques such as observation, in-the-moment feedback, and replaying footage of parent-child interactions to assist parents' reflection. Sessions followed a sequence beginning with assessing parents' beliefs and behaviors and alerting them to signals from their child to elicit nurturing responses. Parents were coached to be responsive, follow the child's lead and to interact in a non-frightening and non-intrusive manner. There was also exploration of how the parents' childhood may influence their parenting. The DEF model for the control group used a similar timeframe in home visits during which, parents were taught about child development (Bernard et al., 2015).

Bernard and colleague's (2015) study was informed by research, such as by Gunnar et al. (2001), who found children who experienced neglect had atypical patterns of cortisol suggesting biological dysregulation. Bernard and colleagues studied 101 infants across the ABC and DEF groups ranging from five to 34-months-old and their parents at post-intervention. The children were living with parents and were referred by CPS due to concerns about neglect. Although this study did not test pre- and post-cortisol levels, the researchers had undertaken pre-tests on a subset from the ABC and DEF groups and found no significant differences before the intervention.

Bernard et al. (2015) found children in the ABC intervention were more likely to have a closer to typical cortisol pattern when they awoke showing a medium effect size; and, as it changed throughout the day, to a small to moderate effect size, compared to the DEF group. They concluded "an intervention designed to enhance synchronous and nurturing parenting, even under chronically challenging conditions, may support children's cortisol regulation" (Bernard et al., 2015, p. 838).

The Equilibrium Project (TEP)

Scivoletto et al. (2011) used mixed methodology over 2 years. The participants were 351 children and adolescents who had

experienced many adversities—all experienced neglect. TEP was developed through a community and academic partnership with children and adolescents who lived on the streets or in group shelters in São Paulo, Brazil.

TEP aimed to make intensive professional services accessible within the community and associated with recreational activities. It was located in a safe setting away from adverse environmental elements and provided supported access to other resources. Participants were referred by group shelter staff or via the Children's Court as an alternative to custodial sentences. Participation was voluntary. The project's main goals were to decrease children and adolescents' symptomatology, promote education and social development, and "ultimately enable social and family reintegration" (Scivoletto et al., 2012, p. 4).

Eligible participants underwent a screening, followed by a multidisciplinary assessment, including a psychiatric assessment. An individualized intervention plan was tailored to meet the child or adolescent's needs as well as those of their family. Clinical services included psychiatric treatment, individual or group psychotherapy, art therapy, family psychotherapy, occupational therapy, and speech therapy. Recreational activities included theatre and sports activities. The plan was implemented through assertive case management. The case manager aimed to develop a therapeutic alliance with each child and adolescent, and where possible, their family. Although choices of interventions were led by the child and adolescent and adapted to their situation, there was a foundational focus on communication skills (Scivoletto et al., 2011, 2012).

Scivoletto et al. (2011) did not provide statistically significant findings relating to the outcomes of interventions. There were no pre- and post-test results nor was there a comparison or control group. The preliminary results of the study noted 63.5% of participants had successfully completed the program or were continuing to participate. Of the 122 children and adolescents who reunited with their families, 68.3% were described as "stable, attending to school, without drug use or any behavior problems and had been living with their families for more than 6 months" (Scivoletto et al., 2011, p. 92).

Fostering Healthy Futures (FHF)

Before describing their study, Taussig et al. (2013) offered a useful description of the dilemmas in exploring the effectiveness of interventions with children who experienced neglect. With these in mind, they examined the effectiveness of FHF using the severity of neglect as an independent variable. Having previously demonstrated FHF to result in positive effects (Taussig & Culhane, 2010), they wanted to see if it had a greater effect for children exposed to more serious physical neglect.

FHF was a 9-month intervention of a skills group and mentoring for pre-adolescent children living in foster care. The skills groups aimed to bring children in foster care together to reduce stigma and learn social skills. It followed a manualized curriculum involving cognitive-behavioral skills group activities and process-oriented material. Topics included emotional recognition, perspective-taking, problem-solving, anger management, cultural identity, change and loss, healthy relationships, peer pressure, and abuse prevention. The group intervention was informed by evidence-based skills programs such as Promoting Alternative Thinking Strategies (Kusché & Greenberg, 1994) and Second Step (Committee for Children, 2001).

The mentoring component occurred over the same period as the skills group, involving individual time with a mentor and child. Mentors received weekly supervision as well as training. The mentor roles aimed to support children by: (1) creating empowering relationships as positive examples for future relationships; (2) ensuring they received services in multiple domains; (3) helping them generalize and adapt skills learned in the group to their own world through weekly activities; (4) engaging them in extracurricular, educational, social, cultural, and recreational activities; and (5) promoting their positive future orientation.

To determine the presence and severity of physical neglect, legal and casework documents from CPS were coded using the Maltreatment Classification System (MCS; Barnett et al., 1993). According to the MCS, 47.2% of the children had experienced physical neglect. The study collected data at the baseline interview (2 months prior to intervention). Data collected at Time 3 (6 months post-intervention) included interviews with children, caregivers, and teachers (Taussig et al., 2013). The hypothesis that FHF would be most effective for children who experienced more severe neglect was not supported with the outcomes measured, such as mental health, coping, social acceptance, and self-worth. In other words, the effectiveness of FHF with children who experienced neglect, especially severe neglect, was not proven.

Incredible Years (IY) and Collaborative Co-Parenting

Linares et al. (2006) undertook a prevention trial for children at high risk for externalizing problems. The intervention was a combination of the IY program (Webster-Stratton, 2001) and a collaborative co-parenting initiative involving biological and foster parents. Children did not directly participate in the intervention, but child outcomes were measured.

The group program was delivered in two-hour weekly sessions for 12 weeks. Topics covered were play, praise and rewards, effective limit setting, and responding to misbehavior. Strategies included videotaped vignettes, role plays, and homework. Each group consisted of four to seven biological and foster parent pairs. The same facilitator ran a session for the individual biological and foster parent pair, focusing on co-parenting. The session aimed for participants to learn about each other and the child, develop open communication, and better negotiate potential areas of conflict. It

also included family systems strategies. There was training, supervision, and implementation support for the facilitators and monitoring of fidelity of the intervention.

Sixty-four biological and foster parent pairs participated and were randomly assigned to an intervention (n = 40 pairs) or care as usual control group (n = 24 pairs). To be eligible, children in foster care had substantiated child maltreatment and a plan of family reunification. Most of the children in the overall study (83%) had experienced neglect, although this was less (71%) in the intervention group. Because of this difference, analyses were run for the entire sample and then re-run for children subjected to neglect. The analysis showed no difference and the results were considered applicable for children who experienced neglect. The biological and foster parent pairs were assessed at baseline, 3 months later, and then 3 months after the 12-week intervention ceased. Children ranged between three and 10-years-old and had, on average, been in foster care for 8.4 months at baseline. The IY-adapted intervention group showed more positive results than the control group on positive discipline, clear expectations, co-parenting flexibility, co-parenting problem solving, and co-parenting. Children in the intervention group were reported as having fewer behavioral problems, but these were not significant.

Say-Do-Say Correspondence Training

Pino et al. (2019) applied a form of Say-Do-Say Correspondence Training in a Spanish kindergarten with five children who experienced neglect and compared them to a control group of five children who had not experienced neglect and did not receive the intervention. The two groups were matched by age, gender, social class, and their mothers' age. Children who had experienced neglect averaged 12 months behind their expected level, at baseline, compared to children in the control group who were 5 months ahead of their expected level. The hypothesis was that children trained in Say-Do-Say would improve their behaviors.

The Say-Do-Say Correspondence Training is a form of behavioral modification known as correspondence or saying-doing training (Di Cola & Clayton, 2017). Typically, the say-do sequence involves participants saying they will do a certain action and receiving reinforcement upon undertaking that action. This is generalized to other actions so when they promise to perform a behavior, they are more likely to do that behavior (Bevill-Davis et al., 2004). They are later asked if they did the action they had promised to do.

Pino et al. (2019) conducted this study in three stages. At baseline, researchers observed the presence or absence of three behaviors of the 10 children over 10 sessions. These behaviors were standing up when they should be sitting, being absent in terms of attention to the activity, and disruptive behavior such as fighting, shouting or disturbing other children. The second stage involved each child in the intervention group participating in an individual session with a psychologist outside the classroom. The psychologist (researcher) used the Say-Do-Say Correspondence Training with each child for a simple behavior, and then generalized this to two other simple behaviors. Positive reinforcements were part of the intervention. The training occurred in 10–15 minute sessions over 2 days until each child complied with the initial behavior and demonstrated they had generalized this to two other activities. Stage 3 was implemented by the teacher within the classroom. The teacher used similar training to what had been provided by the psychologist, but in a group setting for all 10 children, gradually withdrawing the level of reinforcement. The time period for the intervention used by Pino et al. (2019) was unclear but appeared to be within 2 weeks.

Pino et al. (2019) measured neglect through a measure developed in Spain that included physical, medical, supervisory and educational neglect (Arruabarrena et al., 1993). Information to complete this measure was gathered from CPS who were involved with the children's families. It appears all children were in their parents' care.

Pino et al. (2019) reported there was "a drastic reduction" (p. 7) observed for the five children in the intervention group in percentage of time spent using inappropriate behavior. The time spent in disruptive behavior became similar to those in the control group. Children in the control group, maintained their baseline levels of behavior. The number of participants was too small to measure statistical significance. Pino et al. remarked this study provided preliminary support for an intervention that could be easily used by teachers with children who have experienced neglect.

Discussion

Aligned with Allin and colleagues' (2005) earlier systematic review, this review posed the question: What interventions are used with children who have experienced neglect? The answer is very few, or at least very few studies of interventions that reported child outcomes. Of the four out of six interventions in this systematic review where positive outcomes for children were found, one was a foster care intervention for children from Romanian institutions (Bos et al., 2011; Fox et al., 2011; Stamoulis et al., 2017), one was an attachment-based intervention, (Bernard et al., 2015), one was a community-based intervention (Scivoletto et al., 2011), and one was a kindergarten-based behavioral modification intervention. Of note is the study by Taussig et al. (2013) which commendably published results when their hypotheses were not proven, which occurs too infrequently (see Lederman & Lederman, 2016).

The studies in this systematic review ranged in sample size from 10 children (Pino et al., 2019) to 351 (Scivoletto et al., 2011). Most of the reports discussed limitations with sample size in terms of statistical power. With the exception of Pino et al. (2019) all sample sizes were larger than studies described by Allin et al. (2005). The study by Scivoletto et al. (2011) had the largest sample but did not describe their methodology. The

study's intent to integrate research in a community-based practice model with a rarely studied population of homeless children, involving a combined clinical and community intervention occurring 'in the streets', is laudable. This type of research is important to contribute new information to the broader field; however, it was considered weaker methodologically than the other studies due to insufficient description of its method and scant information on outcomes (quantitative and qualitative).

Seven of the eight reports described various limitations of their study. In the ABC study, Bernard et al. (2015) noted the lack of a comparison group and that they did not routinely collect cortisol before the intervention. They also described variation in the length of time (one to 12 months) when cortisol was collected post-intervention. Taussig et al. (2013) and Linares et al. (2006) described the need to increase their sources of data. Taussig and colleagues noted this in terms of coding maltreatment, whereas they used a variety of self and other report measures for children's mental health functioning. Linares et al. (2006) discussed the value of moving beyond parent self-report data for future studies. Each report on the BEIP study described limitations relating to certain measures and provided relevant cautions. For this systematic review, the BEIP study was found to be limited due to its minimal description of neglect and of the foster care intervention which could impede the application of the findings to other settings. The study by Pino et al. (2019) was acknowledged by the authors to have a very small sample size and was non-randomized, both limiting its generalizability.

Neglect is difficult to define and measure for the purposes of research (Allin et al., 2005). The least defined description of neglect was by Scivoletto et al. (2011). Although they used the International Statistical Classification of Diseases and Related Health Problems (ICD-10) (World Health Organization, 2016) coding system for assessing neglect, it was unclear how neglect was distinguished from the extreme poverty experienced by this population (Scivoletto et al., 2012). There was no attempt to describe the neglect or use any validation approach. Two studies used the MCS for coding CPS records (Linares et al., 2006; Taussig et al., 2013). Although the MCS includes four neglect subtypes, it does not distinguish emotional neglect from emotional abuse. Bernard et al. (2015) noted while their definition of neglect was informed by CPS records, they could not access detailed records. Their description of neglect is, therefore, vague and homogenous, although validated by CPS as an external authority. The measure of neglect used by Pino et al. (2019) was completed by incorporating information from CPS. They articulated the most neglect subtypes compared to the other studies, although they were grouped together as one construct (Arruabarrena et al., 1993). Scivoletto et al. (2011) described neglect as a single construct. Taussig et al. (2013), however, cautioned when neglect subtypes are collapsed there can be confounding findings. A lack of specificity on which essential needs of the child were not met (i.e., what neglect subtype was the focus of study) is a key limitation for applying the findings in practice.

The frequent co-occurrence of neglect with other types of maltreatment is a major complicating factor when researching neglect (Allin et al., 2005; Widom, 2013). The reports on BEIP (Bos et al., 2011; Fox et al., 2011; Stamoulis et al., 2017), ABC (Bernard et al., 2015), Say-Do-Say Correspondence Training (Pino et al., 2019) and TEP (Scivoletto et al., 2011) noted 100% of their treatment population experienced neglect. Pino et al. (2019) was the only study that contended the children did not experience other maltreatment. In recognition of the difficulties in research on neglect, due to its common co-occurrence with other maltreatment, Taussig et al. (2013) examined whether FHF had greater effect for children exposed to more serious physical neglect. Their definition of exposure to physical neglect was limited to neglect that occurred in the previous 2 years due to data quality concerns associated with a longer time period. Given the potentially harmful impacts of physical or other forms of neglect occurring for younger children (Becerra, 2016), this was a limitation of the design.

In considering the risk of bias, all six interventions were developed in part or entirely by members of the study teams. The four studies that utilized RCT methodology had documented processes of randomization and followed intent-to-treat analyses and used independent raters and inter-relator reliability for the measures. The researchers who undertook the observations in the study by Pino et al. (2019), were rotated through the intervention and control group. The study by Scivoletto et al. (2011) was the one most susceptible to claims of bias with no apparent attempt to reduce those reported.

The intervention with the most frequent contact was BEIP as it involved 24/7 care of the children, although, it was not clear how often social workers visited the children and carers. Other interventions ranged from bi-weekly to weekly contact. TEP was described as intensive but further information was not available (see Table 3).

The Say-Do-Say Correspondence Training (Pino et al., 2019) was the shortest intervention in duration of approximately 2 weeks. Other intervention durations were 10 weeks, nine months, up to 48 months, to an unspecified amount of time. Some were direct interventions with the child (Pino et al., 2019; Scivoletto et al., 2011; Taussig et al., 2013), and others were interventions with the parents with the intent to impact child outcomes (Bernard et al., 2015; Linares et al., 2006). The other category was interventions providing alternative care for the child with a focus on supporting the carers, namely the BEIP intervention (Bos et al., 2011; Fox et al., 2011; Stamoulis et al., 2017). The IY-adapted intervention involved both parents and foster parents (Linares et al., 2006). The modality of interventions varied from providing supported alternative care to individual or group sessions. TEP, FHF, and BEIP incorporated case management and referrals to other services.

Table 3. Descriptions of Interventions in this Systematic Review.

Interventions	Frequency	Intensity	Duration	Modality	Location	Focus of intervention
ABC	Weekly	1 hour	10 weeks	Parent sessions and dyadic observations and feedback	Home or shelter	Parent and child
FHF	Twice weekly	1.5 hours (group); 2–4 hours mentoring	30 weeks	Skills group; individual mentoring	Agency, home, and in car	Child
IY-Adaptation	Twice weekly	2 hours (group); unstated (co-parent session)	12 weeks	Parenting group; co-parent session	Agency	Parents and carers
BEIP	24/7 care; support to carers unstated	24/7 care; support to carers unstated	From age at time of place-ment to 54 months	Alternative care; training, support, and case management with carers	Carers' home	Child and carer
Say-do-say correspondence training	1 to 4 brief training sessions, then applied in class over 6 sessions	10–15-minute training, then within kinder-garten	6 days or longer (unclear)	Individual training to child, then applied in kindergarten in small groups	Kindergarten	Child
TEP	Unstated	Unstated	Unstated	Outreach and practical support	Community center; streets	Child or adolescent

ABC = Attachment Biobehavioral Catchup, BEIP = Bucharest Early Intervention Project, FHF = Fostering Healthy Futures, IY = Incredible Years, TEP = The Equilibrium Project.

Outcomes measured for these interventions included neurobiological outcomes, such as cortisol levels (Bernard et al., 2015) and neural connectivity (Stamoulis et al., 2017); cognitive and language development (Fox et al., 2011); security of attachment (Bos et al., 2011); trauma symptoms (Taussig et al., 2013); and behavioral problems (Linares et al., 2006; Pino et al., 2019; Scivoletto et al., 2011; Taussig et al., 2013).

BEIP was the only intervention purposefully designed for children subjected to neglect, albeit a particular type of neglect. This was also the only intervention predicated on the notion of ceasing the children's exposure to neglect by removing them from a harmful situation. FHF was implemented with children already placed in care, but this was not described as part of the intervention. Although not designed explicitly for neglect, both the IY-adaptation and ABC incorporated goals of enhancing the children's situation at home in order to meet their needs and, at the same time, ensure they were not neglected.

Theory of Change

For each intervention, other than TEP, there was a body of literature articulating the underlying theory of change. The articles on BEIP, ABC, and FHF proposed potential mechanisms for recovery and a theory of change for children who experience neglect. Bos et al. (2011) and Fox et al. (2011) reported on the essence of the BEIP foster care model demonstrating the value of stable enriched environments and secure attachments as key features toward positive outcomes for children. This appears to be their core theory of change for ameliorating harms from institutional neglect (see Nelson et al., 2014).

The ABC intervention aimed to influence parenting behaviors that promote biological regulation for young children. These parental behaviors include being synchronous with the child's signals, providing a nurturing response when the child is distressed, and not frightening them. Their theory of change suggests children may develop a sense of control over their environment and become more biologically and behaviorally regulated. Cortisol levels are a measure of biological regulation. Bernard et al. (2015) acknowledged their study did not test this mechanism as they did not examine the ways "parenting behaviors change, and how they may contribute to changes in child outcome" (p. 837).

Taussig et al. (2013) proposed that FHF may be beneficial for children who have experienced neglect to "ameliorate gaps in their upbringing, for example, by modeling healthy relationships, exposing children to enriching activities, and teaching children social skills" (Taussig et al., 2013, p. 57). This is consistent with Perry's (2008) neurobiological definition of neglect as "the absence of an experience or pattern of experiences required to express an underlying genetic potential in a key developing neural system" (p. 94). This definition suggests a theory of change incorporate sufficient dose and pattern of

experiences required to express the potential for children's developing neural systems.

The theory of change for the Say-Do-Say Correspondence Training aimed to modify nonverbal behaviors by changes in verbal behaviors (Bevill-Davis et al., 2004). The literature review on correspondence training by Bevill-Davis et al. noted three key conditions consistent with principles underpinning behavioral modification: (1) prompting children to say they would do the behaviour and then giving them the opportunity to follow through; (2) reinforcing content where children are supported in their intent to do the behavior, whether or not they do so; and (3) reinforcement of correspondence, where reinforcement is contingent on engaging in the behavior. This last condition was considered the most necessary. The theory behind providing individual sessions for each child prior to the group session, was informed by the children's additional needs due to their young age and developmental delays as a result of neglect (Pino et al., 2019). It is possible that the one-to-one interaction over 2 days between the child and psychologist may also be part of the mechanism for change.

This systematic review offers considerations for a theory of change to support children's recovery from neglect, but these would need to be tested with different populations. An underlying theme for most interventions was the children's experience of neglect had ceased, and their needs were being met, whether through guiding parents or other caregivers to meet the child's needs, supporting the child in alternative care, or both. An aspect not explicitly covered in these studies, but related to this theme, is assessing what the child had missed in terms of developmental, relational, and other opportunities, and planning how to elevate the child's exposure to these previously absent experiences (Perry, 2008). The closest to describing a tailored approach informed by assessment was by Scivoletto et al. (2011), which did not include detailed outcomes.

The exception to the premise of ceasing the neglect, was the Say-do-Say Correspondence Training. Pino et al. (2019) posited "in spite of the significantly delayed development these children displayed (associated with their situation of neglect), they can be treated and their behavior at school improved, with no need for any other change agent except their teacher" (p. 9). This intervention was considered by Pino et al. to be effective, apparently regardless of whether the children were still subjected to neglect. Amongst other differences, this illustrates the outcome was narrowed to reduce disruption in the classroom, rather than broader outcomes on the children's wellbeing.

The paucity of studies demonstrating interventions to support children's recovery from neglect meant elements of a comprehensive theory of change were limited. The sequencing of interventions was implied in some interventions but not explicitly discussed. The ABC model, IY-adaptation, and FHF incorporated sequencing of what should be covered in the intervention. Their modality of intervention, however, remained the same throughout. In contrast, the TEP model appeared to provide a more tailored response to the changing needs of children and young people. This concept of sequencing is a core construct of the trauma literature, such as the importance of ensuring safety before working to integrate the person's trauma experiences (Herman, 1992), and is a hallmark of neurodevelopmental literature including recovery from neglect (Perry & Pollard, 1998).

Limitations

This systemic literature review did not attempt a rigorous examination of the risk of bias or quality of the method due to the focus on open enquiry. The study by Scivoletto et al. (2011) would have typically been excluded in a systematic review where the emphasis was on the type of research. Yet too many populations and types of interventions are omitted from further analysis and dissemination unless a more open enquiry approach is adopted. Only five databases were searched, and other information sources were limited. It is possible more studies on additional interventions could have been sourced through other means such as reviewing reference lists.

Conclusion

We need to approach this question on how to help children recover from the impact of neglect from several angles. Any intervention design with articulated theories of change for children who have experienced neglect, should be informed by the nature of the neglect. Whether they have experienced other forms of maltreatment, the question should include: How has neglect, in any form, impacted these children and what could support their recovery? One of the strengths of the BEIP studies is their continued exploration of multiple lines of inquiry on cognitive, relational, physical, and neurodevelopmental implications, rather than selecting one area of interest. Neglect, in all its heterogeneity, requires research to follow multiple leads from biopsychosocial, cultural, and ecological-systems perspectives.

There is the ubiquitous call for more research, however, the research needs to be expanded rather than just replicated. Those researching interventions need to consider methodological ways of distinguishing between different maltreatment experiences, including neglect and its subtypes. The scarcity of publications on interventions with children who experienced neglect is partly due to this lack of distinction. Many programs refer to their cohort of children as having experienced abuse and neglect as if this is one phenomenon. Hopefully, beneficial interventions exist which, with further research, can be more intentionally applied to help children recover from the aftermath of neglect. It is also hoped that research on neglect will lead to further efforts to develop new interventions for these

children, building on strong and coherent theoretical and practice foundations.

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Implications of Interventions for Children Recovering from Neglect

Combining the findings from my systematic review on interventions with children who had been neglected, with the previous review conducted by Allin et al. (2005), I considered possible mechanisms for change or ways of activating such mechanisms across 11 studies in total.

Changing the Child's Environment. Most studies reported in the systematic reviews aimed to change the children's environment to one that met their needs. This occurred through providing alternative care, such as in BEIP (Nelson et al., 2014); enriched supplemental care, such as therapeutic child care (Culp et al., 1991); or by providing parents with what they needed to make the changes their child needed, such as Multisystemic Therapy (MST; Brunk et al., 1987), the ABC model (Bernard et al., 2015) and the Incredible Years (IY)-adaptation (Linares et al., 2006).

As an example, therapeutic child care programs are typically multidisciplinary and have structured programs including "specially designed therapeutic activities to provide stimulation, cultural enrichment, and development of motor skills and social skills" (Gaudin, 1993, p. 48). They are informed by comprehensive assessments and tailored to the needs of each child (Culp et al., 1987). An Australian example, although not specific to neglect, is the Early Years Education Program (Jordan & Kennedy, 2019). These types of programs appear to activate mechanisms for recovery such as providing an environment for children with enriched opportunities for intensive and sustained doses of relational and developmentally targeted interventions.

Enhancing the Child's Development and Functioning. Some interventions described in these systematic reviews focused on building children's skills, such as MST (Brunk et al., 1987), therapeutic child care (Culp et al., 1991), Fostering Healthy Futures (FHF; Taussig et al., 2013); and Say-Do-Say Correspondence Training (Pino et al., 2019). Play was a common thread through many interventions, such as therapeutic child care (Culp et al., 1991), play therapy (Udwin, 1983), and resilient peer training (Fantuzzo et al., 1996). In my systematic review, interventions that referenced play were the IY-adaptation (Linares et al., 2006) and the ABC intervention (Bernard et al., 2015; Yarger et al., 2016). To varying degrees, these interventions have theories of change that describe the dose and pattern of experiences required for changes to occur in the child's development. According to Gaskill and Perry (2014): "It is no surprise that the core elements of play echo some of the essential ingredients of successful therapeutic interactions with maltreated and traumatized children – perceived control, reward and manageable stress" (p. 179).

Other Interventions Applicable for Neglect

According to a New South Wales (NSW) report by the Department of Community Services (2006), as there was minimal research identifying effective programs for children who experienced neglect, it was worth considering whether programs that were effective for disadvantaged or vulnerable children hold some benefit for neglected children. The diversity of problems arising from serious neglect suggest a diversity of interventions targeting those problems may be beneficial. These include attachment-based interventions, trauma-specific therapies, and somatosensory interventions.

Attachment-Based Approaches. Attachment-based interventions predominantly focus on caregiver's interactions with children to achieve improved child wellbeing. They may focus on the child's parents or other carers. In addition to the ABC model (Bernard et al., 2015), examples include Circle of Security (Marvin et al., 2002), Theraplay (Jernberg & Booth, 2001), Child-Parent Psychotherapy (CPP; Lieberman & Van Horn, 2005), Therapeutic Life Story Work (Rose, 2012), and Developmental Dyadic Psychotherapy (DDP; Hughes, 2005).

Trauma-Specific Approaches. As mechanisms for harm from neglect can include a trauma response, trauma-specific approaches are relevant. Kozlowska and Hanney (2003) described the value of providing children with the opportunity to express abuse-related feelings, clarify erroneous beliefs about themselves or others, and diminish stigma and isolation. These targets of intervention could also apply to neglect as described in the FRAMEA model (Glaser, 2011).

Trauma-specific interventions potentially relevant to neglect include Trauma-Focused Cognitive Behavioural Therapy (TF-CBT; Cohen et al., 2012) and Eye Movement Desensitization and Reprocessing (EMDR; Shapiro & Brown, 2019). No studies were found that examined the effectiveness of these or other trauma-specific interventions with child neglect.

Somatosensory Interventions. Somatosensory interventions aim to provide patterned, repetitive input to different neural networks, thereby improving sensory processing and self-regulation, including for children who have experienced neglect (Perry, 2009). Such interventions include therapeutic massage, yoga, balancing exercises, relaxation, music and movement, incorporating a sensory diet into the child's routine and other occupational therapist interventions (Anderson, 2005; Biel, 2009; Gay, 2012; Knoverek et al., 2013; Perry, 2009; Warner et al., 2013). No evaluations of these interventions were found specific to children with neglect.

Section 6: Mechanisms for Recovery from Neglect

Exploring mechanisms for recovery is an important avenue when developing a theory of change. As with mechanisms for harm, I applied a biopsychosocial lens within a broader ecological-system and cultural perspective.

Neurobiological Mechanisms for Recovery

Exploring neurobiological mechanisms for recovery from neglect is not simply reversing the mechanisms of harm, although the same principles offer guidance (De Bellis, 2005). Perry and Pollard (1998) described implications from neuroscience that inform a theory of change for children who have suffered trauma and neglect. They wrote that if the goal is to change an aspect of development or functioning, the area of the brain mediating that function needs to be activated in order to change.

The use-dependent functioning principle described earlier, suggests children need to be exposed to an experience with sufficient repetition to create and strengthen synaptic connections for that experience or skill. Perry (2005), however, cautioned that if the child has missed foundational experiences, these should be prioritised before higher order capacities can be properly developed. Shonkoff and Phillips (2000) contend recovery from deprivation or other adversities probably require experience-expectant and experience-dependent or use-dependent mechanisms, exposing the child to critical and enriching experiences. Other implications from neurobiological mechanisms relevant for a theory of change include:

- Identification of neglect and its implications for the child needs to occur as early as possible (Glaser, 2000; Perry, 2002).

- Exploring the child's history of insufficient or missing experiences to inform what experiences need to be created (Gaskill & Perry, 2014; Taussig et al., 2013).

- The importance of responding across multiple developmental domains given the pervasiveness of neglect (Cicchetti & Toth, 1995; Dubowitz, 2009; Perry et al., 2002). This includes emotional, physical, social, cognitive, and cultural domains and sensory processing such as auditory, visual, tactile, olfactory, taste, vestibular and proprioceptive senses (Warner et al., 2013).

- Interventions need to be sufficiently repetitive to affect change (Perry & Hambrick, 2008).

Psychosocial Mechanisms for Recovery

Attachment-based interventions, described earlier, offer several possible psychosocial mechanisms for affecting positive change for children who have not experienced consistent nurturing, such as through neglect. As evidenced in the systematic review, interventions such as the ABC model and BEIP invoke attachment theory as part of their mechanism for change. This includes supporting caregivers to be nurturing and sensitive to children's needs (Bernard et al., 2015; Nelson et al., 2014; Yarger et al., 2016).

Other psychosocial principles applicable to a theory of change to help children recover from neglect include:

- The need to engage and build a therapeutic alliance with the child and family or caregiver (Black et al., 2007; DePanfilis, 2006; Perry et al., 2002).
- Creating and sustaining a nurturing relational environment for the child as a cornerstone for interventions (Biglan et al., 2012).
- Difficulties which contributed to neglect and abuse, such as family violence, parental mental health, and substance abuse problems need to be addressed if children's needs are to be met in the parents' care (Frederico et al., 2014; Gershater-Molko et al., 2002).

Cultural Mechanisms for Recovery

As development occurs in the child's socio-cultural world (Engel, 1977; Garbarino & Kostelny, 1996; Shonkoff & Phillips, 2000), culture forms a sometimes silent but ever-present part of the child's identity and, therefore, must inform intervention (Atkinson, 2013; Bamblett et al., 2012; Coade et al., 2008). Culture can buffer individuals from trauma by providing social support and a sense of shared identity (deVries, 1996). Cultural stories and rituals regarding communal trauma and recovery enable individuals to understand and put a context around their reactions to adversity including neglect (Cohler et al., 1995; deVries, 1996; Lewis & Ghosh Ippen, 2004).

> The power of culture as a protector, integrator, and security system is evident in studies where the degree of cultural assimilation is a key variable … In these studies, individuals who were strongly identified with cultural values benefited from increased social support; culture buffered them from the impact, and even the occurrence, of traumatic events. (deVries, 1996, p. 400)

An example of the protective nature of cultural continuity and connection was in a study on suicide amongst Canadian First Nations young people (Chandler & Proulx, 2006). They found communities with more cultural continuity factors had the least number of youth suicides. In relation to Australian Aboriginal and Torres Strait Islanders, Gee et al. (2014) stated social and emotional wellbeing for "individuals, families and communities are shaped by connections to body, mind and emotions, family and kinship, community, culture, land and spirituality" (p. 58). Although what counts as important in recovery differs across cultures and sometimes within (Gee et al., 2014), this highlights the importance of discovery within culture of potential mechanisms for change. In their systematic scoping review on Indigenous cultural safety in response to family violence, Allice et al. (2022) concluded with three areas of recommendations for service provision that may be relevant to this study including: "(1) creating the conditions for cultural safety; (2) healing for people and communities; and (3) system-level change" (p. 7).

Summary

This chapter documented the prevalence and harms from neglect and the dearth of research on how to assist recovery after neglect. It documented neglect subtypes, and I postulated that considering developmental neglect and cultural neglect is relevant.

I explored biopsychosocial and cultural explanations for how neglect contributes to the many harms associated with neglect within an ecological perspective. I described models and interventions applicable to neglect and explored the literature for possible mechanisms for recovery for children.

3. Design, Methodology and Method

In this chapter, I detail the research design and its application in this study. I describe my approach to exploring the question on how to help children recover from the impact of neglect. My philosophical approach underpins the research design, research questions, and method presented in this chapter. The final section describes how the research method was applied, including what did not go according to plan, and the decisions I made along the way to implement this two-phase study.

Research Focus

The objective of this study was to generate the foundations for a theory of change to guide the practice of professionals and carers to contribute to a child's recovery from the impact of serious neglect. Guiding research questions were developed aligned to my aims (Table 3-1).

Table 3-1

Aims and Research Questions Underpinning this Study

Aims	Guiding questions
1. To explore how serious neglect and its impacts are conceptualised by those working with or caring for children who have experienced neglect, including professionals from different disciplines and roles and foster parents.	1. How is the phenomena of serious neglect and its impact on children understood by the various disciplines and roles involved in the children's lives? 2. What do those who work with and care for children who have experienced neglect think are the mechanisms by which children may be harmed by different subtypes and other dimensions of neglect?
2. To discover and describe approaches used by professionals and carers that aim to reduce or redress the harmful consequences of neglect and consider what factors may influence these approaches	3. What do those who work with and care for children who have experienced neglect think are the mechanisms that could be involved in recovery from the impacts of neglect and can these be translated into targets for change when planning interventions? 4. What, if any, interventions are being used to help children recover from the consequences of serious neglect, in what context and by whom? 5. What, if any, are perceived barriers or constraints which can impede the application or perceived efficacy of interventions 6. What factors influence the choices of interventions?
3. To build the foundations of a theory of change that aims to alleviate the consequences of serious neglect for children and to consider what further research is required to complete this theory of change.	Culmination of previous questions. Overall question "What key elements of a theory of change can inform choice and/or design of interventions to help children recover from the harms of serious neglect?" A related guiding question (7) 'What must be true for children to recover from the impacts of neglect?

Philosophical and Theoretical Approach Underlying Research Design

Critical Realism

My ontological position is that reality is both objective and subjective, yet we interact with and make sense of it through our subjective experience. There are multiple realities for which research offers ways of seeing and hearing. My view is most consistent with that of critical realism, developed by Bhaskar (2008). "Realism maintains that reality *exists independently* of our knowledge of it. And even if this knowledge is always fallible, yet all knowledge is not equally fallible" (Danermark et al., 2019, p. 21).

A key platform of critical realism is its three domains of reality: (1) the empirical or observable; (2) the actual; and (3) the real (Bhaskar, 2011). The *empirical* domain is the experience of events; as they are observed, or otherwise documented. The *actual* domain is the existence or absence of the events regardless of the experience. The *real* or causal domain refers to the underlying generative mechanisms leading to the events or phenomena (Bhaskar, 2008). People make inferences about the actual and the real domains by observing or sensing the experienced effects, that is, the empirical (Oliver, 2012).

When attempting to explain social phenomena in critical realism, importance is placed on context, time, mechanisms, and human agency (Houston, 2010). Exploring possible mechanisms within the different levels in each system is part of the critical realist approach. There are multiple domains implicit in social life where inquiry can occur regarding potential mechanisms of change (Houston, 2010).

> the social world comprises a myriad of interconnecting systems – personal, familial, institutional, to name a few – each with their own particular generative mechanisms. The combined effects of these complementary and sometimes countervailing mechanisms makes for a rich tapestry of cause and effect at the empirical level of reality where it becomes problematic to predict with certainty what will happen. (Houston, 2010, p. 75)

I contend child neglect is a reality in terms of its existence but is perceived and interpreted through many lenses. The informal and formal social structures within which neglect occurs are many. These include family and extended family, neighbourhoods, community, services, systems, country, and the cultures within. Critical realism balances individual meaning-making and ways to test those meanings with the external reality, whilst recognising such reality can only be understood subjectively (Houston, 2010; Oliver, 2012). "Rejecting simple linear causality, critical realism describes a social world in which there are multiple opportunities for

intervention and change" (Oliver, 2012, p. 375). Critical realism is commonly applied to broad social and structural inquiries with its emancipatory focus on the power of knowledge to be transformative (Danermark et al., 2019; Sayer, 2010). In this study, I aimed to include a similar emancipatory focus but focusing on the meaning for the individual child who experiences neglect in the midst of these social and structural systems.

The four logics of inquiry used in critical realism are: (1) deductive; (2) inductive; (3) abductive; and (4) retroductive. As demonstrated in this study, these can be complementary and have value in research with emphasis placed on abduction and retroduction in the analysis stage (Danermark et al., 2019) (see Appendix 1 for glossary, page 388).

Pragmatism

My emphasis in this study is on ensuring it has utility in practice and service design and so I hold a pragmatic view. My aim is to be informed by those working and caring for children who have experienced neglect and to inform professionals and carers in the future. According to Creswell (2007) and Elliott et al. (1999), pragmatism supports flexible choices for method that best meet the research purpose, and usually support mixed-methods. A pragmatic stance further recognises the social, historical, political, and other contexts and my context as the researcher.

Grounded Theory

As this research is on a relatively unstudied area with the explicit purpose of developing a theory of change, a grounded theory approach was fitting. Lipsey (1993) noted grounded theory can inform early steps in developing treatment theory to identify factors that can stimulate the theory building process.

Since its introduction by Glaser and Strauss (1967), grounded theory has continued to evolve, such as constructivist grounded theory (Charmaz, 2014). Constructivist grounded theory emphasises subjectivity and interpretation of data along with pragmatism. Charmaz's use of abductive reasoning involves the researcher taking an imaginative leap to achieve plausible theoretical explanations for what cannot otherwise be explained. In her consideration of grounded theory, in any form, for developing theories, Charmaz (2014) wrote:

> Like any container into which different content can be poured, diverse researchers can use basic grounded theory strategies such as coding, memo-writing, and sampling for theory development with comparative methods because these strategies are, in many ways, transportable across epistemological and ontological gulfs, although *which*

assumptions researchers bring to these strategies and *how* they use them presuppose epistemological and ontological stances. (p. 12)

Critical Realist Grounded Theory

For this study, I utilised a critical realist grounded theory approach (Oliver, 2012; Owen Lo, 2014). Oliver contended this combination can "address both the event itself *and* the meanings made of it, approach data with the preconceived analytical concepts of emergence and generative mechanisms and pursue emancipatory, rather than merely descriptive, goals" (p. 378).

A distinction by Danermark et al. (2019) between grounded theory and critical realism was that grounded theory focuses on the empirical experiences whereas critical realism focuses on possible mechanisms. In proposing a critical realist grounded theory model, Oliver (2012) argued recent developments in grounded theory increased its theoretical and methodological compatibility with critical realism. She held that critical realist grounded theory addressed the event (actual) and its meanings (empirical) and approaches the analysis by looking for emerging and generative mechanisms (real). It adds retroduction as a core form of knowledge enquiry. This approach asks "of the data 'what must be true for this to be the case?' or 'what makes this possible?' and seek an explanation in generative mechanisms at a deeper ontological level" (Oliver, 2012, p. 380).

Mixed Methods

Critical realism offers a strong rationale for the use of mixed methodologies (Eastwood et al., 2014; McEvoy & Richards, 2006). For this study, the primary purpose of mixed method was to enable complementarity incorporating constant comparison and expansion (Boeije et al., 2013; Bryman, 2006), and triangulation.

Mixed methods were part of my integrative data collection and analysis and informed the application of findings to a theory of change. Qualitative data was collected through semi-structured interviews, and qualitative and quantitative data was collected through online surveys. Different types of data and analysis, therefore, occurred simultaneously and sequentially (Bryman, 2006; Greene et al., 1989). The final output, a foundational theory of change, represented a qualitative presentation.

Theory Building

What Theory?

There are several approaches to defining and building theory. In this study, I am not attempting to build a grand theory, such as a global conceptual framework (Chen & Rossi, 1983), but a substantive theory relating to a practical area of enquiry along with informal seed concepts (Urquhart et al., 2010). I considered a program theory or theory of change as a substantive theory. Weiss (1997) suggested in program theory-based research, the term *theory* may be presumptuous and the term *model* too confusing. I agree with this caution, however, I use the term theory, as did Weiss', when describing a theory of change.

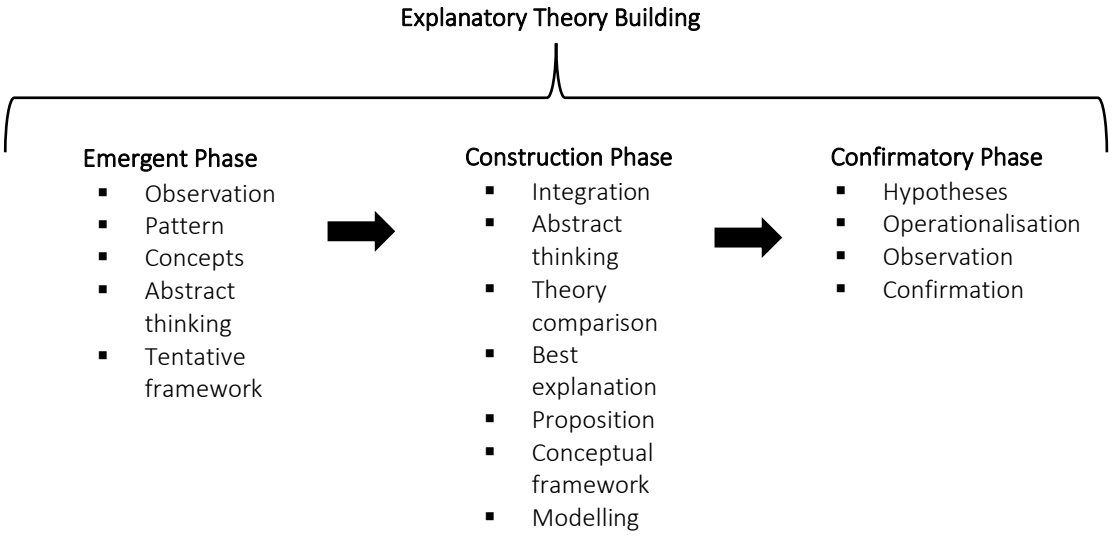
The intent for this theory is specific to the phenomena of children experiencing and recovering from neglect. I was focused on developing explanatory theories that articulate possible mechanisms behind the impact of neglect and the anticipated impact of intervention. The three approaches to building theory applied in this study were critical realism, grounded theory, and theory of change.

Critical Realism Approach to Theory Building

Eastwood et al. (2014) described a critical realist explanatory theory building method which comprises three phases: (1) emergent; (2) theory construction; and (3) confirmatory. The *emergent* phase uses data collection often through mixed methods. It usually involves all four logics of inquiry from deductive through to retroductive, with an emphasis on retroduction. This phase aims to describe the phenomena under study and builds a "tentative conceptual model describing the mechanisms" (Eastwood, 2011, p. 48). The *theory construction* phase defines the process for building the theory. For this study, that is the theory of change. The *confirmatory* phase tests the operationalisation of the theory. Figure 3-1, developed by Eastwood et al. (2014), illustrates their overall method to theory building. In this study, I focused on the emergent and construction phases.

Figure 3-1

Explanatory Theory Building Method



Note. Source is *Eastwood et al. (2014, p. 5)*

Danermark et al. (2019) outlined six stages in explanatory research for theory building from a critical realist perspective, paraphrased in Table 3-2. This has formed a guide for how I undertook the foundational building of a theory of change combining the emergent and construction phases. The major departure in this study was in Stage 5 where instead of using retrodiction I developed a foundational theory of change.

Table 3-2

Stages in Explanatory Research to Build Theory Based on Critical Realism

Stage	Description
Stage 1: Descriptions	Concrete description of complex phenomena under study, using everyday concepts. Using both qualitative and quantitative methods, descriptions come from interpretations by respondents.
Stage 2: Analytical resolution	Distinguishing components, dimensions and levels of analysis informed through coding and other analysis. The scope of the study is narrowed to make possible examination of the most meaningful for the research question.
Stage 3: Abduction/ theoretical redescription	Interprets and redescribes components of the phenomena. Use of different theoretical frameworks to add clarity and "put it in a context of possible explanations. The original ideas of the objects of study are developed when we place them in new contexts of ideas" (p.130). Theoretical interpretations and explanations are compared and possibly integrated.
Stage 4: Retroduction	Closely related to Stage 3, each confirmed component to be the focus requires answers to key questions: (i) What are the fundamental constituents of the structures identified in Stage 3 and what mechanisms relate to those structures (X)? (ii) How is X possible? What properties must exist for X to be what X is? (iii) What causal mechanisms are related to X?

	(iv) This can include examination of these structures in the light of extant theories and proposed mechanisms.
Stage 5: Retrodiction and contextualisation	Investigate relationships between structures and mechanisms assumed to affect the phenomena. Explanatory power of the most significant mechanisms emerging from earlier stages are evaluated. Conclusions may focus on one theory that best describes the necessary conditions for what is to be explained or there are multiple complementary theories. There is empirical investigation as to how structures and mechanisms manifest in practice.

Note. Source: Adapted from Danermark et al. (2019, p. 130) and informed by Eastwood (2011)

Oliver's (2012) application of critical realist grounded theory was a means of applying critical realism to theory building. She emphasised the application of this approach to exploring the underlying mechanisms that generated the phenomena under study, recognising such mechanisms are "neither determinative nor all-explaining" (p. 374). Oliver described the use of grounded theory techniques, such as open coding and constant comparison to generate the theory applying theoretical sensitivity, in other words being steeped in the topic and theories. One of the advantages of combining critical realism with grounded theory for theory building was to push the researcher beyond pre-conceptions, whilst remaining tentative and exploratory.

Owen Lo (2014) proposed two forms of concurrent validation when generating theories using critical realist grounded theory: (1) conceptual groundedness; and (2) empirical groundedness. Conceptual groundedness aims for clarity including being informed of related theories, staying true to the research purpose, and reflecting on ways to determine legitimacy or acceptability of the knowledge created. Empirical groundedness is being transparent about descriptive and conceptual accuracy and any limitations with the data. It involves disciplined imagination and how concepts and inferences are documented; a stringent research process for both qualitative and statistical analyses; theoretical triangulation such as reviewing existing literature with the emerging concepts to continue the process of comparison; and is communicated in a language consistent with a critical realist approach. This study will utilise these forms of validation as part of the final stage.

Theory of Change

Program theory and theory of change are sometimes used interchangeably (e.g., Blamey & Mackenzie, 2007; Taplin et al., 2013) (see page 5). According to Funnell and Rogers (2011), major influencers of theory of change and program theory include Chen and Rossi (1989), Lipsey (1993) and Pawson and Tilley (1994). One of the rare publications cited by program theorists and critical realists alike, is the work of Pawson and Tilley (1997), who applied scientific realism in program evaluation, citing the works of Bhaskar (1975) and others (e.g., Harr. , 1986; Sayer, 1984). Pawson and Tilley emphasised both mechanisms and context as important when

generating possible outcomes in program theory. Many aspects of their work have been used as an exemplar of critical realism (e.g., Sayer, 2000), as well as being a major influence on program theory, especially theory of change (Funnell & Rogers, 2011).

In their comparison between realistic evaluation and theory of change, Blamey and Mackenzie (2007) noted each approach emphasised context when considering circumstances in which particular interventions work or do not work. They argued realistic evaluation was stronger in its ability to develop theory through broader data collection than a theory of change workshop approach.

My Approach to Theory Building

My application of critical realist grounded theory aimed to create an emerging theory of change to support children's recovery from neglect. Aligned to Eastwood et al. (2014), I focused on the emergent phase and aspects of the construction phase. I did not intend to evolve a developed theory of change in this study but rather a foundational theory of change to be built upon depending on the service, nature of the program, and the children's needs and experiences of neglect. Nonetheless, even in a foundational format, the intent is that it can be a beneficial starting point in practice, service design, and policy formation. Most theories of change are predicated on knowing who will be using it and the nature of the intervention (Funnell & Rogers, 2011). Although this theory of change has a clear purpose—namely to facilitate children's recovery from neglect—it is not limited to a particular discipline, type of service, role, or intervention. These are necessary features but would come later. This proposed theory of change will not depict which outcomes will occur from which interventions, but rather which mechanisms of change are likely to influence which outcomes. The interventions that target these mechanisms will also differ as a result of context, role, and time.

I used literature to inform the design, selection of experts for the interviews, and questions used in the interviews and online survey. I sought advice from experts on which of their publications to read, and I completed two published literature reviews (Chapter 2). My scoping review informed the survey design (page 22), and my systematic review informed the theory construction phase (page 63). I used the literature to corroborate ideas emerging from the data analysis in the retroduction phase and in formulating the proposed theory of change. The literature review methodology represented an integrated approach capturing theoretical and empirical literature (Whittemore & Knafl, 2005).

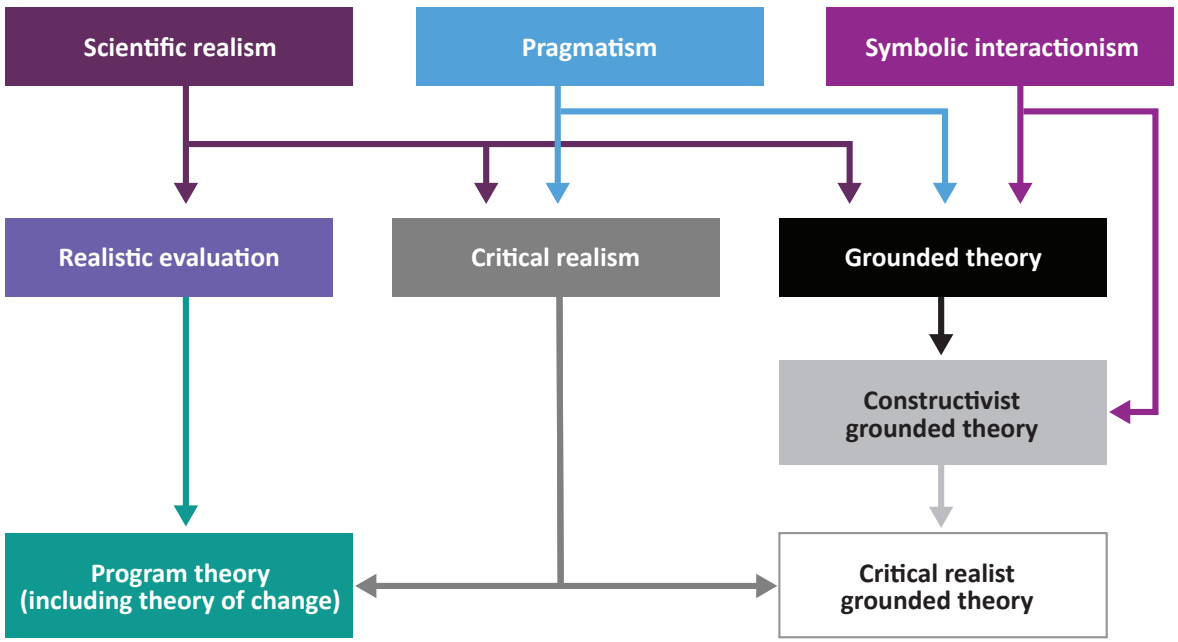
Figure 3-2 depicts a map of the influences for this study's approach to theory development. For example, scientific realism influenced realistic evaluation, critical realism and

grounded theory (Bhaskar, 2008; Glaser, 2001; Pawson & Tilley, 1997). Realistic evaluation and critical realism have influenced each other (Danermark et al., 2019; Pawson & Tilley, 1994) and program theory and critical realist grounded theory (Blamey & Mackenzie, 2007; Funnell & Rogers, 2011; Pawson & Tilley, 1997). Pragmatism has influenced critical realism and grounded theory (Charmaz, 2014; Danermark et al., 2019), both of which are linked to critical realist grounded theory (Oliver, 2012). Symbolic interactionism has influenced grounded theory, beginning with Strauss (1987) and later with constructivist grounded theory (Charmaz, 2014). Although sometimes described as divergent perspectives, symbolic interactionism and critical realism are sometimes combined, especially when considering both micro and macro levels (e.g., Burbank & Martins, 2010; Eastwood et al., 2016).

I reviewed the literature by scanning the same databases described in Chapter 2 (page 10) and did not discover any literature that applied critical realist grounded theory to developing a program theory or theory of change. These approaches share sufficient ground, however, for this to be worthwhile.

Figure 3-2

Mapping Connections Between Approaches to Theory Building



Research Design

Employing a critical realist grounded theory and mixed method approach, I sought the views and experiences of respondents to explore and develop the foundations of a theory of change on helping children recover from neglect. My analysis explored common themes, points of difference, and unexpected ideas through abductive analysis. I explored ideas on mechanisms of harm and mechanisms of recovery using retroductive analysis.

This is a two-phase study using an iterative process:

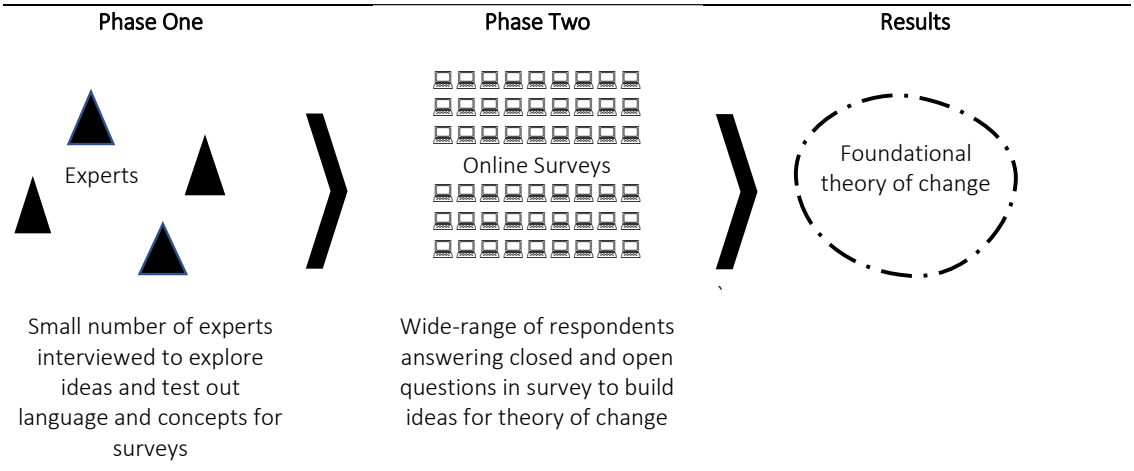
Phase One – semi-structured interviews with leaders in the field as experts. The purpose of the interviews was two-fold: (1) to gain insight into neglect and the mechanisms of harm and recovery; and (2) to inform the design of the surveys and focus groups.

Phase Two – online survey. The purpose of the online survey was to: (1) build on ideas from the interviews and test them with a wider audience including professionals across multiple disciplines and carers; (2) seek further ideas on how children can recover from the impacts of neglect; and (3) gather examples where children had experienced neglect and what the professionals and carers attempted to help the child's recovery.

Figure 3-3 provides an overview of the method for this research in terms of data collection.

Figure 3-3

Overview of Method for Data Collection



Ethics Approvals and Considerations

La Trobe University

The ethics application was submitted to the La Trobe University Human Research Ethics Committee (HREC) in November 2017. Approval was provided on 8 January 2018 (HEC17-098).

Following the expert interviews and subsequent changes to the professional and carer surveys, a modification of ethics was submitted to HREC in November 2019 and approved. The ethics approval was initially until June 2021. A subsequent modification was approved to extend ethics until June 2022 to allow time for analysis. The modification reflected that the focus groups would not proceed.

Additional Approvals

Each organisation approached to participate or distribute information on the study completed their own approval process. If there were additional ethics or other approval requirements these were clarified and, if not inconsistent with the university ethics approval, were met.

An application for research approval to the Department of Health and Human Services was submitted in August 2018 and approval given in October 2018 (HHSD/18/154030). Alfred Health required a separate ethics application and approval was granted in December 2019 (HREC 759/19). Both these and other participating organisations were notified in 2020 that the focus groups would not occur.

Other Ethical Issues

As with all human research there are important issues of confidentiality and anonymity, data security, not causing harm, and ensuring informed consent including the ability to withdraw consent. A major question was whether to seek participation from children and their families. As the research question was on what informed professionals and carers' decisions on interventions, they were the foci of data collection. Other questions to explore with children and families could include their understanding and experience of recovery and of interventions used, outcomes of interventions, and strategies not involving professionals or carers. These questions imply efforts have been made to support the child's recovery from neglect, despite the lack of literature found supporting this premise. I believed it was important to undertake an exploratory study of possible interventions, before asking children and families about their perspectives on these or other approaches. Important principles of doing no harm, especially in the context of research with

children who have experienced neglect or abuse, informed the design (Amaya-Jackson et al., 2000; King & Churchill, 2000). Similar principles would apply to parents of children who experienced neglect.

It was acknowledged that involvement of foster parents may require additional support to be available, such as if they became worried about a child in their care. The Foster Care Association of Victoria (FCAV) agreed to be listed as support on the carer survey. It is not known whether such support was sought.

Another ethical consideration was the participation of Aboriginal professionals and carers of Aboriginal children, particularly since there is substantial over-representation of Aboriginal children in the CPS and OOHC system in Australia. After consultation, VACCA endorsed the study. As stated in my La Trobe University HREC application, no specific steps were taken in terms of Indigenous peoples from other countries or other cultural groups who have been poorly treated historically in the name of research (Smith, 1999), as it was not possible to predict who may participate in the study. An overall approach to culturally respectful practice and a human rights orientation informed the conduct of the study. Nonetheless this was a potential limitation.

Two of the key informants interviewed were known to me prior to the study, one of whom (Dr Bruce Perry) was a supervisor of my PhD. In addition to confirming any decisions about seeking their involvement first with the principal thesis supervisor, I emphasised the voluntary nature of participation to all potential respondents; and refrained from discussing any issues or findings arising from the interviews with Dr Perry, until the draft stage of the thesis. This process also benefited from having three supervisors. Dr Perry did not have a role in assessment of the thesis.

Phase One – Interviews with Experts

Rationale

Exploratory studies sometimes elicit input from recognised experts who hold substantial knowledge on a topic (Bogner et al., 2009; Sarantakos, 2005). A primary rationale for interviewing experts in this study was the dearth of literature on children's recovery from neglect, except for some notable experts, such as Drs Bruce Perry and Howard Dubowitz. Minimal research was found on interventions to help children's recovery (Chapter 2). There are some important caveats when interviewing experts in research, particularly in determining who is an expert and what constitutes expert knowledge (Bogner et al., 2009). Meuser and Nagel (2009) defined an expert for the purposes of research, as someone whom the researcher assumes "has knowledge, which

she or he may not necessarily possess alone, but which is not accessible to anybody in the field of action under study" (p. 18).

Inclusion Criteria

Experienced practitioners, leaders in their field, or consultants with demonstrable expertise related to child neglect were included. Indications of expertise and leadership in the field included publishing substantially on the topic of child neglect or being in a relevant consultant or community leadership role (e.g., within a government department, health organisation, community service organisation, or Indigenous organisation). Professional disciplines and areas of knowledge included but were not limited to social work, psychology, medicine, education, allied health, and Indigenous culture.

Interview Design

Expert opinions were sought through the guiding questions outlined in the semi-structured interview schedule (Appendix 6, page 469). The schedule covered:

1. Background information on the respondent to provide context
2. Their definition of neglect
3. Their views on the consequences of neglect and possible mechanisms of harms
4. Their views on recovery from impact of neglect and possible mechanisms of recovery

Experts were asked to confirm if they wished to remain anonymous or have comments attributed to them. If they chose to be identified, a formal consent form was signed (Appendix 7, page 472). All interviewees agreed to be identified in the study.

Sample Selection and Recruitment for Interviews

Purposeful sampling of potential key informants, identified through the literature review and my network, generated a list of 21 experts. The intent was to attract four to six experts; therefore, the list was divided into two. The criteria for the first group was the relevance of their work to the research question, a balance of disciplines, and an estimation as to the most likely to respond. The first group (12 experts) approached reflected a diverse group of health, allied health, child welfare, and Indigenous professionals. All potential informants received identical communications, a process that was overseen by my principal thesis supervisor. There were sufficient responses (four) received from the first group; therefore, the second group was not formally approached (Appendix 8, page 475). Further unsuccessful attempts, however, were made to seek involvement of an Indigenous leader.

Conduct of Interviews

The interviews with four experts were held over one year. Two experts were interviewed in May 2018, one in September 2018 and the fourth in February 2019. Three experts were interviewed in one session, two via Zoom and one by phone. The other expert was interviewed in person, when we were both at a conference. This occurred over two sessions one day apart.

Consent forms and the Participant Information Statement were provided to each key informant and were signed prior to the interview proceeding. They were reminded of the consent process at the beginning of each interview.

Interviews were recorded via Zoom or by a separate digital recording device. Each recording was transcribed using Trint™ software (https://trint.com). Each key informant agreed to receive their transcript to provide feedback and make changes as they wished. There was also a reminder they could withdraw consent to participate or be identified. Two key informants made changes to their transcript. None indicated they wished to withdraw consent to participate or be deidentified. A follow-up email was sent prior to this thesis submission to confirm their continued willingness to be identified (none rescinded).

Phase Two – Online Survey

Rationale

The online survey included a mixture of open and closed-choice questions. The purpose of the survey was to look for examples, patterns, and themes that could inform the theory of change, and not to assess generalisability of the findings. The survey asked respondents to think of one child they had worked with or cared for. This provided a means to convert the closed and open-questions into a narrative history for each child to facilitate analysis (Small, 2011). The survey enabled triangulation of themes and ideas arising within the responses and between the survey responses and the interviews. The advantage of the online survey included:

- less potential for bias, such as prestige bias, due to myself as a researcher not being present (Charmaz, 2014; de Vaus, 2001; Sarantakos, 2005).
- surveys enabled respondents to gather information from files or other sources to inform their responses if they wished (de Vaus, 2001; Sarantakos, 2005).
- the online mode reduced the risk of respondents not completing questions in the intended order (Sarantakos, 2005).

- ease and efficiency for respondent to return the survey and for my aggregation of the data (Sarantakos, 2005).

A major limitation of the survey was the inability to clarify questions or answers (Sarantakos, 2005). Surveys are less frequently used in grounded theory research. Charmaz (2014), however, described surveys as elicited documents where participants are involved in producing the data. She noted "elicited texts work best when participants have a stake in the addressed topics, experience in the relevant areas, view the questions as significant, and possess the requisite writing skills to convey their views" (Charmaz, 2014, p. 48).

Inclusion Criteria

The online survey targeted two types of survey respondents:

1. *professionals* who in the previous year had worked with (or whose team worked with) children who had experienced serious neglect; and
2. *foster parents in Victoria, Australia,* who in the previous year had cared for children who had experienced serious neglect. This focus was decided in consultation with the FCAV, who agreed to extend support to carers who wished to seek assistance. It was not feasible to secure similar support in other States or Territories in Australia or other countries. Furthermore, surveying other types of carers (e.g., kinship carers, permanent carers or adoptive parents) was deemed infeasible without known access to support services.

Exclusion Criteria

Could not communicate in English or aged under 18 years. There was no exclusion criterion on type of professional role or field of practice, or type of foster care provided.

Survey Design

The survey was designed to address the research questions. Closed-choice questions enabled respondents to answer a relatively large number of questions quickly and facilitated analysis and data comparisons. Open-choice questions prompted respondents to provide details, offer information that may have been unforeseen, express ideas without fear of judgement, and provide insights into their rationale and context.

The survey design was largely the same for both professionals (Appendix 9, page 476) and carers (Appendix 10, page 495). The survey began with the Participant Information Statement

followed by five sections (Figure 3-4). The main difference between the carer and professional survey related to scale (i.e., foster parents were assumed to have cared for a smaller number of children in one year compared to the number of children professionals may have worked with). A question on the child's cultural identity was closed-choice in the carer survey as it was circulated in Victoria, Australia only. The professional survey was distributed to several countries which necessitated an open-choice question, due to the varying approaches to defining culture in different countries.

Figure 3-4

Overview of Professional and Carer Surveys

<table>
<tr><th>PROFESSIONAL SURVEY</th><th>CARER SURVEY</th></tr>
<tr><td>Determining survey path
Basis of answering survey – professional experience in past year with children who experienced serious neglect, their team's experience, or neither (closed)</td><td></td></tr>
<tr><td colspan="2">SECTION 1. Experience working with children and with neglect</td></tr>
<tr><td>In past year, number of children worked with; and number worked with who experienced serious neglect (closed)</td><td>Experience as foster parent in past year (closed)</td></tr>
<tr><td rowspan="3">Percentage of children worked with in past year who experienced each neglect subtype (closed)</td><td>In past year, number of children cared for; and number cared for who experienced serious neglect (closed)</td></tr>
<tr><td>Number of children cared for in past year who experienced each neglect subtype (closed)</td></tr>
<tr><td>What informed their opinion about whether children in their care had experienced neglect (closed)</td></tr>
<tr><td colspan="2">SECTION 2. Child's story of neglect</td></tr>
<tr><td colspan="2">Think of a child they or their team worked with or cared for who had experienced serious neglect and answer non-identifying questions regarding child (closed)</td></tr>
<tr><td>Child demographics, such as age, gender, living situation, geographical location (closed). Child's culture (open)</td><td>Child demographics, such as age, gender, child's culture (closed)</td></tr>
<tr><td colspan="2">Neglect subtypes experienced by child (closed)</td></tr>
<tr><td colspan="2">Problems presented by child in physical, developmental, relational, emotional, mental health or behavioural domains (closed)</td></tr>
<tr><td colspan="2">Opinion - Did neglect contribute to child's problems (closed)</td></tr>
<tr><td colspan="2">If yes, how neglect contributed to child's problems (open)</td></tr>
<tr><td>Description of role (or team's role) in working with child (closed)</td><td>Did they use strategies to help child recover from impact of neglect (closed)</td></tr>
<tr><td>Whether they (or team) used interventions or strategies to help child recover from impact of neglect (closed)</td><td>If yes, what strategies did they use (open)</td></tr>
<tr><td rowspan="2">If yes, what interventions or strategies were used (open)</td><td>Example of a strategy used they believed helped child's recovery (open)</td></tr>
<tr><td>Were any services helpful in child's recovery (closed).
If yes, in what way (open)</td></tr>
<tr><td colspan="2">SECTION 3. Opinions of recovery from neglect in general</td></tr>
<tr><td>Does knowing children experienced neglect influence their approach to the child (closed)</td><td>Does knowing a child had experienced neglect influence how they care for child (closed)</td></tr>
<tr><td>If yes, what is it about their work with children who have experienced neglect they believe makes a positive difference (open)</td><td>If yes, what is it about their care they believe makes a positive difference (open)</td></tr>
<tr><td>What informs choice of how to intervene (closed – Likert scale)</td><td rowspan="2">What influences how they care for children (closed)</td></tr>
<tr><td>What influences how they help children (closed)</td></tr>
</table>

SECTION 4. Background of respondent	
Professional discipline *(closed)*	Length of time as foster parent *(closed)*
Field/s worked in past year *(closed)*	Type of geographical location *(closed)*
Length of time worked in the field *(closed)*	
What country they work in, and if in Australia what State or Territory *(closed)*	
Cultural or ethnic group they identify with *(open) (optional)*	
Prior to survey how frequently did they reflect on how children recover from neglect *(closed)*	
SECTION 5. Interest in focus groups	
Interest in participating in a focus group. If yes contact details	

Several decisions were made on the terminology and options provided in the survey. Respondents were asked to select neglect subtypes which were pre-determined and defined. The scoping literature review (Chapter 2, page 22) and commentary from the experts informed decisions about neglect subtypes and presenting problems to include in the survey. I reviewed the definitions used in frequently cited scales such as the Child Trauma Questionnaire (CTQ; Bernstein & Fink, 1998) and the Modified Maltreatment Classification System (MMCS; English & the LONGSCAN investigators, 1997). The decision to not use these definitions was due to the specificity considered important in this study to inform interventions. The CTQ, for example, included poor supervision as part of physical neglect, whereas MMCS distinguished supervisory and physical neglect. Both the MMCS and CTQ definitions of physical neglect incorporated medical neglect, whereas I was interested in possible differences. The MMCS combined aspects of emotional neglect with emotional abuse under emotional maltreatment and had aspects of developmental neglect under moral-legal/educational maltreatment and other aspects under emotional maltreatment. In addition, both the CTQ and the MMCS definitions represented neglect as failure by the caregiver, rather than on children's needs not being met.

The number of neglect subtypes was eventually limited to seven; namely, physical, emotional, developmental, medical, supervisory, cultural, and global neglect. This was informed by my literature review, interviews with experts, experience, and the intent to link the definition with particular unmet needs of the child. The concept of cultural neglect was discussed in preliminary terms with a senior staff member at the Victorian Aboriginal Child Care Agency (VACCA). There were limitations in not using standardised definitions: (1) the definitions had not been tested in the field; (2) they may have been unfamiliar to respondents; and (3) the findings would be less available for comparison with other studies. As a result, there are reasonable cautions on the validity and reliability of these definitions that require further testing. To assist respondents, examples were provided in the survey on each neglect subtype. Items in the survey on possible presenting problems that may be associated with neglect were also derived from my literature review, interviews with experts, and experience.

The survey was administered through Qualtrics (https://www.qualtrics.com) which enabled the order of the items under each closed-choice question to be randomised, thus counteracting inadvertent leading of the respondent due to the order of items (Portney & Watkins, 2009). For questions related to neglect subtype, the order was randomised with three exceptions. The order of the last three items were consistently cultural neglect, global neglect, and other. Cultural neglect was considered possibly less familiar and may only have been considered relevant to some cultural groups. Respondents were given opportunity to become familiar with the survey before being asked about that subtype. Global neglect fitted logically after the separate subtypes. Wherever "other" was an option under any question, it was placed last with a free-text box.

The online survey design enabled some questions to be available based on other answers thereby abridging the survey through the functionality of branch and skip questions. The first question in the professional survey, for example, gave the respondent three options on the basis for their response, and then branched to one of three paths. Respondents answered the question based on their own experience, their team's experience, or acknowledged neither they nor their team had worked with children who experienced serious neglect in the past year. Answering one of the first two options took them down a very similar path with slightly different wording as to whether questions were based on their own or their team's experience. The only additional question if they answered on behalf of their team was about numbers of staff. If they selected the third option of not having worked with children who experienced serious neglect, the survey closed as no further questions were relevant.

Skip questions had a similar function. Depending on a respondents' answer to one question they were not shown certain questions. An example was the closed-choice question on whether the child had problems in the physical, developmental, relational, emotional, mental health or behavioural domains. If they answered yes, or maybe, to any of these domains, they were shown a list of problems under that domain to select if applicable to the child they were describing. If they answered no to one of the domains, they were not shown these more detailed items. Apart from questions that could be missed due to the branch or skip design, most questions were mandatory. The last question was a confirmation that they were consenting to submitting the survey as stated in the Participant Information Statement. Partially completed surveys without that question were not included in the analysis.

Trialling Survey

A draft of the survey was developed and distributed to the three PhD supervisors and two colleagues for face validity. Feedback and suggestions were sought on the survey design and content including face validity. Those reviewing this first version were provided with the guiding research questions to facilitate feedback (Portney & Watkins, 2009). Based on their feedback, further changes were made to the survey. A second set of changes were made after consultation with FCAV. Although their recommendations were specific to the carer surveys, their suggestions to simplify the language and approach were implemented across both survey types as were believed to strengthen face validity. Finally, the ethics approval process led to a small number of changes. I tested the survey functionality on approximately 20 mock surveys.

Sampling and Distribution

A combination of purposive and convenience sampling (Creswell, 2007) was used for the professional survey followed by snowballing sampling where respondents or organisations could forward the survey on to others. Organisations and networks were purposefully selected to reflect the type of discipline or field most likely to be involved with children who experienced neglect. This was informed by the literature review and my experience in the field. It was weighted towards Australian organisations and networks due to my knowledge and access to those organisations. A similar combination of purposeful and convenience sampling occurred for the carer surveys but with a more limited distribution. Sample size was not pre-determined; however, it was hoped there would be a minimum of 10 surveys completed with an anticipated number of approximately 100.

There were two overall approaches in seeking participation in the professional surveys. The first was indirectly through third party organisations and professional networks where distributed information and the link to the survey was sent to their staff or networks. The second was directly through social media (e.g., Facebook, LinkedIn, ResearchGate, Twitter). Some potential respondents contacted me directly seeking a link to the survey after being informed of the study through their organisation or social media.

An introductory email with a flyer was sent to each identified organisation requesting their consideration to receive and distribute the email to their staff, and/or networks. Two participating organisations required separate approval processes and two required a small fee.

When an organisation indicated their willingness to distribute the survey, another email was sent with the survey link to be forwarded via their organisation or network. If no response, a

follow up email was made and then contact ceased unless initiated by the organisation. Appendix 11 (page 512) shows the type of organisations approached as third parties to distribute the survey and the response rate. Of 50 organisations contacted directly, three were based in the US, and one each in Canada, Singapore, and Norway. The remaining 44 organisations were based in Australia. A US and an Australian-based organisation distributed the survey information through their network across multiple countries. Two-thirds of the organisations approached agreed to participate.

Seven organisations were approached to distribute surveys to foster parents, with five consenting. These were four community service organisations and an Aboriginal Community Controlled Organisation that provided support and oversight of foster care placements, as well as FCAV who agreed to disseminate information about the surveys. Although unintended, some carers contacted me directly through social media or one of the networks. This led to three carers wishing to participate who were not eligible (e.g., adoptive or permanent care parents). A brief plain language statement regarding the purpose and method of the research was provided as part of the initial call for interest as well as a summary of the ethics approval.

The survey was hosted on La Trobe University's digital platform that provided a secure encrypted environment. A hyperlink was pasted into emails and some organisational webpages as an anonymous link. Once the survey data was downloaded from the Qualtrics website, data files were stored in a password-protected file on my laptop. Data files that had respondents' email addresses were stored on the AAR Net Cloudstor in line with the Data Management Plan endorsed as part of the ethics approval process. The survey results were sent directly to me ensuring confidentiality. The surveys were initiated in late November 2019 and were closed on 6 February 2020.

Analysis

An iterative and integrated approach to data collection, open and focused coding, and analysis was used to inform the foundational theory of change. The process of thinking through the analysis was a spiral approach beginning with immersion in the data and continuously taking a broad and then in-depth view of the quantitative and qualitative data.

Qualitative Analysis

The cycles of qualitative analysis are represented in Figure 3-5, with the first cycle beginning with the interviews. A spiral analysis involved repeated reading, coding, re-reading and re-coding each interview separately and then comparing responses to the questions across

interviews. This also occurred for the free-text responses in each survey, read as standalone documents as well as looking across surveys per question. The initial focus on coding was phrase by phrase open coding – without predetermined ideas of what the categories would be – seeing what emerged from the data (Urquhart, 2013). I repeated this process with new codes until data saturation. This process included constant comparison and looking for patterns, similarities, outliers, metaphors, and surprises. Peer validation occurred in discussions with my supervisors throughout the process, testing out the ideas, themes, and preliminary findings.

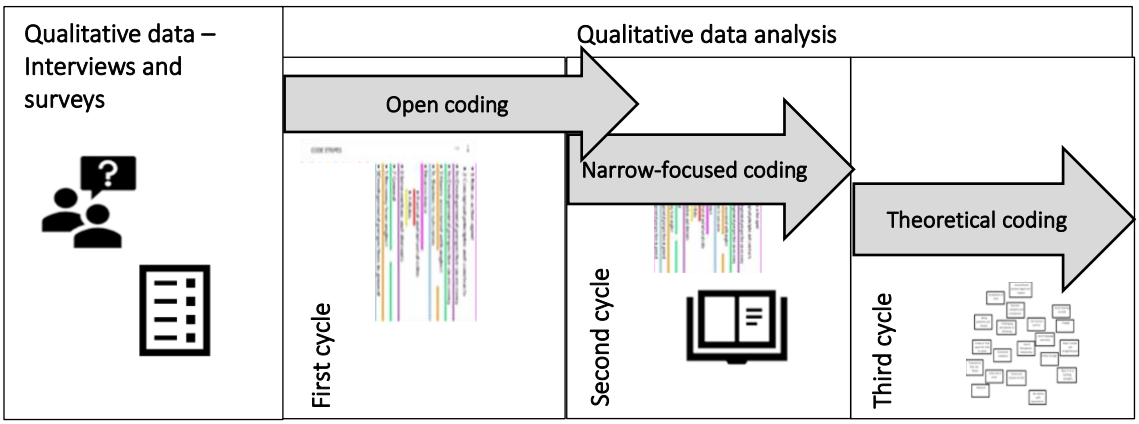
The second cycle of the coding process narrowed the focus more explicitly to the research aim to develop a theory of change, continuing to compare and contrast through coding. This process was consistent with analytical resolution (Eastwood, 2011). Though similar to aspects of focused coding described by Charmaz (2014), such as being selective, my approach was more targeted. In critical realist grounded theory, different ways of using focused or axial coding have been applied (e.g., Hoddy, 2019). I also used this phase to set aside codes not specific to the research questions. As a form of integrated focused coding, I created from each of the surveys a narrative history based on the qualitative and quantitative descriptions of the 216 stories of child neglect.

In the third cycle, I explored what was emerging from the data, comparing it with constructs involved in a potential theory of change, such as neglect subtypes, harms, mechanisms, and choices of intervention. I wrote memos throughout the study bringing together ideas, assumptions, questions, metaphors, and challenges from both quantitative and qualitative data and the literature. Samples of coding were reviewed by the principal thesis supervisor as another form of validation. Finally, the analysis was integrated with the quantitative analysis exploring ideas, such as through abduction and retroduction, and to build a foundational theory of change. Metaphors were a used as a way to explore the data through different lenses in grounded theory and through abductive and retroductive phases (Chun Tie et al., 2019; Smith & Bird, 2014; Timmermans, 2012).

Qualitative data analysis of interviews and surveys was supported by a computer assisted qualitative data analysis software, NVivo 12 Plus. Illustrations enabled through NVivo, free-hand and on Word were used to support the creative construction of linkages and ideas, especially in the abduction and retroduction stages.

Figure 3-5

Qualitative Data Analysis



When directly citing respondents from interviews or surveys, I used ellipses within a bracket […] to denote words I omitted if not germane, whilst retaining the original meaning. If survey respondents included an ellipsis in their text, this was noted without the bracket [ ]. When transcribing the interviews, I used grammar that fitted the respondent's emphasis. When quoting directly from a survey I used a unique identifier for professional (e.g., P22) and carer (e.g., C22) surveys.

Quantitative Analysis

Statistical analyses were performed on results from closed-choice questions in the surveys using Statistical Package for Social Sciences (SPSS) (version 29.0) and R Studio (v4). Unless otherwise stated, SPSS was the software used.

The data cleaning and preparation phase used a conservative approach. The presence of problems could be recorded as Yes, Maybe, or No. To transform these to dichotomous variables, Maybes were reclassified as No, unless free-text information provided confirmation. If there was a logical inconsistency leading to difficulties in interpretation, these data were excluded for that analysis. For example, two carer and five professional surveys indicated they had worked with or cared for more children who experienced neglect, than the total number they worked with or cared for. These surveys were filtered out when analysing that question. Another example was the mixed responses to the question in the professional survey about respondents' fields of service over the past year. Due to the options of multiple responses, this question became difficult to interpret and responses were not further analysed.

During the data cleaning process, it became evident that 14 carer surveys that selected physical health problems as a domain, did not have access to the health problems listed under

that domain. Due to this technical problem, no conclusion could be drawn on the nature of the physical problem for the children described in those surveys. The analysis on physical health was, therefore, limited to 202 survey responses.

As shown in Figure 3-6, there were three overall steps to the quantitative analysis. I began with descriptive analysis using frequencies of data from closed-choice fields and chi-square analyses for tests of independence for most fields. When comparing scale items such as children's age and Likert scales with categorical data, I used the Kolmogorov–Smirnov's test of normality to determine if an independent samples *t*-test or an independent samples Mann-Whitney U Test would be used. Throughout the quantitative analysis a *p* value less than .05 was considered statistically significant.

Inferential measures included binary logistic or multinomial regression. Regressions were used to explore possible predictive relationships between dependent and independent variables. For example, I was interested in discovering if the neglect subtypes (dependent variables) experienced by the children described in the surveys, were predictive of the children having certain problems (independent variables), and whether other variables such as the child's age, gender, culture and living situation were also predictive of such problems. In another example, I explored whether the children's problems (dependent variables) were predictive of the types of interventions applied by professionals, as described in the surveys. The binary logistic regressions were conducted using the backward Wald method. I performed logistic regressions one variable at a time, leading to unadjusted estimates. When there was a possibility of the combination of variables contributing to the results, I redid the analysis combining significant variables to explore adjusted estimates and the possibilities of interaction effects. Preliminary analyses occurred to ensure no violation of the assumptions of multicollinearity occurred prior to logistic regression or multinomial regression analyses.

Clustering analyses were performed to explore whether there were groupings of variables that were similar (e.g., types of problems identified in the survey responses), or groupings of individuals with characteristics in common (e.g., children described in the surveys). The hierarchical cluster analysis used to explore possible groupings of variables was an agglomerative (bottom up) approach illustrated through dendrograms (Everitt et al., 2011; Mérigot et al., 2010). In this analysis, I was interested in whether there were certain problems experienced by the children that were more likely to cooccur.

The approach used to explore potential classes or groups of children who had certain problems in common, was a latent class analysis (LCA) (Weller et al., 2020). I applied LCA to

investigate whether there were distinct groups or classes of children using the 70 possible presenting problems. I was interested in whether there were groups of children that shared a common set of problems, and therefore may benefit from a common intervention compared to other groups (Weller et al., 2020).

According to Weller et al. (2020), some argue 300 or more should be the sample size for LCA but acknowledge it can be performed for smaller sample sizes. They also noted there has been a view that each class should have no fewer than 50 in the class and each should not be less than five percent, though this has since been relaxed. In this study, there was one class with less than 50 but none less than five percent. Weller and colleagues also suggest determining if the classes make conceptual sense. R Studio (poLCA package) was used for the LCA.

Figure 3-6

Quantitative Data Analysis

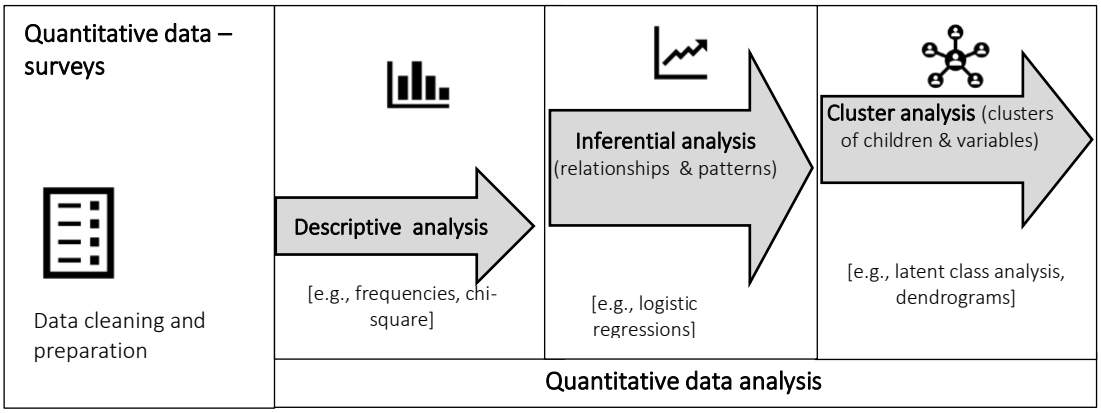


Table 3-3 represents the approach to analysis for this study to build the proposed theory of change. It adapts the approach described in Table 3-2 by Danermark et al. (2019), but applied to the aims of this study. The main area of difference between the two approaches is in Stage 5, as this study's objective is a specific type of theory (i.e., a theory of change). Danermark and colleagues exhort researchers to not shy away from varying the approach when required.

Table 3-3

Aims of Study and Critical Realism Stages of Analysis for Building a Foundational Theory of Change

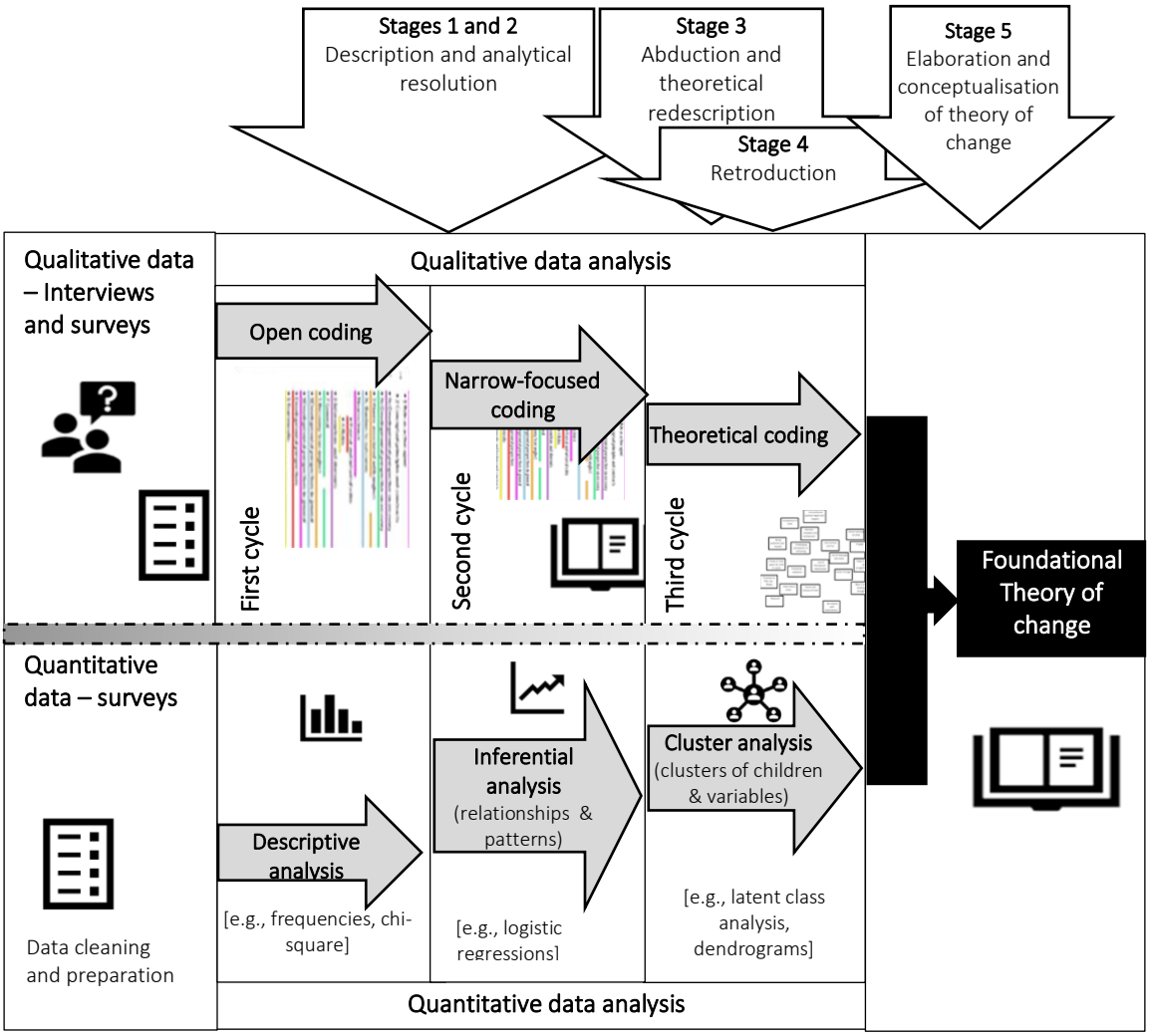
	Aims of study	Stages of analysis for theory building
1.	To explore how serious neglect and its impacts are conceptualised by those working with or caring for children who have experienced neglect, including professionals from different disciplines and roles and foster parents.	Stage 1. Description using quantitative and qualitative data Stage 2. Analytical resolution – coding, recoding, open and narrow-focused qualitative data and descriptive and inferential analyses of quantitative data.

2. To discover and describe approaches used by professionals and caregivers that aim to reduce or redress the harmful consequences of neglect and consider what factors may influence these approaches.	Stage 1. Description using quantitative and qualitative data. Stage 2. Analytical resolution – coding, recoding, open and narrow-focused qualitative and descriptive and inferential analyses of quantitative data.
3. To build the foundations of a theory of change that aims to alleviate the consequences of serious neglect for children and to consider what further research is required to complete this theory of change.	Stage 3. Abduction / theoretical redescription – considering whole data and its components from perspective of theoretical interpretations, surprises, metaphors, and explanations including theoretical coding. Stage 4. Retroduction – possible mechanisms for harm and recovery (qualitative and quantitative). Stage 5. Elaborating on previous stages and comparison across theories and with literature to conceptualise possible theories of change at neglect subtype and presenting problem level; and then at overall foundational theory of change level.

To draw on the previous diagrammatic representations of the qualitative analysis (Figure 3-5) and quantitative analysis (Figure 3-6), Figure 3-7 illustrates mixed method approach to data analysis and the critical realism approach to theory construction. It was more iterative and integrated than this figure suggests.

Figure 3-7

Mixed Method Analysis Using Critical Realism to Build a Theory of Change



Limitations to Research Design

Limitations to this study design included those related to scope. I did not attempt the confirmatory phase of theory building and did not undertake the focus groups due to COVID-19 restrictions. The lack of direct participation by children and families was a major gap. Although not considered viable ethically in this study, it was nonetheless a gap that their voices were not included.

Certain aspects of the survey design are considered limitations. The open questions in the survey asked for qualitative information in a method designed primarily for quantitative data (Bryman, 2006). The survey was not a validated measure as this was the first study of its type based on my review of the literature. Similarly, the descriptors of neglect or problem types were not validated from other studies. This information was the perspective by each respondent of one

child with no verification of accuracy and no ability to draw conclusions on whether this was a typical child who experienced serious neglect. The quantitative data analysis, therefore, raises questions and speculates on possibilities, regularities, and common patterns but only limited conclusions can be drawn on generalisations.

The lack of an interview with an Aboriginal leader, particularly requires caution in terms of Aboriginal children, neglect and recovery, especially on the construct of cultural neglect.

Summary

This chapter described the critical realist grounded theory and mixed method two-phased approach to the research design and implementation for this study. The goal has been to formulate a foundational theory of practice informed by the views and experiences of carers and professionals who care and work with children who have experienced neglect. After describing my philosophical and methodological approach, the chapter detailed each phase including discussion of some limitations of the design. My experience has influenced my stance that this research be designed to maximise what can be applied in practice and service planning to make a substantive contribution to better outcomes for children who have suffered neglect.

4. Results – The Respondents and the Children

In Chapter 4, I describe three groups of respondents who participated in the study interviews and online survey: (1) four experts in the field of neglect; (2) 35 carers; and (3) 181 professionals from a variety of disciplines. I then describe the demographics of the 216 children who experienced neglect—the subject of the professional and carer surveys.

Experts in the Field

Through a recruitment process of seeking participation from experts in the field of neglect, four experts agreed to participate (Chapter 3, page 95). They came from disciplines of social work, psychology, psychiatry, neuroscience, family therapy and paediatrics. They each agreed to be identified. Table 4-1 summarises the experts' body of work including the rationale for their characterisation as an expert in neglect. The information presented was based on their interview, Google Scholar, publications, and their institutional websites.

Table 4-1

Background information on Key Informants Interviewed as Experts on Child Neglect

Key informants and expertise for this study	Discipline and affiliated organisations	Relevant roles	Publications
Dr. Charles A. Nelson Educator and researcher including in studies on intervention following neglect (BEIP)	Psychologist, neuroscientist Harvard University, Boston Children's Hospital USA	A principal investigator on longitudinal study of children who experienced institutional neglect in Romania (BEIP). Has undertaken research on children in other countries. Widely acknowledged expertise in neglect (https://www.bbrfoundation.org/about/people/charles-nelson-iii-phd) Researched and taught in field for 22 years#	Over 1000 publications* Publications cited in 56,537 publications* Examples of relevant publications: Nelson (2007), Nelson et al. (2007), Nelson et al. (2014), Nelson et al. (2019), Nelson and Gabard-Durnam (2020)
Dr. Robyn Miller Longstanding leading practitioner in field of CPS, care and family services	Social worker, family therapist MacKillop Family Services Australia	Inaugural Victorian Chief Principal Practitioner in CPS. Involved in policy development Designed Best Interests Framework and oversaw Victorian-wide implementation Current CEO of large child and family service in Australia. Acknowledged leader in practice in child abuse and neglect field for 42 years# (Pawar & Nipperess, 2017)	Authored and oversaw government policy and practice guidelines for working with children and families involved in CPS system (Miller, 2014). All relevant to child neglect, e.g., Miller (2007)

Dr. Bruce D. Perryϕ Longstanding clinician, researcher and educator regarding neglect and trauma	Child and Adolescent Psychiatrist, neuroscientist Northwestern University School of Medicine, The Neurosequential Network La Trobe University USA	Widely acknowledged expert in child trauma and neglect (e.g., https://www.chicagohumanities.org/media/bruce-d-perry-social-emotional-development-early-childhood/) Developed the Neurosequential Model which includes informing interventions with neglect Principal of Neurosequential Model. Worked in child abuse and neglect field for 34 years#	Over 200 publications* including two bestselling books Publications cited in 23,922 publications* Examples of relevant publications: Perry and Pollard (1997), Perry (2002), Perry et al. (2002), Anda et al. (2006), Perry and Szalavitz (2017), Perry and Winfrey (2021)
Dr. Howard Dubowitz Longstanding clinician, researcher and educator regarding neglect and abuse.	Paediatrician, with sub-speciality in child abuse and neglect Masters in Epidemiology University of Maryland, School of Medicine USA	Widely acknowledged expert in neglect (e.g., https://www.helfersociety.org/howard-dubowitz) Been member of several national and international boards related to child abuse and neglect Involved in policy development Served on Executive Council of the International Society for the Prevention of Child Abuse and Neglect Worked in child abuse and neglect field for 41 years#	Over 200 publications* Publications cited in 17,040 other publications* Examples of relevant publications: Dubowitz et al. (1993), Dubowitz et al. (2002), Dubowitz (2009), Dubowitz et al. (2019)

Note. # Number of years in their field at 2022 according to their interview.

* According to Google Scholar as of 18 June 2022.

ϕ Dr Perry was also one of my PhD supervisors.

BEIP = Bucharest Early Intervention Program, CPS = child protective services.

Each expert had two or more post-graduate qualifications and were actively involved in a professional capacity with child neglect. Three were clinicians, three were researchers, and all were educators in their profession.

Dr Charles A. Nelson

Dr Nelson's experience with child neglect was primarily based on his research with the Bucharest Early Intervention Program (BEIP) randomised control trial in Romania providing foster care as an alternative to institutional care (Nelson et al., 2014). He worked in other locations including Bangladesh, Brazil, and Boston regarding child adversity including but not focusing on neglect, whereas neglect was central to his research in Romania. In the interview, Dr Nelson described himself as a researcher and an educator, not a clinician. He was a professor at Harvard University, Boston and described his field as cognitive neuroscience.

Dr Robyn Miller

Dr Miller's experience with child neglect was primarily within the child and family services sector in Victoria, Australia. This included roles within child protective services (CPS), family therapy, family services, and out-of-home care (OOHC). Her professional roles include clinician, CPS worker, educator, manager, principal practitioner for Victoria's CPS system, and CEO of a large child and family organisation. Her PhD focused on the policy and practice reforms she led in CPS on the best interests of the child. This included assessment and intervention to prevent and respond to child abuse and neglect and identified issues such as cumulative harm (Miller, 2014).

Dr Bruce D. Perry

Dr Perry is a well-known neuroscientist and psychiatrist who has published articles and books, as well as presented at numerous conferences and on television, radio and social media. Based in the USA, Dr Perry's work has been applied across many countries. His work predominantly focused on children who have experienced trauma and neglect. He is an educator, clinician, researcher, and author (Perry & Winfrey, 2021). He established the ChildTrauma Academy now known as the Neurosequential Network, of which he is the principal. He designed the Neurosequential Model™, which has versions for therapists (NMT), educators (NME) and caregivers (NMC). His work has influenced CPS, OOHC, mental health, education, and youth justice (e.g., Child Welfare Information Gateway, 2015; Griffin et al., 2011). Dr Perry is an adjunct Professor with Northwestern University (Chicago) and La Trobe University (Melbourne).

Dr Howard Dubowitz

Dr Dubowitz is a Professor of Pediatrics and Director of the Center for Families at the University of Maryland School of Medicine, USA. He was the president of the Ray Helfer Society, an honorary international group of physicians working in the child maltreatment field. Dr Dubowitz served on the Executive Council of the International Society for the Prevention of Child Abuse and Neglect. He is a clinician, researcher, and educator. He is also an advocate at a policy level. His main interests are child neglect and prevention. Dr Dubowitz led the development of the Safe Environment for Every Kid (SEEK) model which aims to prevent abuse and neglect. Many of Dr Dubowitz's publications and much of his work have focused on child neglect.

Carer Survey Respondents

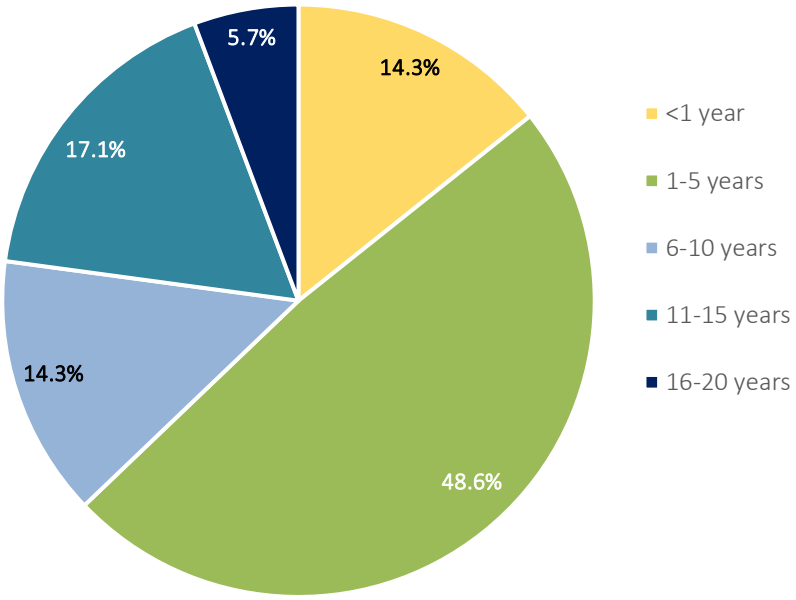
The information on the 35 carers participating in this study was collated from the completed online survey.

Length and Type of Experience as Carer

Over a third of the carers (37.1%) had provided foster care of children for more than five years; with 22.8% providing care for ≥10 years. In contrast, 14.3% had been carers for less than one year (Figure 4-1). A similar proportion was reported in the Victorian Foster Carer Census where 44% of carers had been fostering for five years or longer (Foster Care Association of Victoria & Department of Health and Human Services, 2016).

Figure 4-1

Carers' Length of Experience as Foster Parents



Almost half the carers (n = 17, 48.6%) cared for the same child or children longer than 12 months. Eight carers (22.9%) cared for children for short-term or brief placements. The remaining 29.5% cared for some or all of the children over most or all of the year. This suggests most carers who completed a survey were likely to have knowledge of the current wellbeing of the children in their care at the time of the survey, if not their history. In terms of their length of experience as carers, 22 (62.9%) had been carers for less than six years and 13 (37.1%) had been carers for six years or longer.

Cultural Identity of Carers

This was not a mandatory question and 17 carers (48.6%) did not respond. Of the 18 respondents, 14 carers (77.8%) were Australian non-Indigenous, three (16.7%) were European, and one (5.6%) identified as Australian Aboriginal.

Numbers of Children in their Care and Numbers who Experienced Neglect

The number of children in the carers' care ranged from one to nine. Eight carers had one child in their care compared to one carer who had seven children and another who cared for nine children.

The number of children who had experienced neglect ranged from one to seven children per carer. When comparing this number with how many children were in their care over the same time period, 22 carers (66.7%) noted all children in their care had experienced neglect.

Table 4-2 shows the mean, median and other descriptive data of children living with the carers in the previous year whom they believed had prior experiences of each neglect subtype.

Table 4-2

*Descriptive Data of Neglect Subtypes Experienced by Children – According to Carer Surveys (*n *= 35)*

Descriptive data	Physical neglect	Medical neglect	Supervisory neglect	Emotional neglect	Developmental neglect	Cultural neglect	Global neglect
Number of carer surveys	33	31	33	33	33	27	31
Number of children	74	64	71	76	71	25	67
Mean	2.24	1.9	2.15	2.3	2.15	0.93	2.16
	(1.62)	(1.54)	(1.56)	(1.59)	(1.4)	(1.27)	(1.37)
Median	2	1	2	2	2	1	2
Mode	2	1	2	2	2	0	2

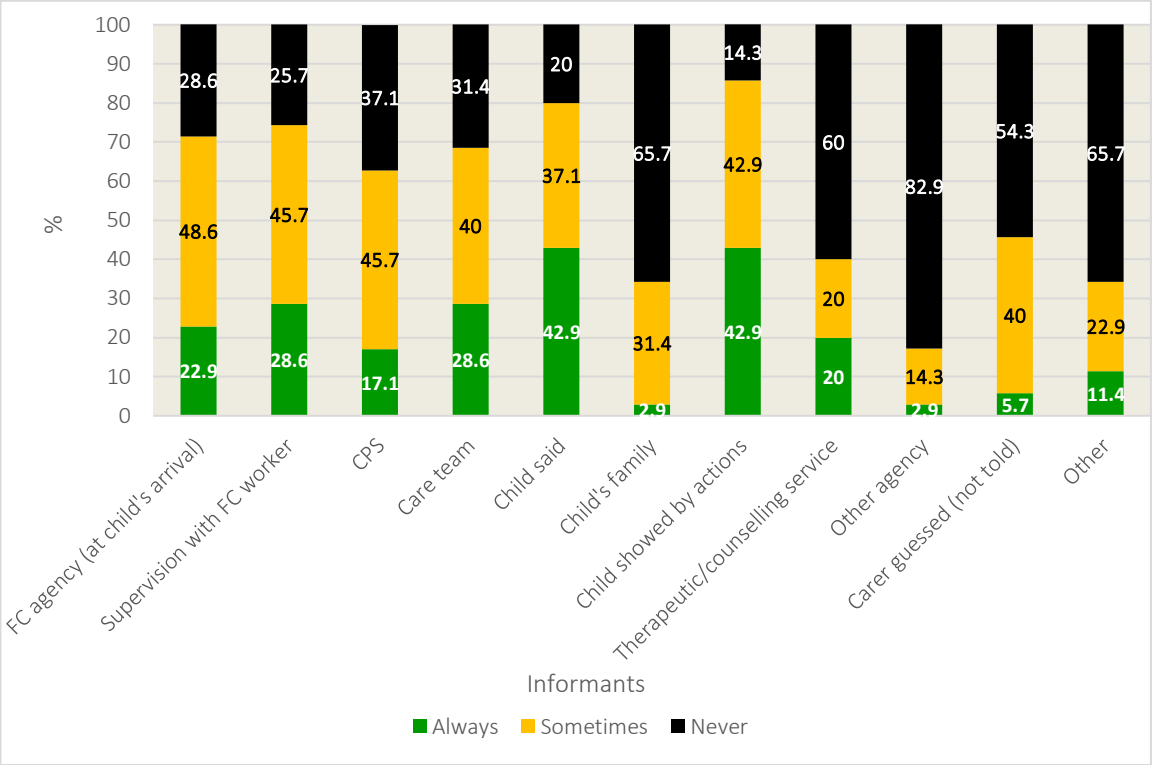
Note. ( ) SD

Sources of Information about Child's Experience of Neglect

Figure 4-2 depicts how carers learned of the children's experience of neglect. The most common mechanism was via the child, including what the child told them or through their actions. The next was from the foster care worker during supervision, followed by care team meetings and through the foster care agency at the beginning of the child's placement or CPS (see Appendix 1, for care team, page 388). The least common was hearing from the child's family or another agency.

Figure 4-2

How Carers were Informed of the Children's Experience of Neglect



Note. FC = foster care, CPS = child protective services

Professional Survey Respondents

The information on 181 professionals participating in this study was collated from the online survey.

Basis of Response to Survey

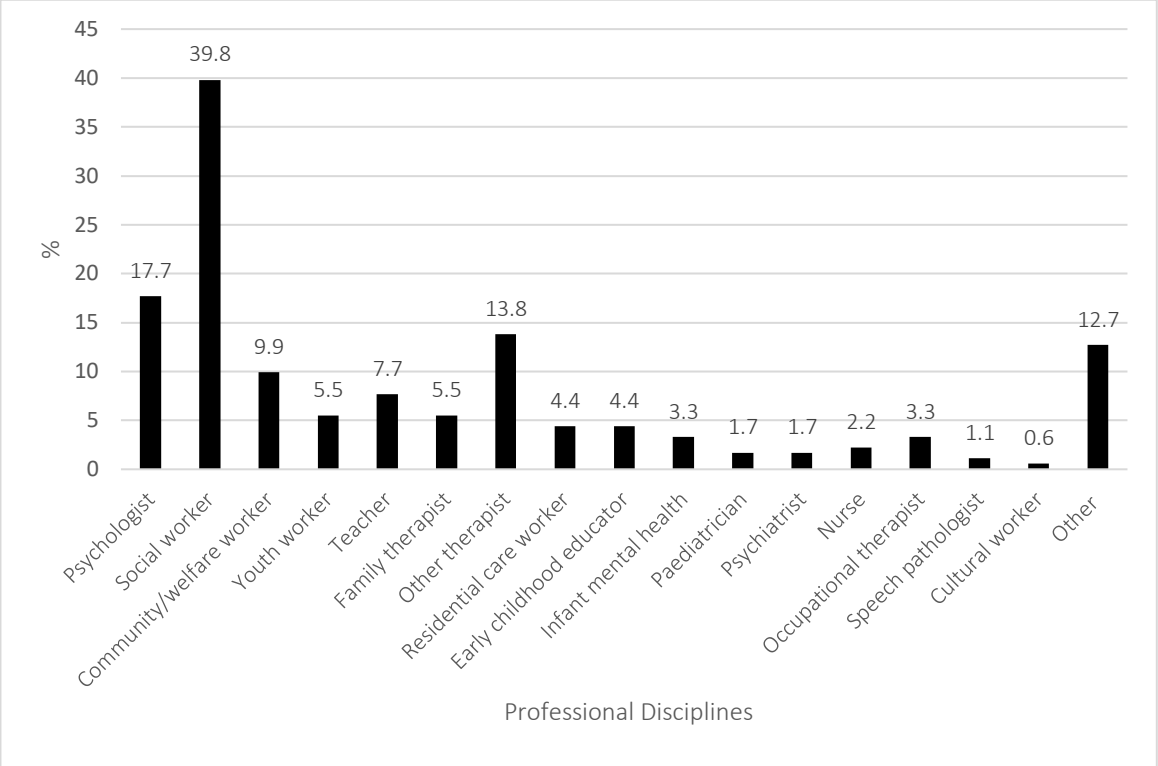
At the outset, professionals were asked if they were completing the survey from their own experience with children or based on their team's work. Most professionals (n = 145, 80.1%) completed the survey from their own professional experience.

Professional Disciplines

Figure 4-3 depicts the disciplines identified by professional respondents. Most indicated one discipline (n = 140, 77.3%), 29 (16%) indicated two disciplines and 12 indicated between three to five disciplines. The most common disciplines were social workers, psychologists, other therapists, and community or welfare workers. Examples of disciplines sought for inclusion in this study that did not participate were physiotherapists and dentists.

Figure 4-3

Professional Disciplines of Survey Respondents



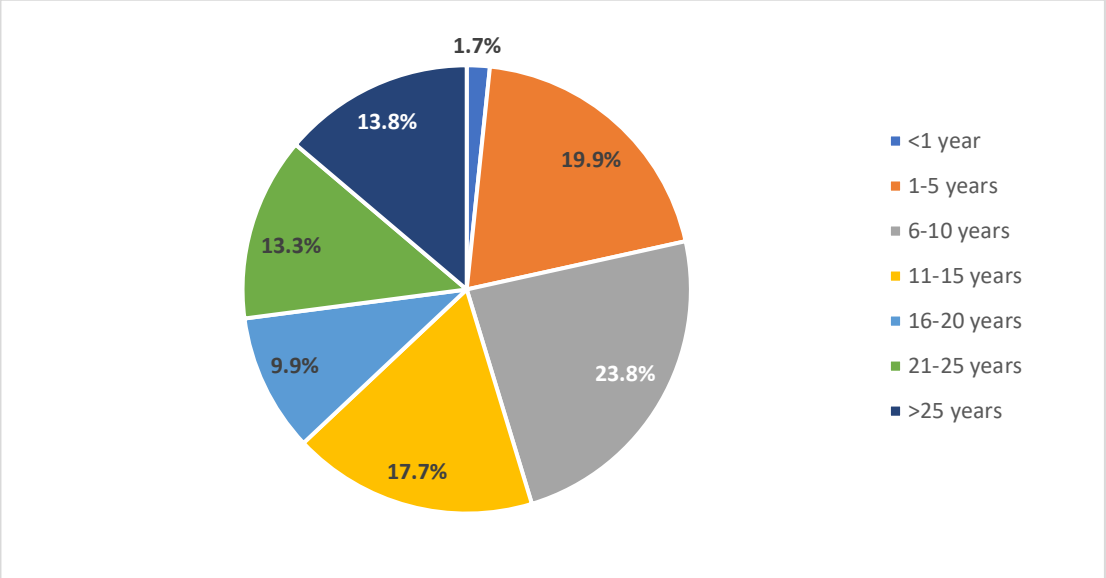
Other therapist roles identified included art therapists, play therapists, psychotherapists, and counsellors. Individual disciplines were then combined into a smaller number of categories to enable further statistical analyses. Therapists, psychiatrists, and other mental health roles were merged into the category of "therapist or mental health role", for example, and general practitioners or community doctors, paediatricians, nurses, and other health roles were merged into the category of "medical roles".

Length of Experience in Profession

As depicted in Figure 4-4, there was a spread of experience by professional respondents with very few (1.7%) working for less than one year, and 13.8% working for >25 years. Nearly 80% had more than five years' experience in their profession.

Figure 4-4

Length of Time in Profession



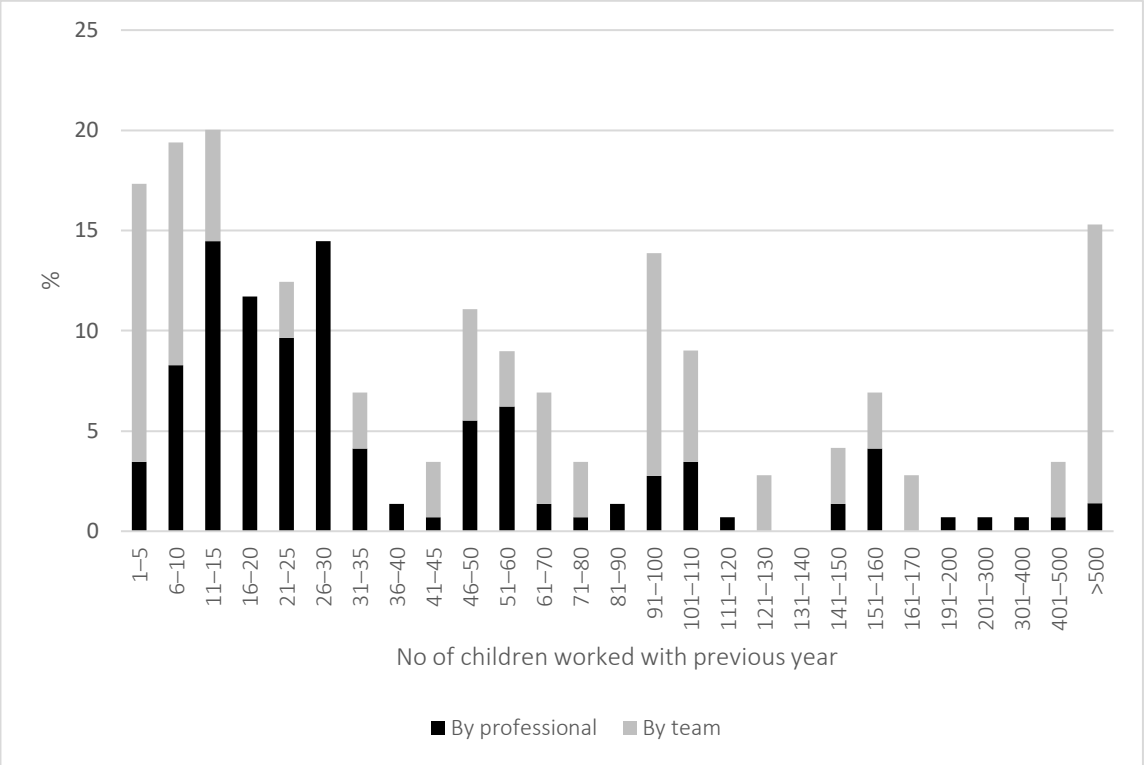
Children Worked with in Previous Year

The professional survey required respondents to indicate which category represented the range of how many children they worked with and then how many they believed had experienced neglect. Parametric analyses were not possible given the categorical nature of the data.

As expected, there was a different pattern of numbers of children worked with in the year depending on whether the respondent answered from their experience or on behalf of their team. For individual professionals, a higher percentage worked with ≤30 children in the year, whereas team-based answers were more evenly spread. There was a wide range across both groups as depicted in Figure 4-5.

Figure 4-5

Numbers of Children Worked with by Individual Professional or Team



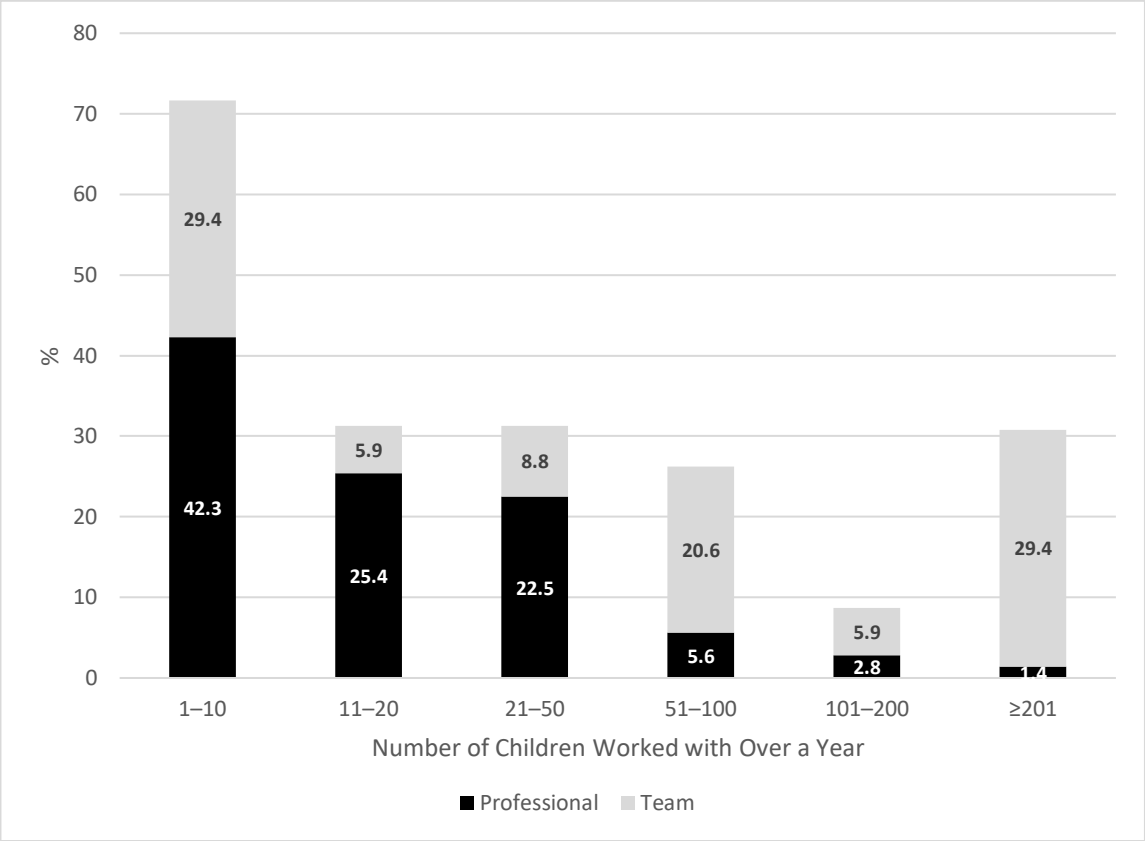
Note. Four surveys were removed due to invalid responses.

Children Worked with who had Experienced Neglect

Figure 4-6 provides an overview of how many children worked with who had experienced neglect by individual professionals or their teams in the previous year. Most respondents worked with one to 10 children who experienced neglect. There was greater variation in the team-based responses, 10 respondents indicated their teams had worked with ≤10 children who had experienced neglect, whereas another 10 indicated their teams had worked with ≥201 children who had been neglected.

Figure 4-6

Numbers of Children Experienced Neglect Worked with in Previous Year by Individual Professional or Team

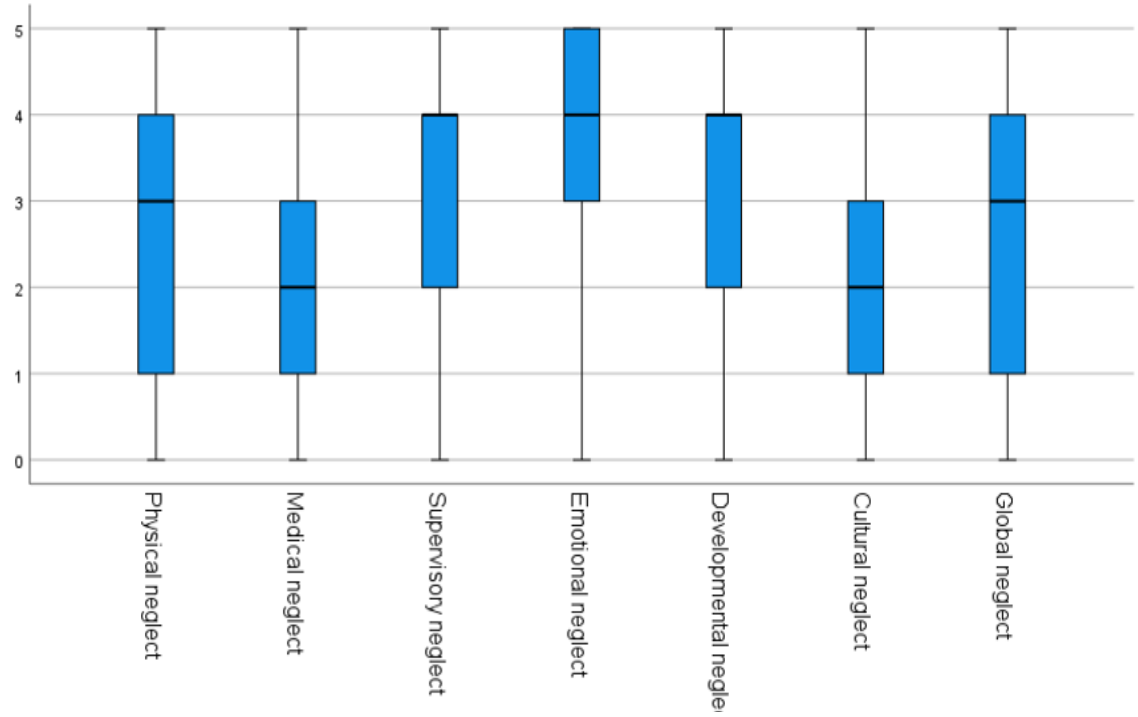


Note. Four surveys were removed due to invalid responses.

In terms of neglect subtypes experienced by the children worked with by the professionals over the previous year, the order of prevalence was emotional, developmental, supervisory, physical, global, medical, and cultural neglect (see Figure 4-7).

Figure 4-7

Boxplot Presenting Different Neglect Subtypes Experienced by Children Worked With in Past Year



Note. Scale: 0 = not experienced subtype; 1 = 1 to 20%; 2 = 21 to 40%; 3 = 41 to 60%; 4 = 61 to 80%; 5 = >80% of children worked with in previous year had experienced neglect subtype

Carer and Professional Survey Respondents Country of Residence and Cultural Identity

Figure 4-8 is a map showing the countries by number of surveys. For countries other than Australia, it reflects the number of professionals surveys. For Australia it reflects both professional and carer surveys, as indicated in the insert map of Australia. There were surveys from every state and territory in Australia with the majority coming from Victoria.

Figure 4-8

Map of Countries by Number of Professional and Carer Surveys

The question on cultural identity was open-choice and not mandatory. I manually re-classified the data into categories, which was challenging with the variation in description of cultural, ethnic or racial identity across countries. Due to the high percentage of non-responses (41.7%) this data was not used for quantitative analysis other than to note those who described their cultural identity were primarily Caucasian (52.5%).

Children Described in the Surveys

Table 4-3 provides an overview of the demographics of the 216 children described in the online professional and carer surveys.

Table 4-3

*Overview of Child Demographics as Described in Surveys (*n *= 216)*

Age (years)	
Mean age (SD)	9.44 (4.7)
Range (years)	0 to 17
Gender	
Male	57.2%
Female	42.3%
Transgender/Other	0.5%
Cultural background	
Australian non-Indigenous	40.7%
Australian Aboriginal and/or Torres Strait Islander	23.1%
Culturally and linguistically diverse in Australia	10.6%
African American, Hispanic American or Asian American	5.1%
American - European descent	4.2%
European (Europe)	3.2%
Indigenous living in country of origin (not Aboriginal)	2.3%
Other	1.5%
Not stated	9.3%
Type of location	
Urban	61%
Rural or remote	39%
Living situation in previous year	
OOHC	74.5%
Parents	33.3%
Other	8.8%

Note: 13.8% of children described as having >1 type of living situation in previous year. OOHC = out-of-home care

Children's Ages

There was one missing response in a carer survey for the child's age. In another carer survey, it appeared from a free-text response that the respondent entered the child's age at the time of coming into their care (three-years-old). As this information could not be verified, the age was left as written. A chi-square test showed no significant differences by type of respondent in terms of the children's ages categorised in three-year cohorts (p = .609).

Although no carer survey described a child under the age of one-year-old, the mean and median age of the children in the carer surveys was lower than the professional surveys.

Gender of Children

There were more male (57.2%) than female children (43.8%) described in the surveys overall and by each respondent type. Two professional surveys described children as transgender or other. A chi-square test showed no significant differences between male and female children by type of respondent. A Mann-Whitney U test found no significant differences between males and females by age.

Data on the transgender young people was excluded from further quantitative analysis involving gender due to the small sample size.

Children's Cultural Background

The child's culture was unknown or missing in 20 surveys (9.3%). The remaining data was re-coded into specific categories. Table 4-4 depicts the range of cultural backgrounds of the children described. These categories were further reduced for more detailed analysis.

Table 4-4

*Children's Cultural Background (*n *= 196)*

Child's cultural background	n	%
Non-Indigenous Australian	88	44.9
Australian Aboriginal	50	25.5
Culturally and linguistically diverse in Australia (carer surveys)	9	4.6
Asian Australian	1	0.5
American – European descent	9	4.6
Hispanic American	3	1.5
African American	4	2.0
African American and Hispanic American	2	1.0
Native American	1	0.5
Asian	5	2.6
Non-Indigenous New Zealander	1	0.5
Māori	2	1.0
African	6	3.1
European (Europe)	6	3.1
Eastern European	2	1.0
Asian European	1	0.5
Scandinavian	3	1.5
Nordic Indigenous	1	0.5
Middle Eastern	2	1.0
Total	**196**	**100.0**

Note. Missing data in 20 surveys

Professional and carer surveys in Australia, described an Aboriginal child at a higher rate (25.5%) compared to the percentage of Aboriginal children in the Australian population (6%). This

was similar to the percentage of Aboriginal children with substantiated abuse or neglect by CPS (28.9%) (Australian Institute of Health and Welfare, 2022).

Children's Location and Living Situation

Geographical Location

Most children lived in an urban area (*n* = 131, 61%), followed by living in a rural area (*n* = 79, 36%). Six children (2.8%) lived in a remote area (five in Australia, one in the USA). All children in remote locations were described in the professional surveys.

In undertaking a chi-square test comparing urban and rural/remote locations, there were no significant differences based on child's age ($p = .427$), gender ($p = .746$) or country ($p = .08$). Nor was the type of survey respondent associated with geographical location ($p = .466$). There was a difference based on children's cultural background ($\chi^2(2) = 16{,}275$, $p < .001$). Fifty-nine percent of non-Indigenous Australian children in the surveys lived in urban areas compared to 50% of Aboriginal children. Four out of five children who lived in remote Australia were Aboriginal.

Children's Living Situation in Previous Year

The professional survey had a question about where the child lived in the previous year. Selecting multiple responses was possible as it is not uncommon for children to have more than one placement, however, this complicated the analysis. Children described in the carer survey were automatically coded as living in foster care. Three carer surveys, however, appeared to have been completed by kinship carers. It was likely those respondents accessed the survey through community service organisations and so were treated the same as foster parents in the anaylsis.

Fifteen professional surveys indicated 'Other living situation', nine of which provided further detail. This enabled six responses to be recoded under existing categories. The remaining three surveys were left as 'Other': one in community detention with parents as a refugee; one in a shelter (who had also lived in foster care and a hospital that year); and one living with a court appointed guardian where it was unclear if this was similar to permanent care or another arrangement.

A new variable was created from the professional survey data on whether the child had only lived with parents, only lived in some form of OOHC, or a combination of the two. One hundred and fifty-six (86.2%) professional surveys described only one type of living situation for the child. This sometimes involved multiple placements within the same type of care. One respondent indicated, for example, the child had been in four foster care placements within five

months. That child was counted as having one type of placement. Seventeen surveys (9.4%) indicated the child had two types of living situations. Seven surveys (3.9%) indicated the child had three types of living situations and one survey (0.6%) indicated the child had five types of living situations.

Seventy-two children (39.8% of professional surveys) had lived with parents. Further analysis indicated most of these children (n = 54) had only lived with parents and not in other placements. The other 18 children had lived at least once with parents but also in OOHC. In contrast, 127 children (70.2% of professional surveys) had lived part or entirely in OOHC. When adding 35 children from the carer surveys, this totalled 162 children from 216 surveys (75%) who had lived in some form of OOHC in the previous year.

A series of chi-square tests were performed based on children's living situation with no significant differences between whether the professional survey was completed based on their own or their team's work. The following differences were found for culture, gender, and age for the children compared to the living situation in the previous year.

Aboriginal children compared with Non-Indigenous Australian children were:

- more likely to have lived in OOHC (84% compared to 67%; $\chi^2(2) = 6.412$, $p < .05$).
- less likely to have only lived with parents (24% compared to 40.9%; $\chi^2(1) = 6.587$, $p < .05$).
- less likely to have lived in foster care (48% compared to 71.6%; $\chi^2(1) = 9.021$, $p < .05$).

Female children (36.8%) were more likely than males (26.2%) to have only lived with parents ($\chi^2(2) = 7.486$, $p < .05$).

Summary

This chapter provided an overview of the respondents in this study demonstrating the depth of expertise of those interviewed, and the diversity of survey respondents in terms of role, country, and length of experience. This chapter captured data on the 216 children portrayed in the surveys including their age, gender and cultural background and living situation. This sets the scene for the next chapter which describes these children's experiences of neglect and the associated presenting problems.

5. Results – Serious Neglect and Mechanisms of Harm

This chapter presents data from experts and the surveys which addresses the nature of serious child neglect and its implications for children to inform the foundational theory of change. As outlined in Chapter 3 (Table 3-3), the analysis towards theory building begins with description (Stage 1) and analytic resolution (Stage 2), both of which occur in this chapter. The open coding process for the qualitative data that was particularly useful for Stage 2, involved assigning codes throughout the interview transcripts and free-text responses in the surveys and constant comparison between respondents and the questions. This led to additional or collapsing of conceptual categories. Analytic resolution informed the final decisions of what analysis to include and what to set aside. The beginnings of exploration of mechanisms of harm (Stage 4) occurs near the end of this chapter.

The quantitative data analysis of closed-choice questions in the surveys used various statistical measures seeking different types of understanding of the respondents' ideas and descriptions of the children and their experiences. The quantitative and qualitative analysis is integrated throughout as part of the meaning making approach consistent with mixed methods (Boeije et al., 2013; Bryman, 2006). Final qualitative coding and quantitative analyses was determined by referring to the research question and considering what was most informative as it pertained to Stages 1 and 2 and the guiding questions presented in Box 5-1.I have also used direct quotes from the experts and survey respondents to reflect their voices and perspectives about the implications of neglect for children.

Box 5-1

Aim	Guiding questions
1. To explore how serious neglect and its impacts are conceptualised by those working with or caring for children who have experienced neglect, including professionals from different disciplines and roles and foster parents.	1. How is the phenomena of serious neglect and its impacts on children understood by the various disciplines and roles involved in the children's lives? 2. What do those who work with and care for children who have experienced neglect think are the mechanisms by which children may be harmed by different subtypes and other dimensions of neglect?

To explore the nature of child neglect to inform the theory of change, the analysis in this chapter is presented in three ways: (1) findings on the definition of neglect informed by qualitative analysis of the interviews and surveys; (2) quantitative and qualitative analysis from the surveys' description of 216 children who had experienced serious neglect supplemented by commentary from the experts; and (3) qualitative analysis then unites the interviews and surveys

regarding potential mechanisms for harm. Lipsey (1993) noted the importance of accurately specifying the problem that the treatment theory or theory of change is attempting to target, including its magnitude and its consequences. That is the focus of this chapter.

What is Serious Child Neglect

I asked the four experts for their definition of serious neglect. The two neuroscientists shared a similar definition. Dr Perry spoke of neglect as "the absence or the abnormal form of developmental experience that is essentially inadequate to fully express or to express in a normal way the genetic potential of the child". This definition mirrored his published works (e.g., Perry, 2008). Dr Nelson spoke of neglect as not providing the experiences the brain requires to develop – a "violation of the expectable environment". This was consistent with Dr Nelson's publications (e.g., Almas et al., 2012).

Dr Dubowitz urged people to take a child-focused lens when defining neglect rather than what parents failed or omitted to do for the child. Consistent with his publications (e.g., Dubowitz et al., 1993), he stated: "Instead to think about children's basic needs or arguably their rights and when those are not adequately met and that results in either actual or potential harm that that child experiences neglect".

Dr Miller took a different approach. She spoke of neglect being when people who had responsibilities for caregiving not providing the care required, leading to the child's wellbeing and development being harmed or at risk. Her inclusion of the role of parents and when the system did not meet the children's needs was consistent with her roles in protecting children and preventing neglect or its re-occurrence.

The definitions of neglect proposed by the experts were consistent with their publications and professional roles. The major difference between them was whether the focus was about the children's needs or the caregivers or systems' omissions.

Although not a direct question in the online surveys, various comments and descriptors that defined neglect or its attributes were provided by carer and professional survey respondents. I open-coded and then focused-coded these comments from the surveys into three definitions: What others did not provide child; what child did not receive or needs not met; and when child's development or wellbeing was harmed. There were more definitions of neglect coded in carer surveys (42.9%) than professional surveys (21%). The carer survey responses were evenly spread between the three definitions with the professional survey responses being slightly more describing what the child did not receive. Phrases or concepts mentioned in the surveys included: children not having needs met, lack of, let down, empty promises, inadequate or limited care,

deprived, not attended to, ignored, unavailable, denied, being left, did not experience, omissive trauma, parental failure, and parental inability. 'Lack of' suggested many forms of neglect, such as lacking boundaries, routine, medical care, dental care, schooling, care, attention, cultural connection, interactions, parental responsibilities, experience of external world, stimulation, warmth, presence, comfort, parental engagement with child, sensory experiences, nurture, material needs, social activities, role modelling. A more encompassing term, sometimes used, was *absence*. Absence of love, care, people, place, touch, education, and culture.

Children's Experience of Neglect and Adversity According to the Surveys

Moving from the general commentary about the nature of neglect by the experts and survey respondents, the following analysis is of the children described in the online surveys about their experience of neglect and associated problems.

Neglect Subtypes

Carer and professional surveys had identical questions on which neglect subtypes the respondent believed the child had experienced. Table 5-1 depicts the percentages of each neglect subtype in total and by respondent. Using chi-square tests, carers described children with developmental neglect ($\chi^2(1) = 6.477$, $p < .05$), medical neglect ($\chi^2(1) = 6.514$, $p < .05$), and global neglect ($\chi^2(1) = 7.565$, $p < .01$), proportionately more than professionals.

Table 5-1

*Neglect Subtypes Experienced by Children Described in Surveys (*n *= 216)*

	Professional	Carers	Total	Chi-Square
Physical neglect	159 (87.8%)	34 (97.1%)	193 (89.4%)	($\chi^2(1) = 1.777$, p = .183)*
Emotional neglect	172 (95%)	32 (91.4%)	204 (94.4%)	($\chi^2(1) = .201$, p = .654)*
Developmental neglect	152 (84%)	35 (100%)	187 (86.6%)	($\chi^2(1) = 5.172$, p < .05)*
Supervisory neglect	147 (81.7%)	33 (94.3%)	180 (83.3%)	($\chi^2(1) = 3.607$, p = .058)
Medical neglect	109 (60.2%)	29 (82.9%)	138 (63.9%	($\chi^2(1) = 6.514$, p < .05)
Cultural neglect	56 (30.9%)	16 (45.7%)	72 (33.3%)	($\chi^2(1) = 2.881$, p = .09)
Global neglect	94 (51.9%)	27 (77.1%)	121 (56%)	($\chi^2(1) = 7.565$, p < .01)
Global/multiple neglect	147 (81.2%)	32 (91.4%)	179 (82.9%)	($\chi^2(1) = 2.155$, p = .142)

Note. * Where one or more cells had less than minimum expected count, continuity correction was used.

Emotional neglect was the most frequent neglect subtype, followed by physical, developmental and supervisory neglect; and then followed by medical, global, and cultural

neglect. Only a small number of children did not experience emotional neglect (*n* = 12), of whom four probably experienced emotional neglect as part of global neglect.

Developmental Neglect

Developmental neglect was not commonly documented as a neglect subtype in the literature, however, it was frequently noted for children described in the surveys (100% carers and 84% professional respondents). This is a strong indication of face validity, reinforced by examples provided in the surveys, as seen in the following description of a two-year-old Aboriginal boy who experienced developmental, supervisory, and emotional neglect:

> Child not engaged in play or spoken to with tenderness and interest. Child's speech development poor for age due to lack of parental engagement. Both maternal and paternal substance use meant child was left without parental engagement - prop bottle fed. […] Maternal mental health problems meant [mother] was unable to show delight in child. […] Child unable to regulate emotions and behaviour. When mother overslept, child left unsupervised and had to seek out food for himself. Lack of routines meant child had no regular sleep/bath time/meal patterns. Constant disruption related to chronic homelessness and loss of personal possessions contributed to child's lack of value of toys and possessions. Often seen breaking toys or using as weapons against other children. (P115)

Cultural Neglect

As described in Chapter 2 (page 15), there were various uses of the term cultural neglect in the literature, and it appeared rarely as a neglect subtype. Despite this lack of clarity in the literature, a third of the children described in the surveys were identified as experiencing cultural neglect. Some descriptors of cultural neglect mentioned in the surveys were the child being "disconnected from culture" (13-year-old Aboriginal young woman, P24) and "Child is Aboriginal and has been placed out of area with no connection to land or cultural knowledge of elders/community members. Current care team does not include cultural input despite multiple attempts to advocate for this" (Five-year-old Aboriginal girl, P16). The survey results suggest there is a degree of face validity of cultural neglect as a neglect subtype. In contrast, an example in one survey reflected one of the alternate meanings, where a 12-year-old Bengali girl living in the USA was described as experiencing "significant emotional neglect by her parents and their cultural beliefs and was treated poorly/significantly different than her male siblings" (P146).

Global/Multiple Neglect

Global neglect was reported as experienced by more than half (56%) the children. Some of these children appeared to have experienced severe deprivation. For example, 10 surveys noted the child was locked in a cupboard, left in a room for hours and deprived of food, or other forms of extreme neglect. A four-year-old Australian non-Indigenous boy who experienced serious global neglect was described as follows:

> This child was locked in a bedroom with a bowl of water and cat food and was not paid any attention by his mother. The child did not attend day care or other schooling, no play groups or other social activities. This child was significantly deprived of the opportunity to engage with others in social play, learning, speaking, learning social cues, using utensils while eating, understanding how to behave in social settings and with strangers. (P56)

Although it was meant to encapsulate multiple neglect subtypes, most respondents who selected global neglect also selected other subtypes. A new variable was created, with a counting rule established that either global or four or more neglect subtypes was described as "global/multiple neglect". There were 179 children (82.9%) who experienced global/multiple neglect.

Child Demographics as Predictors for Neglect Subtype

Using binary logistic regressions, only medical neglect was predicted by survey respondent; with carers more likely than professionals to describe a child who had been medically neglected (OR = 3.193, $p < .05$). There were no other predictive factors for medical or other forms of neglect, except cultural neglect and global/multiple neglect.

Experiencing cultural neglect was predicted by children being older and their culture. The child's gender, geographical area, country, or survey respondent were not predictive of cultural neglect (Model 1). When adjusted by combining age and child's culture in the regression analysis, both age and culture remained individually predictive of cultural neglect (Model 2). There was no interaction effect. Table 5-2 shows that compared to non-Indigenous Australian children, the strongest predictor for cultural neglect was the child being Aboriginal. Aboriginal children were over six times more likely to experience cultural neglect. Children from a culturally and linguistically diverse (CALD) background in Australia were four times more likely to experience cultural neglect, and children from other non-European backgrounds were three times more likely to have experienced cultural neglect. Further analysis of this last group of children was not possible due to the disparate cultural groups in that category.

Table 5-2

Binary Logistic Regression Estimates of Child Demographics Predicting Cultural Neglect

Demographics	Unadjusted OR [95% CI] Model 1	Adjusted OR [95%CI] Model 2
Age (years)	1.089 [1.022 – 1.160]**	1.113 [1.033 – 1.200]**
Culture		
Aboriginal	5.316 [2.463 – 11.473]***	6.393 [2.84 – 14.390]***
CALD	4.873 [1.913 – 12.440]***	4.63 [1.784 – 12.017]**
European	0.964 [0.247 – 3.764]	0.887 [0.222 – 3.552]
Other Indigenous or non-European	3.248 [1.059 – 9.961]*	3.248 [1.028 – 10.259]*

Note. OR = odds ratio, CI = confidence interval

CALD = culturally and linguistically diverse.

For culture, reference was Australian non-Indigenous.

*p < .05 ** p < .01 *** p < .001

A similar stepped regression process was undertaken for global/multiple neglect where children living in a rural or remote area and being Aboriginal were individually predictive, but once adjusted, only being Aboriginal remained predictive of global/multiple neglect (Table 5-3).

Table 5-3

Binary Logistic Regression Estimates of Child Demographics Predicting Global/Multiple Neglect

Demographics	Unadjusted OR [95% CI] Model 1	Adjusted OR [95%CI] Model 2
Area	2.296 [1.024 – 5.147]*	–
Culture		
Aboriginal	5.333 [1.173 – 24.255]*	5.333 [1.173 – 24.255]*
CALD	.5 [0.185 – 1.350]	–
European	3.333 [0.410 – 27.098]	–
Other Indigenous / non-European	.667 [0.190 – 2.338]	–

Note. OR = odds ratio, CI = confidence interval

CALD = culturally and linguistically diverse.

For culture, reference was Australian non-Indigenous. For area, reference was urban.

*p < .05 ** p < .01 *** p < .001

Other Neglect Subtypes

Twenty survey responses (9.3%) indicated the child had experienced other forms of neglect, with no significant difference found between professionals and carers. Other neglect subtypes included system neglect, educational neglect, institutional neglect, lack of protection from sexual abuse, abandonment, environmental neglect, social isolation and financial neglect. Two children, who lived for a time in Eastern European institutions, were categorised as experiencing institutional neglect. The following response is an example of system neglect

according to a carer for a seven-year-old boy from a CALD background who also experienced global neglect:

> He has been let down by a social worker who repeatedly neglected him and his previous carer causing immense distress which led to placement breakdown. He has also been neglected by a system which is full of empty promises and doesn't support kids adequately in care to give them the help and [therapeutic] care they need. This is to say nothing of the neglect previous to foster care - in kinship care. This child has been in the system since birth and is still floating around constantly being abandoned and neglected. (C19)

Other Types of Maltreatment and Adversity

Twenty-nine survey responses (13.4%) described additional forms of maltreatment including sexual abuse (n = 14), emotional abuse (n = 9), physical abuse (n = 9), and maltreatment in general (n = 2). Another 24 surveys (11.1%) mentioned family violence. Other adversities noted were:

- Social disadvantage (n = 22, 10.2%), such as homelessness, housing instability, and poverty
- Intrauterine exposure to potential harm such as maternal substance use or family violence (n = 14, 6.5%)
- Parental substance abuse (n = 29, 13.4%)
- Parents with mental health problems (n = 15, 6.9%)

Children's Presenting Problems

The items for respondents to select in the surveys regarding difficulties presented by children were in six domains: physical health, development, attachment and other relationships, emotional, mental health, and behaviour problems. Respondents selected one or more of these domains which enabled access to items about specific problems in that domain. In total, there were 70 problems that could be selected. Table 5-4 presents the frequencies and percentages for each problem domain. There was high frequency of concern across all domains, with attachment and other relationship difficulties having the most, followed closely by emotional problems. As there were few problems identified that were significantly different based on whether the respondent was a professional or carer, the analysis combined both groups and noted when there was a significant difference.

Table 5-4

Frequencies and Percentages of Children Having Problems Per Domain (n = 216)

Child problem domains	n	%
Physical health	160	74.1
Developmental	197	91.2
Attachment and other relationships	210	97.2
Emotional	208	96.3
Mental health	174	80.6
Behavioural	188	87

I performed a cluster analysis (Everitt et al., 2011) to explore whether certain problems were likely to be clustered with other problems, that is, whether they commonly co-occurred. This helped inform the analytic resolution stage of selecting which problems to provide more in-depth description, rather than presenting the full analysis of six neglect subtypes by 70 presenting problems. This cluster analysis also informs the theory of change, by exploring which presenting problems frequently co-occurred for the children and so providing insight into possible mechanisms of harm and therefore of recovery. The dendrogram in Figure 5-1 portrays the results based on a cut-off of 15 indicated by the red line. There were 10 clusters indicated by purple lines, with some having nested clusters, indicated by green lines.

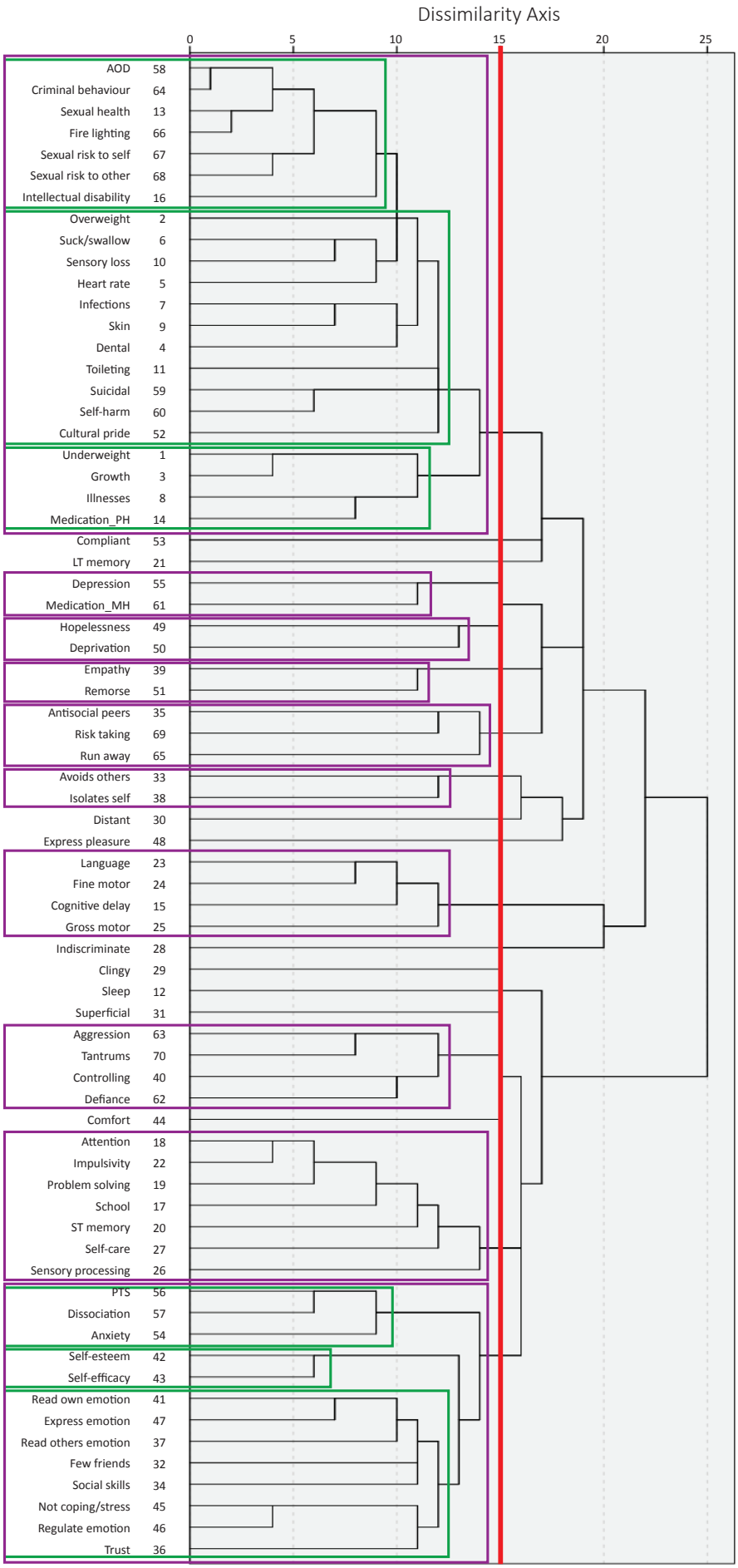
This analysis identified several patterns of clusters, such as children having co-occurring difficulties with:

- impulsivity, attention and/or concentration, problem-solving, not doing as well at school as was capable, short-term memory, sensory processing, and self-care often co-occurred, suggesting problems with executive functioning.
- alcohol and/or other drug problems, criminal activities, fire-lighting, sexual health concerns, sexual behaviours, intellectual disability, being overweight, suck and swallow problems, and toileting problems, along with suicidality and self-harming behaviours and low cultural pride. A nested cluster within this cluster was being underweight, growth problems, frequent and/or serious illnesses, and needing medication for physical health.
- emotional dysregulation and stress systems, including a sub-cluster of posttraumatic stress symptoms, dissociation, and anxiety symptoms and another sub-cluster of difficulties with self-esteem, self-efficacy, ability to understand one's emotions, ability to express emotions, ability to understand others' emotions, having few interactions with friends, poor social skills, not coping when stressed, difficulties in regulating emotions and difficulties in trusting others.

These will be considered further in the design of the foundational theory of change.

Figure 5-1

Cluster Analysis in Dendrogram of Children's Presenting Problems



The next section explores possible associations between different problems such as comparing children's demographics and their experience of neglect. To explore whether there were significant differences of problems compared to other variables, binary regressions were performed on every presenting problem to ascertain if child demographics, respondent, or neglect subtypes were predictive. Frequencies, chi-square tests, and individual *t*-tests or Mann-Whitney U tests were undertaken to further explore the data.

Overall, 65 (92.9%) of the problems itemised in the surveys were predicted by one or more variables, such as children's age, culture and neglect subtype, through unadjusted binary logistic regressions, such as:

- 51 problems (72.9%) predicted by age, commonly by child being older.
- 42 problems (60%) predicted by one or more neglect subtypes.
- 16 problems (22.9%) predicted by child being Aboriginal with no other cultural backgrounds being predictive of problems.
- 11 problems (15.7%) predicted by child's gender, mainly being male.
- 10 problems (14.3%) predicted by whether survey respondent was a carer (n = 6) or professional (n = 4).
- 8 problems (11.4%) predicted by child's living situation, either having lived with parents or lived with parents and OOHC in past year.
- No problems were predicted by the child living in a rural or urban area.

I reperformed the analysis adjusting for other significant variables. Figure 5-2 represents results across all problems of which neglect subtypes were predictive of which problems. In the adjusted model, emotional neglect was only predictive for children having difficulties coping when stressed. Developmental neglect was only predictive for difficulties with language, and fine and gross motor problems. Medical neglect was predictive for many physical health items as well as cognitive delays and avoidance of others. Cultural neglect was predictive of problems in all domains except mental health. Global/multiple neglect was predictive of problems in every domain. Cultural neglect and global/multiple neglect remained the most commonly predictive neglect subtype for children having problems. Supervisory neglect and physical neglect were not predictive of any individual problems, once adjusted for other significant variables.

Figure 5-2

Overview of Neglect Subtypes Predicting Children's Problems

Neglect Subtype	Adjusted Regressions
Medical neglect	Atypical weight Growth Dental Illnesses Sleep Medication for physical health Avoids others
Emotional Neglect	Not coping with stress
Developmental Neglect	Language Fine motor Gross motor
Cultural Neglect	Atypical weight Growth Infections Short-term memory Self-care Superficial interactions Understands others' emotions Low cultural pride Risk-taking
Global/Multiple Neglect	Underweight Cognitive delays School Attention and/or concentration Problem solving Impulsivity Understands others' emotions Understands own emotions Difficult to comfort Express emotions Anxiety Posttraumatic stress Dissociation Defiance Aggression

Before looking at the presenting problems in more detail I focused on problems predicted by cultural neglect, due to this neglect subtype being less frequently portrayed in the literature. Table 5-5 shows 19 presenting problems that were independently predicted by cultural neglect (Model 1). When these were adjusted by other significant factors such as age, gender, culture, respondent type, and neglect subtype, nine problems remained significant (underweight, growth, infections, short-term memory, self-care skills, superficial interactions, understanding others' emotions, low cultural pride, and risk-taking behaviours). For example, even though being Aboriginal was predictive of a child having growth problems, low cultural pride, and risk-taking behaviours; cultural neglect was also predictive of these problems in its own right. The only

interaction effect found was with frequent or serious infections. This analysis was run with the child's age and cultural neglect, and only the child being younger and the interaction effect were significant. In other words, the effect of cultural neglect on infections can be explained by the child's age and the combination of age and cultural neglect. Overall, this analysis suggests that cultural neglect can be harmful for children in terms of physical health, development, relationships, emotional wellbeing, and behaviours. As such, interventions aiming to target these difficulties for children, may benefit from being informed as to whether cultural neglect formed part of the children's experience. For this study the theory of change will need to incorporate cultural neglect and meeting the child's cultural needs as part of the theory.

Table 5-5

Presenting Problems Predicted by Cultural Neglect in Binary Logistic Regressions (n = 216)

Problem domains	Specific problems	Unadjusted OR [95% CI] Model 1	Adjusted OR [95% CI] Model 2	Model 3
Physical health	Underweight	1.982 [1.049-3.743]*	2.187 [1.074 -4.450]*	
	Growth	2.769 [1.471-5.215]**	3.45 [1.560 - 7.172]**	
	Toileting	2.214 [1.091-4.491]*	–	
	Infections	2.054 [1.006-4.194]*	3.07 [1.61 - 5.855]*	–
	Age and cultural neglect interaction effect for infections	–	–	1.151 [1.053 - 1.259]
Development	Cognitive delays	2.078 [1.17-3.691]*	–	
	Attention and/or concentration	2.007 [1.017-3.961]*	–	
	Short-term memory	2.789 [1.504-5.173]**	3.07 [1.61 - 5.855]***	
	Self-care skills	2.174 [1.206-3.918]*	1.905 [1.036 - 3.504]*	
Relational	Superficial interactions	2.326 [1.263-4.285]**	1.993 [1.055 - 3.766]*	
	Understanding others' emotions	2.638 [1.365-5.096]**	2.031 [1.011 -4.079]*	
Emotional	Understand own emotions	2.129 [1.041-4.352]*	–	
	Low cultural pride	3.242 [1.723-6.101]***	2.827 [1.456 - 5.490]**	
Mental health	Depression	2.212 [1.243-3.934]**	–	
	Dissociation	2.275 [1.27-4.074]**	–	
	Alcohol and/or other drugs	2.652 [1.185-5.932]*	–	
	Mental health medication	1.95 [1.069-3.558]*	–	
Behavioural	Criminal behaviour	2.49 [1.194-5.195]*	–	
	Fire lighting	4.148 [1.467-11.727]**	–	
	Risk-taking behaviours	3.333 [1.848-6.011]***	2.751 [1.371 - 5.517]**	

Note. OR = odds ratio, CI = confidence interval

Cultural neglect, reference was no. Problems, reference was no.

*$p < .05$ ** $p < .01$ *** $p < .001$

The following section provides examples under each domain of presenting problems. As part of the analytic resolution process, informed by the adjusted binary regressions, the cluster analysis, and the qualitative coding analysis, I selected 28 problems to describe in further detail. There were three to six problems selected from each domain with the aim to include ones associated with different neglect subtypes and child demographics. These examples will show how the professional and carer respondents described in quantitative and qualitative terms the range of problems presented by the children who had experienced neglect. Although conclusions cannot be drawn that neglect caused all these problems, the qualitative comments from survey respondents illustrate some of the ways neglect was at least a major contributor.

Physical Health Problems

The survey listed 14 possible physical health problems. An additional item was created through recoding; either underweight or overweight led to an atypical weight item. As shown in Table 5-6, three-quarters of the children had one or more physical health problems. Due to the technical problem in 14 carer surveys, making individual items inaccessible in this domain, the results are likely an underestimate of the prevalence of physical health difficulties in this cohort. The mean age and range of the 14 children described in these surveys was similar to the overall sample.

Of 146 surveys where physical health problems were indicated, sleep problems were the most frequent, followed by atypical weight. The least frequent was sexual health problems. As discussed in the scoping literature review (page 22), atypical weight was one of the most frequently identified problems associated with neglect (n = 14 studies), and five studies reported on the association between neglect and sleep problems. Although physical health problems were the least frequently mentioned problems in the surveys, these findings indicate that a theory of change about recovery from neglect needs to incorporate children's physical health.

Table 5-6

Frequencies and Percentages of Physical Health Problems by Respondent Type

	Professional (*n* = 181)		Carer (*n* = 21)		Total (*n* = 202)	
Child's problems	n	%	n	%	n	%
Physical health domain	135	74.6	25	71.4#	160	74.1#
Underweight	53	29.3	4	19	57	28.2
Overweight	26	14.4	1	4.8	27	13.4
Weight – Atypical+	79	43.6	5	23.8	84	41.6
Growth	54	29.8	5	23.8	59	29.2
Dental health	42	23.2	4	19	46	22.8
Heart rate atypical	35	19.3	3	14.3	38	18.8
Suck and/or swallow	21	11.6	1	4.8	22	10.9
Frequent and/or serious infections	36	19.9	3	14.3	39	19.3
Frequent and/or serious illnesses	40	22.1	4	19	44	21.8
Skin	28	15.5	3	14.3	31	15.3

Sensory loss	28	15.5	2	9.5	30	13.9
Toileting	34	18.8	6	28.6	40	19.8
Sleep	116	64.1	10	47.6	126	62.4
Sexual health	14	7.7	0	0	14	6.9
Physical health requiring frequent or ongoing medication	53	29.3	6	28.6	59	29.2

Note. Number of total surveys was 202 as number of carer surveys was 21, due to technical fault in 14 surveys.

Technical problem did not impact on question about overall physical health, and so number of carer surveys for domain was 35 and total was 216.

+ Combination of underweight and overweight.

Examples described in more detail were children being underweight, having growth problems, dental health problems, and sleep difficulties.

Underweight

Fifty-seven children (28.2%) were identified as being underweight across most ages ranging from under one to 17-years-old. Logistic regression found being underweight was predicted by children's experience of physical, medical, cultural, and global/multiple neglect subtypes (Model 1). Being older appeared protective for being underweight (Table 5-7).

For children who were underweight, all but one (98.2%) had experienced physical neglect. Although physical neglect was strongly predictive of being underweight in Model 1, it was no longer predictive when adjusted for other significant variables, such as child's age, gender, and other neglect subtypes. In Model 2, children's age, cultural neglect, and global/multiple neglect remained individually predictive of children being underweight when adjusted for these variables, with no interaction effect.

Table 5-7

Binary Logistic Regression Estimates of Child Demographics and Neglect Subtypes Predicting Being Underweight

Predictive variables	Unadjusted OR [95% CI] Model 1	Adjusted OR [95%CI] Model 2
Age (years)	0.897 [0.838 – 0.960]**	0.874 [0.811 – 0.941]***
Physical neglect	9.484 [1.245 – 72.265]*	–
Medical neglect	2.674 [1.328 – 5.386]**	–
Cultural neglect	1.982 [1.049 – 3.743]*	2.187[1.074 – 4.450]*
Global/multiple neglect	3.752 [1.262 – 11.154]*	3.234 [1.022 – 10.228]*

Note. Neglect subtypes, reference was no.

OR = odds ratio, CI = confidence interval

*$p < .05$ ** $p < .01$ *** $p < .001$

By way of example, a 14-year-old Australian non-Indigenous young woman, described by her carer as having experienced all forms of neglect except cultural neglect: “Wouldn't eat, very underweight, infested with lice” (C10). In response to how neglect may have contributed to her problems, the carer wrote: “Lack of available food led to not eating regularly/craving food/being able to identify hunger”.

Twenty-four carers and professionals described a child with eating difficulties or an eating disorder, sometimes associated with being underweight or overweight. Eating problems was not listed as an item, but these respondents noted it under ‘other’ in free-text under physical or mental health problems. Not including this as an item in the survey was an oversight given it was identified in the literature review and was mentioned in Dr Miller’s interview:

> So the child who was starved actually isn’t hoarding food anymore or satiating themselves or over eating because their experience as a child was one of being starved, literally […] People think this is a third world problem – it is not. And how many kids have we worked with in foster care who will then hoard food under beds, in the wardrobe and steal lunches from school and then be ostracised. (Dr Miller)

Comments in the surveys included children’s difficulties with food or eating including hoarding or stealing food, overeating, binge eating, gorging food until vomiting, not eating, not having age-appropriate eating skills, not able to identify hunger, craving food, and eating disorders. Twelve carer surveys described children from two to 17-years-old with eating problems, such as: “Shielding his food so it couldn’t by others be eaten” (Three-year-old Australian non-Indigenous boy described as overweight, C28); “She hadn’t [learnt] skills including how to eat a meal off a plate, took a long time to learn not to scoff food, food hoarding; and in case food runs out or isn’t available” (Three-year-old Australian non-Indigenous girl, C9).

Twelve professional survey responses described children from two to 13-years-old with eating problems, such as:

> until aged 18 months, she drank out of an open can of petrol for some time, and this has had an unknown impact on her physical development, still undergoing assessment. She eats anything on the floor she can find, cat food, dirt pieces of wool from her clothing. (Two-year-old girl, culture not stated, described as underweight, P93)

Given eating problems was not an item to be selected in the online survey, these responses are likely to be an underestimate. This issue is explored later in relation to comments by the experts and survey respondents about the importance of food as part of recovery.

Growth Problems

Fifty-nine (29.2%) children were identified with growth problems. A binary regression found children having growth problems was predicted by children being Aboriginal and experiencing physical, developmental, medical, cultural and global/multiple neglect subtypes (Model 1). Children being older was a protective factor but still occurred for 15 children over 10-years-old. After the model was adjusted for children's age, gender, and culture, as these were each significant, age and medical and cultural neglect remained individually predictive of having growth problems, with no interaction effect (Table 5-8).

Table 5-8

Binary Logistic Regression Estimates of Child Demographics and Neglect Subtypes Predicting Growth Problems

Predictive variables	Unadjusted OR [95% CI] Model 1	Adjusted OR [95% CI] Model 2
Age (years)	0.888 [0.83 –0.951]***	0.874 [0.806 – 0.946]**
Culture		
Aboriginal	2.185 [1.025 – 4.659]*	–
CALD	.78 [0.257 – 2.366]	–
European	.648 [0.168 – 2.502]	–
Other Indigenous / non-European	1.277 [0.397 – 4.109]	–
Physical neglect	4.634 [1.047 – 20.502]*	–
Developmental neglect	4.148 [1.204 – 14.289]*	–
Medical neglect	4.32 [1.204 – 14.289]***	2.818 [1.24 – 6.400]*
Cultural neglect	2.769 [1.471 – 5.215]**	3.345 [1.56 – 7.172]**
Global/multiple neglect	5.6 [1.645 – 19.062]**	–

Note. Neglect subtypes, reference was no. Culture, reference was Australian non-Indigenous

OR = odds ratio, CI = confidence interval

CALD = culturally and linguistically diverse

*$p < .05$ ** $p < .01$ *** $p < .001$

The survey provided an example of a growth problem as a guide to respondents of the child being small for their age and a small number of respondents provided examples of this and other growth problems. These comments also illustrate the links between being underweight and growth problems: "Eating disorder, delayed growth following starvation before removal from family" (Six-year-old Aboriginal girl, C32); and "Baby was diagnosed with failure to thrive. She is tiny for her age, delayed with starting solids, crawling, and has a problem with the way her head has shaped" (Under one-year-old Australian non-Indigenous girl, P158).

Three professional responses noted the child having failed to thrive, although it was unclear if this was a formal diagnosis. Two professional responses described the child having a

misshapen head along with growth problems. This was also mentioned by Dr Miller in her description of a neglect situation:

> siblings who'd been left in the cot and their whole – the back of their skull was flat because – and this baby didn't cry but the baby had learnt not to cry. Failure to thrive initially and then put on weight. Bottle fed but the bottle was propped up. (Dr Miller)

Figure 5-1 showed that growth problems and being underweight were tightly clustered indicating when one was present the other was likely to be present.

Dental Health Problems

Forty-six (22.8%) children were described with dental health problems ranging from under one-year-old to 17-years-old. A binary regression found children having frequent and/or serious dental health problems was not predicted by any child demographics but was predicted by medical and global/multiple neglect (Model 1) (Table 5-9). Dental neglect was noted as an example of medical neglect in the survey guiding notes. When the model was adjusted for both neglect subtypes as no other variables were significant, only medical neglect remained predictive (Model 2) , so no interaction effects were explored.

Table 5-9

Binary Logistic Regression Estimates of Child Demographics and Neglect Subtypes Predicting Dental Problems

Predictive variables	Unadjusted OR [95% CI] Model 1	Adjusted OR [95% CI] Model 2
Medical neglect	3.177 [1.436 – 7.029]**	3.177 [1.436 – 7.029]**
Global/multiple neglect	3.846 [1.122 – 13.181]*	–

Note. Neglect subtypes, reference was no.

OR = odds ratio, CI = confidence interval

*$p < .05$ ** $p < .01$

Sleep Problems

Sleep problems were the most frequent physical health problem (n = 126, 62.4%) and were described for children under one through to 17-years-old. A binary regression found children having sleep problems was predicted only by medical neglect (OR = 1.866, $p < .05$), and so no other adjustments were made. Four carers commented on sleep, and each referred to children having nightmares or night terrors. For example, "Nightmares, bed wetting particularly during the "Reunification" process" (Nine-year-old boy from a CALD background in Australia, C15).

Three professional surveys, where there was a comment, also mentioned fear and anxiety at night, for example: “Nightmares and extreme fear of being put to rest” (Three-year-old White American boy, P110).

Developmental Problems

The survey had 13 items in the developmental problem domain and 197 (91.2%) children were identified with one or more of these problems. A high percentage of children were identified as having problems in development (91%). The most prevalent developmental problems were impulsivity and attention and/or concentration problems. The least frequent were long-term memory problems and intellectual disability (Table 5-10).

Table 5-10

Frequencies and Percentages of Developmental Problems by Respondent Type

	Professional (n = 181)		Carer (n = 35)		Total (N = 216)	
Child’s problems	N	%	n	%	n	%
Developmental domain	163	90.1	34	97.1	197	91.2
Cognitive (not Intellectual disability)	81	44.8	16	45.7	97	44.9
Intellectual disability	30	16.6	8	22.9	38	17.6
Cognitive problems including intellectual disability#	86	47.5	20	57.1	106	49.1
Not doing as well at school as capable	120	66.3	21	60.0	141	65.3
Attention and/or concentration	128	70.7	27	77.1	155	71.8
Problem-solving	122	67.4	26	74.3	148	68.5
Short-term or working memory	102	56.4	23	65.7	125	57.9
Long-term memory	65	35.9	11	31.4	76	35.2
Impulsivity	128	70.7	28	80.0	156	72.7
Language	95	52.5	18	51.4	113	53.3
Fine motor	73	40.3	15	42.9	88	40.7
Gross motor	71	39.2	21	60.0	92	42.6
Sensory processing	97	53.6	15	42.9	112	51.9
Self-care	98	54.1	19	54.3	117	54.2

Note. # This variable was created during analysis and referred to where a child was described as having a cognitive delay, intellectual disability or both.

Before describing the findings of developmental problems identified in the surveys, the following quote from a carer survey about a six-year-old Aboriginal girl sets the scene on the intersection of many of these problems and areas of progress:

> The child initially presented with significant cognitive delays. The kindergarten teachers thought English was her second language but no other language was spoken. She was assessed as having a severe language delay and still has speech therapy [...] Initially the child had extensive memory problems and found it very difficult to retain new information. This is improving. The child has repressed memories and remembers virtually nothing prior to her removal from family at 4 years and 11 months. The child’s

> fine motor skills were quite behind having limited experience. She is catching up. The child still struggles with impulse control. This has been a significant issue for her - stealing food at home and at school, gaining no pleasure from other experiences such as time with peers etc at school. Has been big problem with psychologist and paediatrician involved. Have been making progress but have had recent set back. This child still has limited and reduced levels of concentration and issues with working memory, many things can interfere with its proper functioning. This child struggled at school at the beginning of the year and was significantly behind. With intensive support and attention, she was at standard by the years end. Coming into our care this child was physically behind the expectations of a child her age but is now close to what where one would hope she would be now. This child speaks in a very considered way, particularly in the school environment to be heard and understood. She has come a long way developmentally with her language but will need the support of speech therapy for some time. This child has made huge milestones in the area of self care and is quite parentified in her behaviour, which is not uncommon of a child from a background of abuse and neglect. (C32)

This Aboriginal girl was described by the carer with a litany of developmental problems including language, cognitive abilities, impulsivity, short-term and long-term memory, fine motor skills, and limited concentration. These occurred along with other emotional, physical, and behavioural problems. She had experienced every form of neglect. The carer's comments however, also indicated the child's progression in achieving milestones whilst recognising she continued to need additional supports. The question explored later in this study, is how can a theory of change best articulate this process of growth and developmental gain, to support carers such as this one and professionals in their work with children like this six-year-old girl.

Examples of problems described in more detail in the next section are cognitive delays, attention and/or concentration problems, language problems, fine and gross motor problems, and sensory processing difficulties.

Cognitive Delays

There were 97 (44.9%) children described with cognitive delays (not including intellectual disability) across all ages. A binary regression found children having cognitive delays was predicted by developmental, medical, cultural, and global/multiple neglect and that being female was a protective predictor (Model 1). When the model was adjusted with other significant variables (gender, child's living situation, and neglect subtypes), children's gender and

global/medical neglect remained individually predictive of them having cognitive delays, with no interaction effect (Table 5-11).

Table 5-11

Binary Logistic Regression Estimates of Child Demographics and Neglect Subtypes Predicting Cognitive Delays

Predictive variables	Unadjusted OR [95% CI] Model 1	Adjusted OR [95%CI] Model 2
Gender	0.461 [0.263 – 0.807]**	0.467 [0.263 – 0.828]**
Developmental neglect	3.634 [1.415 – 9.331]**	–
Medical neglect	1.944 [1.096 – 3.451]*	–
Cultural neglect	2.078 [1.17 – 3.691]*	–
Global/multiple neglect	3.585 [1.554 – 8.268]**	3.902 [1.604 – 9.494]**

Note. Gender, reference was male. Neglect subtypes, reference was no.

OR = odds ratio, CI = confidence interval

*$p < .05$ ** $p < .01$

Cognitive delays were clustered with problems in language and fine and gross motor problems (Figure 5-1).

Attention and/or Concentration Problems

Attention and/or concentration problems was one of the most frequent problems noted for children who experienced neglect (71.8%), and the second most frequently identified developmental problem. These problems were described for children from one to 17-years-old.

A binary regression found children with attention and/or concentration difficulties was predicted by being older and developmental, cultural and global/multiple neglect. Being female was a protective predictor (Model 1). After the model was adjusted for these significant variables combined, only global/medical neglect remained individually predictive of having attention and/or concentration difficulties, and there was no interaction effect. Age was close to significance (p = .052) (Table 5-12).

Table 5-12

Binary Logistic Regression Estimates of Child Demographics and Neglect Subtypes Predicting Attention and/or Concentration Difficulties

Predictive variables	Unadjusted OR [95% CI] Model 1	Adjusted OR [95% CI] Model 2
Age (years)	1.073 [1.006 – 1.144]*	1.068 [0.999 – 1.142]
Gender	0.543 [0.298 – 0.992]*	0.569 [0.305 – 1.063]
Developmental neglect	2.353 [1.055 – 5.247]*	–
Cultural neglect	2.007 [1.017 – 3.961]*	–
Global/multiple neglect	3.443 [1.657 – 7.156]***	3.367 [1.567 – 7.235]**

Note. Gender, reference was male. Neglect subtypes, reference was no.

OR = odds ratio, CI = confidence interval

*$p < .05$ ** $p < .01$ *** $p < .001$

Attention and/or concentration problems was tightly clustered with impulsivity and was nested in a larger cluster with other variables noted to be related to executive functioning, such as problem-solving difficulties, short-term memory problems, and sensory processing problems (Figure 5-1).

Only professionals commented on attention or concentration difficulties in their survey. Comments included children not being able to focus, having difficulty concentrating at school, being inattentive, and being fixated on certain objects and sounds. During expert interviews, Dr Nelson noted attention problems were part of the constellation of symptoms associated with institutional neglect. Dr Miller noted children may be placed on medication for attention problems, rather than understanding implications of neglect on the child's functioning.

Language Problems

Language problems were present in half of the children (n = 113, 52.3%) and reflected across all ages. A binary regression found children having language problems was predicted by developmental neglect. Protective predictors were being older and coming from an Indigenous (other than Australian Aboriginal) or non-European background (Model 1). After the model was adjusted for these significant variables, children's age and developmental neglect remained individually predictive but with no interaction effect (Table 5-13).

Table 5-13

Binary Logistic Regression Estimates of Child Demographics and Neglect Subtypes Predicting Language Problems

Predictive variables	Unadjusted OR [95% CI] Model 1	Adjusted OR [95% CI] Model 2
Age (years)	0.901 [0.848 – 0.957]***	0.919 [0.862 – 0.98]*
Culture		
Aboriginal	0.881 [0.437 – 1.777]	–
CALD	0.808 [0.335 – 1.948]	–
European	0.538 [0.184 – 1.578]	–
Other Indigenous / non-European	0.315 [0.101 – 0.983]*	–
Developmental neglect	2.784 [1.205 – 6.436]*	3.554 [1.324 – 9.537]*

Note. Culture, reference was Australian non-Indigenous. Neglect subtypes, reference was no.

CALD = culturally and linguistically diverse

OR = odds ratio, CI = confidence interval

*$p < .05$ *** $p < .001$

Carers provided examples of language problems including severe language disorders, language delays, being non-verbal, using a very loud voice and difficulties with expressive language. Some examples in the professional surveys related to a perceived link with the child's hearing problems.

Fine Motor Problems

Eighty-eight children (40.7%) were described with fine motor problems across the age-range. A binary regression found children having fine motor problems was predicted by developmental neglect. Protective predictors were children being older, female, and coming from an Indigenous (other than Australian Aboriginal) or non-European background (Model 1). After the model was adjusted for these significant variables, children's age, gender, and developmental neglect remained individually predictive. There was no interaction effect (Table 5-14).

Table 5-14

Binary Logistic Regression Estimates of Child Demographics and Neglect Subtypes Predicting Fine Motor Problems

Predictive variables	Unadjusted OR [95% CI] Model 1	Adjusted OR [95% CI] Model 2
Age (years)	0.886 [0.832 – 0.943]***	0.910 [0.852 – 0.972]**
Gender	0.551 [0.314 – 0.967]*	0.516 [0.276 – 0.965]*
Culture		
Aboriginal	1.378 [0.686 – 2.769]	–
CALD	0.861 [0.352 – 2.111]	–
European	1.072 [0.366 – 3.140]	–
Other Indigenous / non-European	0.197 [0.042 – 0.919]*	–
Developmental neglect	5.097 [1.707 – 15.222]**	7.8 [1.747 – 34.836]**

Note. Gender, reference was male. Neglect subtypes, reference was no. Culture, reference was Australian non-Indigenous.

OR = odds ratio, CI = confidence interval

*$p < .05$ ** $p < .01$ *** $p < .001$

Fine and gross motor problems often co-occurred for the children, as did language problems. Language problems and fine motor problems were tightly clustered in the dendrogram, indicating when one occurred the other was likely (Figure 5-1). Survey comments included: "Had not attended [kindergarten] etc and had not developed … pre literacy/fine motor/gross motor skills" (Four-year-old Australian non-Indigenous girl, C29); and "This child has developmental delays in speech, fine and gross motor skills" (Four-year-old Australian non-Indigenous boy, P60).

In his interview, Dr Perry described aspects of this connection recognising "speech and language is something that develops initially in context of this rhythmic dyadic interaction, and it

involves movement and motor activity - actually the precursor to developing speech and language is using hand signals".

Gross Motor Problems

Gross motor problems were identified for 92 (42.6%) children with 60% of carers describing these difficulties in their survey. An unadjusted binary regression found children having gross motor problems was predicted by the respondent (carer) and by developmental neglect. Children being older was a positive predictor (Model 1) although this problem were described across the age-range. After the model was adjusted by combining these significant variables, children's age and developmental neglect remained individually predictive (Model 2). There was an interaction effect combining age and developmental neglect with age remaining individually significant but not developmental neglect (Model 3) (Table 5-15).

Table 5-15

Binary Logistic Regression Estimates of Child Demographics Predicting Gross Motor Problems

Demographics	Unadjusted OR [95% CI] Model 1	Adjusted OR [95% CI] Model 2	Model 3
Age (years)	0.905 [0.852 – 0.961]**	0.910 [0.856 –0.967]**	0.804 [0.713 – 0.906]**
Respondent	2.234 [1.110 – 4.867]*	–	–
Developmental neglect	4.176 [1.528 – 11.414]**	3.783 [1.366 – 10.477]*	–
Separate interaction effect	–	–	1.142 [1.025 – 1.273]*

Note. OR = odds ratio, CI = confidence interval

Neglect subtypes, reference was no. Respondent, reference was professional

*$p < .05$ ** $p < .01$

Difficulties noted in professional surveys on gross motor problems included gait, tow-walking, unable to walk, not attempting to roll over, and delays in crawling or walking. For example:

> The experiences of neglect has had a profound impact on his development. For the first three years of life, he was kept in a pram and did not […] crawl or walk until he was three. He has anxious preoccupation with food. He has global delay - across all areas of development. (Five-year-old Aboriginal boy, P179)

Sensory Processing Problems

Sensory processing difficulties were identified from the age of one-year-old onwards in half of the children (n = 112, 51.9%). A binary regression on child demographics and neglect subtypes found children having sensory processing problems was only predicted by children being Aboriginal (OR = 2.234, $p < .05$), and so no other adjustments were made.

One professional survey response mentioned sensory issues whilst another described auditory processing problems. A professional survey (P38) on a three-year-old White American boy diagnosed with a sensory processing disorder described: “Emotional arousal results in sensory seeking/avoiding/modulating issues”. A six-year-old White American girl was described as having “extreme physical dysregulation (sic), flippy, jumpy, throwing body around” (P145).

Descriptors of sensory processing problems by respondents included touch sensitivity, even when the survey response indicated no sensory processing problems in the closed-choice item. An example from a carer survey for a young child was that he “didn’t know how to be cuddled” (Two-year-old Australian non-Indigenous boy, C30). Drs Miller and Perry further described touch sensitivity in their interviews: “They can’t be cuddled straight away” (Dr Miller); and “a lot of these kids have touch defensiveness and touch has been an area that’s been typically confusing for them for it has been inconsistent or associated with things that are unhealthy” (Dr Perry).

Attachment and/or Other Relationship Problems

There were 13 items in the online survey that indicated children’s difficulties with attachment or other relationship problems. There were 210 (97.2%) children identified with relationship problems. The most frequently identified problems were children having poor social skills, few friendships, problems with trust, and difficulties understanding others’ emotions (Table 5-16).

Table 5-16

Frequencies and Percentages of Attachment and/or Relational Problems by Respondent Type

	Professional (*n* = 181)		Carer (*n* = 35)		Total (*n* = 216)	
Child’s problems	n	%	n	%	n	%
Attachment and/or other relational difficulties domain	175	96.7	35	100.0	210	97.2
Indiscriminately affectionate	72	39.8	15	42.9	87	40.3
Overly clingy with caregivers	63	34.8	16	45.7	79	36.6
Overly distant from caregivers	82	45.3	9	25.7	91	42.1
Superficial in interactions	106	58.6	22	62.9	128	59.3
Few friendships	125	69.1	20	57.1	145	67.1
Avoids others	53	29.3	16	45.7	61	31.9
Poor social skills	127	70.2	20	57.1	147	68.1
Interacts with peers in antisocial activities	70	38.7	27	77.1	97	44.9
Trusting others	133	73.5	10	28.6	143	66.2
Understanding others’ emotions	119	65.7	23	65.7	142	65.7
Isolates self from others	83	45.9	14	40.0	97	44.9
Empathy	76	42.0	16	45.7	92	42.6
Tries to control others	107	59.1	23	65.7	130	60.2

Attachment and relationship problems described included the child being indiscriminate, superficial in interactions, having few friends, problems in trusting others, and difficulties understanding other people's emotions. Another problem identified through qualitative analysis was the child being invisible.

Indiscriminately Affectionate

Eighty-seven children (40.3%) were described as indiscriminately affectionate across the age-range, except for one-year-olds. A binary regression on child demographics and neglect subtypes found children being indiscriminate was only predicted by gender (female) ($OR = 1.957$, $p < .05$), and so no other adjustments were made.

Carers provided rich descriptions of indiscriminate behaviours without using the term. In one survey a carer made the following comment "offering up love very easily, taking anything and everything he could whenever he could – a matter of survival" (C19). Other carers' comments included: "I believe she craved constant affection and attention and has a high threshold for affection and love, rarely feels or believes that she is loved; because she didn't have a secure attachment to her mother as her primary caregiver" (Three-year-old Australian non-Indigenous girl, C35); and "Has severe attachment issues, looking for men to love her and mother figures to care for her" (17-year-old Australian non-Indigenous young woman, C17).

Professional survey respondents made similar comments on "seeking proximity, limited personal boundaries" along with being indiscriminate. Other professional survey responses described children with disinhibited social engagement, no stranger wariness, or other descriptors consistent with indiscriminate interactions. For example: "Child would approach new workers and strangers with a hug and make bids for their attention continuously in any interaction, rather than approaching her own mother" (Five-year-old Aboriginal boy, P11).

Dr Nelson described indiscriminate behaviour as a common presentation for children who have experienced profound neglect:

> the phenotype for a lot of these kids is indiscriminate behaviour. You'll walk into a room, they've never seen you before. They jump into your lap, they sit in your lap, they jump in your arms, they hold your hand, they walk off with you, any number of things.

Dr Miller, also saw this as a common presentation and pondered if indiscriminate behaviours could be an element of what Dr Perry described as 'flocking' when under stress (e.g., Perry & Winfrey, 2021): "I think the indiscriminate attachment is what comes to mind most, in

families I've worked with. Where the child has learnt… maybe that's flocking… where the child seeks connection wherever, wherever, wherever. No discrimination".

Superficial Interactions with Others

There were 128 children (59.3%) described as having superficial interactions with others, from one to 17-years-old. A binary regression found children being superficial in interactions with others was predicted by being older and cultural neglect (Model 1) and no other demographics. As seen in Table 5-17, children's age and cultural neglect remained individually predictive of being superficial in interactions, when adjusted for these significant variables (Model 2). There was no interaction effect. In other words, being older and experiencing cultural neglect independently predicted children being more superficial when interacting with others. Being superficial was not clustered with other problems (see Figure 5-1).

Table 5-17

Binary Logistic Regression Estimates of Child Demographics and Neglect Subtypes Predicting Being Superficial in Interactions

Predictive variables	Unadjusted OR [95% CI] Model 1	Adjusted OR [95% CI] Model 2
Age (years)	1.145 [1.075 – 1.220]***	1.135 [1.064 – 1.210]***
Cultural neglect	2.326 [1.263 – 4.285]**	1.993 [1.055 – 3.766]*

Note. Neglect subtypes, reference was no.

OR = odds ratio, CI = confidence interval

*$p < .05$ ** $p < .01$

Few Friends

Children having few friendships was one of the most frequently identified relational problems (n = 145, 67.1%), and noted for children from one to 17-years-old. In the binary logistic regression looking at child demographics and neglect subtypes, only being older was predictive of this problem (OR = 1.127, $p < .001$). In the dendrogram (Figure 5-1), having few friendships was part of a cluster with difficulties understanding own or others' emotions, poor social skills, not coping when stressed, emotional dysregulation, and problems trusting others.

Dr Miller posed a question to consider for children who have experienced neglect: Have they ever been invited to a birthday party? The following survey responses illustrate the difficulties in forming or maintaining friendships for a child who experienced neglect:

> I believe she didn't know how to play with other children and with her siblings because she had not been given opportunities to do so previously, and had not be exposed to other children to explore and learn to play when it is more important to make sure your

> baby sister is safe and that you are safe. (Three-year-old Australian non-Indigenous girl, C35)
>
> Child did not learn how to develop good relationships early on therefore has problems connecting with peers. Seeks attention in not acceptable ways and is then frustrated by non acceptance of peers. PTSD causing outburst which other children do not forget nor forgive. (Eight-year-old Aboriginal boy, C21)
>
> She rarely engages socially outside of her immediate family and has, therefore, found it difficult to build social connections in school with her peers as she has not learned about peer dynamics organically and she does not have the same frames of reference as her peers do as they interact with their culture. (10-year-old Irish girl in Republic of Ireland, P121)

Problems Trusting Others

As one of the more frequent relational problems, 143 children (66.2%) across all ages had problems trusting others. A binary regression found children having problems with trust was predicted by being older, whereas the survey being completed by professionals was a positive predictor (Model 1). No other child demographics were significant. When the model was adjusted for these significant variables, children's age and respondent type remained individually predictive (Model 2), with no interaction effect (Table 5-18).

Table 5-18

Binary Logistic Regression Estimates of Child Demographics and Neglect Subtypes Predicting Problems Trusting Others

Predictive variables	Unadjusted OR [95% CI] Model 1	Adjusted OR [95% CI] Model 2
Age (years)	1.162 [1.088 – 1.242]***	1.184 [1.099 – 1.274]***
Respondent	0.144 [0.065 – 0.323]***	0.122 [0.049 – 0.303]***

Note. For neglect subtypes, reference was no. Respondent, reference was professional

OR = odds ratio, CI = confidence interval

***$p < .001$

Several comments by respondents reflected a child's capacity to trust was impacted by their earlier history of neglect: "The child does not trust his mother to keep her word. Often not believing what she says. E.g. she's not drunk. Child says his father hates him and that's on his mind why (sic) does he hate me?" (Ten-year-old boy from a CALD background in Australia, C16).

> I believe her mother being unpredictable, not present and not safe, taught the child not to trust, to be overly cautious of adults, to be scared to be left alone, to 'parent' her

> infant sibling; for the purpose of self preservation and safety. (Three-year-old Australian non-Indigenous girl, C35)

Difficulties Understanding Others' Emotions

There were 142 children (65.7%) with difficulties understanding others' emotions across every age. This was one of the most frequently described relational problems.

A binary regression found children having problems understanding others' emotions was predicted by their age and cultural or global/multiple neglect (Model 1). When the model was adjusted with these significant variables (Model 2), only cultural neglect remained individually predictive, although global/multiple neglect was close to significance (p = .05) (Table 5-19). There was no interaction effect.

Table 5-19

Binary Logistic Regression Estimates of Child Demographics and Neglect Subtypes Predicting Difficulties Understanding Others' Emotions

Predictive variables	Unadjusted OR [95% CI] Model 1	Adjusted OR [95% CI] Model 2
Age (years)	1.070 [1.007 – 1.137]*	1.059 [0.994 – 1.129]
Cultural neglect	2.638 [1.365 – 5.096]**	2.031 [1.011 – 4.079]*
Global/multiple neglect	2.723 [1.324 – 5.601]**	2.144 [1.001 – 4.589]

Note. Neglect subtypes, reference was no.

OR = odds ratio, CI = confidence interval

*p < .05 ** p < .01

Another Relational Problem – Being Invisible

Children being invisible and unheard was a theme that emerged from the online survey responses and interviews. There was a link between neglect and being invisible to others and a link between being invisible and other harms, such as with education and development. There was also a theme on being hidden or hiding themselves due to neglect: "Child is now showing behaviors that indicate child does not feel heard, seen, or is able to trust anyone to not abandon them so they abandon first" (14-year-old White American young man, P105); "There has been no attending to his basic needs, physical and medical care, being seen and heard or understanding around what is safe/unsafe behaviour" (Five-year-old Aboriginal boy, P141); "They were unkempt children, hidden on a farm that was isolated from the community" (15-year-old Australian non-Indigenous young man, P79).

> Socially she became adept at causing as little trouble as possible and helping as much as she was able to the extent that her own needs and interests were difficult to see at the

> time she was taken into care. Her social skills were based on trying to be as helpful or inconspicuous as possible... This level of adaption meant that her school judged her to be on a par with her classmates, whereas her academic l level was in fact almost 2 years behind, her social and emotional development were threatened, and her physical development had stagnated […] She was therefore not getting the support that she needed. (Nine-year-old ethnic Danish girl, P154)

> He did not attend school, had limited role models outside the school and rarely saw other people. He has an intellectual disability, but received no support for this. He did not attend any health services. Effectively he went under the [radar] until he started offending in the community at age 10. (12-year-old Australian non-Indigenous young man, P66)

This theme of not being visible was described by Dr Miller in several ways. She spoke of professionals seeing the problem such as attention, and so providing medication, rather than seeing the child or the neglect. Dr Miller also noted the child being hidden amidst the family's chaos: "Here is this child who has no power, no voice and is being neglected".

Emotional Problems

Emotional problems featured frequently with 208 children (96.3%) identified (every carer survey described a child with emotional problems). The most common were problems with regulating emotions, not coping under stress, expressing emotions, understanding their own emotions, and self-esteem.

Similarities were observed between the carer and professional responses, but larger differences were identified for carers more frequently noting children with problems of self-esteem, self-efficacy, low cultural pride, and being overly compliant. Professionals more frequently identified children with problems in coping when stressed, regulating emotions, and not experiencing or expressing pleasure (Table 5-20).

Table 5-20

Frequencies and Percentages of Emotional Problems by Respondent Type

	Professional (n = 181)		Carer (n = 35)		Total (n = 216)	
Child's problems	n	%	n	%	n	%
Emotional health domain	173	95.6	35	100.0	208	96.3
Understanding own emotions	135	74.6	26	74.3	161	74.5
Self-esteem	125	69.1	30	85.7	155	71.8
Self-efficacy	109	60.2	30	85.7	139	64.4
Difficult to comfort	103	56.9	19	54.3	122	56.5
Not coping with stress	141	77.9	21	60.0	162	75.0

Regulating emotions	147	81.2	24	68.6	171	79.2
Expressing emotions	134	74.0	27	77.1	161	74.5
Experiencing and/or expressing pleasure	77	42.5	11	31.4	88	40.7
Hopelessness	80	44.2	14	40.0	94	43.5
Feels deprived	83	45.9	17	48.6	100	46.3
Lack of remorse	65	35.9	11	31.4	76	35.2
Low cultural pride	42	23.2	14	40.0	56	25.9
Overly compliant	52	28.7	18	51.4	70	32.4

Difficulties Understanding Own Emotions

There were 161 children (74.5%) described with difficulties understanding their own emotions across every age. A binary regression found children having these difficulties was predicted by being older and all neglect subtypes except physical and supervisory neglect (Model 1). After the model was adjusted with these significant variables, only being older and global/multiple neglect remained predictive of children having problems understanding their emotions (Model 2), with no interaction effect (Table 5-21). This is in the same cluster as difficulties understanding others' emotions, and expressing emotions (see Figure 5-1)

Table 5-21

Binary Logistic Regression Estimates of Child Demographics and Neglect Subtypes Predicting Difficulties Understanding Own Emotions

Predictive variables	Unadjusted OR [95% CI] Model 1	Adjusted OR [95% CI] Model 2
Age (years)	1.142 [1.065 – 1.225]***	1.141 [1.060 – 1.228]***
Emotional neglect	4.550 [1.381 – 14.992]*	3.701 [0.84 – 16.298]
Developmental	2.805 [1.250 – 6.296]*	–
Medical neglect	1.879 [1.007 – 3.507]*	–
Cultural neglect	2.129 [1.041 – 4.352]*	–
Global/multiple neglect	4.193 [1.998 – 8.797]***	4.199 [1.863 – 9.463]***

Note. Neglect subtypes, reference was no.

OR = odds ratio, CI = confidence interval

*$p < .05$ ** $p < .01$

Difficult to Comfort

There were 122 children (56.5%) described as difficult to comfort across every age. A binary regression found children being difficult to comfort was predicted by their culture (Aboriginal) and global/multiple neglect (Model 1). After the model was adjusted for these significant variables combined, only global/multiple neglect remained individually predictive of being difficult to comfort (Model 2), and so there was no interaction effect (Table 5-22).

Table 5-22

Binary Logistic Regression Estimates of Child Demographics and Neglect Subtypes Predicting Being Difficult to Comfort

Predictive variables	Unadjusted OR [95% CI] Model 1	Adjusted OR [95% CI] Model 2
Culture		
Aboriginal	2.327 [1.125 – 4.813]*	–
CALD	1.494 [0.617 – 3.613]	–
European	1.825 [0.611 – 5.457]	–
Other Indigenous / non-European	1.408 [0.482 – 4.116]	–
Global/multiple neglect	2.499 [1.206 – 5.179]*	2.316 [1.055 – 5.086]*

Note. Culture, reference was Australian non-Indigenous. Neglect subtypes, reference was no.

OR = odds ratio, CI = confidence interval

*$p < .05$

Survey responses on the child's difficulty in being comforted suggested a link with difficulties in development, such as sensory processing, attachment, and emotional problems: "inability to accept nurture (uncomfortable in being taken care of by carer) and cannot tolerate physical touch" (12-year-old Australian non-Indigenous young man, P63).

> Neglect in child's history and in current placement has contributed to her being very rejecting of comfort. She pushes carers away at times and hides under beds and in small places. She also screams when outside the house, leading to her carer not taking her out any more. (Two-year-old girl, unknown cultural background, P93)

Not Coping when Stressed

There were 162 children (75%) described as not coping when stressed, across all age-ranges with the exception of one-year-olds. This was the second most frequent problem across all areas. A binary regression found children not coping when stressed was predicted by being older and emotional neglect. A protective predictor was the survey respondent being a professional (Model 1). When the model was adjusted with these significant variables combined, all three variables remained individually predictive (Model 2), with no interaction effect (Table 5-23).

Table 5-23

Binary Logistic Regression Estimates of Child Demographics and Neglect Subtypes Predicting Not Coping Under Stress

Predictive variables	Unadjusted OR [95% CI] Model 1	Adjusted OR [95% CI] Model 2
Age (years)	1.149 [1.071 – 1.234]***	1.137 [1.057 – 1.223]***
Respondent	0.426 [0.199 – 0.912]*	0.419 [0.185 – 0.950]*
Emotional neglect	4.677 [1.418 – 15.419]*	4.982 [1.268 – 19.575]*

Note. Neglect subtypes, reference was no. Respondent, reference was professional
OR = odds ratio, CI = confidence interval
*$p < .05$ ***$p < .001$

Professional responses included commentary on a child's difficulty in coping under pressure, poor coping skills, and being overwhelmed, for example:

> Significant unmet emotional and developmental needs, lack of safety and security, presence of physical and emotional harm and neglect. Failure of secure attachment and trust with carers, child grew with fear in an unsafe and unpredictable world, failure to develop healthy ways to relate and connect, poor self-concept as never shown consistent and unconditional love. (Eight-year-old Aboriginal boy, P54)

Emotional Regulation

Problems regulating emotions were found in children (n = 171, 79.2%) across every age. This was the most frequently identified problem across all problems. A binary regression found children having problems with emotional regulation was predicted by being older. A protective predictor was being male (Model 1). Developmental neglect was close to significance ($p = .056$). After the model was adjusted for these significant variables combined, children's age and gender remained predictive (Model 2). There was an interaction effect combining age and gender. Age was no longer significant, and gender remained significant (Model 3) (Table 5-24).

Table 5-24

Binary Logistic Regression Estimates of Child Demographics and Neglect Subtypes Predicting Problems with Emotional Regulation

Demographics	Unadjusted OR [95% CI] Model 1	Adjusted OR [95%CI] Model 2	Model 3
Age (years)	1.090 [1.015 – 1.171]*	1.107 [1.032 – 1.187]**	–
Gender	0.406 [0.207 – 0.796]**	0.416 [0.21 – 0.821]*	0.119 [0.040 – 0.354]***
Separate interaction effect	–	–	1.155 [1.04 – 1.283]**

Note. OR = odds ratio, CI = confidence interval
Gender, reference was male.
*$p < .05$ ** $p < .01$ *** $p < .001$

Terminology used by respondents reflecting emotional dysregulation included outbursts, melt downs, rapid mood shifts, swings, emotional volatility, agitation, and hypersensitivity to threat. There was also a link with tantrums, for example: “Understanding that they may not have ever learnt emotional regulation and therefore their outbursts are an expression they don’t know how to correctly express not a "Bad" behavior” (14-year-old Aboriginal young woman, P59); and “Emotional neglect resulted in learning to conceal and push down emotions - cannot rely on others. When he becomes overwhelming distressed will have a huge emotional outburst including punching walls and destroying property - limited capacity to self regulate” (12-year-old Australian non-Indigenous young man, P63).

Low Cultural Pride

Low cultural pride, the least frequent emotional problem, was described in 56 children (25.9%) aged from three-year-old onwards. A binary regression found children having problems with low cultural pride was predicted by being older, Aboriginal, and experiencing cultural neglect; and the survey respondent being a carer (Model 1). After the model was adjusted for these significant variables in the one model, only cultural neglect remained predictive of children having problems with low cultural pride (Model 2) with no interaction effect (Table 5-25). In other words, cultural neglect was not moderated by other factors in predicting low cultural pride.

Table 5-25

Binary Logistic Regression Estimates of Child Demographics and Neglect Subtypes Predicting Low Cultural Pride

Predictive variables	Unadjusted OR [95% CI] Model 1	Adjusted OR [95% CI] Model 2
Age (years)	1.087 [1.014 – 1.164]*	1.070 [0.994 – 1.151]
Respondent	2.206 [1.033 – 4.714]*	–
Culture		–
Aboriginal	2.630 [1.233 – 5.607]*	–
CALD	1.338 [0.490 – 3.653]	–
European	0.519 [0.108 – 2.484]	–
Other Indigenous / non-European	1.211 [0.350 – 4.184]	–
Cultural neglect	3.242 [1.723 – 6.101]***	2.827 [1.456 – 5.490]**

Note. Culture, reference was Australian non-Indigenous. Respondent, reference was professional. Neglect subtypes, reference was no.

OR = odds ratio, CI = confidence interval

CALD = culturally and linguistically diverse

*$p < .05$ ** $p < .01$ *** $p < .001$

Low cultural pride was in a cluster of health problems and suicidal and self-harming behaviours (Figure 5-1).

Mental Health Problems

Anxiety symptoms was the most common reported mental health problem, followed by posttraumatic symptoms (Table 5-26). There were 80.6% of children (n = 174) identified with one or more mental health problems—the second least frequent type of problem in this study. No carer responses identified children with alcohol and/or other drugs problems.

Table 5-26

Frequencies and Percentages of Mental Health Problems by Respondent Type

	Professional (n = 181)		Carer (n = 35)		Total (N = 216)	
Child's problems	n	%	n	%	n	%
Mental health domain	146	80.7	28	80.0	174	80.6
Anxiety symptoms	124	68.5	23	65.7	147	68.1
Depression symptoms	81	44.8	11	31.4	92	42.6
Posttraumatic stress symptoms	106	58.6	20	57.1	126	58.3
Dissociation	93	51.4	16	45.7	109	50.5
Alcohol and/or other drugs	28	15.5	0	0	28	13.0
Suicidal thoughts and/or behaviours	34	18.8	4	11.4	38	17.6
Self-harming behaviours	53	29.3	13	37.1	66	30.6
Mental health requiring frequent and/or ongoing medication	58	32.0	8	22.9	66	30.6

Anxiety

There was a total of 147 children (68.1%) identified with anxiety symptoms. A binary regression found children having problems with anxiety was predicted by being older and global/multiple neglect (Model 1). Nonetheless, anxiety symptoms were noted for children of every age, including infancy. When the model was adjusted for these significant variables, both age and global/multiple neglect remained predictive of problems with anxiety (Model 2), with no interaction effect (Table 5-27).

Table 5-27

Binary Logistic Regression Estimates of Child Demographics and Neglect Subtypes Predicting Anxiety Symptoms

Predictive variables	Unadjusted OR [95% CI] Model 1	Adjusted OR [95% CI] Model 2
Age (years)	1.172 [1.094 – 1.255]***	1.172 [1.094 – 1.256]***
Global/multiple neglect	2.076 [1.008 – 4.276]*	2.192 [1.002 – 4.794]*

Note. Neglect subtypes, reference was no.

OR = odds ratio, CI = confidence interval

*$p < .05$ *** $p < .001$

Anxiety, dissociation and posttraumatic stress were in the one cluster (Figure 5-1). Survey responses mentioned anxiety presenting with eating behaviours, attachment problems, and fire

lighting, for example: “He had a huge need to control his environment and this helps him manage his anxiety, though it doesn’t really” (Ten-year-old Aboriginal boy, P138); and “Had anxiety and sleep problems. This impacted on child’s ability to interact socially and fear of failure which in turn fuels the anxiety” (Nine-year-old Australian non-Indigenous girl, P92).

Depression

Depression was identified in 92 children (42.6%). A binary regression found children having depressive symptoms was predicted by being older, Aboriginal, and cultural neglect (Model 1). Children aged from three-years-old onwards were described with these symptoms. When the model was adjusted with these significant variables, being older and Aboriginal remained individually predictive of children having problems with depression (Model 2), with no interaction effect (Table 5-28).

Table 5-28

Binary Logistic Regression Estimates of Child Demographics and Neglect Subtypes Predicting Depression Symptoms

Predictive variables	Unadjusted OR [95% CI] Model 1	Adjusted OR [95% CI] Model 2
Age (years)	1.212 [1.130 – 1.300]***	1.240 [1.146 – 1.342]***
Culture		
Aboriginal	2.054 [1.014 – 4.160]*	2.981 [1.333 – 6.665]**
CALD	0.778 [0.304 – 1.99]	0.612 [0.223 – 1.678]
European	2.250 [0.765 – 6.619]	2.281 [0.682 – 7.627]
Other Indigenous / non-European	1.361 [0.463 – 4.004]	1.288 [0.393 – 4.218]
Cultural neglect	2.212 [1.243 – 3.934]**	–

Note. Culture, reference was Australian non-Indigenous. Neglect subtypes, reference was no.

OR = odds ratio, CI = confidence interval

CALD = culturally and linguistically diverse

*$p < .05$ ** $p < .01$

The only item that depression was clustered with in the dendrogram was the child’s mental health requiring medication (Figure 5-1).

Dr. Perry spoke of being influenced by the work of others, such as René Spitz, on types of depression associated with emotional neglect. He noted that in terms of depression, children who “have had various forms of emotional neglect and chaos presented very differently than the kids that were basically had had a decent life and then experienced some form of trauma”.

Posttraumatic Stress Symptoms

There were 126 children (58.3%), aged from two-years-old onwards, identified with posttraumatic stress symptoms. A binary regression, however, found having posttraumatic stress symptoms was predicted by children being older and global/multiple neglect (Model 1). When the model was adjusted for these significant variables, children's age and global/multiple neglect remained individually predictive (Model 2). There was an interaction effect combining age and global/multiple neglect. Age and global/multiple neglect were no longer significant on their own and so their effect appears to have been moderated through the interaction (Model 3) (Table 5-29).

Table 5-29

Binary Logistic Regression Estimates of Child Demographics and Neglect Subtypes Predicting Posttraumatic Stress Symptoms

Predictive variables	Unadjusted OR [95% CI] Model 1	Adjusted OR [95% CI] Model 2	Interaction effect Model 3
Age (years)	1.115 [1.049 – 1.185]***	1.119 [1.050 – 1.192]***	–
Global/multiple neglect	3.161 [1.508 – 6.626]**	3.389 [1.565 – 7.335]**	–
Separate interaction effect	–	–	1.100 [1.044 - 1.160]***

Note. OR = odds ratio, CI = confidence interval

Neglect subtypes, reference was no.

*$p < .05$ ** $p < .01$ *** $p < .001$

The following survey response from a psychologist illustrated some ways neglect can result in posttraumatic stress symptoms:

> Youth was not adequately cared for or supervised as a child and was subsequently sexually assaulted by various family members throughout her childhood before child welfare involvement. Lack of supervision, cultural neglect and sexual trauma has contributed to the youth's challenges with disassociation, isolation, PTSD symptoms, and risk taking sexual behaviors. (12-year-old Bengali young woman living in USA, P146)

Dissociation

There were 109 children (50.5%), aged from two-years-old onwards, identified with dissociative symptoms. A binary regression found children with dissociative symptoms was predicted by being older, cultural neglect, and global/multiple neglect (Model 1). After adjusting the model by combining these significant variables, children's age and global/multiple neglect remained individually predictive (Model 2), with no interaction effect (Table 5-30).

Table 5-30

Binary Logistic Regression Estimates of Child Demographics and Neglect Subtypes Predicting Dissociative Symptoms

Predictive variables	Unadjusted OR [95% CI] Model 1	Adjusted OR [95% CI] Model 2
Age (years)	1.087 [1.025 – 1.153]**	1.075 [1.012 – 1.142]**
Cultural neglect	2.275 [1.270 – 4.074]**	–
Global/multiple neglect	3.341 [1.527 – 7.311]**	3.409 [1.530 – 7.595]**

Note. Neglect subtypes, reference was no.

OR = odds ratio, CI = confidence interval

** $p < .01$

The following response from a professional survey suggested a possible function of dissociation for a ten-year-old Irish girl:

> the unintended emotional neglect has led this child to 'switch off' and dissociate from the world around her, instead she remains in her own world within her mind most of the time. In this way, the initial neglect in infancy has snowballed into an array of health, academic, social, cultural and mental health issues. (P121)

Behavioural Problems

Behavioural problems were found in 188 children (87%). The most common problem identified was defiance, followed by aggression or violence, and fire lighting was identified the least (Table 5-31).

Table 5-31

Frequencies and Percentages of Behavioural Problems by Respondent Type

	Professional (n = 181)		Carer (n = 35)		Total (n = 216)	
Child's problems	*n*	%	*n*	%	*n*	%
Behavioural domain	156	86.2	32	91.4	188	87.0
Defiance	115	63.5	23	65.7	138	63.9
Aggression or violence	96	53	22	62.9	118	54.6
Criminal activities	31	17.1	4	11.4	35	16.2
Runs away	61	33.7	11	31.4	72	33.3
Lighting fires	15	8.3	2	5.7	17	7.9
Sexual behaviours placing self at risk	36	19.9	1	2.9	37	17.1
Sexual behaviours placing others at risk	27	14.9	4	11.4	31	14.4
Risk taking, sensation seeking behaviours	77	42.5	16	45.7	93	43.1
Frequent and/or ongoing tantrums	75	41.4	24	68.6	99	45.8

Aggression or Violence

There were 118 (54.6%) children described as using aggression or violence, across the age-range. A binary regression found children showing aggression or violence was predicted by being Aboriginal, and supervisory and global/multiple neglect. Being female was a protective factor (Model 1). When the model was adjusted by combining these significant variables, gender and global/multiple neglect remained individually predictive (Model 2). There was an interaction effect combining gender and global/multiple neglect. Gender was no longer significant on its own (Model 3) (Table 5-32).

Table 5-32

Binary Logistic Regression Estimates of Child Demographics and Neglect Subtypes Predicting Aggression or Violence

Predictive variables	Unadjusted OR [95% CI] Model 1	Adjusted OR [95% CI] Model 2	Model 3
Gender	0.448 [0.258 – 0.779]**	0.418 [0.231 – 0.757]**	–
Culture			–
Aboriginal	2.566 [1.255 – 5.332]*	–	–
CALD	0.939 [0.390 – 2.257]	–	–
European	1.408 [0.482 – 4.116]	–	–
Other Indigenous / non-European	1.095 [0.377 – 3.179]	–	–
Supervisory neglect	2.150 [1.034 – 4.473]*	–	–
Global/multiple neglect	3.025 [1.429 – 6.405]*	3.26 [1.383 – 7.682]**	5.968 [2.564 – 13.890]***
Separate interaction effect	–	–	11.935 [3.225 – 44.173]***

Note. OR = odds ratio, CI = confidence interval

Gender, reference was male. Culture, reference was Australian non-Indigenous. Neglect subtypes, reference was no.

CALD = culturally and linguistically diverse

*$p < .05$ ** $p < .01$ *** $p < .001$

Aggression or violence was clustered with tantrums, controlling others, and defiance (Figure 5-1). Several surveys drew links between aggression, tantrums, and emotional dysregulation, family violence and neglect, for example:

> Child was also exposed to ongoing serious domestic violence in the home. Parent kept weapons available to protect her safety. Children were neglected due to parent's mental health needs including depression. Parent slept a lot; child I have identified was the oldest in the home and was responsible for taking care of two younger sibs. Child became jealous of younger sibling (2yo) when got attention. 5 yo (sic) child attempted to kill

> sibling with a serious weapon; seemed deliberate as when she saw her sibling after hospital discharge, 5yo attempted to stomp on the wound to further cause harm. (Five-year-old African American girl, P81)
>
> Lack of emotional attunement/secure attachment resulted in aggressive behaviours which serve to have needs met - i.e., "no one responds to my needs when I'm sad/hurt/vulnerable, but I always get a reaction when I'm angry/violent". Witnessing and experiencing significant family violence [led] to mimicking the behaviours that were modelled by her violent father. Lack of supervision, developmentally-appropriate boundaries and emotional attornment (sic) have resulted in child feeling uncontained and unstable and having a narrow window of tolerance. She rapidly becomes highly dysregulated (parent is unable [to] attune to and support emotional regulation) and has explosive and violent tantrums. (Nine-year-old Australian non-Indigenous girl, P12)

Risk-taking

Ninety-three children (43.1%) were described as having risk-taking or sensation seeking behaviours, from three-years-old onwards. A binary regression found children having risk-taking behaviours was predicted by being older, Aboriginal, and cultural neglect (Model 1). After the model was adjusted by combining these significant variables, children's age, culture, and cultural neglect remained individually predictive (Model 2), with no interaction effect (Table 5-33).

Table 5-33

Binary Logistic Regression Estimates of Child Demographics and Neglect Subtypes Predicting Risk-Taking

Predictive variables	Unadjusted OR [95% CI] Model 1	Adjusted OR [95% CI] Model 2
Age (years)	1.109 [1.043 – 1.179]***	1.12 [1.042 – 1.204]**
Culture		
Aboriginal	2.692 [1.313 – 5.52]**	2.297 [1.023 – 5.158]*
CALD	0.802 [0.321 – 1.999]	0.476 [0.174 – 1.305]
European	0.505 [0.151 – 1.692]	0.422 [0.117 – 1.525]
Other Indigenous / non-European	0.688 [0.220 – 2.152]	0.469 [0.137 – 1.601]
Cultural neglect	3.333 [1.848 – 6.011]***	2.751 [1.371 – 5.517]**

Note. Culture, reference was Australian non-Indigenous. Neglect subtypes, reference was no.

CALD = culturally and linguistically diverse

OR = odds ratio, CI = confidence interval

*$p < .05$ ** $p < .01$

Tantrums

Ninety-nine children (45.8%) were described as having frequent, severe or pervasive tantrums from the age of one to 17-years-old. A binary regression found children having severe tantrums was predicted by being Aboriginal, and the survey respondent being a carer. Being older was a protective predictor (Model 1). When the model was adjusted by combining these significant variables, as seen in Table 5-34, children's age, culture, and respondent type remained individually predictive (Model 2), with no interaction effect.

Table 5-34

Binary Logistic Regression Estimates of Child Demographics and Neglect Subtypes Predicting Severe Tantrums

Predictive variables	Unadjusted OR [95% CI] Model 1	Adjusted OR [95% CI] Model 2
Age (years)	0.939 [0.885 – 0.995]*	0.936 [0.878 – 0.999]*
Culture		
Aboriginal	2.471 [1.211 – 5.04]*	2.679 [1.275 – 5.630]**
CALD	1.767 [0.732 – 4.265]	1.656 [0.651 – 4.214]
European	0.688 [0.220 – 2.152]	0.905 [0.281 – 2.914]
Other Indigenous / non-European	0.688 [0.220 – 2.152]	0.895 [0.278 – 2.880]
Respondent	3.084 [1.424 – 6.677]**	3.324 [1.366 – 8.090]**

Note. Culture, reference was Australian non-Indigenous. Respondent, reference was professional.

Neglect subtypes, reference was no.

OR = odds ratio, CI = confidence interval

CALD = culturally and linguistically diverse.

*$p < .05$ ** $p < .01$

Latent Class Analysis

Latent class analysis (LCA) was undertaken using R Studio (v4), to ascertain if there were distinct subgroups or classes within the cohort of 216 children, according to their presenting problems. Based on goodness-of-fit statistics, especially the lowest Bayesian Information Criterion (BIC; Weller et al., 2020), I concluded Model 4 with four classes was the best fitting model (Table 5-35). This was supported by using mean posterior probabilities which indicate how well a model could classify the 216 children into their most likely class, where values above 0.70 indicate well separated classes (Nylund-Gibson & Choi, 2018). For the four classes created, the mean posterior probability was 0.97 for Class 1, 0.92 for Class 2, 0.81 for Class 3 and 0.99 for Class 4.

Table 5-35

Presenting Problems for Children Goodness-of-Fit Indices for Latent Class Models

Number of classes	Log-likelihood#	resid-df	BIC#	aBIC#	CAIC#	likelihood-ratio†	Entropy‡
Model 1	-8876.155	146	18128.58	17906.76	18198.58	14614.29	-
Model 2	-7965.857	75	16689.63	16242.82	16830.63	12881.49	0.950
Model 3	-7646.678	4	16433.32	15761.52	16645.32	12268.30	0.961
Model 4	**-7438.289**	**-67**	**16377.78**	**15481.00**	**16660.78**	**11836.66**	**0.944**
Model 5	-7308.331	-138	16519.51	15397.74	16873.51	11604.61	0.990
Model 6	-7198.848	-209	16682.19	15335.43	17107.19	11400.30	0.980

Note. 70 presenting problems for children. Missing data for 14 carer surveys about children's physical health problems.

resid-df = residential degrees of freedom

#Lower Log-likelihood, BIC (Bayesian Information Criterion), sample-size adjusted Bayesian Information Criterion (aBIC) and consistent Akaike information criterion (CAIC) values indicate better fit.

‡Entropy should be > 0.8, with values closer to 1 indicating a better fit.

†Bootstrap likelihood ratio test indicates an improved fit compared to a model with k–1 latent class.

The smallest number of children (n = 39) were reflected in Class 1, which was the class with the fewest problems (Table 5-36). The other three classes were similar in size (58 to 60 children) and each reflected the children having many problems. Since all children (n = 216) were described by respondents as having experienced serious neglect, all four classes involved highly vulnerable children. These classes made conceptual sense and were plausible thus aligned to the recommended criterion (Weller et al., 2020).

Table 5-36

Frequencies and Percentages of Children Described by Survey Type within Each Class (n = 216)

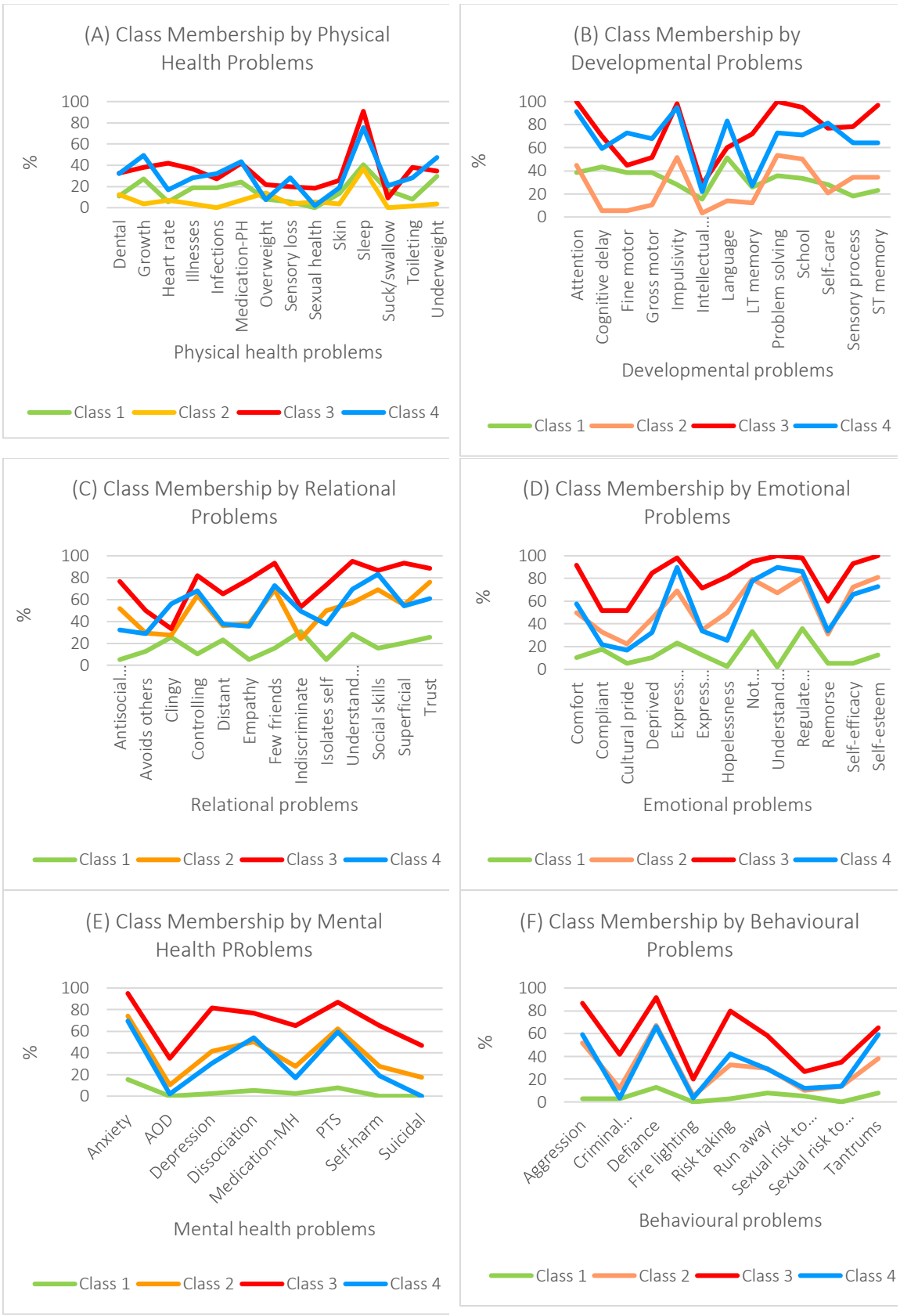
Classes	Descriptor	Professionals	Carers	Total
Class 1	Fewest problems	35 (19.3)	4 (11.4)	39 (18.1)
Class 2	Many problems – especially social-emotional	50 (27.6)	8 (22.9)	58 (26.9)
Class 3	Most problems	51 (28.2)	9 (25.7)	60 (27.8)
Class 4	Many problems – especially developmental	45 (24.9)	14 (40.0)	59 (27.3)

Note. ( ) = percentage

Figure 5-3 depicts a graphical representation of the four-class model using the LCA. The six graphs present the LCA results for the six domains. Each graph presents the possible problems in that domain by the percentage of children with that problem. Each line represents one of the four classes. For example, Graph A shows that children in Classes 3 and 4 were more likely to have physical health problems than children in the other classes.

Figure 5-3

Latent Profiles of Children's Problems



Even though Class 1 is described as having the fewest problems, the 35 children classified as being in Class 1 had more physical health and developmental problems (see Graph B, Figure 5-3) than children in Class 2. Nonetheless, children in Class 1 had fewer problems across most domains than other children exposed to neglect. Even though they had fewer problems, 40.5% had sleep difficulties, 51.3% had language problems, 30.8% had indiscriminate behaviours, 35.9% had problems regulating their emotions, and 33.3% had difficulties coping under stress. Relatively few children in Class 1 had mental health or behavioural problems. This illustrates that Class 1 were still likely to have difficulties that could impact on their life but were less likely to come to the attention of others, such as through difficult behaviours.

The 50 children in Class 2 were the least likely to have problems with physical health and development than other children described in the surveys. Nonetheless, 36.8% of children in Class 2 had sleep problems, 53.4% had difficulties problem-solving, 51.7% were impulsive, 50% were not presenting as well at school as they were deemed capable of doing, 44.8% had problems with attention and concentration, 34.5% had sensory processing difficulties and 34.5% had short-term memory problems. In contrast to these domains, 50% or more had many relational and emotional problems. They were therefore described as having "Many problems – especially socioemotional". In particular, 81% had problems with self-esteem and regulating emotions, 79.3% had problems coping under stress, 72.4% had problems with self-efficacy, and 69% had problems expressing emotions. In terms of relationships, 75.9% of children in Class 2 had problems trusting others, 69% had few friends and poor social skills, and 63.8% were controlling of others. Class 2 were also the second highest class to have mental health problems, such as anxiety (74.1%), posttraumatic stress (62.1%), and depression (50%). Children in Class 2 were fairly similar to children in Class 4 with behavioural problems.

Children in Class 3 were the most straightforward to describe as these 51 children had the highest number of problems across all domains and 65 out of 70 problems (92.9%). Even though they had fewer physical health problems than in other domains they had more than children in the other classes. For example, 90.9% of children in Class 3 had sleep problems, 41.8% had atypical heart rate and required medication for their health, 38.2% had growth problems, and 38.2% had toileting problems. One-hundred percent of the children in Class 3 had some problems; namely problems with attention and concentration, problem-solving, self-esteem, and understanding their own emotions. Over 90% of these children had difficulties with impulsivity (98.3%), expressing emotions (98.3%), regulating emotions (98.3%), short-term memory (96.7%), understanding others' emotions (95%), not coping when stressed (95%), superficial in interactions (93.3%), few friendships (93.3%), self-efficacy (93.3%), being difficult to comfort (91.7%), symptoms of anxiety (95%), and defiant behaviours (91.7%).

Children in Class 4 had many difficulties in common with children in Class 2 but were consistently more likely to have problems in the developmental domain and had slightly fewer mental health problems. Class 4 had more children with every developmental problem compared to children in Class 1 and 2 and even had more than Class 3 in terms of fine and gross motor problems, language, and self-care. The only other domain where this occurred was in the relational domain, where children in Class 4 were more likely to be overly clingy with caregivers than children in the other classes including Class 3. In terms of development, 94.9% of children in Class 4 had problems with impulsivity, 91.5% had problems with attachment or concentration, 83.1% had language problems, 81.4% had difficulties with self-care, 72.9% had difficulties with fine motor skills and problem-solving, and 71.2% were not doing as well at school as they could. In other domains, 89.8% had problems with expressing emotion and understanding their own emotions, 86.4% had problems with regulating emotions, 83.1% had problems with social skills, and 78% had difficulties coping when stressed.

The four classes of children with these different combinations of presenting problems will be analysed in the next chapter in relation to interventions. More specifically, these classes will be used to consider the implications for a theory of change. For example, a theory of change for Class 1 with few overt problems but some health and developmental difficulties, may be more straightforward compared to Class 3 who had problems in every domain. Even Classes 2 and 4 present different challenges when thinking about a theory of change.

I conducted a multinomial logistic regression to examine the relationship between the child demographics and the LCA classes and found the unadjusted model by age was predictive for membership in Class 2 and Class 3, with older children more likely to be in those classes. Being female was a protective predictor for being in Class 3 and Class 4. Children's culture was not a significant predictor of class membership. Neglect subtypes that predicted membership of classes were supervisory, cultural, and global/multiple neglect that each predicted membership in Class 3 and Class 4. Once adjusted by combining the significant variables, only age and global/multiple neglect remained predictive. Being older was predictive of membership in Class 2 and 3 and global/multiple neglect was predictive of being in Class 3 and 4 (Table 5-37).

Table 5-37

Unadjusted and Adjusted Multinomial Logistic Regression Estimates of Child Demographics and Neglect Subtypes Predicting Class Membership

Unadjusted Regression			
	Class 2 OR [95% CI]	Class 3 OR [95% CI]	Class 4 OR [95% CI]
Age (years)	1.396 [1.240 – 1.571]***	1.469 [1.298 – 1.663]***	1.104 [0.995 – 1.225]
Gender	0.562 [0.247 – 1.280]	0.530 [0.234 – 1.202]	0.427 [0.187 - 0.977]*
Supervisory neglect	1.506 [0.586 – 3.868]	2.974 [1.038 – 8.521]*	3.470 [1.161 – 10.374]*
Cultural neglect	1.595 [0.582 – 4.366]	4 [1.528 – 10.471]**	2.718 [1.027 – 7.194]*
Global/multiple neglect	1.313 [0.544 – 3.165]	7 [2.080 – 23.553]**	6.875 [2.042 – 23.144]**
Adjusted Regression			
Age (years)	1.389 [1.230 – 1.567]***	1.450 [1.274 – 1.650]***	1.083 [0.969 – 1.209]
Global/multiple neglect	1.594 [0.459 – 5.530]	9.119 [1.731 – 48.027]**	4.938 [1.246 – 19.574]*

LCA class reference was Class 1.

Gender, reference was male; neglect subtypes, reference was no.

OR = odds ratio, CI = confidence interval

*$p < .05$ ** $p < .01$ *** $p < .001$

Mechanisms of Harm – How Neglect Contributed to these Problems

The online survey asked respondents whether they believed the children's experience of neglect contributed to their problems (closed question). 'Yes' was selected in 206 responses (95.4%), 'maybe' was selected in eight (3.7%), and 'no' in two (0.9%). Another open survey question asked respondents for their opinion on how serious neglect contributed to the problems they had described for the particular child. I explored with the four experts their views on possible mechanisms for how neglect contributes to harm for children.

Mechanisms of Harm According to the Experts

Dr Dubowitz considered the question of mechanisms of harm or mediating factors by reflecting on "what have we learnt in the last actually 60 to 70 years of important needs that children have?". Consistent with his definition of neglect focusing on children's unmet needs, Dr Dubowitz gave examples of priority needs depending on factors such as children's age and living situation. He drew links with neuroscience, child development, attachment, and physical necessity and argued that one missed need could encompass numerous mechanisms and demonstrated the interweaving of theoretical frameworks in understanding neglect:

> let's pick a priority. So, they need to have a healthy secure attachment – so they know that there is a parent who has their back. And if they're hungry or need a diaper changed or they are unhappy that their feelings are responded to and helped. So, we've learned a great deal about how crucial it is to have that healthy secure attachment for further development and if that is not there what the consequences can be for one's mental

> health or future relationships, trust in others. So, it's going to vary a lot about what are those specific needs. You know that's just one example. Nutrition could be a quite different one. And so this is particularly when they're young and it's a time that's terribly important and their brain is growing and developing […] especially if the kid is severely undernourished, how that can impede their healthy brain development […] My answer to the question, I think, hinges on if we consider the kind of needs that are more important for children. 'What happens when those different needs are not adequately met?' So, there is quite an array of mechanisms and outcomes even with nutrition arguably you can have quite different effects depending on which specific nutrients might be missing. (Dr Dubowitz)

When describing the evolution of his interest in neglect, Dr Perry recalled his early interest in exploring mechanisms for developmental problems. He combined his understanding of unmet needs, neuroscience, attachment, and development. As reflected in many publications (e.g., Perry, 2008), Dr Perry noted depending on which neurodevelopmental system was being organised at the time the child experienced the absence of a necessary developmental experience, that system would not have the opportunity to become sufficiently organised. The emphasis on younger children was due to this being the age when most systems are in this organising period of development and influencing other functions:

> if you have the first couple of years or a couple of months of life where you're not neglected where there's consistent predictable nurturing attuned caregiving, these systems develop in a way that will allow that individual to demonstrate an element of resilience in the face of subsequent stress, or worse chaos, etc., etc. Unfortunately if the first couple months of life when all systems are really organizing and when in particular the interpersonal interactions with a caregiver are part of that crucial organizing experience when that is characterized by neglect or chaos or inconsistency, those systems don't develop normally and even if after this early period a child gets in to a healthy non-neglectful environment their ability to take advantage of that is compromised because these systems are more disorganized and more dysregulated. (Dr Perry)

Dr Nelson also offered a neuroscientific explanation of mechanisms of harm from neglect. Using a metaphor, he illustrated the absence of experiences leading to the absence or abnormal neurodevelopment:

> So, brain development after birth is heavily dependent on experience. One of the things that happens is that you build circuits, so the brain overproduces neurons and overproduces synapses, and they start to assemble in a crude way but they're basically awaiting a set of instructions from the environment to assemble correctly. So, you're going to build a system in the brain that allows you to recognise faces or to recognise speech sounds or any number of things, those things are experience dependent. So, the harm is the fact that it is though the instructions aren't given. So, imagine administering a test to students but you don't give them any instructions right or I hand you a squash racquet, but I don't tell you how to play squash. […] So, in the end it's a lack of instructions that causes harm and the harm is due to the miswiring of circuits or even worse the lack of wiring. So, it could be both circuits don't get built or they get built incorrectly. (Dr Nelson)

Dr Miller's comments echoed other experts on mechanisms of harm and referred to the absence and lack of experiences:

> It's the sensory engagement with the child. It's the lack of attuned attachment stimulating behaviours from the parent. So, this child is alone in the world, and we know children need that nurture and it's the stroking, the engagement, the talking, the eye contact. (Dr Miller)

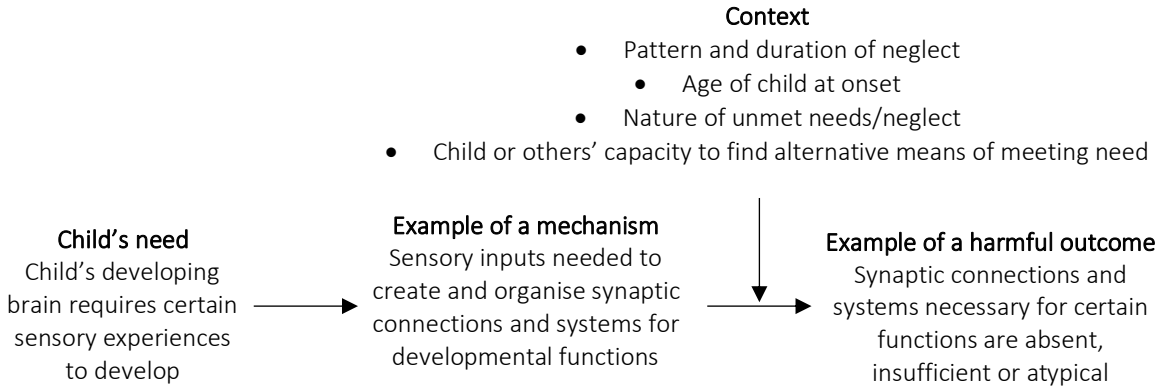
Dr Miller's description of the implications of physical and medical neglect demonstrated a cascading mechanism of harm:

> The child was forever scratching their bottom and the faecal material […} and then they'd scratch their ear and that grew this infection in the ear, and you know that was never put together. And the medical neglect meant the child was then deaf. Of course, the child's learning, the child's whole affect was – that was just one aspect […] Then I think about adolescents who've been neglected with teeth rotting in their head. I think of babies with coke bottles – coke in their bottles propped up and the V from the teeth from the coke bottle had rotted their teeth. (Dr Miller)

Figure 5-4 depicts a conceptual drawing of a neurobiological mechanisms of harm from neglect informed by these interviews. For every unmet child need there are likely to be multiple mechanisms, influenced by multiple contexts leading to multiple outcomes.

Figure 5-4

Conceptual Example of a Neurobiological Mechanism of Harm from Neglect



Moderating Factors According to the Experts

Pre-birth Factors

The four experts described one or more pre-birth factors that moderated children's vulnerability or hardiness in the face of neglect including epigenetics, genetics, and intrauterine experiences. Epigenetics was mentioned by Drs Perry, Nelson, and Dubowitz, with Drs Perry and Nelson recommending caution given the challenges with research in this field, although they did not go in to detail. Dr Miller mentioned transgenerational trauma especially for Aboriginal children, which was implicated in epigenetics research (O'Neill et al., 2018).

Drs Perry and Nelson mentioned genetic factors can impact vulnerability or hardiness. Dr Perry made a similar cautionary note as he did with epigenetics: "People like to jump to genetics as really, you know, 'That's resilience and that's protected'. But I think that we don't know yet the ways in which genetics either make you vulnerable or hardy" (Dr Perry).

Intrauterine insults (e.g., alcohol or other toxic experiences) were referred to by Drs Perry and Nelson as having implications for the degree in which the child was able to tolerate neglect. For example, "the intrauterine environment and your intrauterine experiences will influence how you as an infant are able to negotiate the world" (Dr Perry). As previously noted, 14 online survey responses included a child who experienced intrauterine adversities such as exposure to maternal substance abuse and family violence.

Pattern and Timing of Neglect and other Adversities

Several factors were mentioned by the experts pertaining to the pattern of neglect or other adversities, including age at onset, duration, frequency, and dosage. Age of onset of neglect

was mentioned by Drs Nelson, Perry, and Dubowitz. Drs Perry and Nelson described the neurodevelopmental concept of critical periods. For example:

> this is the whole issue of critical periods. How the harms of neglect in part varies as a function of when the neglect occurred. So, if the neglect occurs very early in life, say from the very beginning of life, then there's the risk that development as a whole will be derailed and almost every domain of development will be impacted. If neglect occurs later outside of, once a critical period is closed […] then the effects may be less significant. (Dr Nelson)

Another aspect of timing is the duration of neglect. How old was the child, for example, when: (1) neglect ceased; (2) their needs were met; and (3) what was the lag period in-between. Dr Miller spoke of needing to know "the timing of what happened when for this child and how long did it go on for". Dr Perry stated important factors to consider were: "One is the timing. The other one is the pattern, and third really is the quality of experience that all contributes to whether or not the potential's expressed".

The experts referred to the amount and frequency of the neglect experiences and severity. Another moderating factor was the neglect subtype. Dr Nelson summed this up when he said: "Different domains are differentially impacted by different forms of neglect at different points of time". Dr Dubowitz also discussed this issue, suggesting: "In terms of severity. Well that's going to depend on the specific type or subtype of neglect and the circumstances".

Relational Factors

Drs Perry, Miller, and Dubowitz spoke of the absence of connection with others and lack of relational buffers for the child to moderate the impact of neglect. Dr Perry spoke of whether the child had a relational anchor during neglect. If not, then more harms were more likely. "I think that most clinicians would agree with this in their own sort of catalogue of experiences, that […] the quality and the density of relational experiences make a difference in how the child does in the present" (Dr Perry). Examples of significant others included another parent, extended family, friends, and neighbours.

Dr Miller mentioned the child's connection to culture as a key feature and Dr Perry described that it was not just about whether the child had access to a good enough parent but whether they had access to a "good enough collective".

Analysis Across Sources

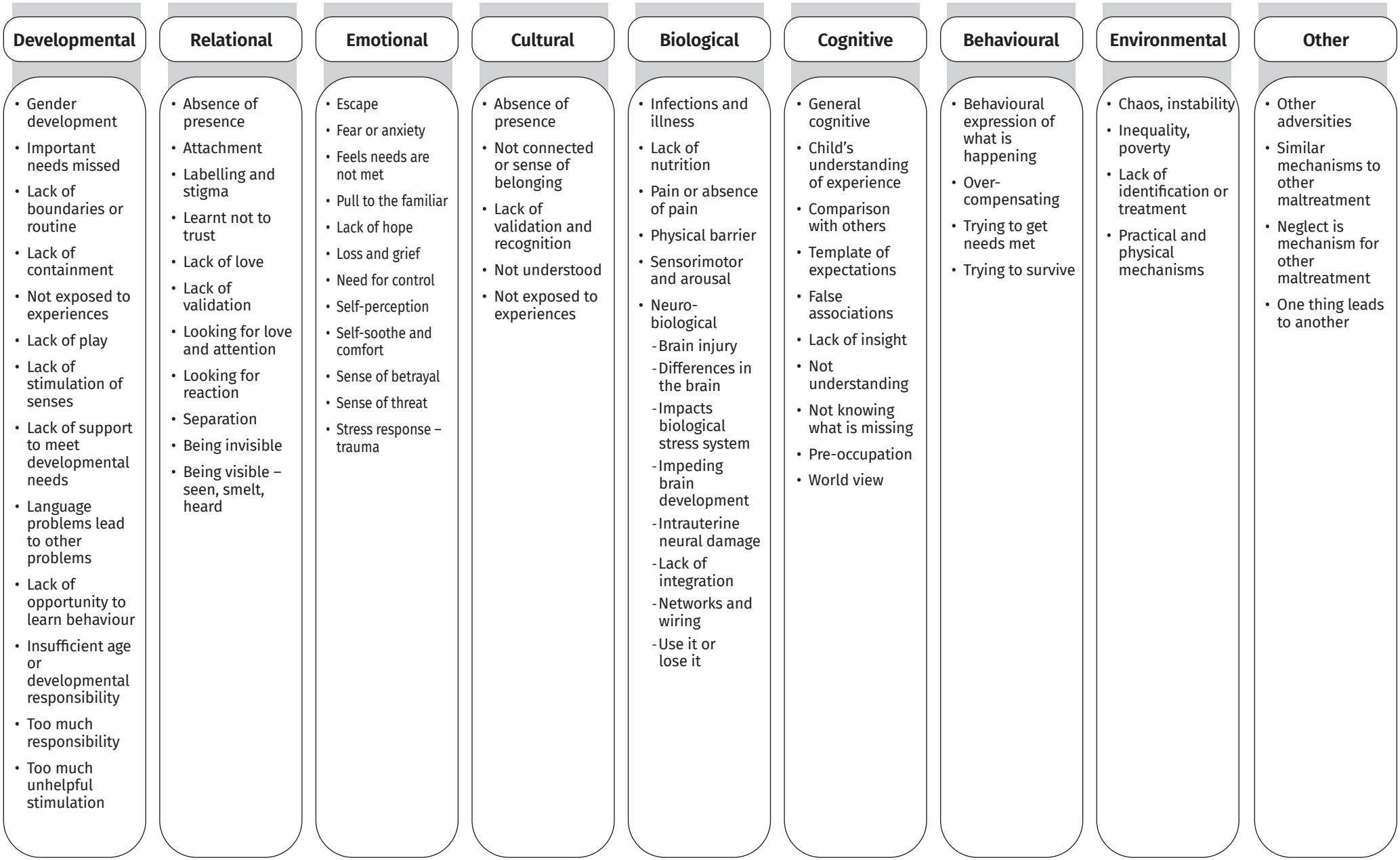
Through open coding and constant comparison across interviews and surveys, there were eight categories of mechanisms of harm (Figure 5-5). Some mechanisms linked specific neglect experiences with specific harms, whereas others offered general explanations. Themes noted include:

- *The absence of presence* – where something was expected to be present but was absent, for example, food, relationships, and cultural connection.
- *Needs not being met* was frequently noted, not just on the definition of neglect, but children's efforts to have their needs met and lack of expectations or trust that this would happen.
- *Lack of* was a frequent theme, similar to absence, but also referred to insufficient. It included lack of the practical, the relational, and a sense of the future.
- *Contradictions*, such as being invisible due to neglect or being visible for unhelpful reasons (e.g., due to behaviours or being smelly). Paradoxes such as these can confound family, carers, and professionals and add to not knowing which needs to meet and how.
- *Context* – environmental or system contexts are key for understanding not just how a child does not have their needs met by one person, but by anyone in their lives. It recognises inequality as part of a structural mechanism of harm. Dr Perry stated, "inequality contributes to the developmental environment". Drs Dubowitz and Miller noted the structural impact of poverty, including as a barrier to accessing services which could further impact on the child.

An example of a mechanism described in a survey about a 17-year-old Norwegian young man who experienced physical, emotional, developmental, supervisory, and medical neglect included: "Developmental needs not met; lack of warmth, presence, comfort. Child learned that he has no value, that he is not important. Experienced fear when not comforted, or left alone" (P113).

Figure 5-5

Domains and Codes of Mechanisms of Harms from Neglect



Summary

In exploring the first guiding question (i.e., How is the phenomena of serious neglect and its impacts on children understood by the various disciplines and roles involved in the children's lives?), I centred on the descriptions contained in the online survey responses on 216 children who had experienced multiple forms of neglect. Emotional, physical, and development neglect subtypes were the most frequent. The literature highlighted mixed findings on developmental and cultural neglect, however, they were indicated with sufficient frequency in this study to suggest their relevance for practice across different countries, disciplines, and roles.

I explored associations and links between neglect subtypes and the presenting problems including implications of children's age, gender, culture, and type of survey respondent. I did not compare this sample with children who had not experienced neglect, however, there were interesting findings warranting future research. The neglect subtypes global/multiple neglect and cultural neglect were frequently identified as being associated with children's difficulties. This association was supported by the LCA, especially for global/multiple neglect.

For the second guiding question (i.e., What do those who work with and care for children who have experienced neglect think are the mechanisms by which children may be harmed by different subtypes and other dimensions of neglect?), I placed emphasis on the expert interviews. As summarised by Dr Dubowitz—one missed need can constitute numerous mechanisms of harm to the child. This sentiment was corroborated in commentary from the online surveys.

6. Results – Interventions and Mechanisms for Recovery

This chapter explores the approaches used by professionals and carers that aim to reduce or redress the harmful consequences of neglect and considers what factors may influence these approaches. There is commentary throughout from the expert interviews about the broader implications of interventions for recovery from neglect. The order of the guiding questions was changed to fit the stages of the analysis (Box 6-1).

Box 6-1

Aim	Guiding questions
2. To discover and describe approaches used by professionals and carers that aim to reduce or redress the harmful consequences of neglect and consider what factors may influence these approaches	4. What, if any, interventions are being used to help children recover from the consequences of serious neglect, in what context and by whom? 5. What factors influence the choices of interventions? 6. What, if any, are perceived barriers or constraints which can impede the application or perceived efficacy of interventions 3. What do those who work with and care for children who have experienced neglect think are the mechanisms that could be involved in recovery from the impacts of neglect and can these be translated into targets for change when planning interventions?

I analysed the ideas and perspectives from the 216 online survey responses on interventions with or for children in response to child neglect in combination with the expert interviews. My intent was to identify concepts, understanding, and explanations posited by experts, professionals, and carers (Stern & Porr, 2011) to garner their perspectives on formal and informal interventions (see Appendix 1 for Glossary, page 388). I used quantitative and qualitative analysis for description (Stage 1) and analytic resolution (Stage 2) to build the foundational theory of change. Most of the quantitative analysis was sourced from the 181 professional surveys, as the carer surveys contained more open-choice questions suited to qualitative analysis. This analysis then progressed to theoretical redescription and abduction (Stage 3). I explored how interventions and strategies were applied in practice, what was surprising or unexpected according to the experts or survey respondents or in contrast to the literature, and the implications for the emerging theory of change. I also explored possible mechanisms of recovery (Stage 4). As with the previous chapter, I have used direct quotes from the surveys and the interviews to highlight key findings.

Outcomes Indicating Recovery from Neglect

The four experts were asked to describe outcomes that would indicate a child's recovery from neglect. A combination of metaphors, hope, and realism were evidenced in their descriptions. I have coded and analysed their perspectives across the interviews and have used

quotes to highlight specific ideas given their different contexts and disciplines. Dr Perry applied an analogy of children catching up on functional areas, so they were no longer developmentally behind their peers or their genetic potential:

> the ideal is to be able to identify areas of need in the child and provide targeted enrichment and or therapeutic services that would help them catch up in the areas where they are behind. Now you'd like to see most these kids to get within the normal range of social, emotional, motor functioning and which you know we have seen on occasion. (Dr Perry)

Dr Nelson spoke of the hope of reversing the harmful consequences and the mixed results they found in their longitudinal study of children neglected in Romanian institutions in the 1990s:

> Well, the hope would be that we'd reverse the negative sequelae of having spent time in an institution. So, a child who has attachment disorders, and a smaller brain, and a lower ECG power and a lot of psychopathology and the hope is that we could reverse all that and, as a result, children would fare much better. Of course, that's not what we found. So, there's the difference between what you hope for and what you actually observe. (Dr Nelson)

Dr Dubowitz drew on other research relating to children in Romanian orphanages, by way of example, where some degree of recovery was observed but not completely:

> I think it's probably often the case that kids don't emerge totally unscathed particularly from really severe neglect like that. So, if you're following academic performance or kids' behavior on some domains you can just see how they can steadily improve. And so, you would infer there is some degree of recovery. Again, I think what I'm saying is it's not that their path is totally set. We know that that's not true. (Dr Dubowitz)

Dr Miller spoke of developmental, behavioural, and social gains as indicators of measurable and observable recovery:

> I think the greatest marker is a developmental gain. So, the child who was starved actually isn't hoarding food anymore or satiating themselves or overeating because their experience as a child was one of being starved, literally … People think this is a third world problem – it is not ... So, kids having a sense of being as good as other kids. So, I'm talking about developmental gains in things you can measure like their educational achievement,

> their independent living skills, can they tie their own laces when they are 10, read the clock, have they gained. (Dr Miller)

Dr Miller provided an example of recovery in relation to a boy she described as having experienced sadistic neglect, indicating cruel intentional neglect. Once his day-to-day needs were predictably met by his carer, the indicator of recovery was reflected in his own words:

> for me the greatest marker of his recovery, if you like, was when he wrote a letter to me and he wrote the letter and said in his childish writing he wrote 'my foster carer – I'll call her Sally – really loves me and Robyn she is so lucky to have me'. It was just this beautiful moment – you know. 'I hope I can stay here forever, and you know what, they'd be really lucky to have me.' I thought 'you're all right', 'you've recovered'. So that magical sense of – this is what's happened to you, it's not who you are, you're not lesser than. (Dr Miller)

Overall, there was no overt divergence of opinion between the experts on recovery from neglect. They described degrees of recovery from neglect that: (1) the children are no longer neglected, as their needs are being met; (2) there is resolution of their problems to the degree possible, especially those impacting quality of life; and (3) it is not simply a matter of children being safe and having their needs met, but their perception of safety and whether it is temporary or sustained.

The experts suggested several ways of understanding recovery and outcomes through metaphor. Numerous metaphors were similarly reflected in the online survey (primarily professionals) responses (Figure 6-1). When viewing the numerous metaphors, they appeared to symbolise different aspects of recovery, reflecting hope but also tempered expectations. Some metaphors suggest an energy, reparation, and change of direction, whereas others suggest a gradual progression and growth towards a more positive future. In this way, the use of metaphors creates an opportunity to see the same data through different lenses.

Figure 6-1

Metaphors Used by Experts and Survey Respondents on Outcomes of Recovery from Neglect – A Word Cloud

Note. Quotes in green font are from interviews with experts. Black font are quotes from surveys. More frequently mentioned terms are in larger font.

Actions to Help Children Recover from Neglect

Discovering actions being used to help children recover from serious neglect was through: (1) an interview question with the four experts; (2) a closed-choice question in the professional survey with the opportunity for free-text; and (3) an open-choice question in the carer survey. Figure 6-2 portrays the use of metaphors across respondent types depicting actions, strategies, or interventions. Some metaphors were the names of models, interventions tools, or related constructs including Neurosequential Model of Therapeutics (NMT) brain maps, Brain Booster Cards[2], Circle of Security (Marvin et al., 2002), Pyjama Angels (Knight & Rossi, 2018), secure base (Ainsworth et al., 1978), care teams, and therapeutic webs.

The most frequent metaphors were care teams, safe space, holding the child in mind, and secure base. These reflected the emphasis on safety but also the need for a collective approach

[2] https://hullservices.ca/our-services/education-training-and-resources/brain-booster-activity-cards/

given the children's range of needs. Many metaphors about safety included concepts of space and security, as well as scaffolding and safety nets. These are borrowed metaphors from other sources yet indicate a utility in describing something complex, simply. Some metaphors portraying interventions also described outcomes of recovery indicating the hoped for connection between intervention and recovery.

An overarching theme from the qualitative analysis across the expert interviews and online surveys was the mixture of the ordinary and extraordinary needs of children who have been neglected and the actions needed to meet both types of need. Not meeting a child's ordinary, everyday needs is one of the definitions of neglect. The impact of neglect itself, however, can often lead to additional or extraordinary needs, such as additional health care, different approaches required for education, or assistance with learning to play with other children. In essence, what may be considered meeting the typical needs of a child may require atypical or extraordinary approaches. This is illustrated through many of the metaphors in Figure 6-2, by examples given in the surveys described throughout this chapter, and by Dr Miller in her interview about the "symbolism of small things":

> It's extraordinary with kids with severe neglect the symbolism of small things. The symbolism of small things like a clean lunch box and seeing something in the lunch box. The breakfast table being set. Talking the night before when they're putting the child asleep about what they're going to have for breakfast or seeing their cup on the table before they go to sleep […] So when I'm working with carers around what this child needs, it's concrete, predictable routine with meaningful symbols for the child that things are different. And their needs are recognised and being responded to in predictable, safe, joyful ways […] Bathing the child, perhaps, in an experience where […] they don't have to start hoarding food because of their deprivation earlier on. (Dr Miller)

Some metaphors about intervention conjured images of water, such as bathing children in experiences, not supporting trickle-down interventions that only impact the child indirectly, relational anchors and bridges. These suggest both the power and comfort of water and ways of surviving and crossing divides. A theme across the metaphors for interventions and recovery was the notion of the ordinary and extraordinary. The ordinary, everyday phrases included the "clean lunch box", "it's not rocket science", "no magic cure", "being seen and heard", "the bread and butter", and "getting below the blanket" to find out what is happening. The extraordinary suggested championing for or with the child, and recognising the determination required: such as "walking through fire", "gauntlet of assessments", and "fighting the good fight" as well as growth and imagination "where dreams and imaginings can flower".

Figure 6-2

Metaphors Used by Experts and Survey Respondents to Portray Interventions and Actions Taken – A Word Cloud

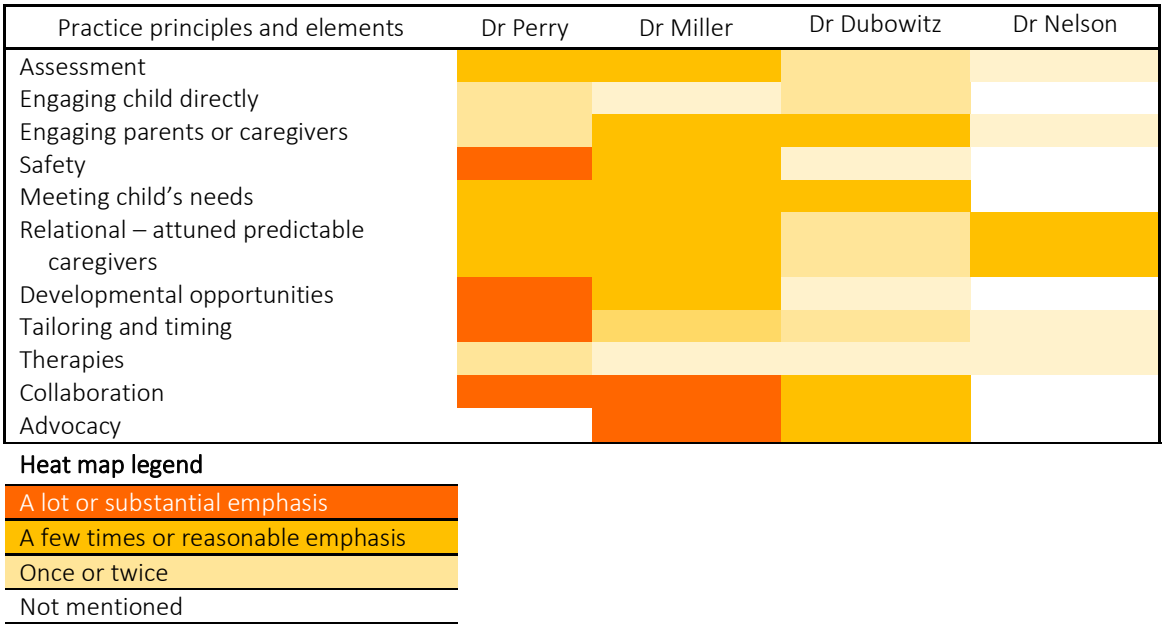
Note. Quotes in green font are from interviews with experts. Black font are quotes from surveys. More frequently mentioned terms are in larger font.

Interventions and Principles – Experts' Perspectives

No expert in this study extolled an intervention that should always be used for children who have experienced neglect. They spoke on interventions in general and drew on their models to describe practice principles or elements. Figure 6-3 depicts a heat map visually depicting which elements were coded more frequently from the interviews relating to intervention and practice. The stronger the colour the more frequently the element was raised in the interviews.

Figure 6-3

Practice Principles and Elements when Intervening with Children who Experienced Neglect, According to Expert Interviews – A Heat Map



Dr Dubowitz spoke about assessment, engaging the parents and child, and collaborating with the service system including advocacy for the child and at the broader political level. He described the roles of paediatricians as being "well positioned to identify what [children's] needs may be and to help if something important is missing". Dr Dubowitz spoke on their role in facilitating referrals, and the positive influence they can have through direct interaction with the children: "I like to think that in my clinical work talking to a child at least can be part of that healing process".

The examples given by Dr Nelson were of children living in adoption or alternative care arrangements. The main example he gave was the foster care model as the intervention in the Bucharest Early Intervention Program (BEIP). Drs Perry and Miller spoke of the principles and elements involved in interventions. They drew on their respective models, neither of which was confined to a specific intervention, to comment on what others could to do to assist children in recovery from neglect. The following practice characteristics and elements were primarily the

views of Drs Perry and Miller, unless otherwise stated, as they provided more detail about interventions as illustrated in Figure 6-3.

Assessment

Dr Perry's description of NMT (Perry, 2008) included assessment of the child's functional status across multiple developmental domains with a focus on where the child is struggling. Assessment is used to inform the selection, planning, and sequencing of a range of interventions targeting particular functions.

Dr Miller described the Best Interests Framework (Miller, 2012), along with other assessment frameworks such as NMT (Perry & Hambrick, 2008) and Looking After Children (Department of Families Fairness and Housing, 2019). She described important facets of assessment, such as:

- Understanding the child's history including reading case files;
- Engaging child and family in the assessment;
- Assessing the child and parents separately and together as well as assessing their relationship;
- Assessing the child in the domains of safety, stability and development as well as cultural connection:

> Because it's no good just looking at safety. It's no good just looking at stability. You've got to look at development and you've got to have the child culturally safe, so connectedness. You've got to be thinking about age and stage. So, it's got to be developmentally astute, forensically astute. (Dr Miller)

- Having a curious mindset about the child's experiences of neglect and other maltreatment; and the range of potential impacts including psychosocial, education, physical health, dental health, sensory processing, and attachment;
- Making referrals and advocating for assessments from specialists; and
- Picking up signals from the child:

> if children are in pain and they frequently are with neglect and that's something we don't think enough about. So, I'm forever saying in Child Protection world, have we had a full paediatric assessment? Have they done a skeletal survey? If it's really been that severe and that sadistic or there are too many black holes in this child's life and it's – so the whole forensic paediatric assessment. (Dr Miller)

As a paediatrician, Dr Dubowitz emphasised assessment not only for the child but to understand family dynamics and where interventions should be tailored. He noted the heterogeneity of neglect and the many possible mechanisms of harm, therefore, a thorough assessment was needed to tailor interventions.

Overall, assessment was considered an important element by three of the four experts, consistent with their respective roles and discipline. In particular, it was seen as a way of making sense of the child's situation not only for the professional but for the child and the child's family.

Engaging Child and Family

Three experts spoke about intervening with and through the biological families, and Dr Nelson described work with adoptive families. Each expert emphasised the need for understanding, direct communication, and realistic expectations. For example, Dr Dubowitz spoke of the role of paediatricians with children and parents and described a non-confrontational approach when working with parents:

> instead of wagging finger at them for messing up, instead say 'You know here's what your kid really needs. How can we make sure that she or he gets what she or he really needs?' It's a far more constructive view and so rather then it's time to move beyond the usual confrontational stance to recognizing that the heart of this work literally and figuratively involves working with parents as opposed to finding fault. (Dr. Dubowitz)

Dr Miller discussed engaging the child's family concentrating on the role of the case management and care team. Similar to Dr Dubowitz, she spoke on needing compassion, persistence, and a child-focus to help parents make changes so they can respond to the child's needs:

> you have to be able to speak plainly about the difficulties, but in a way that actually says 'you know, we're here, we're not here judging, we're not saying yes you're meant to jump over, here's the hoop you've got to jump over. We're here with you. We want to help you jump over it because, we know you love your child and children are best with family. That's our job. Let's understand your experience. You must have had a terrible time for things to have got to this stage. Tell me what it was like growing up for you. (Dr Miller)

Dr Miller described engaging the family in practical changes needed for the child and offering hands-on support. Examples were helping clean the house; motivating and educating the parent about the child's needs; ensuring the child can access services such as play groups and

child care; using simple language so parents know what is expected; goal setting with measurable indicators for change; modelling for the parent, and supporting them to respond to the child with empathy.

Dr Miller spoke of "holding the child in mind" when working with families to reduce or stop the neglect to help the child recover and cautioned against using an "either/or" approach. "Remain compassionate about the child's experience and the parents' experience. You have to think "both and". You can't help the child without helping the family or helping the carers if a child's removed from home." (Dr Miller)

Dr Perry held that when focusing on the child it was important to bring an awareness of culture and family issues. He discussed his concept of the therapeutic web, where those involved in the child's life provide a network around the child to enable them to receive patterned repetitive positive experiences across multiple settings and systems tailored to address their needs in a coherent way (Hambrick et al., 2018). Dr Perry described his approach as being led by the child, where clinicians will look for what is acceptable to the child developmentally, "even guided by the child to some degree, but have a regulatory capability and then … we will work with both the child and the family to come up with a schedule to provide these regulatory activities". He said:

> as long as you are not driven by your needs to heal or some weird expectation, you find that you can enjoy that time with these kids and then that that will lead to some really positive things. So, it's more about just learning how to be present and patient and quiet with these kids and enjoy them. Enjoy what they have to offer. (Dr Perry)

Dr Perry also described psychoeducation with children and families, so they could understand what was happening to the child and the basis for interventions.

Dr Dubowitz noted the importance of engaging both parents and child whilst cautioning against the "trickle down approach which primarily looks to help the primary caregiver usually the mom or mum as you would say. But and not always been attentive to what might be the specific needs of the child".

When talking with adoptive and pre-adoptive parents, Dr Nelson spoke of having realistic expectations for the child and of themselves, and helping them to understand what the child needed and how to both encourage and educate the adoptive parents about what was possible.

Safety and Meeting Child's Needs

As indicated in Figure 6-3, safety was a major theme in the interviews especially by Drs Miller and Perry. Dr Miller spoke on ensuring the child's safety and the cessation of neglect: "I think you've got to get them out of the war zone … There has to be a sense of 'we're safe now' or 'things are different'. There has to be a line in the sand". Dr Miller spoke of ensuring a child's needs are met in practical ways and included "cultural safety" in her definition of safety, as well as providing routines, structured meals, stories, and ensuring someone has "eyes on the child".

Dr Perry emphasised the child's perception of safety as well as the reality of their safety. He spoke on typical child development and development in the aftermath of neglect both requiring a sense of safety and that the key to a sense of safety is "relational connectivity".

Dr Dubowitz described the importance of engaging with families on the child's needs and using assessment to assist the child's needs being met.

Relational – Attuned Predictable Caregiving

Caregivers being relationally attuned to the child who has experienced neglect and this mode of relating sometimes presenting differently to how it may occur for other children, was mentioned by each expert. Dr Perry's comments on children's sense of safety highlighted their need for: "Connectedness to somebody in the environment, that is a core element of feeling safe". He stated the "quality and the density of relational experiences make a difference in how the child does in the present".

Dr Miller spoke on the centrality of relationships for children who have experienced neglect where they:

> need carefully attuned and relationally enriched environment, because it's only through relationship and committed care where the child begins to learn that adults are trustworthy and that meals will be predictable and if they've got an earache someone will do something about it. (Dr Miller)

Whilst recognising the imperative of attuned caregiving relationships for children, Dr Miller commented that love was not enough to see the changes people may wish to see for the child or to protect the child from neglect.

Dr Nelson made a similar statement: "Many people think that if they just love the kids enough that's all they need and we know that's not the case". Dr Nelson also linked the caregiving environment with children's need for structure and limits as well as support; acknowledging this may look different at different ages.

Dr Dubowitz commented on how nurturing relationships can ameliorate the effects of neglect such as through improving the children's home environment or placing them with someone else "who is nurturing and loving and how that can change the life force for a child".

Creating Developmental Opportunities

Orchestrating developmental opportunities for children who experience neglect was emphasised in the interviews by Drs Perry and Miller. Dr Perry spoke of attending to development in all aspects of intervention from assessment, planning, to action:

> Until you understand really the developmental status of an individual in these multiple domains, you're really not prepared to meet that individual's needs in a developmentally appropriate way. So, the underlying rationale about this framework that we use is to basically try to get a reasonable assessment of developmental capabilities in various domains and then select and sequence interventions that … whether they're cognitive, or motor or social … that have the probability of providing what may be certain adequate stimulus to allow those capabilities to emerge. (Dr Perry)

Dr Perry spoke on the developmental need for sensory integration and regulation and gave examples such as the role of therapeutic touch and rhythm. Dr Miller also spoke on the use of music and "bathing the child" in experiences that had previously been absent. Dr Miller mentioned sensory aspects of the neglect experience, such as poor hygiene and chaos, and dealing with these sensory assaults as part of the intervention:

> You get the rabbit poo off the floor, you get new linen, you teach the mother how to put the food in the fridge because you know the kids will get constant diarrhoea from food being left in cans on the bench. (Dr Miller)

Dr Miller emphasised the role of play in children's recovery from a developmental and relational perspective: "Play builds relationships. Play builds all sorts, on every developmental domain, play is critical".

Tailoring, Sequencing and Timing Interventions

The need to tailor interventions to the child and their situation was mentioned by the experts and emphasised by Drs Perry and Miller. Dr Perry described the NMT approach of choosing interventions informed by healthy developmental sequencing tailored to the child's current developmental state. In this model, choice of interventions is informed by neuroscience to understand the child's developmental capabilities across multiple domains and then choosing and sequencing interventions to provide the stimuli needed to strengthen those capabilities. Dr

Perry emphasised sequencing begins with the therapeutic web around the child to ensure access to the relational stability upon which other interventions become possible (Hambrick et al., 2018). As many children who have experienced neglect need assistance with functions mediated through the lower parts of the brain, such as sensory integration, this is often where interventions begin. If the child has age-typical sensory integration, interventions may focus on functions mediated by higher parts of the brain, such as relational or cognitive functions. After describing several interventions, Dr Perry stated: "We've seen effectiveness with all of these approaches if they're administered in context of a healthy therapeutic relationship and if they're appropriately timed to where the child is developmentally capable".

Dr Miller described a practical sequencing of intervention informed by a pragmatic logic that can reverse some of the linear cause and effect patterns occurring from neglect. She gave an example of children placed in an enriched environment with multiple interactions:

> all of a sudden, the child's reading scores come from here to there or their language development we measure from here to here, or the child can actually see now because they've got the right glasses and they've never had the right glasses. (Dr Miller)

Dr Miller commented on the frequency and pattern of interventions and building this into the plan for the child along with active engagement and tracking actions:

> somebody whose curious about knowing okay if we decide drumming, or trampolining or water play or the tactile stuff … we need to do this four times a week or every night or we're going to read to the child or we're going to help the child feel comfortable on the couch. They can't be cuddled straight away but sitting there … and making time for special time. You know. And teenagers who've been neglected … Making a point of keeping the appointment, texting them daily, having a sense of building a trusting rapport that they may never have actually had with anybody and providing the right supervision around that practitioner to support them to do that and to do it long enough. (Dr Miller)

Drs Perry and Miller noted brain plasticity, especially for younger children, can be an opportunity and vulnerability factor that requires responsive and time-sensitive interventions. Dr Miller noted interventions need to:

> work like there's no tomorrow because the clock's ticking. And the brain plasticity is something we know about, but we have got a lot of making up to do for these children and have the same sense of urgency as you would for the child with the fractured skull. (Dr Miller)

Dr Nelson spoke on using established strategies to target particular problems. He cautioned that it was not always clear if such strategies would be effective for children who have these problems due to neglect, compared to children with the same problems from other causes:

> I think there you tackle one set of behaviours at a time. You know, you deal with the externalising behaviours, you deal with internalising behaviours. So, you use treatment strategies that work for other children who don't have the same history but have the same phenotype … it could be that children with ADHD who have a history of institutional care may have a different variant of ADHD. So, it may be that the intervention tools you use may not be as effective. (Dr Nelson)

This was consistent with Dr Perry's focus on understanding the mechanisms of harm to inform the possible mechanisms for recovery. Dr Nelson suggested prioritising where to start may depend on the problems of greatest concern for the child, parent, or others.

Psychological, Somatosensory and Other Interventions

Although not highlighting any one intervention, the experts gave examples covering somatosensory and psychosocial approaches. Dr Dubowitz described counselling or therapy as potentially helpful, although it was unclear if this was for parents, children, or both. Dr Nelson mentioned attachment therapies may be an option for children with attachment issues, however, issued a caution on the quality of some of those approaches.

Dr Perry spoke of therapeutic approaches, ranging from somatosensory through to psychotherapeutic and cognitive behavioural interventions. Somatosensory interventions included therapeutic massage, guided sensory diet, weighted blankets, and other occupational therapy activities. Psychotherapeutic interventions included insight-oriented therapy, narrative therapy, Trauma-Focused Cognitive Behavioural Therapy (TFCBT), Parent-Child Interaction Therapy (PCIT), and Dialectic Behavioural Therapy. Dr Perry described his approach to therapy as "promiscuous for technique and completely focused on the needs of the child".

Dr Miller discussed interventions to help the parents gain insight into their difficulties so they could meet the children's needs. In terms of work with children, she mentioned OT approaches and speech therapy. Drs Miller and Perry also mentioned informal interventions, such as what occurred in the home that could make a difference. Dr Miller in particular spoke about the conversations that professionals and caregivers can have with children that make a difference.

Collaboration and Advocacy Within and Across Roles and Systems

Drs Miller, Perry and Dubowitz discussed different aspects of collaboration; each recognising it required effort and often involved systemic challenges, such as siloed approaches and preconceived ideas of boundaries of roles. Drs Miller and Dubowitz provided examples of advocacy, with Dr Miller focusing more on the individual child and Dr Dubowitz speaking of the policy arena.

Dr Miller provided examples where case management, referrals, advocacy, and collaboration were part of interventions involving child protective services (CPS), out-of-home care (OOHC), mental health, health, and education. She also spoke of the role of care teams that are "jointly responsible for determining and doing all the things that parents ordinarily do for their children" (Miller, 2012, p. 51). Dr Miller mentioned the value of "having a care team who's tuned in enough and trained enough to be able to get to the concrete goals".

Dr Perry's therapeutic web concept includes the role of services and individuals to create coherence across different settings for the child. It is as much about the informal social relationships around the child, as it is about professionals meeting regularly, such as in a care team. Both concepts are beneficial yet there are differences. The therapeutic web is about a group of people who may never meet and yet are coordinated, whether via a case manager or clinician, to be present for the child in ways that support therapeutic intent. The therapeutic web would be formed by those in a child's microsystem but not only by those in formal roles. The caregivers, whether it is family or other carers, are part of the child's therapeutic web as well as the child's school teacher, child care worker, cultural worker, case manager, or clinician. Other family members, a community Elder, sports coach, or the school gardener could also be in the therapeutic web (Perry & Dobson, 2013).

Many of Drs Miller and Perry's examples described multidisciplinary roles and interventions with planning and communication. Dr Dubowitz noted the role of understanding the services available and making referrals to meet the child and family needs.

Interventions and Theory of Change

In summary, the elements that underpin practice and intervention for children who experience neglect, as described by the experts, have relevance for a theory of change to support child recovery. Assessment, engaging the child and family, ensuring their safety, and meeting their essential biopsychosocial and cultural needs were the first steps and recognised as dynamic processes throughout intervention. The emphasis on attending to the children's developmental

stage, ensuring they have access to relationally attuned caregivers and tailoring the intervention to the children's state and stage as well as context, were suggested as cornerstones to practice and so fitting for the theory of change. Although the experts spoke from their own professional experience and discipline, their comments were not limited to their own field or professional role.

Interventions – Professional Surveys

I analysed the quantitative and qualitative data from the professional surveys to ascertain their perspectives and experiences in providing interventions for children who had experienced neglect. As described in Chapter 3 (page 102) the intent of quantitative analysis was to not only look at what occurred more frequently, such as particular interventions, but also on the potential predictive patterns between certain variables. In this case I was interested in whether information about the child's demographics, experience of neglect, presenting problems, or the professional's discipline were predictive of what actions professionals took with the child and their significant others. This along with the qualitative analysis about the interventions informed what to consider in the theory of change.

1. Quantitative data was analysed on actions professionals undertook with or for the child described in the surveys using descriptive and logistic regression analyses, and latent class analysis (LCA). I compared professional responses to the closed-choice questions on what actions they or their team undertook with the child, to other data provided on child demographics, neglect subtypes, and types of problems.
2. Qualitative responses that described interventions or approaches with or for children who experienced neglect was analysed. I used coding and constant comparison analysis focusing initially on the description. I then applied abductive and retroductive analysis building a more in-depth view of what occurred in practice and its implications for a foundational theory of change.

Table 6-1 presents the frequencies and percentages of actions, professional respondents indicated they or their team used to help the child they described in the survey. These actions were only what the professional or team provided, not interventions the child may have received from other services. The most frequently described actions were assessment of children's health, development and/or wellbeing, educating caregivers on the child's needs and how to meet these needs, and advocacy. Only one professional (a teacher) indicated "none" in the options about whether they had undertaken any actions listed in the survey.

Table 6-1

*Professionals' Actions in Helping Child Recover from Neglect (*n *= 181)*

Professional actions	*n*	%
Assessment of child's health, development and/or wellbeing*	116	64.1
Assessment of impact of neglect on child*	91	50.3
Assessment of parents	65	35.9
Assessment of carers (not parents)	43	23.8
Direct physical treatment	11	6.1
Counselling with child	74	40.9
Family counselling	40	22.1
Other therapeutic treatment with child	33	18.2
Educating caregivers about child's needs, and how to meet those needs*	112	61.9
Assisting child in learning and development	69	38.1
Providing or supporting alternative care of child	44	24.3
Providing or supporting enriched care of child	23	12.7
Providing or supporting alternative or enriched care of child (combined)	58	32.0
Case management for child	64	35.4
Taking legal or administrative actions	26	14.4
Identifying gaps between what child needs and services offered	90	49.7
Referral to other services*	97	53.6
Preventing further neglect	34	18.8
Coordinating services	65	35.9
Advocacy*	107	59.1
Any child-specific work (combined)*	119	65.7
Any system work (combined)*	150	82.9
Other	15	8.3
None of the Above	1	0.6

* where ≥50% of professional responses indicated they or their teams had undertaken these actions.

The analysis using chi-square tests found most actions did not differ based on whether the survey was completed from the professional respondents' perspective or on behalf of their team. The exceptions were professionals completing the survey based on their own work were significantly more likely to describe undertaking other therapeutic treatment with children ($\chi^2(1) = 6.874$, $p < .01$) and educating caregivers about the child's needs ($\chi^2(1) = 4.816$, $p < .05$). Professionals completing the survey on behalf of their team were significantly more likely to describe their team members' role of identifying gaps in services ($\chi^2(1) = 5.16$, $p < .05$) and coordinating services ($\chi^2(1) = 7.535$, $p < .01$).

Professional Discipline and Actions

Table 6-2 provides the results of the unadjusted binary logistic regression in terms of professional actions by the nine discipline categories. As most professional respondents indicated only one discipline, the regression was not adjusted. The strongest predictor was being a health worker and providing children with physical treatment. Overall, this table shows that the professional discipline frequently predicted the professionals' actions for the child. This will be compared with other factors later in the chapter to explore what may be more influential on practice as part of informing the theory of change.

Table 6-2

*Unadjusted Binary Logistic Regression Between Professional Actions and their Discipline or Role (*n = *181)*

Professional actions	Professional disciplines	OR [95% CI]
Assessment of child's health, development and wellbeing	Social worker	2.037 [1.066 – 3.891]*
	Welfare, youth worker	0.247 [0.098 – 0.620]**
	Educator	0.315 [0.116 – 0.859]*
Assessment of impact of neglect on child	Psychologist	3.044 [1.320 – 7.018]**
	Welfare, youth worker	0.303 [0.114 – 0.809]*
Assessment of parents	Social worker	2.036 [1.095 – 3.786]*
	Educator	0.198 [0.044 – 0.892]*
Direct physical treatment	Health worker	70 [11.219 – 436.757]***
Counselling with child	Therapist, mental health	3.816 [1.830 – 7.956]***
	Welfare, youth worker	0.265 [0.086 – 0.814]*
Other therapy with child	Social worker	0.344 [0.140 – 0.842]*
	Therapist, mental health	2.786 [1.239 – 6.265]*
	Speech or OT	4.966 [1.174 – 21.004]*
Educating caregivers about child's needs, and meeting those needs	Carer	0.161 [0.032 – 0.799]*
Assist in child's development and learning	Social worker	0.423 [0.222 – 0.807]**
	Educator	10.093 [2.801 – 36.364]***
	Early childhood	6.210 [1.251 – 30.818]*
Provide or support alternative care	Psychologist	0.170 [0.039 – 0.743]*
	Carer	7.053 [1.684 – 29.528]**
Provide or support enriched care	Speech or OT	4.59 [1.109 – 20.680]*
Provide or support alternative or enriched care (combined)	Psychologist	0.335 [0.122 – 0.922]*
	Carer	8.304 [1.668 – 41.343]*
Case management	Social worker	2.893 [1.539 – 5.437]***
	Psychologist	0.282 [0.103 – 0.775]*
Referrals to other services	Psychologist	0.271 [0.117 – 0.626]**
Actions to prevent further neglect	Psychologist	0.113 [0.015 – 0.862]*
Coordinating services	Psychologist	0.352 [0.137 – 0.907]*
Any form of child-specific action (combined)	Therapist, mental health	4.945 [1.829 – 13.365]**
	Educator	4.66 [1.036 – 20.97]*
	Social worker	0.428 [0.228 – 0.803]**
Any form of service or system work (combined)	Social worker	2.262 [1.064 – 6.46]*
	Psychologist	0.361 [0.150 – 0.869]*

Note. All variables were modelled on yes, the type of action and type of discipline was present

OR = odds Ratio. CI = confidence Interval

Independent variables were professional discipline: social worker, welfare or youth worker, psychologist, therapist or other mental health role, education role, early childhood or development role, health worker, carer. Carer = professionals who described their role as carers. Other roles were not included due to small number (n = 3). OT = occupational therapist

*$p < .05$ ** $p < .01$ *** $p < .001$

Child Demographics and Professional Actions

In using binary logistic regressions to analyse whether child demographics predicted professional actions, most actions were predicted by one factor or none. Logistic regressions showed the only actions predicted by children being older was child counselling (OR = 1.147, $p < .001$), and family counselling (OR = 1.109, $p < .05$). Actions predicted by children being younger were assessment of their health, development, and/or wellbeing (OR < 1, $p < .05$), assessment of parents (OR < 1, $p < .05$), and legal or administrative actions (OR < 1, $p < .05$). Children's gender was only predictive of professionals not assisting female children in learning and development (OR < 1, $p < .05$). In terms of culture, being Aboriginal was predictive for not being assessed for impact of neglect (OR < 1, $p < .01$).

The children's living situation in the previous year was analysed through logistic regressions by intervention, with the child living only in OOHC as the reference. Children only living with their parents predicted assessment of parents (OR = 2.234, $p < .05$) and coordinating services (OR = 2.048, $p < .05$). Children living with parents and in OOHC during the year was predictive of professionals working to prevent further neglect (OR = 3.133, $p < .05$) and assisting children in learning and development (OR = 4.115, $p < .05$), once adjusted for gender.

It appeared most of the professionals' actions were not predicted by child's gender, culture, or whether they lived at home or in OOHC, with more being predicted by child's age. There are several possibilities to explain this result: the actions listed in the survey were generic, such as case management and advocacy, and so applied to most children who experienced neglect; many children who experience neglect require most of these actions; or the characteristics of children and their individual circumstances have less influence on professionals' actions undertaken with or for them.

Neglect Subtypes and Professional Actions

The binary logistic regression analysis showed the only direct intervention with children, families or carers predicted by neglect subtype was professionals working to assist children in learning and development being predicted by children's experience of cultural neglect (OR = 2.049, $p < .05$).

A small number of system interventions were predicted by neglect subtypes. The most common was medical neglect which predicted professionals providing case management (OR = 2.453, $p < .01$), identifying gaps between what children needed and what services offered (OR = 2.073, $p < .05$), and advocacy (OR = 2.266, $p < .01$). Advocacy was the only action predicted by

other neglect subtypes including physical neglect (OR = 3.632, $p < .01$), developmental neglect (OR = 2.361, $p < .05$), and supervisory neglect (OR = 2.865, $p < .01$). An adjusted logistic regression was undertaken with each of the predictive subtypes, and physical (OR = 2.914, $p < .05$) and supervisory neglect (OR = 2.377, $p < .05$) remained predictive of undertaking advocacy, with no interaction effect. Global/multiple neglect predicted that professionals would not undertake assessment of parents (OR = .418, $p < .05$).

Overall, this analysis suggests that most professional actions occurred for children regardless of the neglect subtype, with some exceptions in terms of system-oriented actions. This could suggest that neglect subtype does not inform professional actions or that these actions are required across the cohort. It may also indicate that professionals are not thinking about the child's experiences of neglect when planning their actions.

Latent Class Analysis (LCA) and Professional Actions

In Chapter 5 (page 165), LCA classified the 216 children into one of four classes based on presenting problems. To apply this to the 181 children described in the professional responses, I found no difference between professional or carer survey responses using a chi-square test in terms of the results of the LCA, and so undertook a binary logistic regression analysis to see if any membership by problems was predictive of professionals undertaking particular actions.

Being in Class 2 (many problems – especially social-emotional), Class 3 (most problems) or Class 4 (many problems – especially developmental) were predictive of professionals providing child counselling, especially children in Class 3. When adjusted by the child's age, which had also predicted child counselling, the LCA classes remained significant but not the child's age (Model 2a), and no interaction effect. The membership of children in a particular class, such as having the most problems (Class 3) or many problems – especially developmental (Class 2), was the main effect in predicting child counselling (Table 6-3). I reran the regression adding whether the professional was a mental health clinician, as this had also been predictive of providing child counselling (Model 2b). There was no interaction effect and both children's membership in a particular class and the professional's role as mental health clinician remained independently predictive of children receiving counselling. In summary, being in any of the classes in relation to the presenting problems, other than Class 1 with the fewest problems, was predictive of the children receiving counselling, as was the professional being a mental health clinician.

Table 6-3

*Binary Logistic Regression Between Latent Class Analysis (LCA) and Professional Actions (*n *= 181)*

Professional actions and LCA class	Unadjusted OR [95% CI] Model 1	Adjusted OR [95% CI] Model 2a	Adjusted OR [95% CI] Model 2b
Child counselling			
Class 2	11.625 [3.554 – 38.025]***	7.036 [1.923 – 25.740]**	11.209 [3.325 – 37.789]***
Class 3	6.889 [2.122 – 22.364]**	4.003 [1.077 – 14.879]*	6.788 [2.029 – 22.714]**
Class 4	4.276 [1.279 – 14.296]*	3.79 [1.120 – 12.825]*	3.257 [0.934 – 11.361]
Age (years)	1.147 [1.069 – 1.232]**	–	–
Mental health clinician	3.816 [1.830 – 7.956]***	–	4.101 [1.835 – 9.166]***
Family counselling			
Class 2	3.748 [0.980 – 14.336]	–	–
Class 3	4.036 [1.064 – 15.317]*	–	–
Class 4	3.084 [0.769 – 12.070]	–	–
Age (years)	1.109 [1.022 – 1.204]*	1.109 [1.022 – 1.204]*	–

Note. Reference for type of action modelled on yes. Reference for LCA was Class 1 (fewest problems), mental health clinician modelled on yes.

OR = odds Ratio. CI = confidence interval

*$p < .05$ **$p < .01$ ***$p < .001$

Child's Presenting Problems and Professional Actions

I undertook individual binary logistic regression analyses with the 20 professional actions and 70 presenting problems to explore predictive relationships. I was interested in whether children's problems predicted professionals' actions, as suggested in Dr Nelson's interview, or if the findings were similar to that of neglect, where there was minimal prediction. Out of 1400 possible associations, there were 102 unadjusted associations, of which 80 showed the problem was predictive of the action, and 22 where the problem predicted the action did not occur. The outlier was child counselling which was predicted by 19 relational, emotional, mental health, and behavioural problems, and predicted not to occur for five physical health problems. I repeated the regression adjusting for all problems significant for that particular professional action.

Table 6-4 provides the results of this analysis and indicates 14 problems were predictive of any professional action once adjusted (Model 2). Six predictive problems were in the emotional domain. Children described as not coping when stressed predicted professionals assessing their health, development and/or wellbeing; and undertaking advocacy. Children's emotional problems also predicted professionals assessed the impact of neglect, assessed carers, educated caregivers about children's needs, and provided children with counselling. In terms of physical health problems, the only predictive problem after interaction effects were considered, was that poor dental health predicted professionals made referrals.

Two relationship problems predicted professional actions; namely, trust problems predicting professionals providing other therapy for the child and being overly clingy predicting efforts were made to prevent further neglect. The only mental health problem predictive of professional actions was depression which predicted the professionals made referrals to other services. There was an interaction effect between depression and children associating with peers involved in antisocial activities, although both independent predictions also held. The only behavioural problem identified as predictive was sexual risk to others. This behaviour predicted professionals providing child counselling and identified gaps in services.

Problems predicting certain actions did not mean those actions targeted those problems. This analysis, however, suggests some actions are more likely for children with certain difficulties, such as emotional problems predicting assessments and therapeutic actions. Given the range of problems experienced by the children in this study (Chapter 5, page 132) and according to the literature (Chapter 2, page 21), a determination will need to be made about whether the theory of change is influenced by the child's presenting problems their unmet needs or both.

Table 6-4

Binary Logistic Regression Analysis Between Children's Presenting Problems and Professional Actions

Professional actions	Child's problems	Unadjusted OR [95% CI] Model 1	Adjusted OR [95% CI] Model 2	Model 3
Assess child's health, development, wellbeing	Not coping when stressed	2.437 [1.191 – 4.984]*	2.286 [1.108 – 4.717]*	–
Assess impact of neglect	Expressing emotions	2.176 [1.097 – 4.320]*	2.176 [1.097 – 4.320]*	–
Assess carers	Understanding own emotions	3.212 [1.18 – 8.744]*	3.212 [1.18 – 8.744]*	–
Counselling child	Atypical weight	0.454 [0.245 – 0.841]*	0.389 [0.186 – 0.814]*	–
	Dental	0.428 [0.199 – 0.920]*	0.307 [0.129 – 0.730]**	–
	Self-esteem	5.657 [2.555 – 12.525]***	5.419 [2.225 – 13.200]***	–
	Sexual risk to others	4.275 [1.757 – 10.404]**	5.004 [1.804 – 13.878]**	–
Other therapy	Trust	6.99 [1.605 – 30.453]*	–	–
Educating caregivers about child's needs	Sense of deprivation	2.087 [1.124 – 3.876]*	2.087 [1.124 – 3.876]*	–
Preventing further neglect	Clingy with caregivers	4.74 [2.150 – 10.447]***	–	–
Identify gaps between child's needs and services	Suck or swallow	3.719 [1.300 – 10.640]*	3.525 [1.181 – 10.522]*	–
	Physical health medication	2.581 [1.324 – 5.031]**	2.187 [1.084 – 4.416]*	–
	Separate interaction effect (suck or swallow, medication)	–	–	13.846 [1.761 – 108.898]*
	Sexual risk to others	2.776 [1.146 – 6.725]*	3.335 [1.348 – 8.251]**	3.301 [1.354 – 8.048]**
Refer to other services	Dental	3.117 [1.452 – 6.693]**	3.329 [1.484 – 7.467]**	3.487 [1.544 – 7.876]**
	Interacts with peers in antisocial activities	0.493 [0.268 – 0.904]*	0.306 [0.150 – 0.625]**	0.147 [0.049 – 0.437]**
	Depression	1.819 [1.002 – 3.300]*	2.415 [1.209 – 4.825]*	–
	Separate interaction effect (depression, interacts with peers)	–	–	4.696 [1.444 – 15.270]*
Advocacy	Not coping when stressed	2.73 [1.328 – 5.612]**	2.497 [1.183 – 5.269]*	–

Note. All variables were modelled on yes that presenting problem and type of action was present

OR = odds ratio CI = confidence interval

*p < .05 **p < .01 ***p < .001

Qualitative Overview of Professional Actions Described in Surveys

Qualitative analysis occurred on the free-text responses anywhere in the professional surveys and particularly those in response to the question about what interventions or strategies were used. These responses shed light on actions used by professionals with the children who experienced neglect and cohered with comments from the expert interviews. Through the coding and recoding process, I identified five interwoven categories relating to professional practice (Figure 6-4):

1. *Practice elements* including: (i) practice-in-action that was embedded within interventions and models, or used standalone; (ii) assessment and review that informed practice-in-action; and (iii) planning and adapting the plan based on assessment and review. There were 25 practice-in-action elements coded ranging from: understanding the child, being present and focusing on safety; through to interventions focusing on the child's environment, practical supports, and day-to-day experiences; through to interventions more typical of psychotherapeutic approaches such as psychological interventions, cognitive approaches, and motivational interviewing. Specific examples of types of interventions are described later in this chapter (see page 211). The two specific neuroscientific elements to practice mentioned in surveys were polyvagal theory (Porges, 2004), and six core strengths for healthy childhood development, namely attachment, self-regulation, affiliation, awareness, tolerance, and respect (Perry, 2005).
2. *Practice principles* that guided the way of working with particular focus on being child-centred and attention to both pacing and location of interventions and interactions (pace and place).
3. *Modes of service* that represented whether the work was individually with the child, with child and family, with adults about the child, or group sessions.
4. *Interdisciplinary practice* including structures and processes to support collaboration.
5. *Governance* including supervision, team meetings, coaching, and access to training.

Figure 6-4

Practice Elements and Other Characteristics in Interventions – Coded from Professional Surveys

PRACTICE ELEMENTS

Practice-in-Action

- **Understanding the child** *e.g., seeing the child rather than behaviour*
- **Presence**
- **Safety focus**
- **Developmental approaches** *e.g., child skill development, language work, literacy work, play, respond to developmental age, scaffolding expectations, social skills, building emotional intelligence, toileting strategies*
- **Environmental strategies** *e.g., calm appropriate environment, classroom-based, outdoors, reducing numbers of people, reparative parenting, time with caregivers, stability, supporting change in adults, trusted adults, use of place*
- **Family-based practice** *e.g., child-parent contact, empowering adults around child, engaging caregiver, family violence work, interaction guidance, meeting family's needs, parenting education, parents' insight work, coaching, modelling*
- **Cultural approaches**
- **Neuroscience-informed** *e.g., Perry's six core strengths, Polyvagal theory, repetition, rhythmic, timing, sequence*
- **Somatosensory approaches** *e.g., cuddles, touch, physical and movement, regulatory experiences, sensory integration*
- **Experiential approaches** *e.g., adventure and challenge; hope, reward and celebration, new or different, outings, positive experiences, prosocial activities, replace negative with positive experiences, socialise with other children*
- **Expectations** *– what is normal, reality checks*
- **Structures, boundaries and predictability**
- **Mentoring for child**
- **Motivational interviewing**
- **Mentalisation and theory of mind**
- **Practical supports** *e.g., equipment, food, books; financial advice, material support, practical help, problem solving*
- **Psychoeducation with child**
- **Psychological supports** *e.g., reframing, talk therapy to integrate the past*
- **Relationship strategies** *e.g., mediation, access to loving relationships, social network strategies*
- **Reparenting**
- **Sleep interventions**
- **System-based approaches** *e.g., advocacy, case management, referrals*
- **Trauma-informed care and services**
- **Community interventions**
- **Cognitive approaches** *e.g., distress tolerance, desensitisation*

Assessment and Review

- Assessment
- Chronology
- Critical and curious mindset
- Functional behavioural assessments
- NMT assessments
- Recognising need for intervention
- Standardised measures
- Tracking implementation

Plan and Adapt

- Clarity
- Flexible responses
- Goals oriented and intentional
- Neuroscience-informed
- Opportunistic and serendipitous
- Planning and preparation
- Safety planning
- When needed

PRACTICE PRINCIPLES

- Child-centred principles
  - Child at centre
  - Best interests of child
  - Child's rights
- Safety
- Ecological supports
- Equity promoting
- Family-sensitive and inclusive
- Gendered response
- Integrate child into family environment
- Pace and place
  - Available at different times
  - Available in different locations
  - Dose and intensity
  - Duration and time
  - Pace of intervention and change
- Person-centred
- Research-informed
- Systems approach
- Tailored approach
- Trauma-informed
- Treating child same as others

MODES OF SERVICE

- Individual child work
- Child focused caregiver work
- Dyadic work
- Family work
- Parallel focus on child and caregiver
- See the child
- Work with child at home and school
- Work with people in child's social world

INTERDISCIPLINARY PRACTICE

e.g., multidisciplinary, wrap-around, care teams, therapeutic webs, comprehensive, psychoeducation, reflective sessions, consultations, case management, advocacy

GOVERNANCE

e.g., clinical governance, supervision, team approach, training, organisational models, implementation, support

Examples of Actions Taken by Professionals

When completing the surveys and indicating through the closed-choice options what actions they or their colleagues had undertaken with the child they described, most professional respondents provided examples there or elsewhere in the survey as to what they actually did with or for the child.

Child Assessments and Reviews. Professional survey respondents noted different purposes or functions of assessments on children, the most common being to inform planning and interventions with children, families or both. For example: "The ability to assess and respond to concerns of serious neglect can ensure that babies and children at risk and their parents can get the care and support needed to address these issues and keep them safely together" (P104). Child assessments were also used to inform recommendations, educating other professionals on children's needs, and advocacy. One residential care worker noted about a 14-year-old Inuit young man, that they were "sincerely curious about the child and its daily doings and well-being. Also the family" (P143). This was consistent with the curious mindset mentioned in Dr Miller's interview (page 185).

Child assessments were described as providing diagnostic clarity, informing courts on children's needs, helping children understand their situation, and measuring change. Some purposes were interrelated as illustrated:

> One therapist has used a heart rate monitor to provide a visual that allows the child to monitor their own [dysregulation]. After focusing on the regulation the child was assessed for dissociation using standardized instruments like the child dissociative check list and the imaginary friends [questionnaire]. (Nine-year-old White American girl, P83)

According to the survey responses, assessments undertaken by professionals included sensory, developmental and disability assessments, NMT assessments, functional behavioural assessments, comprehensive assessments, biopsychosocial assessments, multidisciplinary assessments, mental health, physical health, and cultural assessments. A common form of assessment mentioned was NMT tool. NMT assessments are typically used to provide a picture of children's history of developmental risks and relational health, their current functioning, and access to positive relationships. The intent is to apply these assessments to inform clinical decision-making about intervention as well as for psychoeducation with children, families, carers, and the therapeutic web (Perry, 2009).

The following comment from a social worker described using NMT tools in an example of how the team undertook assessments of children:

> We are a multidisciplinary service that draws on expertise from various modalities to address the under developed skills, regions of the brain as a result of the neglect experienced. Working systemically with the team around the child also assists to change their expectations and understanding of neglect and the impact that it has on development. It assists to inform them of our clients developmental age and what strategies are appropriate for them as a result. (Ten-year-old Australian non-Indigenous girl, P64)

Plan and Adapt. There were no pre-set items in the survey on planning interventions, however, several responses mentioned planning their approach. I created a code on planning and adapting, within which were several nested codes. Planning was considered a link between assessment and intervention, for example: "comprehensive bio-[psycho-social] and cultural assessment leading to planned interventions based on developmental need" (P116). There was the importance of clear, simple, and logical plans. Flexible responses included not applying a one-size fits all approach, ability to alter the approach, predictable but not rigid, and always being available. Being goal-oriented and intentional was one of the more common codes with 21 surveys referencing or inferring one or more aspects of goal-setting. Another component was involving children or families in planning, as also mentioned in the expert interviews.

Child-specific interventions.

Child Counselling. Various psychotherapeutic and other modes of counselling was used by 40% of professionals based on their survey response, as illustrated:

> He now attends counselling and moved from refusing-not trusting to requesting regular sessions and stated that 'there is a lot going on'. Building his trust in helping services has reduced his paranoia considerably to no longer a functional concern. (13-year-old Australian non-Indigenous boy, P147)

Other Types of Therapy with Child. Other therapeutic models of treatment mentioned in the professional survey responses included group work, play therapy, dyadic therapy, experiential therapy, inpatient treatment, mentoring, and "helping the child with feeding". Play therapy was the most comment (n = 7). Specific types of therapy included art therapy, adventure therapy, Cognitive Behavioural Therapy, TFCBT, mindfulness, and the "Safe & Sound Protocol".

Several respondents mentioned dyadic therapies with children and adults. Although these could be described under family interventions, they are also considered child-specific interventions. These included Dyadic Developmental Psychotherapy (DDP), Child-Parent Psychotherapy (CPP), and "relational work and repair", the latter of which one respondent described as "unsuccessful" (P30).

Assist Child in Learning and Development. Teachers and early childhood educators were the roles most likely to have assisted children in their learning and development as indicated in the earlier quantitative analysis (see page 194) and illustrated here:

> As this child's teacher (both in the classroom setting and one-on-one or small group settings for academic support), I have used this child's strengths to support the gaps in her learning due to her missing lessons when she has been depressed or upset. I create and update Learning Plans at this school and so I have worked with the student, the grandparent, the psychologists, and the teachers to help this teen to access the curriculum as much as possible. (14-year-old Australian non-Indigenous young woman, P29)

Other professionals such as psychologists, speech pathologists, and social workers also assisted children in learning and development through various means, as exemplified by this comment from a speech pathologist:

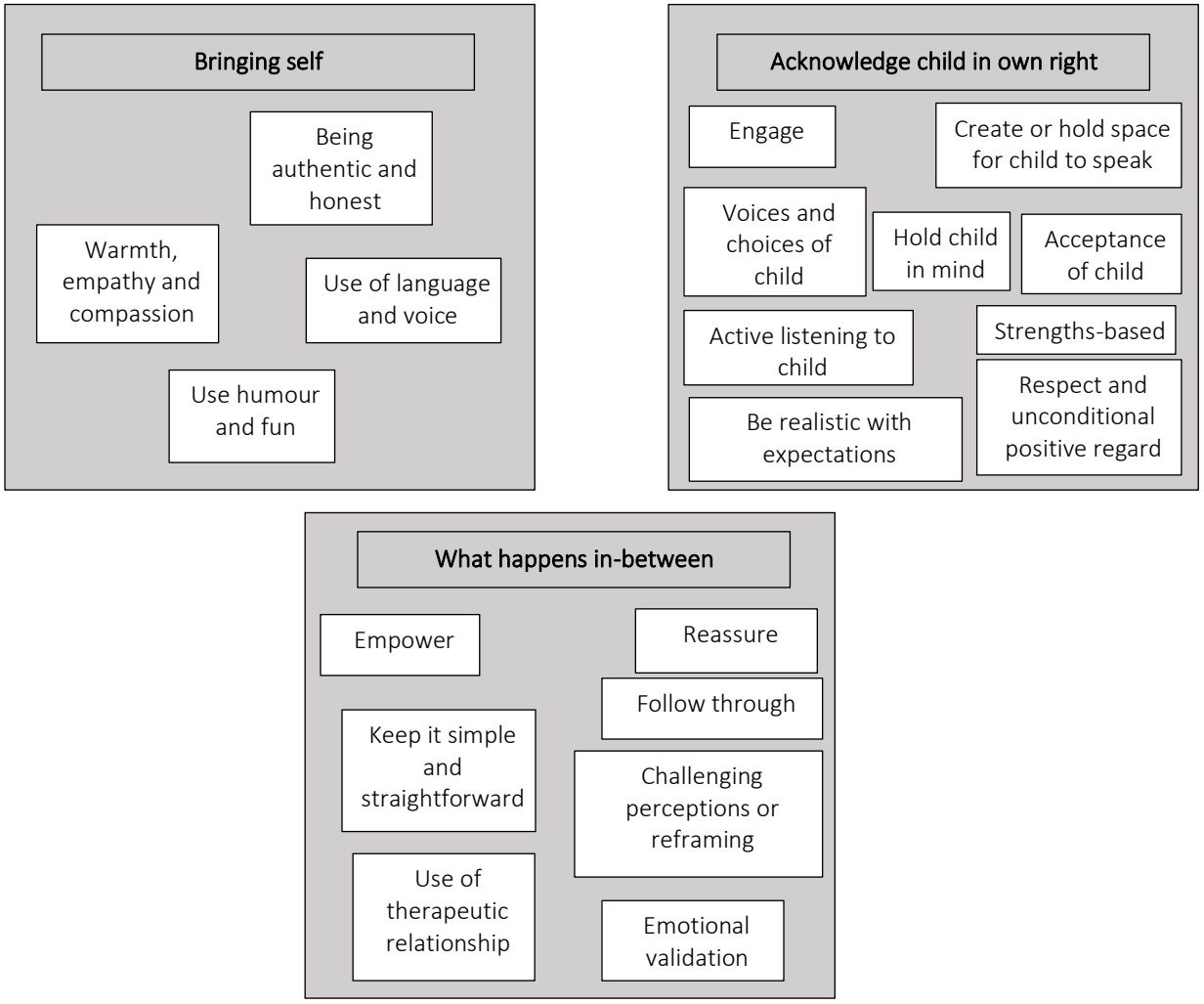
> Appreciating the importance of systemic factors allows me to draw upon strengths at different levels of the child's life to bolster their learning. My experience working across different systems enhances my effectiveness as an advocate for the child's health and learning needs. Tuning in to where the child is at emotionally and having flexibility to return to more regulating activities when it is required, and in gauging when it is OK to return to therapeutic learning goals (as a developmental specialist). (Three-year-old Aboriginal girl, P13)

Enriched Care. Free-text responses associated with the enriched care item indicated respondents considered this in one of three ways: (1) a form of OOHC; (2) early childhood education or care, such as enriched preschool and child development centre; or (3) supplementing the child's daily life including enriching the children's environment at home and school, supporting carers, speech and language therapies, therapeutic massage, animal-assisted therapies, supporting children's involvement in gym, helping children understand their reactions to others, and implementing wrap-around support for children's recreational, social, developmental, and educational needs.

Interactions with Children. One of the categories identified through focused coding was interactions with children. There were several statements indicating what the professional survey respondents considered important or useful in their approach with children. Figure 6-5 depicts these were categorised into three focused codes: (1) "bringing self" – what the professional brings to the interaction; (2) "acknowledging the child in own right" – what the professional thinks or does to interact with the child as a person; and (3) "what happens in-between" – how the professional uses the interaction to work towards change. Some of the text indicated direct relevance for child neglect such as "responding to the child where they are at developmentally" (P115), "teaching them to identify their needs and socially/culturally appropriate ways to get their needs met when adults in their lives are unable to do so" (P105), and "the ability to hold the distress and concern for the child, whilst seeing the unmet needs that present in concerning behaviors" (P169).

Figure 6-5

What Professionals Noted as Important in Their Interactions with Children



Note. Coding from professional surveys

Working with Caregivers.

Psychoeducation with Caregivers. Psychoeducation with parents or carers on children's needs was a relatively frequent action identified in 112 (61.9%) professional surveys. It may denote information sharing on children or psychoeducation. An example of this type of activity by a social worker in a family support service is:

> I made attempts to educate the mother on how to provide secure attachment and how to meet the child's basic needs. I provided information on how to access medical services, e.g., referral to bulk billing paediatrician and fully subsidised child psychologist, as well as Medicare subsidised dental services. (Five-year-old Aboriginal girl, P11)

Prevention of Further Neglect. Preventing further neglect could refer to working with the children's family to prevent future neglect, removing children from a neglectful situation, or preventing neglect in OOHC. Eleven surveys included comments indicating involvement with CPS or placing children in OOHC. Other examples included: "Parent education, including movement, massage, Parent child interactive therapy, parent child care, infant massage, sensory systems support" (P38), "increasing parenting capacity" (P49), "safety plans" (P78), "assisting carer to meet needs" (P93) and "ensuring the child had a legal guardian and that guardian had access to required resources" (P105).

Service System Work. Six items including case management, legal or administrative actions, identifying gaps between children's needs and services, referral to other services, service coordination, and advocacy were classified as system work in the survey responses.

Case Management. Thematically, many comments linked case management, coordination, and other service system work and illustrate the breadth of actions involved. One survey described case management as including connecting the family to cultural supports: "Worked with other stakeholders to ensure that basic needs of food, shelter met. Worked with school to understand impact of trauma and connected family with cultural supports" (12-year-old Aboriginal young man, P122); "case managing stable housing as a foundational building block to addressing trauma relating to serious neglect through person and child centre approached" (Nine-year-old Aboriginal girl, P159); and

> Outside of the therapy, regular meetings and phone calls with school staff, parents and social workers were conducted to address practical and health issues that the child presented with, including animal [faeces] in the home, head lice, ocular infections and

> seriously ill health on behalf of the parents. (Private psychotherapist describing role with 10-year-old Irish girl, P121)

Legal or Administrative Actions. Legal or administrative actions were typically in reference to reporting to CPS or CPS taking action, as well as preparing evidence for court and in some situations, referrals or legal support. For example: A clinical psychologist wrote "Opportunity to conduct comprehensive assessments and write reports that are taken seriously and documented for posterity (the child's history). development of clinical treatment plans to be followed by case managers and carers" (Seven-year-old Asian Australian girl, P129); a CPS worker "Sought a children's court order to have the child removed from the placement and then placed in an appropriate placement" (Five-year-old Australian non-Indigenous girl, P57); and as noted by a paediatrician, "Identifying neglect, writing reports that carry impact in children's court, making recommendations to change trajectory of child's life" (Less than one-year old Australian non-Indigenous girl, P52).

Identifying Gaps Between Children's Needs and Services. Survey responses illustrated identifying gaps (e.g., health, development, education, cultural, mental health, recreational or play activities) to meet the child's needs and making referrals to services was often linked to advocacy. For example, a counsellor described her role as including:

> Assisting/advocating that the child welfare system […] address youth's physical and medical needs (ear drum surgery + obtaining appropriate hearing aids, neurology to assess seizures). Advocating for appropriate accommodations in school […] and pursuing appropriate testing including a neuropsychological evaluation to better assess youth's needs. (12-year-old Bengali young woman living in USA, P146)

Referral to Other Services. Referrals crossed multiple domains including health, mental health, recreation, and developmental services. The aim of referrals included further assessment, filling gaps in meeting the child's needs, counselling for child or parent, and support to caregivers. In answering the question on what it was about their work with children who experienced serious neglect they believed makes a positive difference, a kinship care worker stated: "Engage the right services for the child and carers" (P93).

Advocacy. Advocacy was the most frequently identified professional action in service system work. It is this role that most draws links between neglect and poverty and issues pertaining to human rights and accessibility of services. The following quotes illustrate the different forms and foci of advocacy: "Advocated with Child Protection to purchase a bed; a train set and other things this child needs to help him" (13-year-old Australian non-Indigenous young

man, P160); “Making sense of presenting behavior in a way that does not shame or blame a child, and interpreting this for the care system. Advocating strongly for children in a complex and guarded system. Working systemically” (11-year-old Australian non-Indigenous boy, P169); “Advocating for the child so that carers and other services are able to support the child in the long term, long after our team has ceased working with the child” (Seven-year-old Australian non-Indigenous boy, P28); and as described by a nurse:

> Advocating and problem solving to ensure children have food, blankets and somewhere to sleep, looking at families and supporting to ensure they get their correct [social security] income, means people can start to address the basics from Maslow’s Hierarchy of needs. This is the most pressing need for very remote Australia” (Less than one-year-old Aboriginal boy, P40)

Care Teams and Therapeutic Webs. Only Australian based professionals used the term “care team” (n = 18) in their survey responses and only the Australian expert mentioned it in her interview (Dr Miller). Examples of comments from surveys about care teams included: a psychologist who wrote “establishment of coordination of ‘care team’ participants - established shared understanding and congruence in approach across settings including revised child/adolescent mental health supports” (Eight-year-old Aboriginal and Torres Strait Islander boy, P6); a psychologist who wrote “Psychoeducation utilising the NMT brain maps and recommendations for the care team regarding sensory integration, Relational health and Self Regulation” (12-year-old Australian non-Indigenous young man, P63); a psychologist who wrote “Working with care team to ensure consistent response and ensure care team understand children/young person's needs” (15-year-old transgender young person from a CALD background, P37); and a manager of a sexual assault counselling service who wrote “Not labelling a child but working holistically within a care team approach to support the child and their system of support to strengthen their predictable, available identified network of support” (Ten-year-old Aboriginal boy, P35). One survey response noted that the care team was not operating as well as it could as it did not include input from the child’s cultural community.

Two professional surveys had responses referring to the therapeutic web described by Dr Perry in his interview and publications (Perry & Dobson, 2013). For example: a psychologist wrote “Supporting the child’s therapeutic web to understand her presentation and how to best support her behaviours” (13-year-old Aboriginal young woman, P24). This example by a clinician who was both a social worker and psychologist illustrated the combination of care teams and therapeutic webs: “Individualised, trauma-informed and collaborative clinical assessment processes followed

by specific goal planning and work within the care team to create cohesive therapeutic webs" (Seven-year-old Aboriginal girl, P20).

There were comments that reflected different terminology about the importance of services working together and with the child's caregivers, such as "working with the whole system around the child", "using wrap around planning to make sure all the youth's needs are being addressed", and "assisting the child's broader system to see the behaviours as a form of communication not as 'bad behaviour'".

Neglect-specific Interventions. Table 6-5 presents the actions that were coded as being specific to neglect. These comments illustrate the range of unmet needs that professionals worked to meet and to help others meet for the children. The children's needs included food, hygiene, medical care, cultural connection, touch, respect, developmental stimulation, play, affection, and love. As described in Chapter 5 (page 139), there were various food or eating problems identified for children in the surveys and interviews, and some of the strategies mentioned by professionals were in response to these difficulties. Corroborated with comments from the experts, these ideas represent the needs all children have, as well as additional needs experienced by children who have missed out during their childhood.

Table 6-5

Descriptions of Professionals Actions with Children Specific to Neglect

Actions by Professionals	Examples of actions specific to children who experienced neglect
Difference in environment	Working on household hygiene through practical support, such as removing animal faeces in the house; purchasing child-appropriate bedding.
Filling in the gaps	Children receiving medical care for health issues that had been left unaddressed; providing touch and affection that had been previously missed; helping child to catch up on what had been missed at school. Examples include: "Provision of meeting developmental needs for the child that weren't met at the time (e.g., a child who is 6 years old having her 3 year old needs met at the times she regresses to these behaviours). In particular the provision of touch and affection as well as emotional literacy" "letting him experience activities that most kids his age has experienced, but that he has not"
Meeting child's needs	Responding to specific or general needs, such as health, care, love, safety, education, attachment, shelter, cultural, and social needs. Examples include: "Slow paced therapeutic work with a focus on child's needs across the board (i.e., being cared for, fed, heard and respected)" "Teaching the child how to identify and then articulate needs" "Allowing the child to have felt safety, stability and their needs met" "Working with parents or carers to help them understand and respond to child's needs"
Food-related strategies	Ensuring regular eating routines, education about food and eating, and providing food, either directly or through the families or carers. For example, "Encouraged the parent to provide a regular feeding schedule for the child - with supporting education and information"

	"Helping the child to have a different life experience - regular meals at regular times" "Child care teachers worked with him with feeding" "Providing food and hygiene products at school" "They had opportunities to enjoy fun, teenage activities such as rock climbing, going to the gym and cooking"
Offering child insights into neglect	Psychosocial interventions, such as counselling. For example: "Reviewing his past, where he is now, and looking to the future" "Ensuring that they know the truth (when appropriate to age) about their own life and why in care" "Psychoeducation on neglect and the impact on oneself "Reframing his memories and experiences to locate him as the child, not the adult responsible for harm" "We help the child understand their narrative"
Translating how neglect impacts child	Understanding and translating how neglect has affected the child, such as: "Helping him understand reaction to others emotions as well as understanding his own emotions but not reacting to them" "working with parents and teachers to explain how the neglect has affected the child" "advocating in court to ensure their needs are identified and the impact of the neglect is better understood" "understanding of impact of neglect on broad development, including individualised responses"
Stimulation and enrichment	Actions by or supported by professionals focusing on enrichment, such as: "Since being taken into care and being provided with a relationally enriched and supportive environment, we have seen significant improvements in all aspects of her development"

In response to the general question on what it was about their work with children who have experienced neglect, that they believed made a positive difference a social worker in a foster care program in the USA, noted how being informed about neglect, informed how they worked with children:

> In understanding how neglect impacts attachment and the corresponding impact on brain development our team is more aptly prepared to assist other caregivers in understanding. We are also more effective in crafting interventions that work from a bottom up approach. As we better understand neglect, we are more equipped to treat it as well as advocate on behalf of […] our clients. (P83)

Formal Therapeutic Interventions by Professionals

Professionals were asked if they used particular interventions or strategies to help the child recover from harms associated with neglect. They could indicate 'yes – specific to neglect', 'yes – including but not limited to neglect' or 'no'. A majority (n = 159, 87.7%) indicated they used particular interventions or strategies - either partially (71.3%) or fully (29.7%) focused on recovery from neglect. They were then asked to describe these interventions or strategies. The following is a list of interventions and therapeutic approaches described in the professional surveys.

- Attachment and relational interventions (e.g., Attachment Regulation and Competency (ARC), CPP, Circle of Security, DDP, Schema therapy, Theraplay, Trust Behavior Relational Intervention)
- Cognitive behavioural approaches (e.g., behaviour support plans, cognitive behavioural therapy, PCIT, TFCBT)
- Creative therapies (e.g., adventure therapy, animal assisted therapy, art therapy, drama therapy, massage, mindfulness, music, natural therapies, sensory based interventions)
- Cultural interventions (not specified)
- Family therapy
- Medical interventions, including psychopharmacology
- Neurodevelopmental strategies (e.g., NMT, Polyvagal therapy)
- Play therapy
- Psychotherapy or counselling with child or parent
- Relationship-based pedagogy
- Social network interventions
- Therapeutic Crisis Intervention
- Trauma-specific interventions (e.g., trauma therapy, Eye Movement Desensitisation Reprocessing (EMDR), life story work, Sanctuary Model, TFCBT)
- Not providing treatment.

This list of interventions will be compared in the next section with the professionals' responses to other questions such as what informed their decisions and what influenced their choices of interventions.

Analysis of the 181 professional survey responses found the use of interventions ranged from being explicitly linked with the assessment to no apparent link. The following is an example where the connection between assessment and intervention was evident. The psychologist and team's work with an eight-year-old Aboriginal and Torres Strait Islander boy living in foster care was informed by the boy's significant history of multiple neglect experiences, especially emotional neglect, in his parents and previous foster parents' care. This boy presented with problems in every domain. The team's work focused on building the current carers' capabilities to support his sensory and emotional regulation, and his capacity for relationships. The interventions described included:

- Establishing a secure relational base to his care and other significant relationships provided improved sense of safety and trust (though somewhat fragile and dependent of adult capability).

- Trauma-informed education for carers, school personnel, caseworker and birth mother - developed greater understanding and confidence.
- Specific interaction guidelines - provided clear direction based on the child's story, the assessment and formulation and reflected need for acceptance and validation as core interaction foundations.
- Introduction of multi-element capacity-building approach including sensory regulation elements / activity focusing on improving / regulating arousal - enabling capability to inter-relate (child to carer / carer with child) and introduce (a) square breathing and mindfulness to limited benefit to date and (b) basic shared problem solving when down-regulated to good effect.
- Establishment of coordination of 'care team' participants - established shared understanding and congruence in approach across settings including revised child/adolescent mental health supports.
- Relational development focus - direct intervention and scaffolded support in peer/adult interactions. (P6)

Overall, the qualitative and quantitative responses in the surveys about the professionals' formal and informal interventions and actions undertaken with 181 children described as experiencing neglect, have several implications for a foundational theory of change. There was sufficient coherence between the quantitative and qualitative findings to picture the nature of the work with children who experience neglect. There were, however, indications of some contradictory findings between these analyses. For example, although there was a consistent qualitative theme about child-centred practice and tailoring interventions to the child, child-specific data was rarely predictive of particular actions taken, other than the child's age, in the quantitative analysis. This has two implications for the theory of change. First, the theory of change will be informed by the integrated data analysis to ensure certain elements raised by respondents will be present. Second, one of the purposes for the theory of change will be to help guide professionals and others about the importance of certain elements, including what barriers may constrain their intent.

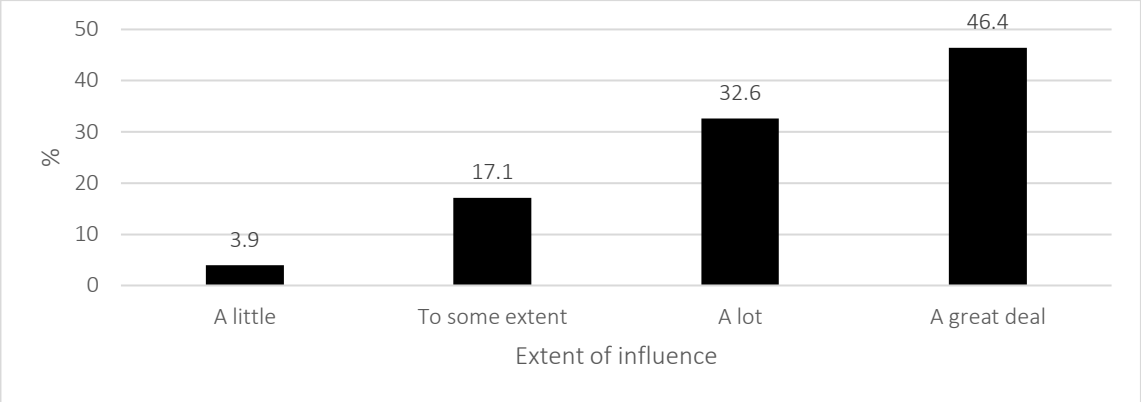
What Informs Professionals' Decisions about Interventions

Impact of Knowing Children's Experience of Neglect on Professionals' Interventions. The professional survey included a closed question on whether knowing a child had experienced serious neglect influenced their or their team's interventions. There was an option to select 'not at all' but this was not selected by any respondent. Knowledge of the children's experience of neglect influenced their interventions a lot or a great deal (79% combined, Figure 6-6). A chi-

square test found there was no difference between whether a professional answered on the basis of their own or their team's experience.

Figure 6-6

Extent Knowing Child Experienced Neglect Influenced Professionals' Interventions



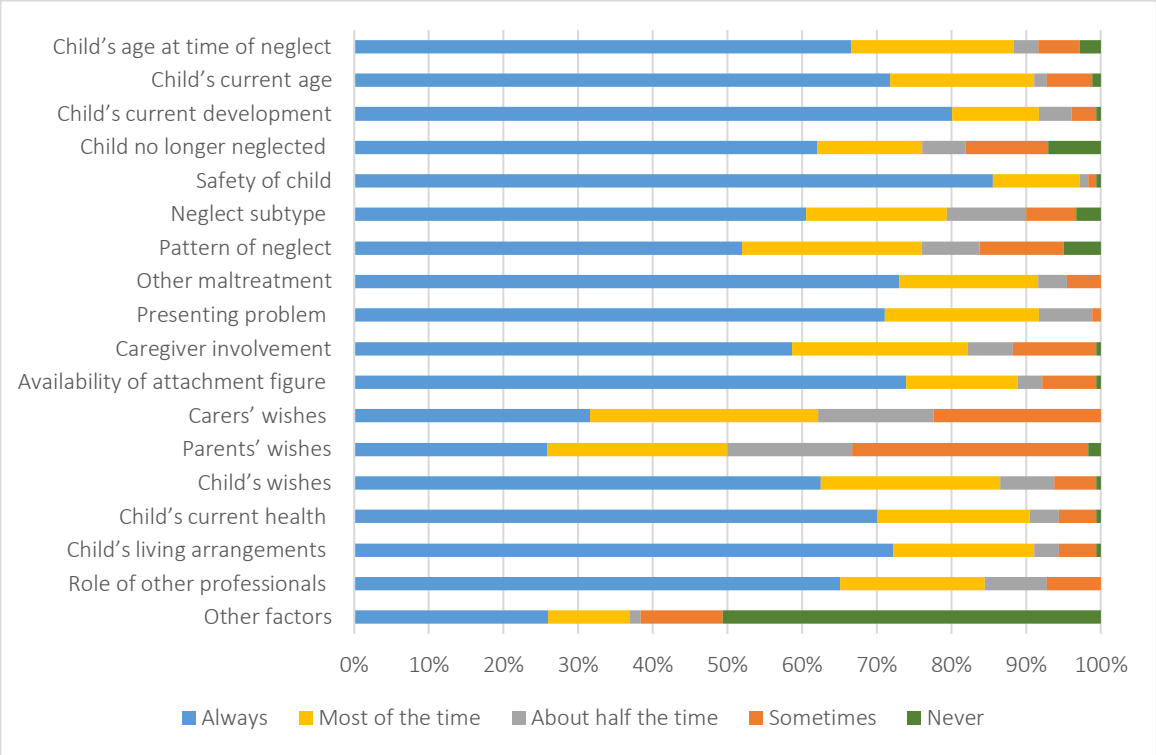
What Else Informs Professional Interventions. Professionals responded to 17 items in the survey, using a five-point Likert scale (never to always), on what informed their choices on how to help children recover from neglect in general, rather than on the child described in the survey. The list of items was derived from the literature, interviews with experts, and from my professional experience. These items were classified as either child-related, neglect and other adversity-related, or the child's relational context. Most professional respondents indicated most factors in the survey informed their decision-making always or most of the time (Figure 6-7). The exception was parents' wishes with only half the respondents indicating it was an informing factor. No professional discipline predicted this response, but the country of residence for the respondent did. Professional respondents from countries other than Australia and the USA were less likely to indicate their actions were informed by the parents' wishes (OR < 1, p <. 05). This may reflect different systems and expectations of ongoing contact with parents of children involved in CPS systems.

There were 23 written responses under 'Other factors' that informed interventions. Additional child-related factors were "what the child communicates about their need in this moment in time", assessment of under-developed sensory systems, and children's interactions with their friends. In terms of factors relating to neglect and other adversity, one survey mentioned further neglect occurring whilst the child was in care. In terms of children's relational context, other informing factors were the children's siblings and friendship networks, carer capability, financial disadvantage, the court order and case plan direction, availability of other resources, and the broader service system. Another set of factors was the nature and context of

the professionals' role. Examples included the possible length of time available to work with the child and the nature of the setting, such as acute inpatient setting.

Figure 6-7

Factors Informing Professionals' Interventions



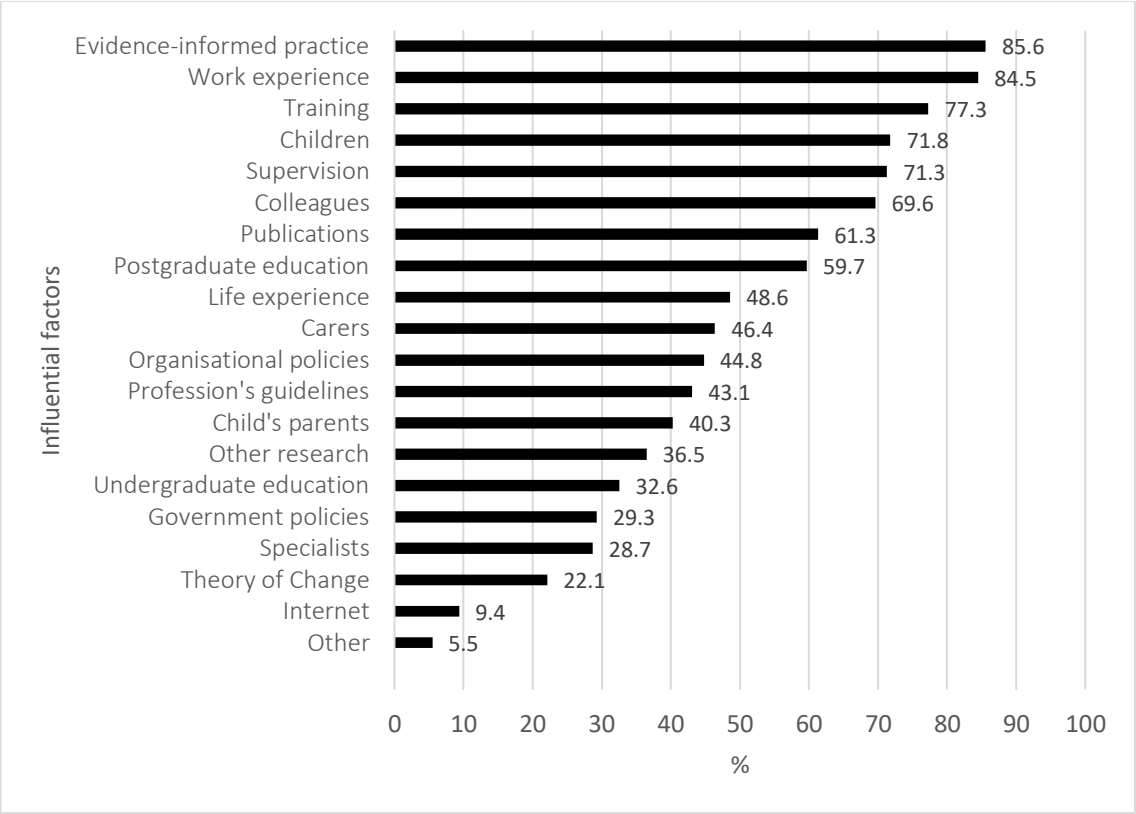
What Influenced Professionals in their Approach with Children who Experienced Neglect

The surveys asked respondents to select one or more major factors which influenced how they helped children recover from serious neglect. This question was about their work in general and not specific to a child. The survey included a 'none of the above' option which was not selected by any professional.

The professional survey had a list of 20 possible influences. Frequently identified influences was evidence-informed practice, followed by work experience, what they had learnt from training or conferences, what children had shown them, supervision, and from colleagues or mentors (Figure 6-8). Despite their attesting to being influenced by evidence-informed practice, none of the formal interventions listed on page 211 were found to be evidence-based for child neglect in the systematic literature review (see page 63). Evidence-informed practice can be understood to be a broader term than evidence-based treatment (e.g., Brandt et al., 2012) and it highlights the dilemma given the scarcity of the evidence available.

Figure 6-8

Influences on Professional Practice with Children who Experienced Neglect



When professional respondents selected specialists, the specialists mentioned were mostly health practitioners. The most frequent were psychiatrists (n = 8), paediatricians (n = 5), doctors in general (n = 2), and maternal and child health nurses and other nurses (n = 2). Allied health professionals, such as occupational therapists (OTs) (n = 4) and speech pathologists (n = 2) were also listed as were psychologists (n =7), mental health professionals (n = 3), counsellors (2) and trauma specialists (n = 5). Teachers were also mentioned (n = 2). Other roles noted once were CPS, family therapy, and cultural advisors.

Although 22.1% of the professionals indicated their interventions were influenced by a theory of change, their free-text responses were descriptive of formal theories, models and elements of practice and specific interventions. This suggests a different understanding of theory of change than the focus of this study.

Carer's Actions with or on Behalf of Children – Carer Surveys

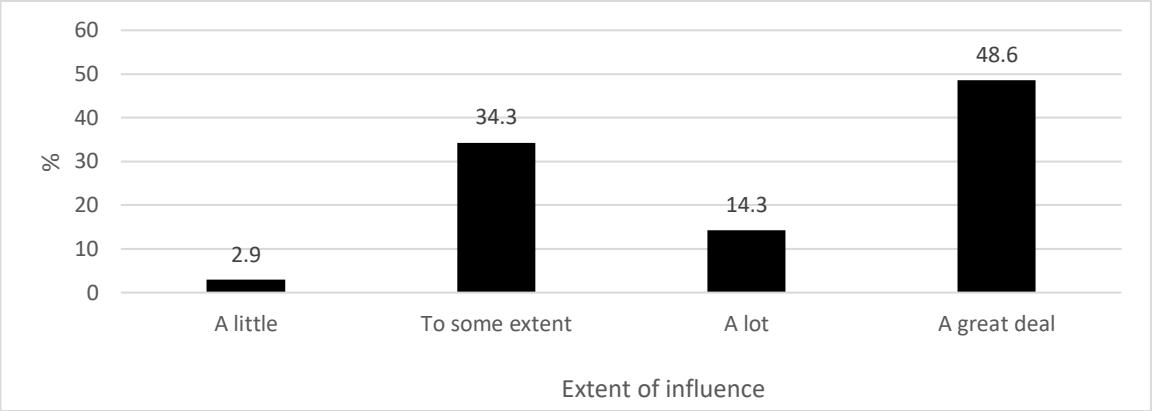
Overview of Carers' Actions

Carers were asked what actions they took to assist the child they described in the survey. Given the nature of neglect and the range of harms, it was deemed important to understand carers' actions as their role is 24 hours, seven days a week, and as indicated in Dr Perry's

interview, intervention needs to be more than one-hour a week. Figure 6-9 depicts responses to the question on whether knowing the child had experienced serious neglect influenced the way they provided care for the child. Similar to the professional responses (see Figure 6-6), carers indicated this knowledge had some influence. The majority (62.9%) noted knowledge on the child's experience of neglect had a lot or a great deal of influence on their approach which was less than the professionals' response (79%).

Figure 6-9

Extent Knowing Child Experienced Neglect Influenced Carers' Approach



What Actions Carers Took with the Children

The carers' perspective on the actions they took with the child described in the surveys was sought in two ways: (1) A closed question on whether they used particular approaches or strategies to help the child recover from harms associated with serious neglect. If they responded 'yes', they were asked an open question to describe what strategies they used. (2) An open question to provide an example of something they had done or said to the child that they believed may have helped the child's recovery.

All carers undertook a caregiving role, however, for some children this was long-term or permanent care and for others it was short-term care or respite. The daily caregiving role varied based on the child's age and needs. Every carer was responsible for ensuring the child was fed, for example, but comments illustrated that feeding a child who experienced neglect required additional thought and deliberate communication:

> I always made food available, had snacks that she could access herself even if she wasn't comfortable asking, I allowed her to take food if we were leaving the house, I allowed her to hoard food in her room, I reassured her that we would not run out at meal times, until eventually the hoarding lessened and then stopped, she eventually only had bouts of

scoffing all her food until she was sick; until one day she just didn't do it again. (Three-year-old Australian non-Indigenous girl, C35)

Table 6-6 depicts some of the actions identified by carers along with descriptions or quotes from the surveys on what this looked like for children who had experienced neglect. There were particular themes of food, presence, and holding the child both physically and figuratively.

Table 6-6

Descriptions of Carers' Actions with Children who Experienced Neglect

Actions by carers	Examples of actions tailored to children who experienced neglect
Feeding the child	Making food easily, predictably and sufficiently available; creating better experiences with food; demonstrating they will always be fed; providing healthy food; recognising familiar foods can be comforting; not withholding food as punishment; allowing children control over their food including if they wished to hoard it; encouraging child to eat; teaching child how to eat.
Being present with child	Being present, emotionally available, available throughout the night, sitting with the child; "By being there for her no matter what. By knowing we will always be there to listen to her"; "It wasn't always about fixing an issue but being there".
Witnessing child's emotions	Bearing witness, such as: "Child was screaming, throwing objects, hitting and lashing out. It was horrible to see the pain and frustration. I let them do so safely, reassuring child in soft voice that it is ok"; "validating how she is feeling".
Doing activities with child	Reading stories; listening to podcasts together; shopping together; cooking together; camping, outdoor activities; card games.
Hugging and holding child	Holding the child, such as: "I held and rocked that child for 45 minutes. Child sobbed and sobbed while cuddling me. I held that child until they decided to hop off my lap themselves"; "He gets in trouble when he's naughty, kisses when he hurts himself, tickles and love and silliness when we play"; "it took a while but the child would sit and cuddle up"
Creating and planning opportunities for child	"Lots of love and praise and opportunities to play and grow and be a child"; "From a very rocky start, her days at childcare [are] now integral to her recovery because they give her an opportunity to learn that adults outside the home are predictable and trustworthy, it gives her opportunities to engage herself intellectually and socially amongst her peers and involves her in community"; "I plan ahead for every event every day. I make sure I have everything for every contingency"
Loving child	Affection, commitment and love: "We focus on repair and see it as an opportunity for her to know we will still love her after she has been awful to us"; "She knows I won't 'throw her away like [everyone] else has' (her words) and will continue to love [and] care for her despite the challenges that I face on a daily basis"; "To make them feel safe, loved, respected and valued. [It's] not rocket science"; "Giving them the love and attention they need and deserve".
Protecting child	"There to keep her safe"; "creating a supportive environment opportunities to talk or just be in a safe space".
Communicating with child	"When he had calmed down talk about what happened and really listen for his experience"; "Whenever we were driving anywhere I would play one of the podcasts and we would discuss it and I would try to answer any questions she had!"
Play with child	"Play is the most important way to feel safe and do some sneaky learning!"; "Playing outside - kicking football at park"
Responding to child's behaviour	"Looking through his behaviours and being unconditional"; "Seeing the child not the behaviour"; "Reward all good behaviour small steps and small rewards helping child regulate by setting boundaries and reminding of pre agreed time frames on games etc"; "Time in, conversations, not personal, always a reason for behaviour although neither child or myself may know it"; "Need to deal with the behaviour in [an] age appropriate way that is a tantrum would happen about 2 if

	it presents in a child of 8 then manage it as if they were 2"; "I am more mindful that he is not behaving in this manner because he wants to - it's because he hasn't learnt how to regulate his emotions or boundaries etc. Therefore I am more patient and adaptable than how I am for my own children."
Reassuring child	"Helping her to see she doesn't have to survive on her own"; "He gets the reassurance that I will walk through fire for him"; "Explain she is ok and things that happened to her are not normal"; "She knows I will always be there for her and stick it out despite things getting really tough at times"; Teaching him […] we will always answer/comfort him"; "Breaking down plans to provide comfort"; "Reassuring that she is safe and no one will hurt her That she can help herself to food whenever she feels hungry"

Many carers' actions described in Table 6-6 provided the child with previously missed experiences. Figure 6-10 depicts an integrative conceptual diagram based on analysis of the carer surveys on their actions with or for the children in their care who had experienced neglect. The figure was designed to reflect the different ways in which carers presented their role with children who have been neglected.

The upper left area outlines the carers' perspectives of children's needs and their actions to meet those needs as described in Table 6-6. There were inferences relating to carer attributes such as the need for patience and tolerance, ability to recognise what the behaviours of the child were about and not to take them personally, and to demonstrate the child could trust them. The upper right area reflects the dimensions of time and place. These were seen as a thread through most carer actions and needs of the children. Time was mentioned in terms of what the child needed, such as "time to learn to be a child" (C28), and working at the child's pace, such as "slow down and explain things slowly" (C26); "Leaving him to approach us when he was ready and slowly he started integrating into our family and routine" (C33). There was a theme of repetition and regularity, such as keeping the same routine and repeatedly telling children they were safe.

The most common terms, mentioned in 24 (69%) carer surveys, were *predictability* and *consistency*. These terms were used when referring to the children's need and carers actions for "Routine, structure, predictability, persistence" (C22); "consistency over long periods of time; consistency with the adults she was around, with the routine in her day to day, with my expectations of her" (C35). Consistency was mentioned in giving children love, hugs, safety, reassurance, food and play. Consistency was about consistency over time; across the adults; and across place, such as between home and school.

Sequencing of actions was another time-based construct. Carers wrote of needing to develop a relationship with the child before giving explanations. One carer commented on needing to wait before involving more services, so the child was not overwhelmed. Another aspect of time was duration and future. Some carers described their role as brief, while others referred to a sense of permanence or enduring relationship with the child. One carer told a nine-

year-old boy “they would always have a place in our home forever” (C5). Another carer told a 17-year-old young man:

> At one time we had a serious [medical] emergency with my partner. In the past this would have [led] to going to new foster parents. Me declaring no matter what happens he will stay with us made the difference even if my partner died. (C27)

Another cross-cutting dimension was place. Carers wrote of the words and actions they used in many locations and moments in the home. This illustrated an important attribute of caregiving was the incidental and responsive interactions with children day and night. Carers described routines, availability of food and clothes; setting limits, such as with television; particular parts of the child’s day such as bed time, showers, meal times, and play; and what they listened to or read together. For example: “Kindness, making them comfortable in your home. Spending time with them. Doing stuff with them as a family” (C16).

What occurred inside and outside the home were not always distinct. Playing outside may have referred to the backyard or further afield. There were examples of children going camping with the family or joining the family as part of a sailing club as well as their interactions with youth groups, school, child care, and the community. Day-to-day experiences such as conversations in the car, or what happened in a shopping centre, were other examples of how carers thought about and interacted with the children.

The lower left area in Figure 6-10 portrays carers comments on available internal or external resources, such as prior training and experience or financial capacity to fund certain therapies or other activities for the child. The lower right area portrays how carers described their interface with other people or services. Most of the individuals or services were described as helpful. Common exceptions were CPS and the child’s parents. Foster care workers were given a mixed review, for example, when carers commented positively on a current worker in contrast to previous workers or vice versa. An example of a possible bridge between the internal and external resources available to carers, were two carers who mentioned their professional experience and qualifications enabled them to unite informal and formal supports when needed. No carers used terms such as therapeutic webs or care teams, despite being usual practice that carers would participate in care teams in Victoria (Department of Families Fairness and Housing, 2022). Carers may have used different terminology to describe similar concepts. A carer who worked in mental health wrote on their care of a six-year-old Aboriginal girl which echoed Dr Perry’s concept of a therapeutic web (Perry & Dobson, 2013):

> I have made sure she has a small group of trusted people who know her and are aware of what she is like and don't judge. This group is expanding. This is preferable to a large group of people for this child to socialise with where she is likely to feel anxious in their company and escalate her behaviour. Best to start small, grow some social skills and confidence and then grow the social sphere. (C32)

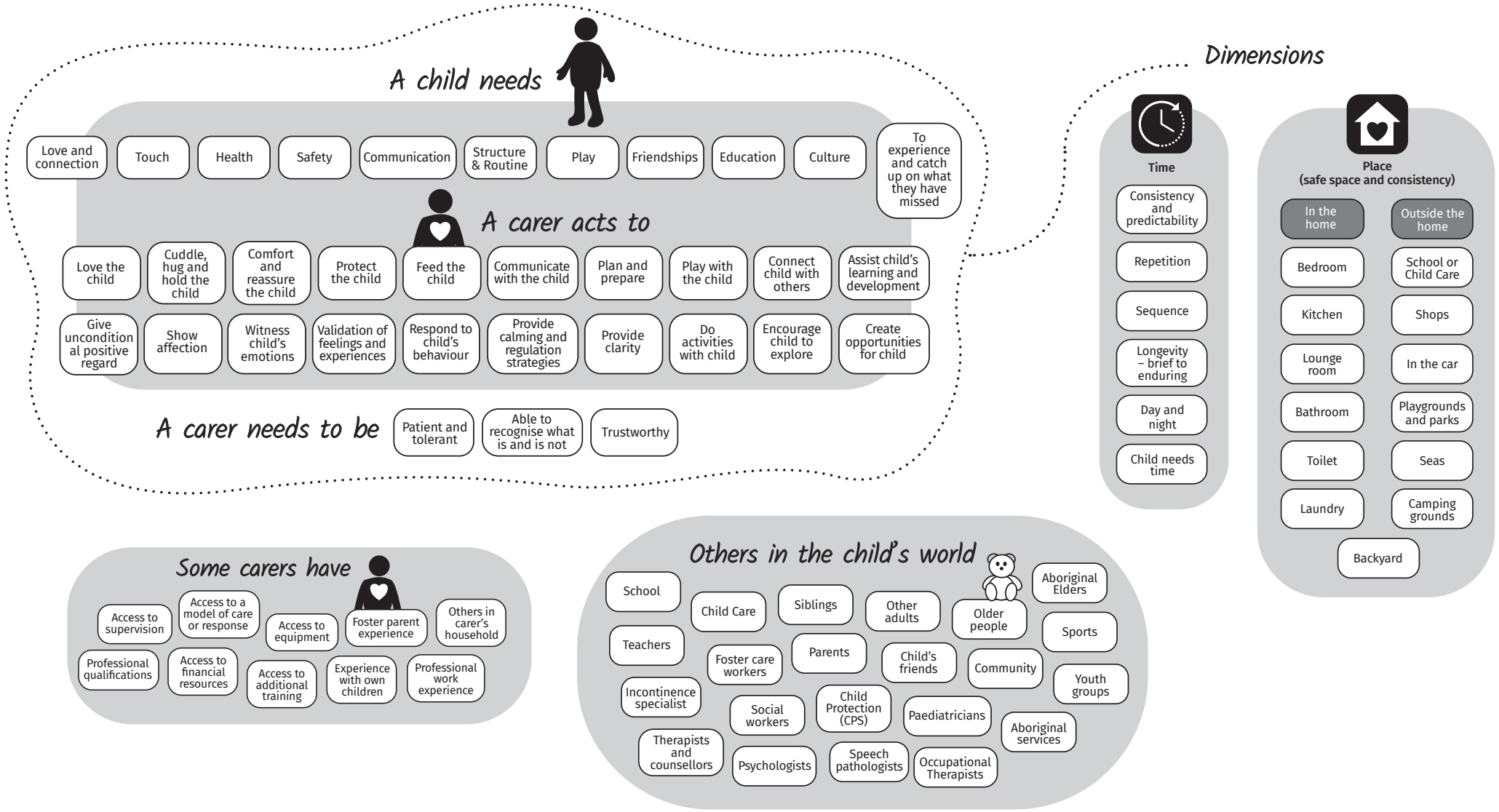
The same carer described the professionals involved with the child. Whether this team met with the regularity and focus of a care team was unclear, but it appeared to have some of the functions. Both comments illustrate the potential overlap between a therapeutic web and care team, with some of the same roles being in both:

> We have worked with a team of professionals that I put together to support the extensive needs of the child. We have a Paediatrician, trauma Psychologist (both leading specialists in their field), an Occupational Therapist, a Speech Therapist, an Incontinence specialist as well as Aboriginal Elders […] all involved with the child. The child […] also participates in a youth group for primary school aged Aboriginal people. We also are involved with the Aboriginal agency connected with the child and DHHS[3]. (C32)

[3] DHHS = Department of Health and Human Services, previous name for the Victorian department responsible for CPS, now known as Department of Families, Fairness and Housing.

Figure 6-10

Conceptual Diagram on Dimensions of Care for Child Neglect

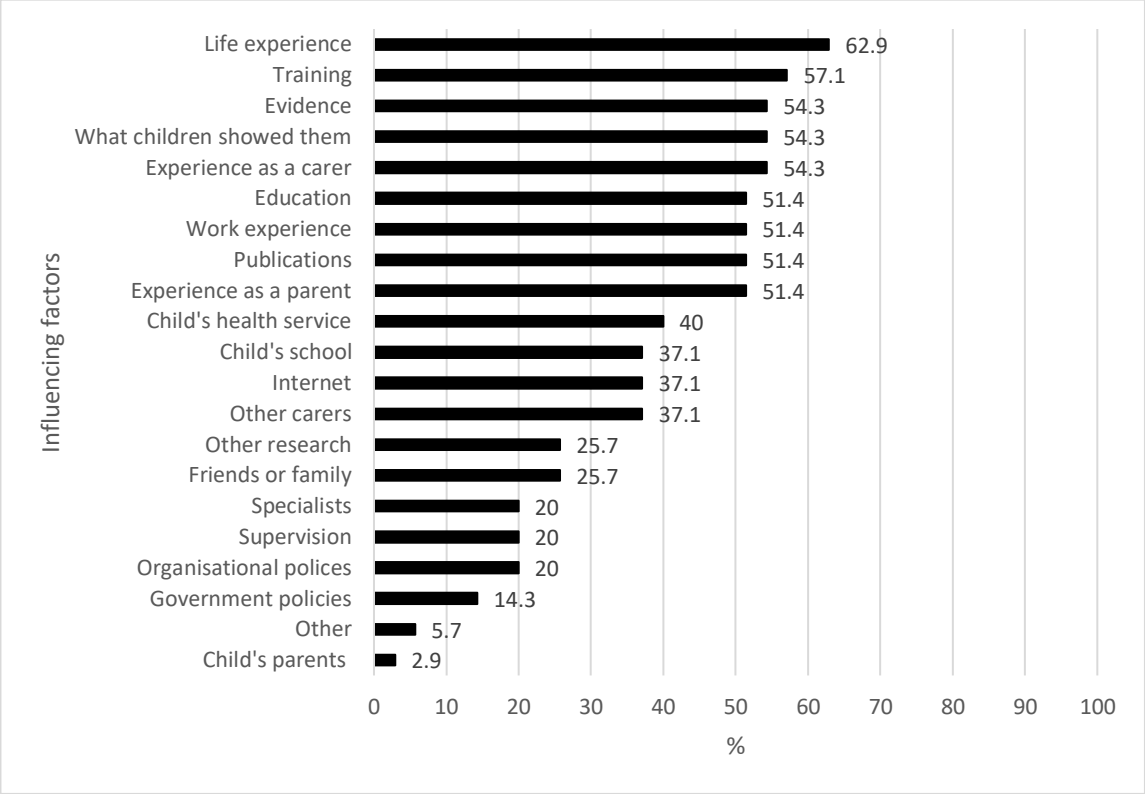


What Influenced Carers in their Care of Children with Neglect?

Carers were asked to select from a list of 20 possible influences (14 were shared with the professional survey) on what influences their care of children who had experienced neglect. Figure 6-11 depicts the percentage of carers that selected each factor. The most frequently identified influence was the carers' life experience (62.9%) followed by training and/or conferences they attended (57.1%). The least identified was the child's parents (2.9%).

Figure 6-11

Influences on Caring for Children who Experienced Neglect



A chi-square analysis found carers were more likely than professionals to be influenced by the internet ($\chi^2(1) = 18.885$, $p < .001$). In contrast, carers were less likely than professionals to be influenced by their work experience ($\chi^2(1) = 19.485$, $p < .001$), evidence-informed practice ($\chi^2(1) = 18.402$, $p < .001$), what children showed them ($\chi^2(1) = 4.216$, $p < .05$), what parents showed them ($\chi^2(1) = 18.287$, $p < .001$), organisational policies ($\chi^2(1) = 7.442$, $p < .01$), and by training ($\chi^2(1) = 6.235$, $p < .05$). Influences such as life experience, specialists, and reading books and other publications was not significantly different between the professionals and carers.

Seven carers who selected suggestions from specialists were influential, described them as trauma therapists, social workers, paediatricians, psychologists, OTs, speech therapists and

incontinence specialists. All specialists, with the exception of an incontinence specialist, were similarly mentioned by professional respondents.

Over half the carer respondents (n = 18, 51.4%) were influenced by their work experiences. Their descriptions of their employment illustrated the work in related areas, such as social work, foster care worker, teacher, special needs teaching, early childhood educator, emotion intelligence coach, disability worker, play therapist, youth worker, nurse, and clinician. The children's parents appeared to have a negligible influence on carers actions, perhaps reflecting that they may not have a lot of contact, attitudes towards the child's parents, or both. Perceiving the child's parents as a cause of the child's problems is understandable given the circumstances in which the child became placed in their care, and this is reflected in some of their comments about barriers for change, as discussed later in this chapter.

Barriers and Constraints to Recovery from Neglect

Experts' Perspectives on Barriers

When developing a theory of change, it is useful to consider the constraints or barriers to change (Taplin & Rasic, 2012). A guiding question in this study was: *What, if any, are perceived barriers or constraints which can impede the application or perceived efficacy of interventions*? (Box 6-1). The four experts spoke mainly on system or field of practice constraints rather than barriers associated with children. These included service and legal system constraints and undergraduate education for professionals. In response to other questions, such as moderating factors for change, they commented on the variability in resilience and vulnerability for children and on challenges facing parents that could make change difficult for the child. The child's family was the most common microsystem discussed and to a lesser extent OOHC.

Children and Parents

Drs Nelson, Perry, and Dubowitz spoke on variations in how children respond to adversities including neglect, some of which may be less amenable to change. Dr Nelson mentioned children's genetic and in utero experiences as a potential factor determining what change was possible including neurological conditions. Dr Perry also mentioned children's genetic hardiness or vulnerability but focused more on whether children felt safe and to what degree they were regulated sufficiently to benefit from certain interventions.

Drs Miller and Perry spoke of challenges facing parents that could impact recovery for their children. Dr Miller described the implications of parents' chaos when perpetuated by substance use, mental health problems, disability, and family violence noting this can be a barrier:

> children become opaque in the drama of the parent who hasn't got the money for the rent, whose about to be homeless, whose former aggressive murderous husband just got out of jail. That sort of stuff can mean the child can miss out four appointments at the OT. (Dr Miller)

Drs Perry and Miller spoke on the nature of the neglect experience being a potential barrier for certain outcomes, especially if the children continued to be exposed to neglect. Dr Perry stated, for example, if children remained in a low verbal environment this could impact their language development.

Service and Legal Systems

Although they were largely commenting on different systems between Australia and the USA, Drs Miller and Perry shared similar ideas about some of the service constraints. Dr Miller spoke about the chaos of the legal and OOHC system. She mentioned, for example, of the difficulty for residential care to create the conditions necessary to support children's recovery from neglect. This was in the context of Australia's system of residential care (see Appendix 1, page 388). The lack of continuity of care across foster care, case management, and other services was also a problem she noted: "Not understanding kids as little parcels that can be like a poison ball you know from one team to another and one worker to another" (Dr Miller). Dr Perry raised similar concerns on these and other systems that are "almost predictably set up to replicate the chaos and neglect that these kids come from". These concerns reflect the micro-system of the care environment and the exo-system that enables or constrains the care environment.

Dr Miller spoke on the legal system, such as her opinion that the children's court system had limited understanding of key concepts, especially cumulative harm compared to episodic events. She opined that the mental health system was limited in two ways: (1) adult mental health services' focus was on the rights of parents and did not recognise the implications for children; and (2) child and adolescent mental health services often excluded too many children or limited treatment to medication.

Dr Perry commented on the different perspectives across disciplines and fields that impeded proper understanding and assessment of children. The mental health and developmental disability fields, for example, have a different approach to understanding aetiology

and treatment. Dr Perry said until both fields understand "the developmental status of an individual in these multiple domains, you're really not prepared to meet that individual's needs in a developmentally appropriate way".

Knowledge and Practice

Dr Perry posited that professional tertiary schools such as medicine and psychiatry needed to improve in delivering education on normal child development. Dr Miller shared similar concerns on social work education. She argued that without this, CPS and family services practitioners may not recognise neglect and its impact in a timely way.

A constraint raised by Dr Nelson was gaps in knowledge in the field: "We just don't understand what protects some kids and what doesn't protect other kids. But if we understood that better we could then develop better interventions". Dr Nelson stated lack of change in the child may be more about the intervention, than the child's capacity for change. This was echoed by Drs Perry, Miller, and Dubowitz who noted neglect was insufficiently understood across various fields.

Dr Perry posited that it was not clear whether lack of recovery was because the child's problem was less amenable to change, the intervention was not a good fit for that problem, a lack of knowledge by the professional or the field, or an inadequate application of what is known:

> if kids get older and they don't get developmentally targeted enrichment then therapeutic services they won't get better and in fact they'll fall further and further off the normal developmental curve. So, they get worse and worse and worse compared to peers. And unfortunately, most of our current intervention models are either targeting one or two domains of functioning or they're using ineffective interventions that are very slowly catching kids up. So as you look at the population of kids that meet criteria for being neglected and you look at their outcomes, in the current way that we're doing that people can conclude reasonably that if you're neglected to a certain degree that you can't catch up or that you can only catch up a certain percentage and I think that again I would reserve judgment about whether or not that's an accurate comment in large part because we have not given most of these kids an adequate trial. (Dr Perry)

Dr Miller commented on CPS and other workers not always having an adequate and coherent understanding of the child's history. This was illustrated by her plea to workers: "I've probably said it two million times. Read the file". Even considering what is written in many children's files "there are too many black holes in this child's life".

Both Drs Perry and Dubowitz noted clinically it is important to not cherry pick or focus only on one or two areas. Assessment and intervention should be tailored to the child, not to the particular interest of the professional. Dr Dubowitz discussed his concern that too many professionals considered neglect to be benign: "If we take it less seriously, we may be less diligent or strenuous in making sure that we do what we can or should to address it". He noted there was a drive for "quick fixes" which in turn led to unrealistic expectations and frustration.

Collaboration

Another system constraint mentioned by Dr Miller was the power differential between social workers and medical professionals. Dr Miller commented on a lack of a "critical mindset" by social workers and that they often became "overwhelmed by doctors being more powerful, when in fact the doctor hasn't got a holistic assessment of what has really gone on". A related barrier is the combination of difficulties experienced by many children and the system not keeping an open and attentive mind to the child. Dr Miller said: "I can't tell you how many kids that once […] they were on medication for Ritalin, they had learning problems, everyone said they were neglected. No one had picked up the hearing loss […] untreated hearing infections".

Macrosystems

Dr Dubowitz commented on the ramifications of poverty for children and their families and the lack of a sufficient safety net, such as in the USA. He contended the focus on parental failure missed the point and could limit helping the family and system focus on what children needed: "If professionals and others are encouraged to think more broadly of what else might be contributing, I think that hopefully leads to a broader view of what needs to happen". Each expert spoke about how societies' understand childhood and children and what this may mean in terms of misunderstandings, or lack of the necessary attention to reform. Dr Miller spoke on the intergenerational impacts of cultural trauma, especially as it related to Australian Aboriginal children. Dr Perry remarked on implications of inequality for both children and families, where "inequality contributes to the developmental environment".

Survey Respondents' Perspectives on Barriers

Although not a direct question in the online survey, carers and professionals often commented in free-text responses on barriers or challenges to children recovering from neglect in their free-text responses to other questions.

When carers noted a constraint, it was commonly on the children's family or services and workers they perceived as being a barrier for the child getting their needs met. A lack of services or difficulty in accessing schools and services was mentioned, for example:

> There are no services available unless something significant happens! Part of the issue why healing can't take place. To have to wait 6 months for a therapy appointment or to not get it at all is serious neglect on the systems behalf. (C11)

Three carers noted the intervention was too late for the child which contributed to further developmental delays and other difficulties. Three carers commented on workers being negligent, unethical, or unhelpful to the child. Two referred to CPS and the children's court not understanding the child or the child's context. One carer wrote that workers did not receive training about neglect: "Just the child protection and children's court system that makes [it] so difficult and keeps re-traumatising them" (C5).

Professionals' comments about system and individual constraints and barriers, included when children's foster carers or kinship carers were unable to meet the child's needs. This sometimes led to multiple placement changes or inadequate care of the child. One professional described numerous service system constraints experienced by children and their families in remote communities in Australia. This led to families not having access to basic services and needs compared to their peers in urban and rural areas. This was both an exo-system and macro-system constraint. Two professionals noted the insufficient time available to work with children, primarily due to service system constraints. For example: "I have often advocated for longer term interventions with children who have been neglected, but the pressure to close cases and move onto others means that short term interventions are preferred" (Kinship care worker, P92).

Professionals described some child-specific barriers, such as when children were unwilling to engage with services or did not trust the workers. Similar issues were raised when working with parents. One response stated that the parent not recognising the child's difficulties led to delays accessing the necessary services. Another described the parent as disliking their child, as a barrier to positive change. One professional commented that parents could not develop compassion for their children if they have not experienced compassion for themselves.

Ecological-systems Perspective on Barriers to Recovery and Implications for Theory of Change

To integrate ideas on barriers and constraints to recovery from neglect and inform the theory of change, I placed them in an ecological-systems framework (Figure 6-12). This figure

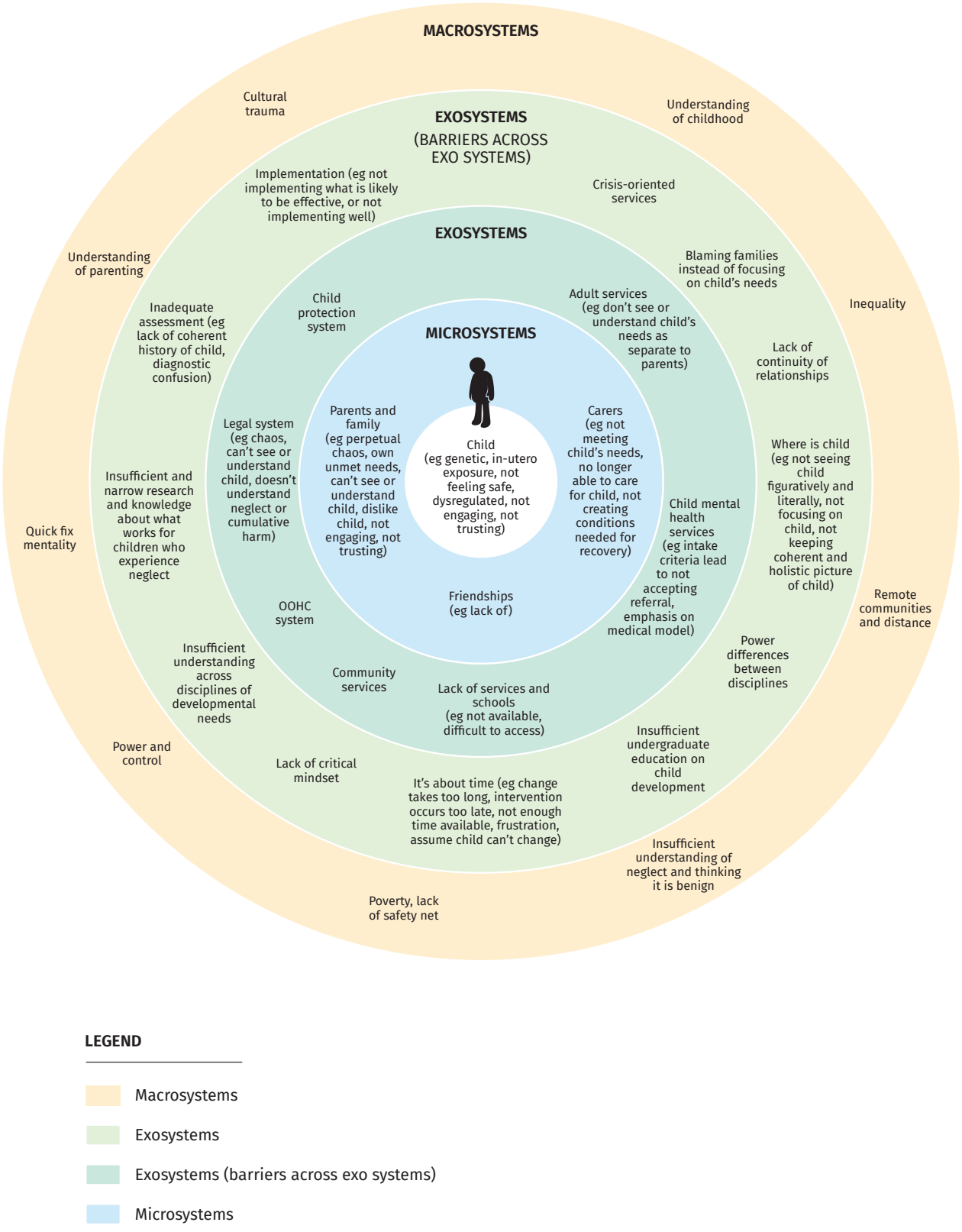
depicts comments from the interviews and survey responses with the child at the centre. Barriers to recovery included genetic and in utero exposure, and the impact of their life experience (e.g., not feeling safe or dysregulated). The two microsystems mentioned most often as barriers were the child's family and the child's experience in OOHC. Another microsystem mentioned by Dr Miller in her interview was the absence of friendships for the children. The only comments from respondents on mesosystems as a barrier was the absence of involving the Aboriginal community in the child's care team.

The exosystem was divided into two sections (Figure 6-12). The inner circle portrays the systems (e.g., CPS, OOHC and legal systems) as barriers to the child's outcomes. The next level describes in what way these and other systems were considered a barrier for recovery. These were barriers across more than one system, or barriers due to the intersection or lack thereof between systems. one barrier I coded in the analysis of the surveys and interviews was: "where is the child" that reflects the invisible or hard to see child amid the parent(s) or system(s) chaos. Another code was: "It's about time" that captured factors relating to time, for example, frustration that change takes longer than professionals or systems have time for which may lead to an assumption that the child cannot and will not change. Some exosystemic factors were directly influenced by the macrosystem level, such as power differences between professionals at a service system level being influenced by macrosystem concepts of power and control.

The macrosystems raised in the interviews and surveys included inequality, cultural trauma, living in remote communities, poverty, power differences, and a quick fix mentality. Examples of structural factors at the macrosystem level mentioned in the literature (Chapter 2, pages 11 and 57), but not raised directly in the data and not described in Figure 6-12 were systemic racism (Bamblett & Lewis, 2007; Cunneen & Libesman, 2000; Dodson, 1994; Human Rights Equal Opportunity Commission, 1997; Malin et al., 1996; Newton, 2019) and the gendered nature of neglect (Berry et al., 2003; Scott, 2014; Turney, 2000).

Figure 6-12

Ecological-Systems Map of Barriers to Child Recovery from Neglect Based on Interviews and Surveys



Mechanisms of Recovery to Inform Theory of Change

Exploring possible mechanisms for recovery from neglect was pivotal to inform the development of a theory of change. This can also be interpreted as how to activate or utilise the mechanisms of recovery. The key guiding research question (Box 6-1) was: *What do those who work with and care for children who have experienced neglect think are the mechanisms that could be involved in recovery from the impacts of neglect and can these be translated into targets for change when planning interventions?* An example of the retroductive question from a critical realism perspective was what needs to occur for recovery from neglect to be possible.

Each expert described possible mechanisms for recovery from neglect, preconditions, and moderators to support or enable recovery from neglect. An open question in the professional survey was what it was about their work with children who experienced serious neglect that they believed made a positive difference. Carers were asked a similar question on what it was about their care of children who experienced serious neglect that they believed made a positive difference.

Experts' Perspectives on Mechanisms of Recovery

In exploring what informed his development of the NMT approach, Dr Perry stated: "Once we thought that we had some understanding of what the mechanisms were underlying the symptoms we started to put together what we thought were logical intervention approaches". He emphasised it was imperative for children to have a "sense of safety" to recover from neglect and experience a healthy development. This following quote from Dr Perry's interview illustrates how this need for safety and relationship formed part of the neurobiological mechanism for recovery:

> what we know about the way the central nervous system works is that you know both the middle and the top networks in the brain are going to be profoundly influenced by the lower regulatory networks. And if you are afraid, if you're fearful, your ability to benefit from enrichment experiences that are targeting top parts of the brain like cognitive they're just not – they're not going to properly internalize that content as efficiently. So a safe and a reasonably regulated child has a better chance of recovering more quickly than a child who's dysregulated. (Dr Perry)

Dr Perry noted the second element required for recovery was the child to be in an environment that offers "developmentally appropriate opportunities that can provide those adequate repetitions with these experiences that will help you build in new capabilities". For example, he described children could be safe but if people were not regularly talking with them

they would not improve their language development. Conversely, if we send a child to speech therapy or place them in an environment that is "speech and language rich", but the child does not feel safe, they are unlikely to improve in speech and language or other aspects of development. This mechanism of recovery was informed by Dr Perry's application of neuroscience, such as the brain needing a degree of repetition for synaptic connections to be made and strengthened. It is also informed by his understanding of child development, that recognises children need many moments in their day to provide these repetitions.

Dr Perry articulated other mechanisms for recovery targeted in NMT, particularly in relation to sequential development. He stated: "We focus a lot on … the sequence of how the brain develops, the sequence of how the brain processes information, and sequence by which we think you can help the brain recover". When translating this into interventions, Dr Perry said: "We sequenced the intervention approach to match kind of the normal developmental sequence of these functional capabilities, roughly matching the organization of the brain, the bottom up". This mechanism reflects Dr Perry's view that intervention will work best if it matches or has a similar pattern to normal healthy development.

Dr Miller focused on children's safety through relationships and having enriched developmental experiences. As the emphasis of much of her interview was on working with children's biological families, she talked of mechanisms for changing parental responsivity for their children or placing children in a high-quality caregiving environment. In other words, a mechanism for children's recovery was ensuring their needs were now being met.

> How many kids have we, once we've removed them from the neglectful, chronic situation, and then got them into an environment, a relationally enriched environment full of what we call normal, you know, stories at night, regular routines, structured meals, routine, predictable. Loving, etc. (Dr Miller)

Dr Miller spoke of children needing predictable responsive care so they could learn adults could be trusted and "meals will be predictable and if they've got an earache someone will do something about it". Once this "felt experience of difference" becomes predictable, children notice other things in their social world. Like Dr Perry, Dr Miller explained the child's brain is no longer needing to be constantly on the alert for threat and instead other parts of the brain that have not been stimulated can now be exposed to a healthy form of stimulation. A prime example of a "neurologically enriched environment" is where the child gets to experience play, which in turn helps build self-regulation. Dr Miller described play as "a rehearsal … for other social, emotional and cognitive skills that the child needs in order to develop and that have absolutely

been deprived in a child that has experienced severe neglect". She also commented on dose or intensity:

> When I'm working with carers around what this child needs, it's concrete, predictable routine with meaningful symbols for the child that things are different. And their needs are recognised and being responded to in predictable, safe, joyful ways. So, it's flooding the child, if you like, or not in an overwhelming way. Bathing the child, perhaps, in an experience where … they don't have to start hoarding food because of their deprivation earlier on. (Dr Miller)

Dr Miller's description of this mechanism is similar to Dr Perry's, where she notes the rehearsal or repetition needed for change to occur – and that children need a sense of their future being one they can trust. Without that, they will continue to hold on to strategies that have served them in a neglectful environment.

Dr Dubowitz commented on mechanisms that could enable parents to be more responsive to their children including addressing the underlying problems they experienced, such as depression. He argued children's individual needs had to be attended to directly not just through changing parental behaviours. Dr Dubowitz said if the mechanism for change was only through the parents as a "trickle down", it would not have enough impact on the child.

The primary approach to recovery in the Bucharest Early Intervention Program (BEIP) was ensuring enhanced caregiving that also provided the children with structure and limits, given that, according to Dr Nelson, many had externalising behavioural problems. Although Dr Nelson did not discuss the underlying mechanisms for this approach, he mentioned that a moderating and mediating factor for positive outcomes was the high quality of the caregiving. Having described the role of critical periods in understanding mechanisms for harm, Dr Nelson posited that intervention may need to focus more on reducing symptoms if earlier developmental windows had been missed. In other words, he suggested focusing on the specific nature of the child's problems.

Mechanisms for Recovery – All Respondents

Certain themes emerged, as well as points of difference, across the interviews and online survey responses. Professional and carer responses, for example, often echoed expert comments on the importance of child safety and needs being met. It was frequently stated and often inferred as the first step towards recovery. Dr Perry noted the child's safety was an important

moderating or contextual factor for other strategies to be viable. In other words, if a child was not safe that would impact the efficacy of interventions.

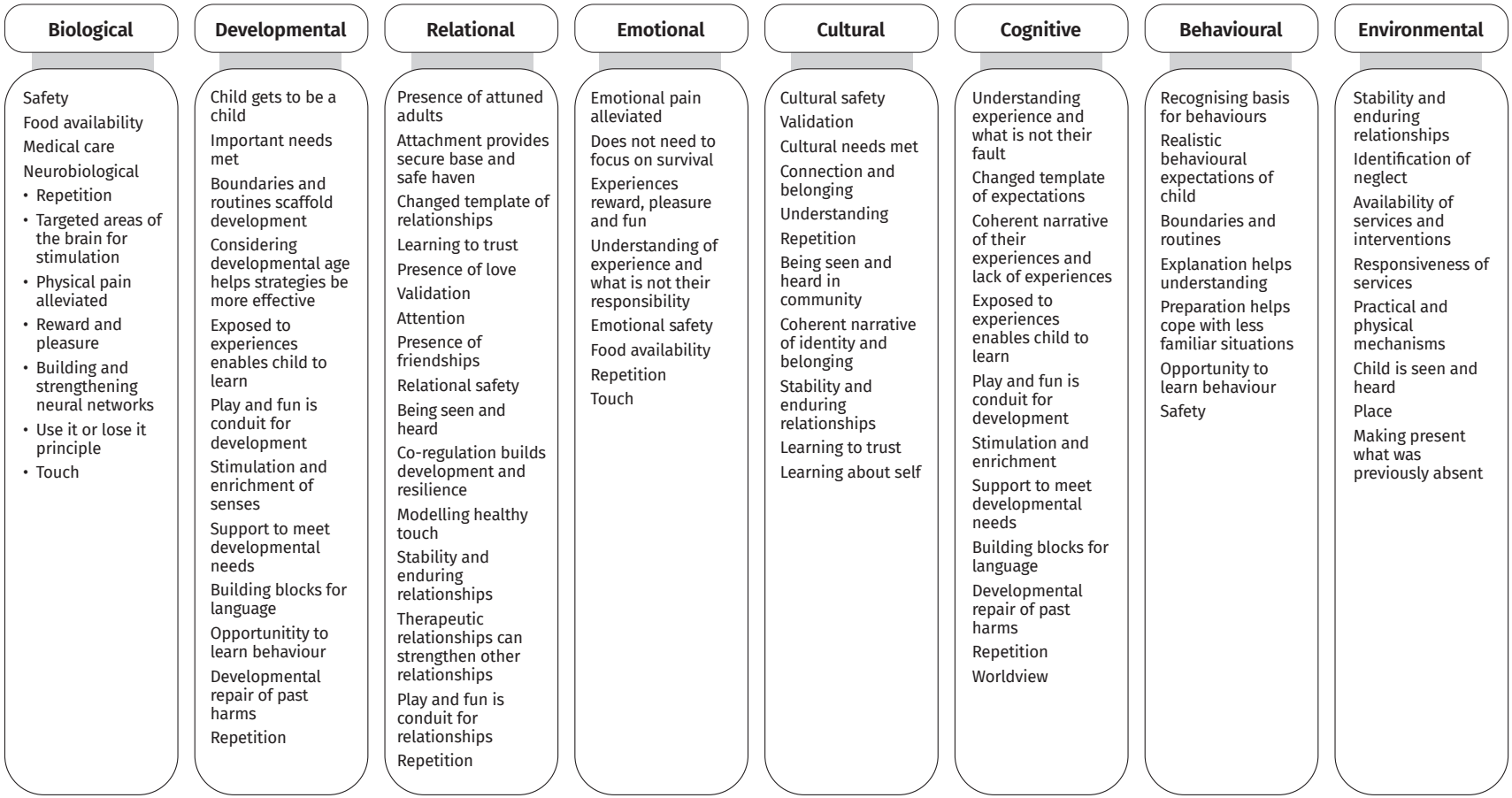
As noted in Figure 6-10 on the carers' perspectives on recovery, children have many needs, the prioritisation of which is influenced by factors such as their age, culture, and living situation. Although primary prevention of neglect was not this study's focus, preventing neglect from continuing or re-occurring was raised as important for recovery. Children no longer being neglected can be a dynamic situation, likely to vary based on family's circumstances, the presence or absence of key people, the nature of the service and legal systems, and children's age, development and capabilities.

The main point of difference between the survey respondents on mechanisms of recovery was how to respond when the child shows difficult behaviours. Some professional and carer respondents stated that understanding the basis for the children's behaviours would guide what could be expected of them given their developmental history. A small number of carer respondents wrote about explaining to the child what was reasonable behaviour and expecting the explanation to be the basis for their change. This is similar to the emphasis in Say-Do-Say Correspondence Training (Pino et al., 2019), where the focus is on clarity of expectations and reinforcement, rather than focusing on the basis for the behaviour (see systematic review, page 63). This is a commonly raised distinction in practice, such as the balance between empowerment and limit setting (Morton et al., 1999), and Siegel's conceptualisation of the need for integration across the extremes of rigidity and chaos (Siegel, 2012).

Figure 6-13 presents an overview of mechanisms for recovery from neglect that emerged from the coding of the interviews and surveys. It breaks down the biopsychosocial and cultural domains into more categories, namely biological, developmental, relational, emotional, cultural, cognitive, behavioural, and environmental. There were also cross-cutting themes across multiple domains, such as the emphasis on children's safety, concept of time and place, consistency, and knowledge on what children have missed through neglect informing the possible mechanisms of harms and for recovery. This is interesting to compare with the possible mechanisms of harm, as portrayed in Figure 5-5, as one aspect of recovery is how to reverse, when possible, the factors which mediated the harms to the children. When neglect is chronic, it is repetitive and continuous. How therefore do we activate mechanisms for recovery that are repetitive and continuous? It is these potential mechanisms of recovery that directly inform the development of the theory of change described in the next chapter and as relates to the retroductive logic of inquiry.

Figure 6-13

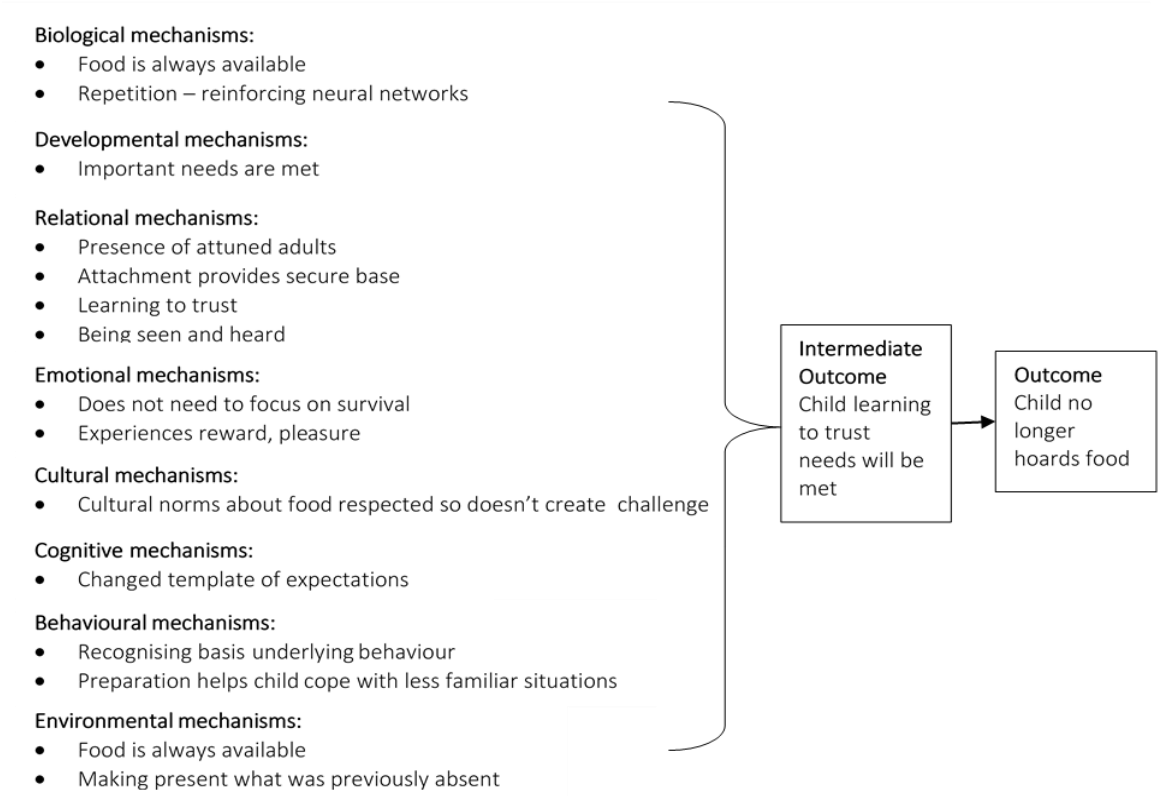
Mechanisms for Recovery from Neglect



Each proposed mechanism depends on what comes before and after. If a goal for a child's recovery is that they no longer hoard food, for example, the child would need to trust their need for food will be predictably and safely met. Figure 6-14 describes what mechanisms may be targetted in interventions by professionals or carers to help a child no longer hoard food.

Figure 6-14

Example of Mechanisms for Recovery from Neglect



Summary

This chapter described ideas and examples from experts in the field, professionals, and carers on children recovering from neglect aligned to Aim 2: *To discover and describe approaches used by professionals and carers that aim to reduce or redress the harmful consequences of neglect and consider what factors may influence these approaches.*

When exploring the principles or practice elements that could underpin intervention along with the analysis of what actions or interventions were taken, barriers for change and mechanisms for change, there were strong themes from both the qualitative and quantitative analysis to inform a theory of change, including:

- Children's safety and sense of safety must be present, and this will be mainly navigated through relationships and meeting their ordinary and extraordinary needs.

- A deep attention to understanding and supporting children's development including the imperative for children to have access to developmental sensory experiences if they are to recover and reach their developmental potential.
- The role of adults around children in the form of a therapeutic web or care team to ensure attention is sustained on the children's needs. This was part of a broader recognition of the importance of system intervention.

These and other themes from the data analysis and the literature review will inform the development of the foundational theory of change for supporting children's recovery from neglect, as described in Chapter 7.

7. Foundations of a Theory of Change Underlying Recovery from Neglect

In this chapter, I address Aim 3 and the overarching research question (Box 7-1). The chapter is structured in line with five stages of explanatory research from a critical realist perspective, adapted from Danermark et al. (2019), culminating in proposing a foundational theory of change to support children's recovery from neglect.

Box 7-1

Aim	Guiding questions
3. To build the foundations of a theory of change that aims to alleviate the consequences of serious neglect for children and to consider what further research is required to complete this theory of change.	Overall question "What key elements of a theory of change can inform choice and/or design of interventions to help children recover from the harms of serious neglect?" A further guiding question (7) is 'What must be true for children to recover from the impacts of neglect?

Having applied a critical realist grounded theory approach with mixed methods, using quantitative and qualitative analysis, this chapter represents the final stage in an iterative and integrative process adapted from Danermark et al. (2019). Chapter 4 provided the context and descriptors of the respondents and the children described in the surveys and Chapters 5 and 6 described the results of the analyses, particularly pertaining to informing a proposed theory of change. Table 7-1 identifies the five stages of the research as first described in Chapter 3 (Table 3-2 and Table 3-3), indicating that Stages 1 and 2 were the focus of the preceding chapters. This chapter addresses Stages 3 to 5.

Table 7-1

Stages in this Study to Build a Theory of Change for Recovery from Neglect – Informed by Critical Realism

Stage	Description by chapter
Stage 1: Descriptions	Chapters 4 to 6 described the quantitative and qualitative analyses used to explore research questions about neglect, harms, and approaches to recovery.
Stage 2: Analytical resolution	Throughout Chapters 4 to 6, I continuously undertook analytical resolution through coding and statistical analysis to determine priorities.
Stage 3: Abduction/ theoretical redescription	In this chapter, I redescribe and interpret the analysis as it pertains to the theory of change and other relevant models about recovery from neglect. This includes emerging ideas and surprises or paradoxes using abductive reasoning. I compared theoretical interpretations and explanations, and integrated analyses and ideas.
Stage 4: Retroduction	In this chapter, I delve into each focused area through analytical resolution and explored answers through the literature and the data to the following

	questions for five examples of problems experienced by children dealing with neglect. (i) What is understood about children's problems resulting from neglect and possible mechanisms relating to those problems? (ii) What is understood about possible pathways to recovery for children and possible mechanisms form part of these pathways? (iii) How is recovery possible? What must exist for recovery to occur?
Stage 5: Theory of change	In this chapter, I place the findings from the previous stages into a proposed foundational theory of change. The final chapter discusses ideas for further research.

Source. Iteration of Table 3-2 previously adapted from Danermark et al. (2019, p. 130) and informed by Eastwood (2011), as applied in this study. Grey shading indicates what was covered in previous chapters.

Stage 1. Descriptions of Key Constructs

Child Neglect

Descriptions derived from interviews with experts and surveys of professionals and carers suggest neglect was largely perceived as children not having their needs met and experiencing an absence or lack of what was important for their development and wellbeing. Several comments identified in the qualitative analysis of interviews and surveys reflected the meaning behind this experience for children, such as being "let down", receiving "empty promises", and "denied" key experiences and opportunities compared to their peers. The responses reflected both definitions found in the literature (Chapter 1, page 3): the absence of children's needs being met and omission of parents, carers, workers, or the system to meet the children's needs. Many descriptions in the survey responses also denoted the harms on the children.

The survey data allowed comparison between children's experience of six neglect subtypes plus global or multiple neglect subtypes but did not enable comparison between neglect and not being neglected. The most frequent form of neglect for the children described in the surveys was emotional neglect. Physical and developmental neglect, however, were almost as prevalent followed closely by supervisory neglect, with these often co-occurring. The least frequent neglect subtype identified was cultural neglect, identified for a third of the children.

The children described in the surveys ranged in age from less than one-year-old to 17-years-old. Neglect subtype was not predicted by age, except for cultural neglect, which was more likely for older children, but was still identified for children as young as one-year-old. An implication for this theory of change is to consider what neglect and recovery may look like from one age to the next. There were no differences of neglect subtype by gender. The child's experience of neglect subtypes did not differ across the 10 countries where professionals completed surveys. In terms of geographic differences, being in a rural or remote area was predictive of children experiencing global/multiple neglect yet was described for children from all

areas. In terms of neglect subtypes and the child's culture, being Aboriginal was predictive of the child experiencing cultural neglect and global/multiple neglect. Children from culturally and linguistically diverse (CALD) backgrounds were also more likely to experience cultural neglect. Although the neglect subtypes were reported across both types of online surveys, carers were more likely to report children having experienced developmental, medical, and global neglect.

The four experts on the topic of neglect were unequivocal on its harmful impact for children across multiple domains. Consistent with these opinions, 99% of survey respondents across roles, disciplines, and countries gave examples of children of all ages who had suffered serious neglect across multiple subtypes, and the many resulting harms. This illustrates the heterogeneity of neglect and yet some prevailing patterns that can inform a theory of change about child recovery.

Presenting Problems

The high frequency of presenting problems associated with neglect for children described in the surveys was striking. Children who were neglected were particularly likely to have difficulties with relationships, emotional health, and development; followed by behavioural and mental health. The least frequent, though identified for nearly three-quarters of the children, were physical health problems.

In this study, the intention was not to generalise to all children who experience neglect due to the non-randomised sampling approach of asking survey respondents to select one child, and the inability to compare these children with children who did not experience neglect. The qualitative descriptions of the children's problems in the survey, however, were largely consistent with the problems selected in the closed-choice responses and provided valuable insights to inform a theory of change to help children recover from neglect.

Child's Age

Although most of the 70 itemised problems in the survey were described for children across the age-range, being older was more frequently predictive of having problems. Apart from a small number of physical health and developmental problems, most relational problems, emotional problems, all the mental health problems, and almost all behavioural problems were predicted by the child being older. It is possible the surveys did not include problems more likely to be experienced by young children. Another possibility is that some problems are harder to recognise in younger children, such as emotional and mental health problems (Osofsky & Lieberman, 2011).

An implication for the theory of change for recovery is that it needs to account for all ages recognising children who have experienced neglect may present with difficulties expected for younger or older children, as exemplified in this study by teenagers with excessive tantrums and growth problems, and younger children with risk-taking behaviours and posttraumatic stress symptoms. Chronological age matters, but according to the experts in this study, developmental age is the key.

Child's Culture

Analysis of the survey data showed Aboriginal children were more likely to have certain problems even when adjusted for variables, such as age, gender, and neglect subtype. Examples were symptoms of depression, risk-taking behaviours, and excessive tantrums. Being a child in Australia from a CALD background was not predictive of any specific problems. Implications for children from other cultures could not be ascertained due to low numbers.

Although the intent was not to generalise, the results were consistent with other findings that Aboriginal children are more at risk of certain health and social-emotional difficulties, and this is likely influenced by the preponderance of historical and current social determinants and structural factors (Guthridge et al., 2016; Zubrick et al., 2005). Even though these risk-factors are not specific to child neglect, neglect-related factors such as the children's experience of cultural neglect may place Aboriginal children at further risk. Another implication is the need to ensure any theory of change model developed in an Australian context needs to be appropriate for Aboriginal children, as determined by that community. Similar cautions are likely to apply for Indigenous children in other colonised countries and for children from minority cultures. It is important to consider the social determinants from history and the present when considering mechanisms of harm.

Neglect Subtypes

The quantitative and qualitative analysis suggested numerous links between neglect and the problems faced by many children. The literature review highlighted frequent associations of general neglect and physical and emotional neglect subtypes with multiple problems for the child, (Chapter 2, page 21). There was, however, minimal research found exploring the impacts of other neglect subtypes on children. My study found every problem domain was predicted by one or more of six neglect subtypes and global/multiple neglect. Most neglect subtypes were predictive of one or more problems. The most prevalent subtypes were the least likely to be statistically predictive of problems. Their high prevalence may have made it difficult to distinguish them in the quantitative analysis. Cultural and global/multiple neglect were predictive of problems in every

domain. When considering all neglect subtypes by all possible presenting problems, cultural neglect and global/multiple neglect remained the most predictive for children having problems.

The latent class analysis (LCA) identified a meaningful classification of the 216 children across four classes. Children who experienced cultural or global/multiple neglect were predicted to be in the class who experienced most problems across the domains. Global/multiple neglect was also predictive of children being in Class 4 (many problems – especially developmental).

Interventions and Strategies

The actions itemised in the professional survey where respondents could indicate what they or their teams did to assist children in their recovery from neglect were broad descriptors covering assessment, direct actions with child and caregivers, and system work. One of the findings was that children being older predicted they were provided child and family counselling. Findings from the quantitative analysis comparing professional actions with child demographics, neglect subtypes, and presenting problems, however, showed few meaningful patterns. Qualitative comments in the professional and carer surveys offered a richer view of what actions were undertaken with the children. These comments, along with the expert interviews, provided insights that inform the theory of change to support children's recovery.

Practice Elements with Child and Caregivers

Practice elements and approaches mentioned in the interviews with experts were primarily on how to intervene, rather than what specific intervention or action should be applied. Undertaking comprehensive assessments, engaging the child directly and working with caregivers were consistent messages from the experts and reflected in survey responses. Looking beyond the superficial was a theme through the interviews, especially according to Drs Perry and Miller. What remained unclear, in many survey responses, was whether or how assessments informed intervention or approaches. Inadequate assessments were noted as a potential barrier to a child's recovery, especially by the experts. According to Dr Miller, for example, if no-one had a coherent picture of the child's history, this limited the reach and impact of intervention.

There was an emphasis in the interviews and the surveys on working to ensure the child's safety, meeting the child's needs including those previously unmet, and providing or supporting predictable, attuned care. There was also mention in the interviews with several examples in the surveys on giving children multiple developmental opportunities in their day-to-day world. Drs Perry and Miller spoke on different aspects of sequencing when planning intervention with the child and each expert commented on the need to tailor interventions for the child. It was difficult

to determine in the survey responses the degree to which interventions were tailored or sequenced, as few were mentioned explicitly by a respondent.

Services and Systems Interventions

Described in various ways in different settings was the need for collaboration, beyond service coordination. Dr Perry discussed the therapeutic web and Dr Miller discussed the care team. These or similar terms were often used by survey respondents. This was consistent with the ecological-systems perspective (Bronfenbrenner, 1979).

The concept of the therapeutic web was described in the literature review (Perry & Dobson, 2013), in the interview with Dr Perry, and in the professional survey responses. The therapeutic web is based on an ecological-systems and developmentally-informed theory of change recognising one hour of therapy a week is usually insufficient to redress the harms from trauma and neglect (Brandt et al., 2014; Jackson, 2014; Perry & Dobson, 2013). This is not to suggest that one-hour a week session with the child does not have its value, such as described by a counsellor for a 10-year-old Irish girl: “In many ways, the simple knowledge that a child has one hour in their week in which they are seen, respected and valued for who they are alone I believe is invaluable to a child's [self-perception]” (P121).

My understanding of a therapeutic web is a way of conceptualising a healthy mesosystem where the child’s microsystems interact to provide a cogent and congruent approach for the child. “Care is not enough and therapy is not enough – on their own – to redress early in life, relentless relational trauma and deprivation” (Jackson et al., 2013, p. 48). The concept of the therapeutic web emphasises the potential therapeutic role of informal and formal relationships for therapeutic, educational and enrichment opportunities to be available to the child and that those in the child’s life can be recruited as co-therapeutic agents (Perry & Dobson, 2013).

If a therapeutic web was an element of a theory of change, then care teams could be part of the theory of action that activates the theory of change (e.g., Funnell & Rogers, 2011). In Victoria (Australia), there is a major emphasis on care teams as key to achieving collaboration within the child protective services (CPS), out-of-home care (OOHC) and family services fields (Bromfield & Miller, 2012; Department of Human Services, 2007), with the concept referenced in some other countries (e.g., Casey, 2022) (see Appendix 1, glossary, page 388).

Care teams can support participants to collectively hold the child in mind, rather than being service-focused or crisis driven. The concept is informed by the ecological-systems

perspective, which emphasises the need to consider not just the child but the multiple layers and interactions of the systems that influence the child's life (Jackson & McConachy, 2014).

Problems with collaboration between services and systems were noted in the interviews and the surveys. Dr Miller suggested barriers to collaboration led to barriers in child outcomes.

Models and Therapies

Professional survey respondents named several therapeutic interventions that I characterised as (i) overall models not limited to a specific intervention but a way of working, with implications for an organisational or service level as well as for the individual children; (ii) formal interventions such as defined in Appendix 1 (page 388) including psychosocial interventions; (iii) less structured interventions, that do not necessarily have formal methods to ensure fidelity and could vary from one application to another; and (iv) strategies and approaches used within interventions and may be more understood as practice elements (e.g., Centre for Evidence and Implementation, 2020).

- *Overall models* such as the Neurosequential Model of Therapeutics (NMT; Perry & Hambrick, 2008), Attachment Self-regulation and Competency (ARC; Blaustein & Kinniburgh, 2010), and the Sanctuary model (Bloom, 2005);
- *Formal interventions* such as Trauma-Focused Cognitive Behavioural Therapy (TFCBT; Cohen et al., 2000), Therapeutic Life Story Work (Rose, 2012), Parent-Child Interaction Therapy (PCIT; Timmer et al., 2005), Eye Movement Desensitisation Reprocessing (EMDR; Shapiro, 1995), Child-Parent Psychotherapy (CPP; Lieberman & Van Horn, 2005), Dyadic Developmental Psychotherapy (DDP; Hughes, 2004), and Theraplay (Jernberg & Booth, 2001);
- *Less structured but discrete interventions* such as adventure therapy (e.g., Bowen et al., 2016), cultural approaches (e.g., Atkinson, 2013; Coade et al., 2008), and animal assisted interventions (e.g., Parish-Plass, 2008).
- *Therapeutic strategies or approaches* such as mindfulness (e.g., Mendelson et al., 2010), goal-setting (Centre for Evidence and Implementation, 2020), and motivational interviewing (Miller & Rollnick, 2004).

Some formal interventions were not described in detail in the survey responses and can present in multiple modalities and formats (e.g., play therapy, psychotherapy, art therapy, drama therapy, sensory-based interventions). None of the therapies described in the survey responses were reported in the systematic literature review on interventions being studied in terms of effectiveness with child neglect (see page 63). One of the approaches used across multiple

therapies was psychoeducation (National Child Traumatic Stress Network, 2017). This involved helping the child, caregivers, or care team understand what was happening for the child and how to respond on a day-to-day basis to the child's distress or other difficulties. I have listed cultural approaches under less structured but discrete interventions, but there are specific cultural interventions (Gee et al., 2014) that were not described by the respondents in this study.

Another common approach were various combinations of sensory, somatic, relational and/or cognitive elements. For example, Theraplay draws on attachment and neurobiology and, as the name suggests, focuses on playful activities (Jernberg & Booth, 2001). TFCBT is a form of cognitive behavioural therapy to help children understand their experiences of trauma. It includes activities to help the child become more regulated before they are supported to make sense of their narrative (Cohen et al., 2010). As described in the literature review (Chapter 2, page 79), none of these therapies or models have yet been identified as having evidence of outcomes for children who experienced neglect.

Informal interventions and strategies were also discussed and referred more to specific actions taken with individual children that are not documented as interventions or elements. They tended to be about conversations with children and in-the-moment interactions or activities.

Carers' Approaches

The carers' description of what they did to help children who experienced neglect, suggest certain patterns, most of which were founded on their day and night caregiving role. These reflect the role of carers to meet the ordinary and extraordinary needs of children subjected to neglect including demonstrating love, providing food, communication, hugs, safety, play, activities, and being present for the child. Though these are ostensibly essential and daily needs for all children (Goodhue et al., 2021; Noonan, 2017; Statham & Chase, 2010), carers described several challenges in meeting these needs.

Carers' actions that appeared directly tailored to the children's experiences of neglect included bearing witness to their distress and other emotions, creating specific developmental opportunities, responding to difficult or distressing behaviours, and continuously reassuring the child. These actions are a common occurrence in most households but have a certain resonance and intensity for children who have experienced neglect across multiple domains.

Stage 2. Analytical Resolution

Analytic resolution occurred throughout the integrated qualitative and quantitative analysis as I decided to use the data to decide what to focus on and what to put aside to remain focused on the research question. The wealth of data provided through interviews and surveys led to an unexpected difficulty in deciding which aspects to cease analysing, given so many were interrelated. Analytic resolution makes overt the value of confining the reporting of analysis to certain areas (Danermark et al., 2019).

For the qualitative analysis, analytic resolution was undertaken through open coding and then narrow-focused coding as per my application of critical realist grounded theory method described in Chapter 3 (page 102). One of the focused codes in the qualitative analysis on harms from neglect was food (Chapter 5, pages 139 and 175). Food-related strategies was also a focused code under strategies (Chapter 6, pages 202 and 218). These and other focused codes are used throughout this chapter to inform theoretical coding that, in turn, informs the theory of change.

One of the steps to analytic resolution in the quantitative analysis was through binary logistic regression. It was not possible in the confines of this thesis to describe the quantitative analysis undertaken on all 70 presenting problems of the children and the range of significant associations with variables, such as age, gender, culture, and neglect subtype. In Chapter 5, after exploring all unadjusted associations, I reported on logistic regressions for problems where there were significant findings after adjusting for other variables and where there were predictive variables or qualitative commentary that could inform the theory of change (see page 138). I undertook a similar process in the analysis of interventions and strategies in Chapter 6 (see page 196).

To inform a foundational theory of change, I needed to narrow the focus further by selecting examples from the data that illustrated the key findings. The process included re-examining the data for examples where there were statistical or qualitative findings that suggested potential mechanisms of harm or recovery or held surprises to be further explored.

Miles and Huberman (1994), as cited in Eastwood (2011), advised to graphically represent the conceptual frameworks to assist analytical resolution. I have drawn small conceptual maps for the retroduction analysis in Stage 4. I then applied these examples in a final diagram representing a foundational theory of change and referred to the original conceptual diagrams to determine if there were any gaps.

Stage 3. Abduction/Theoretical Redescription

I reviewed the original conceptual ideas through the qualitative and quantitative data that emerged. This stage emphasised emerging and potentially surprising knowledge and ideas.

Cultural Neglect – An Unfinished Construct

Cultural neglect was difficult to locate in the literature. As described in Chapter 2 (page 15), cultural neglect was a contranym, such as when children's cultural needs are not met, compared to, other needs not being met due to the child's culture. On the other hand, literature was found on concepts of cultural abuse, cultural trauma, cultural continuity, and cultural safety which often incorporated elements of cultural neglect, consistent with the use of the term in this study. These terms were most likely to be applied to children from Indigenous and minority cultures.

Findings from this Study Regarding Cultural Neglect

Cultural neglect was described for a third of the children discussed in the surveys; identified by carers and a variety of professionals from eight of the 10 countries. Only one of the survey responses indicated a different understanding of cultural neglect such as described in Table 2-2 (i.e., that the family's cultural beliefs contributed to the neglect). Examples illustrating cultural neglect as a neglect subtype, were provided in other surveys, such as an Aboriginal child being "*disconnected from culture*"; placed away from land, knowledge and people; and where the care team responsible for coordinating her care was not hearing from cultural informants from her community.

Fifty-six percent (*n* = 28) of the Australian Aboriginal children described in the surveys experienced cultural neglect. It was almost as high for children from CALD backgrounds living in Australia (n = 14, 53.8%). As described in Chapter 5 (page 130), being Aboriginal, or from a CALD background, was predictive of experiencing cultural neglect and this was a main effect regardless of other variables. However, 19.3% non-Indigenous Australian children were also described as experiencing cultural neglect. Children from cultural groups in other countries were too few for statistical analysis. Two of the five Indigenous children living in other colonised countries experienced cultural neglect. Of the 11 children described as African American, Hispanic American or Asian American, five (45.5%) experienced cultural neglect.

Cultural neglect was more likely for older children, according to the quantitative analysis, and possibly reflects the idea that older children and adolescents are more able to be engaged

with their culture or that it is more visible when they are not. The concept of cultural presence begins at birth.

> From before birth children are connected to family, community, culture and place. Their earliest development and learning takes place through these relationships, particularly within families, who are children's first and most influential educators…Children belong first to a family, a cultural group, a neighbourhood and a wider community. (Department of Education Employment and Workplace Relations, 2009, p. 7)

The findings from this study pertaining to cultural neglect suggest it is a useful construct to include in frameworks relevant to child wellbeing and maltreatment. The most expected finding with cultural neglect was its predictive association with low cultural pride. The range of other problems cultural neglect predicted, was less anticipated, such as problems with short-term memory, risk-taking, and not understanding other people's emotions (see Figure 5-2). Despite its significant associations with several problems facing the children, there was little mention of what professionals or carers did to ameliorate the impacts of cultural neglect. It was predictive of the professionals working to assist children in learning and development, which was interesting given children's culture was not predictive of this action. In my view, these findings illustrate the potential benefit of having cultural neglect as a separate phenomenon so specific efforts can be tailored for prevention and healing.

A question arising from this finding was who or what was the source of cultural neglect and what strategies could be engaged to prevent or reduce the child's exposure to cultural neglect? The free-text comments in the surveys indicated the service system was one of the sources of cultural neglect. Although this study is not focused on prevention of neglect, it is necessary for the theory of change to incorporate ideas about ensuring the child's safety from further neglect or other adversity including cultural neglect. In understanding cultural neglect and its impact on children, from a critical race theory perspective, if racism is the ordinary not the extraordinary (Delgado & Stefancic, 2017), then cultural neglect for children in Indigenous or minority cultures may be more prevailing than found in this study.

Cautions

Caution is required in interpretation of cultural neglect. The perception of whether or not cultural neglect has occurred is, in itself, culturally laden and so may be more or less visible to respondents based on their own culture and experience with other cultures.

As with emotional abuse and emotional neglect (e.g., Glaser, 2011), it is likely that cultural abuse and cultural neglect overlap and so a question remains as to whether cultural neglect is a useful construct in its own right. I argue cultural neglect is important to recognise so as to identify early and intervene if it occurs. One question considered in this study is whether there are strategies to support recovery, that may be informed by a theory of change incorporating the concept of cultural neglect.

Another caution is that compartmentalising ideas and concepts into discrete categories is more aligned to a Western approach than most Indigenous and non-Western cultures (Bamblett et al., 2012). This construct needs to be further explored by those from specific cultural communities for cultural validity. Care is also required to ensure recognising cultural neglect does not inadvertently widen the net for CPS interventions in the lives of Aboriginal children and families and those from minority cultures. Cultural neglect is logically more likely to occur through the actions and inactions of people, organisations and systems that do not reflect the child's culture. History, however, informs caution. The proposed construct of cultural neglect thus remains unfinished, as it is not appropriate for me to draw conclusions without engaging people from the cultures most likely to be subjected to cultural abuse and cultural neglect.

Developmental Neglect

The literature defining developmental neglect as a subtype was mixed and scant. Perhaps this is due to development being seen as an element implied in most neglect. The literature is certainly replete with descriptions of neglect that meets the definition of developmental neglect (e.g., Bowlby, 1952; Franz, 2015).

In this study, 100% of the carers and 84% of professionals indicated the child they described in their survey had experienced developmental neglect. Comments illustrated many instances of what this looked like for the child, whether it was the absence of sufficient play, movement, language, or education. From the adjusted binary logistic regression analysis, developmental neglect was predictive of children having difficulties with language and fine and gross motor skills. Developmental neglect was predictive of professionals advocating on behalf of the child and system interventions in general.

Systemic and Structural Factors and Change

The experts spoke about structural sources or mechanisms of harm including those that contributed to neglect, intersected with neglect, or created or sustained barriers to recovery. These included poverty, inequality, insufficient access to food, historical trauma within certain

cultures, and lack of a social safety net. There is a body of literature on neglect and poverty including its confounding relationship that can complicate assessment and intervention with families (e.g., Gupta, 2017; Scott, 2014; Wald, 2015). The main suggestions in the interviews and surveys on intervention relating to these factors were education and advocacy at a child, family, and system level.

In thinking about the structural basis for disadvantage, and applying it to a theory of change approach, there are numerous examples of its application towards social change (e.g., James, 2011; Stein & Valters, 2012). Although this study was primarily focused on interventions for children and their microsystems as the most proximal influence to support recovery, the discussion from the experts highlighting several barriers at the exo- and macrosystems level has implications for how these can be recognised in a theory of change.

Latent Class Analysis and Cluster Analysis

Two quantitative analyses of the presenting problems of the children provided opportunity to consider possible patterns from a different perspective. LCA is a statistical procedure that brings to the fore shared characteristics of the cohort under study, that are not otherwise visible (Weller et al., 2020). The 216 children described in the surveys were classified under one of four classes based on their individual suite of presenting problems. The results supported other findings in this study, suggesting the latent classes were plausible. For example, global/multiple neglect was the subtype that predicted membership in the class with the highest number of problems, as were children being older and Aboriginal (see Chapter 5, page 165). In terms of intervention by professionals (Chapter 6, page 197), the children whose membership was in the class with most problems (Class 3), or the class with many problems – especially social-emotional (Class 2), predicted they were more likely to be provided child counselling.

Whether the four latent classes are a reasonable grouping of the children who experienced neglect requires further research. If this is a sound classification, it offers an interesting perspective in building and testing the theory of change for child recovery. In addition to exploring whether the proposed theory of change is suited to the different age groups, developmental stages, cultural backgrounds, living situation, neglect subtypes, or individual problems; these four classes could be another point of reference to consider the applicability and implementation of the theory of change. As an example, Class 4 (children with many problems – especially developmental) are likely to require some different interventions than children in Class 2 (children with many problems – especially social-emotional). Nonetheless, a foundational theory of change that provides the way of deciding interventions could be applicable to both.

In comparison to the LCA, a cluster analysis in Chapter 5 (Figure 5-1) focused on the 70 problems itemised in the surveys and whether there were clusters of commonly co-occurring problems. In other words, when one problem was present were certain other problems likely to be present. The cluster analysis showed various problems commonly co-occurred for these children. For example, one cluster included problems often associated with emotional dysregulation, such as difficulties with self-esteem, self-efficacy, ability to understand one's emotions, ability to express emotions, ability to understand others' emotions, few interactions with friends, poor social skills, not coping when stressed, difficulties in regulating emotions and difficulties trusting others (Dvir et al., 2014). Another cluster reflected problems with executive functioning, such as difficulties with impulsivity, attention and/or concentration, problem-solving, not doing as well at school as was capable, and short-term memory, and sensory processing (Barkley, 2012). There were also clusters around physical health, such as being underweight, growth problems, frequent and/or serious illnesses and needing medication for physical health concerns.

The combination of many of these difficulties not only indicates the degree of impact for children but the challenges for caregivers responsible for meeting their daily needs. This has important ramifications for a theory of change aiming to assist children's recovery, as they are likely to be beset simultaneously with multiple problems. Exploring potential linkages between the problems may also inform the approach to intervention. This will be considered further in Stage 5.

The results of the LCA and cluster analysis of problems, suggest that instead of the theory of change focussing on how to remediate one or two problems presenting for children who have experienced neglect, it is beneficial to understand the combination of their difficulties. For example, a theory of change or a specific intervention could be considered for a group of children who share sufficiently similar problems, such as described through the LCA. Alternatively, when one type of problem is present it may be useful to explore whether other problems that often co-occur with that difficulty are also present for the child. Drs Perry, Miller, and Dubowitz commented in their interviews on the importance of understanding a child's entire presentation, rather than on the more obvious problem or on a particular area of interest for the researcher. It is not that interventions should target every problem at the same time but recognising the interrelationships that many difficulties incur for the child better informs assessment, planning and, therefore, intervention.

Interventions, Approaches and Theory of Change

Several elements of intervention mentioned by the experts during the interviews and from the professionals and carers' comments in the surveys are common across various frameworks. For example, a focus on safety, assessment, engagement, and collaboration are hallmarks of many practice models not limited to child neglect, including those designed by some of the experts interviewed (e.g., Centre for Evidence and Implementation, 2020; Daniel et al., 2011; Glaser, 2011; Horwath, 2013; Miller, 2012; Perry, 2009). What emerged from the interviews, however, and sometimes illustrated in the surveys, was how these are applied when helping children recover from neglect and where the emphasis lies. There were also approaches that appeared specific to child neglect. In applying an abductive lens on interviews and survey data on intervention, I considered: *What, if anything, is different for child neglect and what explicitly informs a theory of change?*

Experts' perspectives

A possible difference for interventions with children in the aftermath of child neglect, as described by the experts, is the emphasis on assessment being developmental and across multiple domains so it is informed by the heterogeneity of mechanisms of harm arising from neglect. Another element is the practical nature of the interventions when working with caregivers to ensure children's daily needs are met, and directly with children. There is practical and symbolic as well as the actual and perception of safety. The other imperative, highlighted by Dr Perry, is ensuring children's access to healthy relationships. This is for their sense of safety and represents the scaffolding needed for change to occur. According to the experts, with varying emphases, interventions with children benefit from a sequential approach actively considering the order of what should occur when, and the dose or degree of frequency and intensity. This sequencing, however, is likely to be better informed when understanding missed key developmental and other essential experiences for the child.

Another theme which emerged during coding of the interviews was the recognition that neglect often challenges many of the child's senses. The smells; the feel of rough or dirty clothing or bed linen; the limited variety of tastes; what they see on the floor, in the fridge, or on the streets; and the absence or scarcity of what they hear in terms of nurturing, soothing sounds of care and concern. Some descriptions of interventions mirrored these sensory experiences by discussing what sensory inputs could be made present, such as touch, food and music; and what sensory inputs could be reduced or ceased, such as "poo on the floor" and avoidable pain and illness.

A question that emerged during the interviews with experts was the degree to which it mattered how children developed the problems, apart from the need for prevention. Could the intervention be the same regardless and focus instead on what works with that set of symptoms or difficulties? Each expert articulated directly or through example that understanding the aetiology of the children's problems, such as the nature of neglect, is fundamental to understanding how best to intervene. Sesar and Dodaj (2021) and Taussig et al. (2013) also argued for more research on child-focused interventions in response to neglect for similar reasons. In contrast, Cohen et al. (2006) posited if interventions can reduce mental health symptoms in children exposed to one type of child maltreatment, they were likely to be effective for other types.

Professionals' Perspectives

A large majority (87.7%) of professional survey respondents indicated they used interventions to help the child recover from neglect. They were also asked if knowing a child has experienced neglect informed their interventions in general, to which 79% replied a lot or a great deal. The qualitative and quantitative analysis of the professional surveys suggested many professionals' actions were not specific to the child's experience of neglect. Rather, it appears much of their practice could apply to children who experience other forms of maltreatment or adversities as well as neglect.

The strategies or approaches that were specific or tailored to children's experience of neglect, as mentioned in the surveys, can be summarised as meeting their ordinary and extraordinary needs. This included establishing changes in the environment, filling in gaps of missed experiences, food-related strategies, supporting children to gain insight into their experience of neglect and its impacts, and providing stimulation and enrichment.

The relatively small number of significantly predictive variables through the quantitative analysis for most actions could be considered a sign of good comprehensive practice. In other words, that children who had experienced neglect, regardless of age, culture, and neglect subtype received similar broad responses, such as assessment, direct intervention, work with their caregivers, and system interventions. To some extent, this is suggested in the expert interviews on common practice elements or principles. Child counselling was the action most predicted by child demographics and some presenting problems; suggesting it is less routinely incorporated into an intervention plan, and more purposefully applied. Another way of looking at this question of intervention is through the comparably small number of actions mentioned that were specific to neglect, which illustrate such actions are possible, yet not often applied. A remaining question,

therefore, is if intervention is not directly informed by and tailored to children's experience of neglect, will it be less effective or miss the mark, as suggested by the expert interviews.

Another finding was an apparent paradox. Even though the systematic literature review in Chapter 2 (page 63) found few evidence-based interventions for children in response to neglect, a large majority (85.6%) of the professionals in the surveys indicated their practice was evidence-informed. None of the four treatments (Bucharest Early Intervention Program (BEIP), Attachment Biobehavioral Catchup (ABC), The Equilibrium Project (TEP) and Say-Do-Say Correspondence Training described as showing positive results in the systematic review, were mentioned by survey respondents, although BEIP and TEP are location specific (see page 63). Similarly, none of the therapeutic interventions described by the professional respondents have yet documented evidence of their effectiveness with children who have been neglected (see page 211). This is not necessarily a contradiction depending on the respondent's definition of evidence-informed or evidence-based practice (e.g., Brandt et al., 2012). Their responses, for example, may have been an indication that their practice was informed by relevant theories and research but not limited to interventions subjected to randomised control trials or that apply manualised models. The interventions may have a research base articulating the mechanisms for change, but this was not described by the survey respondents. It is also possible that some respondents were influenced by prestige bias and believed their practice should be influenced by evidence-informed practice and completed the survey accordingly.

Carers' Perspectives

An overarching message from the carers' surveys was not taking anything for granted when caring for children who have experienced neglect. Carers' roles in understanding and meeting children's ordinary and extraordinary needs was a theme throughout the carer surveys that has implications for any theory of change in response to neglect. It could be argued that much of what they described in free-text or noted in the closed-choice responses is inherent to caregiving, yet there appeared a different emphasis when caring for children who experienced neglect. For example, it was not just about ensuring the child was fed, but understanding the child's fears about not being fed, making food more available, and providing repeated reassurance. It was also about teaching the child how and when to eat.

Metaphors

For both abductive and retroductive reasoning, it can be beneficial to consider the use of metaphors (Chun Tie et al., 2019; Timmermans, 2012). I reflected on the metaphors used by

respondents, as described in Chapter 6, page 181), and those that emerged through my coding and how they may add perspective and meaning in building theory.

I focused on metaphors used by the experts and carer and professional survey respondents to portray recovery from neglect. Each metaphor illustrates characteristics of positive outcomes for children who have experienced neglect. Figure 7-1 depicts the different terms and concepts I associated with each metaphor. The first metaphor pertaining to growth was described for children growing up and also other types of growth, such as flowers. Repair was a theme discussed in the surveys, especially as it related to relational repair. There is an inference of being broken or rupture before repair is required. Change is explicitly referenced in the phrase 'theory of change' and the symbol used in Figure 7-1 is the caterpillar's metamorphosis to the butterfly. The concept of catching up was mentioned in both interviews and surveys and has a sense of the child being left behind due to what they have missed and thinking about what they need to make or catch up on developmental gains. This has a particular concept of time being of the essence. The term 'recovery' is often understood as related to healing, and although it implies ill-health, it also uses some of the other concepts discussed during this study, such as dose and survival. Similarly, being rescued, reflects the dangers inherent in neglect and the need for others to act.

Figure 7-1

Reflections on Metaphors on Child Outcomes

- ***Growth***, development, biology, ecological, natural, stunted or failed to thrive and now growing, watered, fed, cared for, may not notice, needs, ordinary and extraordinary, time, frequency, repetition, space, scaffolding, learning, exposed to inputs, emerging, revive, recover, nutrients, sustenance, reaches potential, internal and external mechanisms, gardener, garden, forest, meadow, desert, weather, soil, climate.
- ***Repair***, reparation, mend, fix, broken, ruptured, requires someone else, same but different, better, scaffolding, inputs, reassured, external mechanisms, before and after, intervention.
- ***Change***, metamorphous, biological, transformation, noticeable, different, natural, energy, changes template, time, stage, inputs, self and wider world, mastery, activate internal mechanism, environmental, before and after, a new world, before and after.
- ***Catchup***, race, behind, missed out, different from others, energy, speed, slow, fast, pace, losing, winning, active agent, ordinary and extraordinary, practice, repetition, time, predictable pattern, positive role models, learning, inputs, congratulated, equity, safety, gradual increase, mastery, regulate, reaches potential, activate internal and external mechanisms, perception by self and others, action, active, perception by self and others, action, active, coaching, weather, building up resilience and strength, catching their breath.
- ***Healed***, well, requires someone else, better, feeling, patient, recovery, recover, needs, survival, extraordinary, nutrients, reassured, dose, activate healing mechanisms.
- ***Rescued***, requires someone else, victim, survivor, safety, recover, battle, battle weary, war zone, survival, threat, extraordinary, reassured, comforted, trauma, intervention, activate rescue mechanisms.

I found the metaphors relating to "growth" and "catching up" the most consistent with the themes emerging from this study on recovery from neglect. They both suggest personal agency of the child, but with key elements in the child's environment being necessary to reach their potential. They indicate the child requires sustenance, energy, time, and space. Growth in particular reflects the idea of an ongoing continuum rather than reaching an endpoint. These two metaphors also reflect what might be the ordinary, unnoticed, and gradual, as well as the extraordinary, noteworthy, and bursts or blossoms.

Making the Absent Present

Making the absent present appeared a useful concept when considering neglect was about the absence or intermittent and unreliable response to a child's needs. There were several ways this idea emerged in the interviews and surveys. Study participants referred to meeting the children's current needs and enabling them to experience hitherto missed needs being met. Examples described in the surveys and interviews included providing and reassuring on future

provision of safety, food, love, and education. A family support counsellor wrote what they did to make a difference to the child was "having someone focus on them, to accept them for who they are, to build a trusting relationship that they may not have ever experienced" (Three-year-old Australian non-Indigenous boy, P128). This concept was described by Dr Perry including the emphasis on intensity, frequency, dose, and repetition. In other words, a one-off experience would rarely achieve the changes hoped for, and especially not for children who have experienced chronic neglect. In his discussion on repetition and dose, Dr Perry argued the other major component required was relational presence:

> most of the kids that we're working with that have neglect-related problems, require many many many many many more repetitions for recovery [...] And then the other thing that's really really important is that as it turns out so many of the major components.... major systems that need to be repaired are relationally dependent. And that means that if you're really going to get the kind of recovery you want there needs to be relational chronicity and permanence would be ideal. (Dr Perry)

Relational presence was another strong theme in intervention for both carers and professionals. Ensuring children have one or more people in their lives they can rely on to be present is an essential need. The child's desire for proximity to others is a crucial survival and developmental attribute and forms part of what is understood as the security of attachment (Bowlby, 1969). Children develop strategies at different ages to increase their ability to rely on others to provide a *safe haven* when they are distressed and a *secure base* when they need to explore and take on new learning (Cassidy, 2008). Several surveys mentioned the concept of co-regulation where children were supported by caregivers to manage distress or fears. Carers mentioned this concept of relational presence in various ways. For example, one carer wrote: "Being present for the child and being emotionally available. knowing how to deal with the emotions, that is what works best for her" (C8). In Dr Perry's interview, he said: "It's more about just learning how to be present and patient and quiet with these kids and enjoy them. Enjoy what they have to offer". He later said: "so we'll give them lots of opportunities to be in the presence of somebody where they can be parallel".

A related theme on making the absent present, was making the invisible visible. This applied to many children described in the surveys and was mentioned in Dr Miller's interview. For example, when neglected children were noticed it was for reasons that helped others dismiss them, such as being smelly or loud. Numerous examples were particularly found in carer surveys of listening to the child and witnessing their distress or pain.

Time and Place

Timing was raised through the interviews and surveys as both a means of understanding when neglect began for the child, and for sequencing interventions, repetition, intensity, and duration. The most consistent themes for recovery across all respondents in this study in relation to time were consistency and predictability.

Not having a place to call home may be a hackneyed but apt descriptor for many children who experience neglect. Whether they lived in the one place but were not seen, loved or cared for; went from one placement to another; or to and from family to OOHC. Many children described in this study had little basis for recognising what a safe place or a sense of home looked or felt like. In terms of intervention, place was a feature, particularly with carers illustrating their responses to the child in all parts of the home, from the bedroom to the kitchen as well as in transit and in the community. Carers and professionals also described what was needed in child care or school settings to enable the child to reach their potential. Consistency and predictability were as relevant for place as they were for time.

Stage 4. Retroduction

As presented in Table 3-2, retroduction is featured in critical realist approaches to explore questions on possible mechanisms underlying the phenomena under study (Danermark et al., 2019; Oliver, 2012). For this study, the retroductive analysis was primarily on exploring possible mechanisms for recovery from neglect as key to the theory of change. It was also informed by exploration of mechanisms of harm. Retroductive inquiry was particularly important for this study, given the limited availability of research about interventions for children who have experienced neglect. Delving into the data and exploring ideas from the literature in general about possible mechanisms to target with interventions, was viewed as an important step in achieving the study's aim. Relevant retroductive inquiries to explore in the data were: *What is recovery from neglect? What must be true for recovery to occur? What makes recovery possible?*

As part of the analytical resolution process described earlier, I undertook retroductive analysis on five neglect subtypes and five problems experienced by the children described in the surveys. The data was derived from the perspectives of the professionals and carers who worked or cared for these children and was cross-referenced with commentary from leading experts in the field. The criteria for selection of these examples includes:

- *Emotional neglect* only predicted one problem once adjusted for other variables, which was *not coping with stress*, in the emotional domain.

- *Developmental neglect* predicted only developmental problems once adjusted for other variables. Language and fine motor problems had a potential association (informed by the interview with Dr Perry) so *language problems* was decided to be the focus.
- *Medical neglect* predicted mainly physical health problems. *Sleep* was selected as the most frequently identified physical health problem.
- *Global/multiple neglect* predicted problems in every domain but was the only type that predicted mental health problems. Due to trauma being described in the literature, interviews and surveys as a potential mechanism or type of harm, *posttraumatic stress* symptoms was chosen.
- *Cultural neglect* predicted problems in every domain, except mental health, once adjusted for other variables. I chose *low cultural pride* given the dearth of literature on this problem in the context of neglect.

For each example, I explored five areas, with attention to Owen Lo's (2014) concepts of conceptual and empirical groundedness which was applicable to critical realist grounded theory:

1. I proposed what recovery may look like for that form of neglect or problem, informed by the expert interviews. Recovery always began with the child no longer being exposed to neglect, as articulated by the experts. I then elaborate on what recovery from the problem may be.
2. I provide descriptors of the types of harm from the mixed method analysis, especially from the survey data. This includes examples of children described in the surveys and quantitative analysis that suggested possible associations. I present diagrammatic representations that helped clarify my thinking.
3. I summarise the literature relating to possible mechanisms for harm and recovery.
4. I discuss potential mechanisms and examples for recovery, that emerged from the qualitative data in the interviews and surveys.
5. I bring these together to consider possible links between mechanisms for harm and recovery using diagrams to illustrate simplistically some of the likely complex pathways.

A primary question I posed during the analysis was – given that what has happened to the child cannot be erased, such as their history of neglect and other adversities, what can be stopped, introduced, or altered in the present to support recovery from this past into the future. In reflecting on the previous discussion of metaphors, I also considered which ones were most applicable to these scenarios. The metaphor of growth appeared most germane to the examples

of emotional neglect and stress, global/multiple neglect and posttraumatic stress and cultural neglect and low cultural pride. Growth implies the need for attention and care, nutrients, and being able to buffer or protect from the environment for the plant or child to thrive, even when under threat. Medical neglect and sleep problems seemed logical to apply the healing metaphor, although it also fits the metaphor of growth. Developmental neglect and language were considered in the light of growth, but the metaphor of catching up seemed particularly apropos of what is hoped for many children with language difficulties.

Emotional Neglect and Not Coping Under Stress

Emotional neglect is one of the most commonly described neglect subtypes in the literature (Chapter 2, page 22). Being less likely to cope under stress was listed under emotional problems in the survey, to discover whether the child became easily overwhelmed or had heightened stress sensitivity. In this instance, stress was defined as moderate predictable stress, not traumatic stress (Perry, 2005). Stress is a typical physical and psychological response to challenging or new situations (Selye, 1978), whereas trauma is when an event or series of events is experienced as overwhelming of the person's usual internal and external ways of coping (van der Kolk, 1989).

What is Recovery?

Recovery in this example is proposed to be when a child is no longer subjected to emotional neglect and has increased capability to cope under stress. More detailed descriptors include:

- Emotional neglect has ceased – the child's emotional needs are met in a predictable way;
- The child has increased capability to cope with day-to-day stressors; and
- The child has confidence their emotional needs will be met in the future and that they will be supported in stressful situations.

Descriptors and Examples of Harms

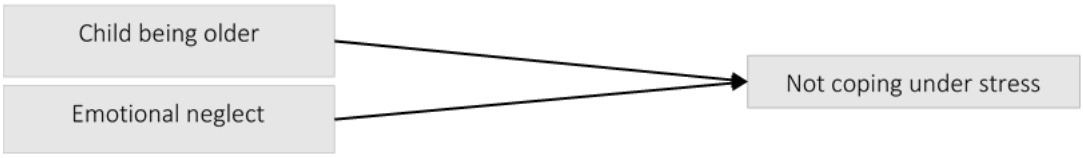
Emotional neglect was the most frequently reported neglect subtype in the surveys, indicated for 204 (94.4%) children. There were 162 children (75%) described as not coping when stressed. This was the second most frequent problem and noted for children ranging across all ages. There were 157 children (73%) described as having experienced both emotional neglect and difficulties coping with stress.

The adjusted logistic regression analysis showed that not coping with stress was predicted by children being older and the presence of emotional neglect. There was no interaction effect so

each of these variables independently predicted this problem (Figure 7-2). As reported in the cluster analysis, not coping when stressed was clustered with difficulties regulating emotions and problems with trust (Figure 5-1, page 134).

Figure 7-2

Basic Representation of Neglect-Related Variables Predicting Children Not Coping Under Stress



Literature Summary of Links Between Emotional Neglect and Stress

In reviewing the literature on how neglect may impact on stress, it was found that emotional neglect could impact the child's stress response in two main ways: (1) on the organisation of the child's neural networks that over time form part of the complex multilayered stress-response system; and (2) the child's access to the necessary supports and other factors that undermine or bolster their functioning during stressful events (Szalavitz & Perry, 2010).

Neurobiological Mechanisms from Emotional Neglect to Not Coping with Stress. De Bellis (2005) noted emotional neglect could dysregulate infants' developing biological stress-response system. According to Perry et al. (2016) when growing up in a neglectful environment including emotional neglect, children's neural networks involved with the stress response are dealing with frequent unpredictable and overwhelming patterns of activation and so can become overreactive, leading to higher stress sensitivity. The following quote illustrates a mechanism for how neglect including emotional neglect may be part of the chain of events leading to an unregulated stress response to an everyday stressor:

> Unfortunately, in children with previous developmental adversity, chaos, or trauma, their stress-response systems have become so sensitized that even minor challenges will result in major activation—the transition from play to lunch will elicit a response that would be appropriate for a serious threat, the whisper becomes a shout, and "not now" becomes "never." The result is a confusing emotional and behavioral overreactivity that often confuses adults, peers, and the child. (Perry et al., 2016, pp. 133-134)

Maheu et al. (2010) found young people with a history of deprivation and emotional neglect showed greater left amygdala and left anterior hippocampus activation whilst processing threatening information. These areas of the brain are known to be involved in the stress response

system (e.g., De Bellis, 2005; Hart & Rubia, 2012). Gunnar and Quevedo (2007) described children's experience with unsupportive caregivers elevating cortisol levels and heart rate, especially for acutely stressful situations. They note one of the core functions of caregivers is to "modulate and enable control of physiological and behavioral responses to stressors" (Gunnar & Quevedo, 2007, p. 157). Bruce et al. (2009) suggested unresponsive caregiving may fail to buffer children from stressors, which may explain atypical cortisol levels. Perry and colleague's (2016) concept of state dependent functioning is also relevant. It describes how our ability to undertake simple or complex tasks when under stress, is reduced for tasks not directly required to deal with the threat.

Relational Mechanisms from Emotional Neglect to Not Coping with Stress. Core constructs of attachment theory are predicated on understanding how children respond to their attachment figures when under stress (Cassidy, 2008). The Ainsworth procedure for testing security of attachment exposes children to brief, moderate stressful episodes of separation and unfamiliarity in order to classify their coping strategies through use of the caregiver as a secure base and safe haven (Ainsworth et al., 1978). Having attuned responsive attachment figures is a mainstay to social regulation of emotion, especially in managing stress (Perry et al., 2016; Vaughn et al., 2008). Research draws on extensive animal studies as well as human research to explore the neurobiology of attachment (Coan, 2008). According to Perry et al. (2016), the multiple neural systems involved with attachment include those that mediate emotional regulation, reward, communication, empathy, establishing the familiar, proximity seeking, and separation distress. The emphasis of attachment theory is on the importance of the child's caregivers to be attuned, attentive and available. When this does not occur, as with emotional neglect, the child's relational neural networks will be organised to adapt and survive in that world (Perry et al., 2016).

Studies on Emotional Neglect and Managing Stress. Rauschenberg et al. (2017) posited emotional neglect may sensitise children when exposed to further adversity and stress. Other studies that found emotional neglect was associated with stress and not coping were Daruy-Filho et al. (2013), Franz (2015), Grummitt et al. (2021), Hong et al. (2018), Shao et al. (2021), and Zhao (2021).

Recovery from Emotional Neglect and Not Coping When Stressed. Dicorcia and Tronick (2011) wrote of the everyday nature of coping with stress for infants. They contend it is through everyday stress and coping with that stress, that self-regulation and resilience develops. A precursor to self-regulatory capability is co-regulation through countless micro-moments in the child-caregiver relationship. This typically involves interactions where the caregiver is responsive and matched and attuned to the infant's affect and also when they are not, and there is a

mismatch of affect and intention and so reparation is required. The caregiver's sensitivity to the infant's distress helps the infant develop a coherent and organised view of what to expect and to find an equilibrium. Dicorcia and Tronick wrote: "It is the regulation of these micro-stressors, through a process of reparation, that is critical for building resilience" (p. 1594). Possible mechanisms at play in building resilience include:

- The child being co-regulated by caregivers, where the child's capacity for regulation is "supplemented, or scaffolded" (Dicorcia & Tronick, 2011, p. 1595).
- Children with stronger emotional regulation skills and capacity for cognitive reappraisal are more able to cope with stressful events (Duprey et al., 2021; National Scientific Council on the Developing Child, 2015).
- That stressors are not overwhelming, unpredictable or left unabated, so they do not exceed the child's stress tolerance capability. This requires caregivers to monitor the child's state and intervene in timely and predictable ways (Dicorcia & Tronick, 2011; Perry & Winfrey, 2021).
- Children exposed to small doses of tolerable stress that activate their stress-response systems become accustomed to modulating and regulating their stress response (Perry et al., 2016).
- High quality caregiving can protect against exposure to additional stressful events (Wade et al., 2019).
- "The supportive context of affirming faith or cultural traditions. Children who are solidly grounded within such traditions are more likely to respond effectively when challenged by a major stressor or a severely disruptive experience" (National Scientific Council on the Developing Child, 2015, p. 5).

The primary message from the literature about building a child's capacity to cope when stressed is through relationships (e.g., Center on the Developing Child, 2016) and yet emotional neglect is when children do not have their emotional and relational needs met. In other words, to strengthen a child's ability to self-regulate and cope with stressful events, their core emotional needs associated with relationships must be met.

Potential Mechanisms and Examples for Recovery

Based on the literature presented and the analysis of the data in this study, the following mechanisms were identified as pivotal to recovery from emotional neglect and difficulties in coping under stress.

- To ameliorate emotional neglect, the child needs attuned, responsive, available, predictable caregivers and other significant people.

- The child needs repeated exposure to their emotional needs being met over time to develop confidence that these will continue to be met, including when under stress.

- In response to a sensitised stress system due to history of trauma and neglect – the child needs patterned, repetitive moderated exposure to incremental stressors with a co-regulatory caregiver, so they are not overwhelmed and develop adaptive coping strategies.

The survey respondents' comments illustrated how these mechanisms could be activated in practice with the child they described in the surveys. Following are two examples of the combination of relationship and structured predictable support that scaffolds a potentially stressful situation for the child. The first example is from a carer survey and the second is from a professional survey by a teacher:

> If we plan a trip to the supermarket for example I will discuss with the child 3 very simple behavioural expectations I have of that child for the trip before we leave, during the trip there and again on arrival: 1. Hold onto the trolley. 2. Only touch the things we are buying. 3. Find me the yummiest looking mango. I will often put a fun instruction that gives the child some sense of pride and control if I can […] I plan ahead for every event every day. I make sure I have everything for every contingency. (Six-year-old Aboriginal girl, C32)

> This student, the grandparent, and the school staff use my skills to help her to settle as quickly as possible into the day at school and between classes and when there is a particular stress or upset (such as a test, assessment due, or friendship or family issues). Strategies include:
>
> - Humour
> - An understanding ear
> - Time out to read or draw
> - A walk
> - Skill or knowledge support to close gaps (my specialty area is English, but I have also helped with research, completion of assignments, Maths, study techniques, work ethic and even how to ride a bike for outdoor ed). (14-year-old Australian non-Indigenous young woman, P29)

Summary Diagrams Linking Mechanisms for Harm and Recovery

Figure 7-3 depicts a pathway for how emotional neglect can contribute to children being sensitised to stress and so less able to cope in stressful situations, informed by the data from this study and the literature. Whether the stressor is due to neglect, other adversities, or a typical daily life challenge for any child, emotional neglect sensitises the stress system through repeated exposure to unmitigated unpredictable stress and constrains the child's primary access to support. It also reflects what the child has learnt from the absence of others and what they did not learn in terms of building resilience.

Beginning with emotional neglect in the far left top corner, this figure illustrates emotional neglect can contribute to less secure attachment, and so the child may learn not to rely on others, which in turn can contribute to their not coping under stress at the far right top corner of the diagram. The figure also shows other possible pathways between emotional neglect and not coping with stress, such as if the child does not learn to be co-regulated by caregivers and others, they are less likely to learn to self-regulate, especially when facing a threat. It is not intended to show every possible pathway, but those which emerged from the study and related literature.

Figure 7-3

Drawing of Biopsychosocial and Cultural Mechanisms Between Emotional Neglect and Not Coping Under Stress

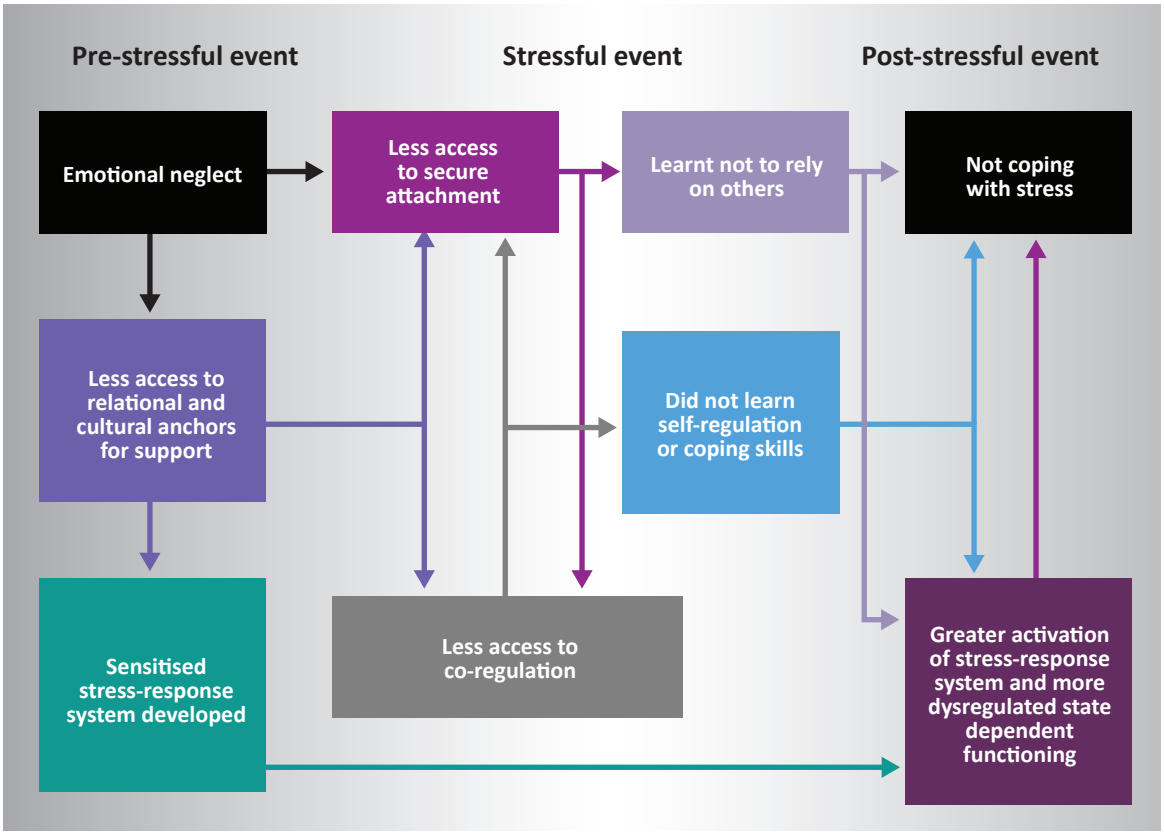
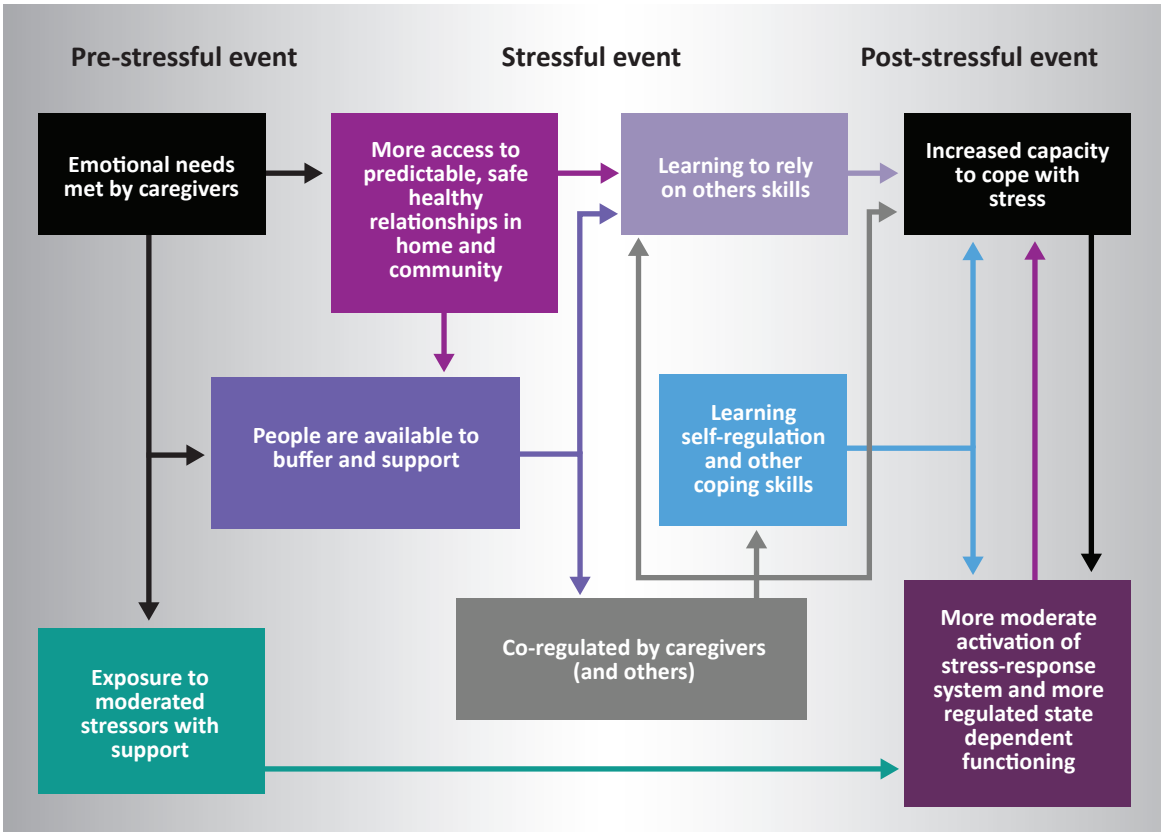


Figure 7-4 is an illustration of a proposed pathway arising from the analysis for how recovery may look post-emotional neglect for helping children become less sensitised to stress and more able to cope in stressful situations. This involves strategies that target the neurobiological stress and relational systems. It also targets children's psychosocial capacities to learn to trust others and to develop confidence in their capacity to cope with the next stressor. As is evident from this figure, the mechanisms associated with harm from emotional neglect have informed what may be mechanisms for supporting recovery.

This figure portrays recovery beginning with meeting the child's emotional needs (top left corner) and this leading to other changes which also need to occur for recovery to be more likely, such as increased capacity to cope with stress (top right corner). For example, caregivers, teachers, clinicians, case managers, cultural community members and others from the child's informal social network being available to support the child and buffer and protect them during stressful events, not only reduces the likely impact of the stressor, but repeatedly shows the child what it is like to be co-regulated. How these mechanisms are activated will depend on the child's age, culture, and relational context.

Figure 7-4

Drawing of Biopsychosocial and Cultural Mechanisms for Recovery from Emotional Neglect and Not Coping Under Stress



Global/Multiple Neglect and Posttraumatic Stress

Global neglect/multiple neglect was a combined construct where global neglect or four or more neglect subtypes were selected in the survey responses. Global neglect was defined in the surveys as the child having "experienced all or most types of neglect". As such, it is best understood as multiple neglect rather than extreme global deprivation, although it appeared that some children's experiences also met this latter description.

Posttraumatic stress symptoms, similar to the other mental health items in the survey, did not require a formal diagnosis. The symptom clusters for posttraumatic stress are categorised as re-experiencing the traumatic event; avoidance and numbing in response to reminders of the events; and hyperarousal symptoms (American Psychiatric Association, 2013).

What is Recovery?

I propose that recovery could be indicated by posttraumatic symptoms not developing into posttraumatic stress disorder (PTSD), such as not becoming long-lasting or impairing daily functioning; or that the symptoms associated with posttraumatic stress have abated so the child is no longer negatively impacted. More detailed descriptors include:

- Global/multiple neglect has ceased – Child's essential needs are met in a predictable way;
- The child does not develop or continue to have symptoms consistent with posttraumatic stress and has other strategies when reminded of the past and its impact on the present and the future; and
- Child has increased confidence that their needs will be met in the future.

Descriptors and Examples of Harms

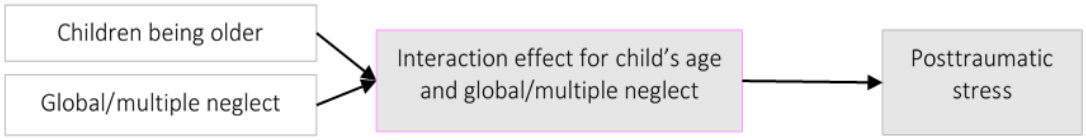
There were 179 (82.9%) children described in the survey responses who had experienced global/multiple neglect and 126 (58.3%) identified with posttraumatic stress symptoms. Of these, 113 (52.3%) experienced both global/multiple neglect and presented with posttraumatic stress symptoms. An example from a social worker who described a young girl who experienced global neglect and posttraumatic stress symptoms:

> She was locked in her room for up to 23 hours per day prior to removal and did not experience healthy relationships, where she was delighted in or had positive engagement with adults. Her template for relationships has been impacted as a result of this neglect. Possible that she did not experience the stimulation during developmental sensitive periods in her brain development, further contributing to the impact of her overall neglect. (10-year-old Australian non-Indigenous girl, P64)

Children being older and experiencing global/multiple neglect were independently predictive of children having posttraumatic stress symptoms in the adjusted model. However, when analysed for an interaction effect, neither age nor global/multiple neglect remained significant. This suggests the experience of global/multiple neglect for older children was predictive of posttraumatic stress (Figure 7-5). The cluster analysis showed posttraumatic stress symptoms were clustered with dissociation and anxiety and so commonly co-occurred (Figure 5-1, page 134).

Figure 7-5

Basic Representation of Neglect-Related Variables Predicting Children with Posttraumatic Stress



Note. Pink outline represents interaction effect

Literature Summary of Links Between Global/Multiple Neglect and Posttraumatic Stress

When is Neglect Traumatic? From the neurobiological perspective, trauma can alter the development of children's neural systems which mediate the stress response; and it can lead to dysfunctions in children's developing neural systems if they have not received the necessary timed, patterned repetitive stimulation (Perry, 2008). According to Perry, these are separate neurobiological systems but that does not mean they cannot co-occur. When neglect and trauma co-occur or when neglect is experienced as being traumatic, these neurobiological processes can both be activated. Trauma results from events or circumstances experienced by the child as physically or emotionally harmful or life threatening with lasting adverse effects on the child's functioning and well-being (Substance Abuse and Mental Health Services Administration, 2014). There are, therefore, a myriad of ways various neglect subtypes could be experienced as traumatic.

Neglect, Posttraumatic Stress and Other Problems. Studies have demonstrated associations between neglect and posttraumatic stress symptoms in children (Brockie et al., 2015; Cecil et al., 2017; Fusco & Cahalane, 2013; Negriff, 2020). There were also studies reporting on the links between neglect and anxiety and dissociation, which were similarly reflected by the cluster analysis in this study. For example, Brunner et al. (2000) noted all maltreatment types were associated with increased dissociation, however, emotional neglect was the strongest predictor. Zoroglu et al. (2003) reported neglect in general was predictive of dissociative

symptoms. Cecil et al. (2017) reported emotional and physical neglect were associated with dissociation and emotional neglect with anger as well as posttraumatic stress. Negriff (2020) found emotional and physical neglect were also associated with anxiety in addition to posttraumatic stress symptoms.

Tottenham et al. (2010) found the longer children had been in institutional care, the more likely they had a larger amygdala volume and met the criteria for an anxiety disorder. In other research on institutional neglect, Mehta et al. (2009) found children had larger right amygdala and smaller left amygdala volume. A community study by Roth et al. (2018) found self-reported neglect was associated with larger right amygdala volume but only for boys. Although they did not find a direct effect between neglect and anxiety, they did find an effect mediated by amygdala volume.

Neurobiological Mechanisms from Neglect to Posttraumatic Stress. Chugani et al. (2001) reported early global deprivation was associated with decreased metabolic activity in areas of the brain involved in the stress-response system. De Bellis (2005) cited studies with similar conclusions, such as links between stress and problems with brain development including accelerated loss of neurons, delays in myelination, abnormalities in synaptic pruning, inhibition of cell birth, and influencing the decrease in brain growth factors. De Bellis concluded that neglect can alter the brain's stress-response system and increase the risk of exposure to other traumatic circumstances. He hypothesised there are finite ways children's biological stress-response systems can respond to an infinite number of potential stressors and that neglect is a chronic stressor.

Bruce et al. (2009) described different ways neglect and emotional maltreatment led to atypical cortisol levels. They posited chronic stress, such as through physical neglect, may result in decreased cortisol production, whereas acute stress could result in increased cortisol production. White et al. (2017) found neglect was associated with low cortisol levels more than other forms of maltreatment. In a study of children raised in Romanian orphanages and later adopted in Canada, Gunnar et al. (2001) showed higher levels of cortisol for children who spent more time in the orphanage. In their study on neglect and cortisol levels when faced with a mildly stressful laboratory task, Sullivan et al. (2012) found neglected children's initial cortisol levels were higher than the comparison group. In sum, there is substantial evidence that child neglect is associated with atypical cortisol levels, and this is likely to be implicated in whether they exhibit posttraumatic stress symptoms.

Other Mechanisms from Neglect to Posttraumatic Stress. A neurobiological and relational mechanism hypothesised by De Bellis (2005) was neglect is stressful when children are unable to learn to trust their parent or caregiver. This is an example of experience-dependent functioning, where a child cannot learn trust in a vacuum.

Bailey et al. (2012) posited a cognitive, relational and emotional mechanism between child neglect and posttraumatic stress symptoms, with an emphasis on what the child did not learn whilst growing up. They described children exposed to neglect who were not taught emotional regulation and other psychosocial skills, along with a sense of abandonment and rejection, having poor self-concept and being more vulnerable to developing posttraumatic stress and other mental health problems.

Recovery from Global/Multiple Neglect and Posttraumatic Stress. The nature of global neglect being a pervasive sense of deprivation signals the process of recovery will similarly be complex. Studies from the Romanian orphanages (e.g., Nelson et al., 2014; Rutter & English and Romanian Adoptees (ERA) study team, 1998), and as described in Dr Nelson's interview, indicated there are reasons for optimism for children's recovery but not in all domains. Children who experience multiple forms of neglect may share a similar mixed outlook, depending on the combinations of neglect subtypes, age of onset, severity, and other factors. As noted in the literature review (Chapter 2, page 63), I found little written on recovery from multiple experiences of neglect.

In contrast, there is a plethora of research on posttraumatic stress and recovery, though predominantly in relation to adults. For example, in the Cochrane Database of Systematic Reviews, a search in March 2023 on psychological trauma yielded 27 results. Two were specific to children and adolescents, one on prevention and the other on intervention. The systematic review by Gillies et al. (2012) on intervention with children found cognitive behavioural therapy was found to be effective a month after treatment, however, there was no evidence to conclude which psychological therapies were more effective than others or what was the long-term impact of any interventions. None of the studies described were about child neglect. In their summary of evidence-based or promising practices for children and adolescents with symptoms associated with PTSD, Ford et al. (2015) noted several key points including the need to ensure safety, and that the child is in a state most likely to benefit from therapy. Ford and colleagues suggested an overall approach to the concept of recovery that finds the balance between optimism and realistic goal setting:

> PTSD is so debilitating for children that therapists may feel compelled to achieve large goals such as complete recovery, in order to prevent the child and parent from suffering disappointment in the face of what may seem to be intractable problems. A better model for therapists is to shift from emphasizing overcoming pathology or deficits as the goal of treatment to focusing on a series of smaller goals that are of immediate personal relevance to the child and caregiver. (p. 224)

In regards to the point by Ford et al. (2015) on the child's readiness for psychotherapy, there is a question as to whether children who have experienced serious neglect are ready for a cognitive-based approach at the outset. For example, Gaskill and Perry (2014) describe bottom-up strategies as the common first stages of intervention, such as somatosensory approaches. These aim to help shift children's state of arousal to become sufficiently regulated to benefit from top-down strategies, such as cognitive or insight-based approaches. Psychotherapeutic approaches that stagger the child's exposure to a history of absence as well as likely chaos and trauma, such as through therapeutic life story work, may have particular benefit (Rose, 2012).

Potential Mechanisms and Examples for Recovery

Several themes arising from the interviews and surveys about mechanisms for recovery have relevance for children dealing with global/multiple neglect and posttraumatic stress symptoms. A primary consideration is that to recover from global/multiple neglect, we need to meet the children's needs in a way they can absorb without causing further harm. This is analogous to the complexity of refeeding after being malnourished (e.g., Rocks et al., 2014). Given the scale of global/multiple neglect, meeting the array of unmet needs is likely to require a coordinated and gradual approach to introducing and reinforcing that these needs will now be met. Concepts such as tailoring, sequencing, dose and repetition, as described earlier are particularly relevant.

Based on the literature and data in this study, I considered what was required to support recovery from global/multiple neglect and posttraumatic stress symptoms. To meet children's unmet needs, it is important to know the nature and timing of their neglect history. A key finding from this study was the need to provide safety including physical, relational, psychological, and cultural safety. As described in the literature, the children are likely to need co-regulation whilst learning to regulate their stress systems (e.g., Gunnar & Quevedo, 2007). The relational, cultural, developmental, physical, and other inputs they receive will need to be given in a patterned repetitive way (Perry, 2006). A psychologist survey respondent wrote about what made a positive difference in working with children who experienced serious neglect: "Developmentally Reparative approaches Support to carers – a focus on the therapeutic milieu and supporting

carers to keep providing child with patterned, repeated reparative experiences" (P4). Other approaches mentioned in professional surveys that were trauma-specific included therapeutic life story work, TFCBT and EMDR.

Another survey respondent, who was a clinician attached to therapeutic residential care (TRC) wrote that a young woman who had experienced all forms of neglect and had a history of recent and intergenerational trauma had:

> resulted in development of the young person being in constant 'survival' mode, having significant attachment issues and simply doing the best she can with what she has been taught, which is generally maladaptive. Yet she's still alive, slowly healing, developing and growing :-). (14-year-old Australian non-Indigenous young woman, P13)

Specific interventions and strategies used with this young woman to assist her recovery included: "Trauma informed therapeutic strategies for the TRC and Care Teams. Creating and developing a safe 'home' environment. Informing the teams about a relational based approach to encourage healing, development and growth". When asked in the survey what it was about their work with children who experienced serious neglect that makes a positive difference, a clinician wrote:

> Development of safe therapeutic relationships; Creating a 'safe' space for the young person to settle and be a young person; Enabling the young person to trust the adults around her are trustworthy and can provide a safe home; Use of therapeutic self and supporting others to do likewise; Genuine care. (P13)

Summary Diagrams Linking Mechanisms for Harm and Recovery

Informed by the literature and findings from this study, I have drawn a more detailed diagram of the mechanisms for harm from global/multiple neglect (top left corner) to posttraumatic stress symptoms (top right corner) (Figure 7-6). This was similar to Figure 7-3 (i.e., emotional neglect and not coping when stressed). A key difference is there does not need to be a new stressful event for the child to react with posttraumatic stress symptoms. It could be a benign event that is a reminder of a traumatic experience. I included an element labelled *traumatic events* as neglect increases exposure to traumatic events. I made the connectors dotted, however, as it may be the neglect experience itself that the child experiences as traumatic (De Bellis, 2005). Another difference is that it involves multiple neglect subtypes, so there is an assumption that it may involve developmental, cultural, physical, and other neglect subtypes as well as emotional. It is therefore likely to impact on the child's developing brain in a range of ways

which has implications for the child's capacity to respond to trauma or reminders of traumatic events (Perry, 2008).

Figure 7-6

Drawing of Biopsychosocial and Cultural Mechanisms Between Global/Multiple Neglect and Posttraumatic Stress

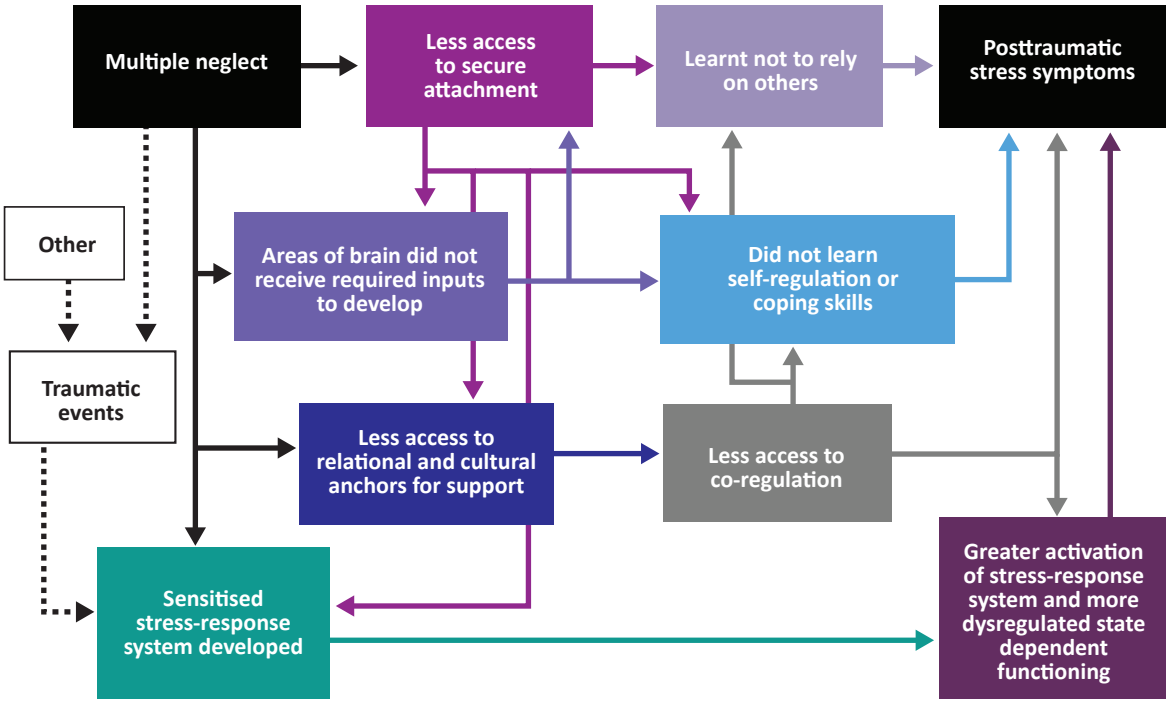
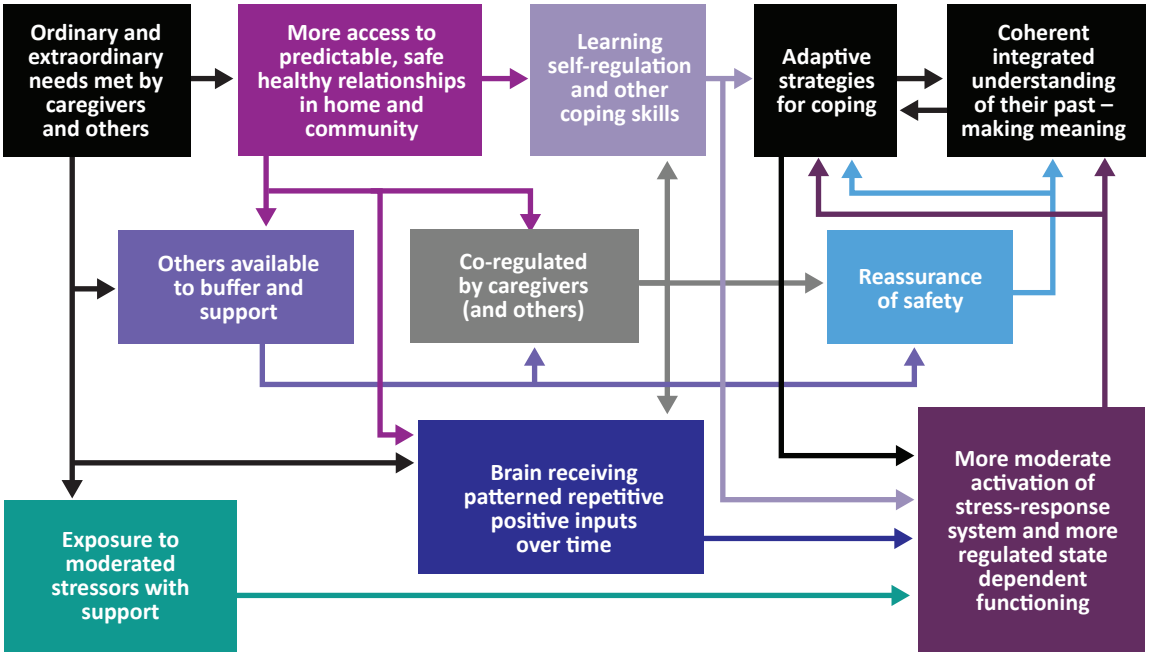


Figure 7-7 represents my efforts to draw a pathway for how recovery may look post-multiple neglect to help children not have posttraumatic stress symptoms, beginning with meeting the child's ordinary needs shared by their peers and extraordinary needs that have resulted from their experiences of neglect (top left corner). It targets the neurobiological stress systems and the relational and cognitive systems as described in the earlier discussion from the literature and informed by the findings from this study. Similar to Figure 7-4, this pathway includes the importance of the child having access to relational anchors that offer protection and access to co-regulation. The goals of recovery are the child having an integrated and coherent sense of their history and adaptive strategies for coping (top right corner).

Figure 7-7

Drawing of Biopsychosocial and Cultural Mechanisms for Recovery from Global/Multiple Neglect and Posttraumatic Stress



Medical Neglect and Sleep Problems

Medical neglect was defined in the survey as not receiving sufficient medical, dental, other health care or treatment. Examples of sleep problems in the survey were frequent nightmares, not getting to sleep, not staying asleep, sleeping too much.

What is Recovery?

I propose that recovery is that the child's medical needs are met, and the child develops and sustains a healthy restorative sleep pattern. More detailed descriptors include:

- The child's ordinary and extraordinary medical needs are met in a predictable and timely way;
- The child has a healthy restorative sleep pattern; and
- The child has confidence their medical needs will be met in the present and future.

Descriptors and Examples of Harms

One hundred and thirty-eight children described in the surveys experienced medical neglect. Although the second least frequent subtype, nearly two-thirds (63.9%) were described with medical neglect. Sleep problems were the most frequent physical health problem (n = 126, 62.4%). Eighty-three children (41%) experienced both medical neglect and sleep problems.

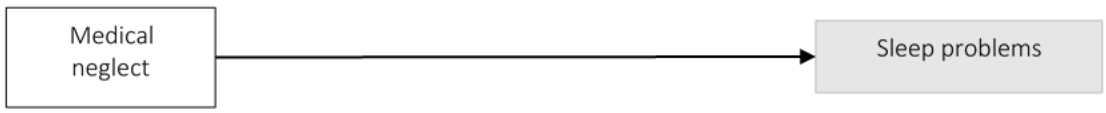
A three-year-old Aboriginal girl had experienced global neglect including medical neglect. Amongst the problems she experienced was sleep disturbance. Her neglect experiences included:

> Inconsistent, erratic caregiving allowed infections to develop secondary to bowel resection surgery. Inadequate feeding and nutrition resulted in the child being on the 5th centile for growth (Height and weight). Insufficient monitoring of her health meant ear infections went untreated. (P15)

Sleep problems were only predicted by medical neglect (Figure 7-8). No child demographics or other neglect subtypes were predictive. Sleep problems were not clustered with other problems in the earlier cluster analysis (Figure 5-1, page 134).

Figure 7-8

Basic Representation of Neglect-Related Variables Predicting Children Having Sleep Problems



Literature Summary of Links Between Medical Neglect and Sleep Problems

Neglect and Sleep. I did not find studies drawing associations between medical neglect and sleep problems, although sleep problems were mentioned for dental neglect (e.g., Harris, 2018). In the scoping literature review (Chapter 2, page 22), only eight studies reported on harmful associations with medical neglect, none of which indicated sleep problems.

In a report on medical neglect, Jenny and the Committee on Child Abuse and Neglect (2007) described possible contributing factors to medical neglect included poverty, family chaos, lack of trust in health care, and lack of caregiver health literacy. These same factors also have implications for sleep problems. For example, in their review of mechanisms between sleep and eating problems, Lundahl and Nelson (2015) noted children in low socioeconomic circumstances, as well as those in chaotic households, can have their sleep and eating impacted. Although sleep problems are relatively common in younger children (Owens & Mindell, 2011; Tinker, 2019), no association with age was found in this study. This suggests children exposed to neglect of all ages are at risk of sleep problems.

Sleep problems across various studies include nocturnal sleep duration, non-restorative sleep, poor sleep, insomnia, poor sleep quality, longer sleep onset latency, trouble staying asleep

throughout the night, sleep apnoea, nightmare distress, and night terrors (e.g., Kajeepeta et al., 2014; Pfaff & Schlarb, 2021; Semsar et al., 2021; Servot et al., 2021).

Turner et al. (2020) found all forms of child maltreatment including physical neglect were associated with poor sleep in adolescents. They did not distinguish medical neglect. McPhie et al. (2014) found psychological distress explained the association between severity of child maltreatment including physical neglect and sleep disturbances. Again, they did not distinguish medical neglect.

Possible Mechanisms Between Neglect, Sleep, and Other Problems. I analysed the neurobiological explanations for poor sleep into two areas. One was the changes to the developing brain that occur because of neglect and other adversities and the implications of these on sleep patterns. The other was the concomitant factors that impact on sleep that may be more prone for children vulnerable due to neglect. “Sleep is a very vulnerable state that can be affected by a variety of medical, physiological, environmental and psychological factors. Every condition leading to physical discomfort or pain … is likely to adversely affect sleep” (Gregory & Sadeh, 2016, p. 317).

The Developing Brain. Semsar et al. (2021) described dysregulated arousal as a pathway between childhood neglect and adult sleep disturbances. They proposed that absence of certain environmental inputs during childhood, such as through neglect, contributed to a flatter trajectory of synaptogenesis and pruning across the central nervous system especially in the prefrontal cortex. The prefrontal cortex (PFC) has an essential role in modulating arousal and so experiences of emotional or physical neglect could “contribute to maturational shifts in the PFC, which could impact the development and functioning of the arousal system” (Semsar et al., 2021, p. 2).

Saboory et al. (2020) described the role of the locus coeruleus in switching between sleeping and waking. The locus coeruleus produces norepinephrine and so also has a role in the stress system response (De Bellis, 2005; Perry, 2008). A child’s locus coeruleus that is highly activated due to stress or trauma, as described earlier, could have a role in mediating poorer sleep.

Sleep and Pain. Nasir et al. (2012) wrote of the bi-directional links between sleep and chronic pain. Their study on adults held an implicit assumption that the person experiencing chronic pain and sleep problems could access medical care when needed, which is not the case with medical neglect.

In a systematic review on juvenile idiopathic arthritis and sleep disturbances, Stinson et al. (2014) found pain was a possible two-way mechanism. Sleep problems can increase likelihood or severity of pain symptoms and pain can increase likelihood of sleep problems.

Sleep and Other Health Issues. Holcombe (2021) noted one of the challenges with medical neglect is that it is disproportionately reported for children with chronic health conditions and that this was related but separate to when there was a higher burden of care. This suggests another possible mechanism with sleep difficulties, although "little is understood about the bidirectional effects between chronic health problems and sleep disturbances" (Ward et al., 2007, p. 290).

Examples of health problems associated with sleep difficulties include gastroesophageal reflux, allergies, uncontrolled asthma, headaches, epilepsy, juvenile arthritis, and skin problems (Chang & Chiang, 2016; Gregory & Sadeh, 2016; Tinker, 2019; Ward et al., 2007). Chang and Chiang (2016) reported on links between skin problems and poor sleep and explored possible mechanisms, such as through the circadian rhythm and melatonin. Ward et al. (2007) wrote on the challenges of evaluating children's sleep when they have chronic health problems, especially distinguishing the impacts of the illness and the medical treatment.

It is well-documented that Aboriginal children are more at risk of health difficulties, and also of sleep problems (e.g., Zubrick et al., 2005). It is also evident Indigenous children in several countries, including Australia, access health services less often, despite the higher prevalence of health problems. According to the systematic literature search by Coombes et al. (2018), contributing barriers include difficulties with transport and finance, lack of culturally competent services, staff turnover, language barriers, poor coordination between services, inadequate follow-up planning, and fear of child removal. This illustrates medical neglect is not the only cause of children not receiving medical care, and interventions need to consider all possible factors if the children are to have their medical needs met.

Recovery from Medical Neglect and Sleep Problems. Although offering suggestions to assist adopted children with sleep disorders, Cuddihy et al. (2013) recognised the "overall evidence for interventions specific to sleep disordered maltreated children is limited and merits further research" (p. 408). They noted the evidence-base available is primarily with the general paediatric population, including short-term medication, behavioural interventions, such as routines and relaxation, education on sleep hygiene, and cognitive behavioural interventions.

One of the few references found on monitoring and improving children's sleep who were in OOHC was the evaluation of TRCs (VERSO Consulting Pty Ltd, 2011). These children were highly

likely to have experienced both abuse and neglect. The researchers tracked the children's sleep patterns and health status and reported improvement in sleep and health for children in TRC homes compared to standard residential care. "Therapeutic Specialists and agencies staff consider improvements to sleep to be linked to 'feeling of safety' and evidence of 'reduced stress'" (VERSO Consulting Pty Ltd, 2011, p. 132).

According to Perry (2006), for children with entrenched patterns of poor sleep it is likely to take significant time and a consistent pattern of repetition to change systems mediated by lower parts of the brain, such as sleep.

Potential Mechanisms and Examples for Recovery

Several themes arose through the literature and data suggesting possible mechanisms for recovery from medical neglect and sleep problems. The antidote for medical neglect can be simply stated as meeting the child's medical needs. However, there appear several challenges to achieving this. The first is recognising whether or not the child had typical or additional medical needs prior to medical neglect; the presence of medical neglect may have exacerbated their health concerns. This in turn may complicate the health response, such as if substantial dental treatment is then required. This illustrates a related concern, which is that the child may develop a heightened stress reaction to health professionals due to the unfamiliarity of going to the doctor or dentist except in dire situations (e.g., Kvist et al., 2018). A second challenge is for children who have been highly transient due to family chaos or experiencing multiple placement changes. In these circumstances, a lack of adequate health and allied health records and awareness of what children's past medical, dental and allied health care has been is very common (Webster, 2016). A third challenge is that children living with families at risk or in OOHC may not have reliable access to the necessary services. This may result from families, carers, and professionals not having sufficient knowledge to identify certain health or developmental concerns (e.g., Frederico et al., 2018; Kaltner & Rissel, 2011), poor health record keeping practices (e.g., Webster, 2016), lack of a continuous medical and developmental history of the child (e.g., Webster, 2016), and lack of a comprehensive coordinated system of health care available for these children (e.g., McCarthy, 2002).

Mechanisms to address medical neglect appear to focus on creating sustainable and coordinated systems of record keeping, sufficient knowledge by carers and non-health professionals, and specialist health care providers trained in providing medical and related treatment for this population (McCarthy, 2002; Webster, 2016). In other words, not assuming that health care as usual will be sufficient to address the needs of children involved with CPS and OOHC, especially those who have experienced medical neglect, as identified in the interview with

Dr Miller. Coombes et al. (2018) documented strategies to increase access to health care for Indigenous children; namely developing, expanding and resourcing the Indigenous health workforce and strategies for community engagement such as engaging with Elders and creating culturally safe environments. These illustrate the need for strategies at the broader systems and community levels.

Mechanisms to remove barriers and strengthen sleep quality include biopsychosocial strategies to help the child become more physiologically and emotionally regulated, and reduction of pain or disruptions to other internal senses. This could also include attending to potential side effects of medications. Mechanisms would also activate environmental strategies to support sleep hygiene and remove inputs that create external sensory challenges to sleep. Record keeping can be a helpful strategy to improve sleep quality, such as through a sleep plan and diary (VERSO Consulting Pty Ltd, 2011).

Despite many surveys indicating the child had sleep problems, only one professional survey documented strategies to address these concerns. A residential care worker in Denmark wrote in a survey that focusing on improving a 14-year-old young man's sleep routine with the use of a Phone App to regulate stress through vibration from soothing sounds and sleep music (P143). Two other surveys described pragmatic but important strategies of providing the children with a bed and bedding.

Several carers described bedtime routines, meditation, physical presence, and other strategies to support children's sleep patterns. The following quote from a carer survey suggested key elements including emotional and physical presence, reassurance, co-regulatory activities, safe touch, routine and managing transitions: "A kiss and cuddle every night after reading stories. Saying goodnight, and being there throughout the night when he woke up with night terrors. Routine" (C9).

Summary Diagrams Linking Mechanisms for Harms and Recovery

Figure 7-9 is a drawing of pathways for how medical neglect (top left corner) may contribute to children having a poor sleep pattern (top right corner), based on the earlier description. Although medical neglect is a more narrowly defined form of neglect, the pathway reflects some of the complexities that could be involved when a child's health needs have not been met. For example, some survey responses indicated that children's access to health services was limited due to cultural or geographic factors, and this is supported in the literature, as well as factors relating to poverty (Coombes et al., 2018; Gupta, 2017). As such, structural factors such as access to health services may have a separate or compounding impact on the child or be a major

contributor to their experience of medical neglect. Medical neglect can sensitise the stress system through chronic exposure to pain and ill-health. Illnesses can directly impact on sleep and medication, especially if inconsistently applied or monitored, and can contribute to sleep problems. Poor sleep patterns can become entrenched even when the internal and external environment has improved. This is in addition to other adversities that may disrupt the child's sleep.

Figure 7-9

Drawing of Biopsychosocial and Cultural Mechanisms Between Medical Neglect and Sleep Problems

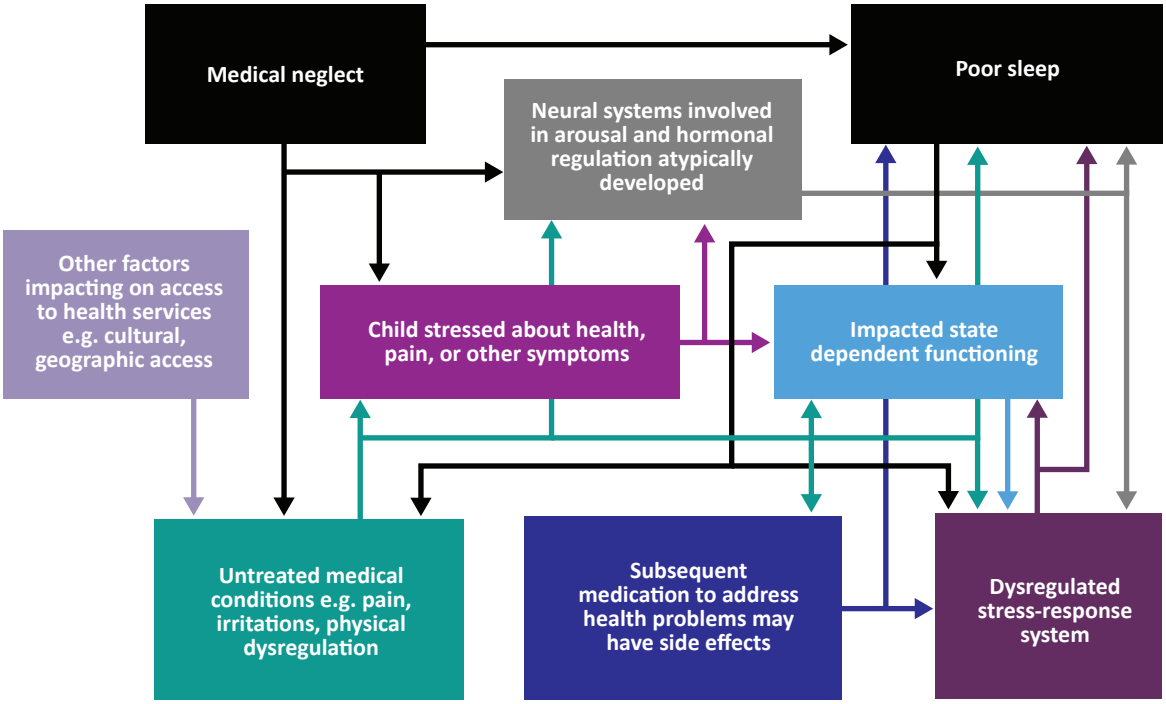
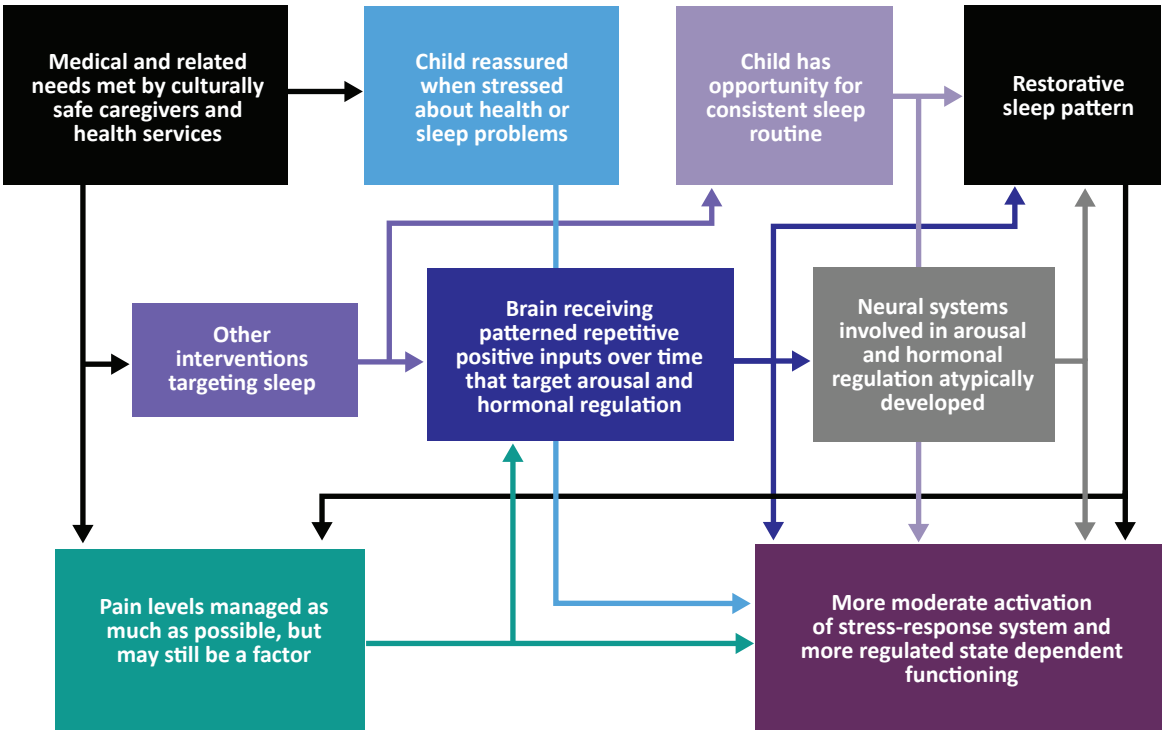


Figure 7-10 shows how recovery could occur after medical neglect has ceased (top left corner) and efforts are in place to help the child develop a healthy restorative sleep pattern (top right corner). As the child's access to health services may be a separate risk factor or barrier, this figure includes the role of health services to be available. Recovery is predicated on the child's health needs being met in a culturally safe way such as for Indigenous or other cultural groups. Meeting the child's health needs may influence their neurobiological stress systems as well as their physiological, psychosocial, and environmental systems. There is also recognition that additional strategies to assist the child to develop a healthy sleep routine may be needed as well as meeting their medical needs. It is possible the implications of past medical neglect still impact on the child's health and this would moderate the approach to recovery. This figure is informed by the earlier discussion from the literature and the findings from this study.

Figure 7-10

Drawing of Biopsychosocial and Cultural Mechanisms for Recovery from Medical Neglect and Sleep Problems



Developmental Neglect and Language Problems

In the survey, developmental neglect was defined as the child's developmental needs not being met. Examples provided to assist respondents were the child not supported in education, play, or given other necessary developmental stimulation. Language problems were described in the survey as speech and language delays or difficulties.

What is Recovery?

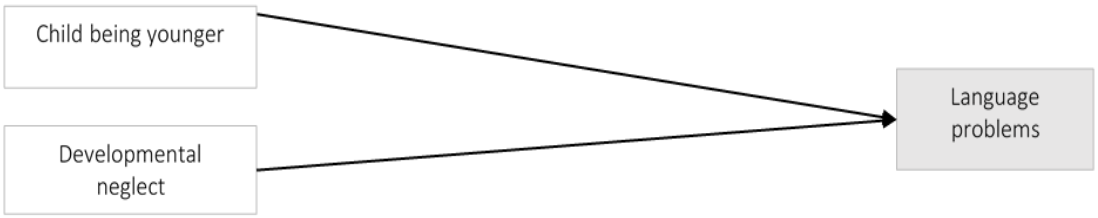
I propose that recovery could be that the children's developmental needs are met, and that their speech and language are age typical or consistent with genetic and biological potential.

Descriptors and Examples of Harms

Every carer survey and most professional surveys described a child as having experienced developmental neglect. In total, 187 (86.6%) children were identified with developmental neglect. Language problems were present for 113 children (52.3%). There were 104 (48.1%) children with both developmental neglect and language problems across all ages. In an adjusted logistic regression analysis including child's age and developmental neglect, they both remained predictive of children having language problems with no interaction effects as portrayed in Figure 7-11.

Figure 7-11

Basic Representation of Neglect-Related Variables Predicting Children Having Language Problems



In the cluster analysis of the children's problems, language was closely clustered with fine motor problems and with cognitive delays and gross motor problems (Figure 5-1, page 134). The close cluster between language and fine motor skills was consistent with Dr Perry's comments in his interview about their close association. An example from a professional survey describing developmental neglect and language and fine motor problems included:

> Concerns that the infant was spending long periods of time in his cot (flat back of head) and not meeting developmental milestones from very early on … infant unable to track, gaze avoidant, back arching and often distressed, irritable and not easily soothed. Evidence of significant developmental delay by the time the infant was three months old. Infant not reaching for objects, not babbling or attempting to roll over. (Two-year-old Australian non-Indigenous boy who experienced global neglect including developmental neglect, P76)

Literature Summary of Links Between Developmental Neglect and Language.

As developmental neglect was seldom referenced in its own right, it was difficult to review the literature. When considering likely mechanisms between neglect and language, a common theme was the lack of stimulation provided for the child, or in other words, developmental neglect (e.g., Allen & Oliver, 1982).

Language is a multifaceted developmental construct. As language is relational, the child's exposure to "a consistent, warm, sensitive and contingent parent-child interaction style is optimal for early communicative development" (Coster & Cicchetti, 1993, p. 28). Coster and Cicchetti described the relational interactions that precede onset of expressive language including understanding cause-effect between the child's vocal signals and the caregiver responses, as well as pragmatic skills such as turn-taking and shared attention.

Caregiving behaviours, or lack thereof, associated with neglect and poor language development include:

- Children not receiving sufficient stimulation in their environment (Allen & Oliver, 1982; Moreno-Manso et al., 2012; Tamis-LeMonda & Rodriguez, 2009).
- Children not receiving sufficient quality developmental activities required for early language development (Tamis-LeMonda & Rodriguez, 2009).
- Being unresponsive to infants' signals of utterances and actions (Crittenden, 1998; Di Sante et al., 2020; Hudson et al., 2015; Sylvestre & Merette, 2010).
- Being unresponsive to children impacting on their capacity to manually engage with objects, which can predict difficulties in object naming (McQuillan et al., 2020; West & Iverson, 2017).
- Children's less exposure to words (Crittenden, 1981; Huttenlocher, 1998; Huttenlocher et al., 2010).
- Children not receiving sufficient exposure to language will not receive the requisite patterned activation of the organising networks in the brain which mediate language and related skills (Perry, 2008).
- Poor caregiver-child relationships means children are less exposed to interactional and reciprocal communication (Crittenden, 1981; Di Sante et al., 2020; Hirsh-Pasek et al., 2015; Hudson et al., 2015; Kuhl, 2010; Smith et al., 2018; Sylvestre & Merette, 2010; Tamis-LeMonda & Rodriguez, 2009; Weisleder & Fernald, 2013).
- Children exposed to language indirectly, such as overhearing others or listening to the television, do not benefit from that exposure (Kuhl, 2010; Weisleder & Fernald, 2013).

The neurobiological concept of critical periods relates to language. For example, it is easiest and more efficient for young children to learn aspects of language, such as phonetics, than when they are older (Kuhl, 2010; Perry, 2008).

Language and Motor Development. The development and functioning of the various elements of language are mediated through different parts of the brain (Kuhl, 2010; Price, 2010). Language is highly modularised in adults but infants "must begin life with brain systems that allow them to acquire any and all languages to which they are exposed … The infant brain is exquisitely poised to 'crack the speech code' in a way that the adult brain cannot" (Kuhl, 2010, p. 715).

A systematic literature review reviewed the research linking fine and gross motor development with children's language development, not specific to neglect (Gonzalez et al., 2019). Their review found mixed results with eight out of 15 studies reporting an association between fine motor and language development. Examples of the associations between fine motor skill development and language problems for children were global language ability (Wang et al., 2014), verbal comprehension (Lyytinen et al., 2001; Muluk et al., 2014), expressive

language (Alcock & Krawczyk, 2010; Cameron et al., 2012; Choi et al., 2018; Houwen et al., 2016; Wolff & Wolff, 1972), oral language skills (Butterworth & Morissette, 1996; Rhemtulla & Tucker-Drob, 2011), vocabulary (Cameron et al., 2012; Suggate & Stoeger, 2014), and receptive language (Alcock & Krawczyk, 2010; Houwen et al., 2016). LeBarton and Iverson (2013) suggested early motor development may have cascading implications for language development: "As an example, one such learning opportunity provided by advances in fine motor abilities is in object manipulation and exploration behaviors" (pp. 824 – 825).

Wang et al. (2014) discussed several theoretical explanations of the links between motor development and language. Development of gestures using fine motor skills, as an early precursor to language was one example. Another was where cognition and language are understood to be embedded in motor activity as children interact with their social and physical environment. Related to this is the research showing these areas share neural architecture, such as the Broca's area, basal ganglia and cerebellum (e.g., Houwen et al., 2016; Price, 2010). A related explanation by Wang and colleagues was that of mirror neurons, which have been suggested as a neural mechanism for language development (e.g., Rizzolatti & Arbib, 1998). Wang and colleagues also noted external factors such as socio-economic status, parental difficulties, and low birth weight influence both language and motor development and so a child at risk of one could be at risk of the other without an interrelated mechanism. None of these studies examined child neglect or parenting.

Recovery from Neglect and Language Problems. As with all neglect subtypes, the child's ordinary and extraordinary needs resulting from neglect and other adversities need to be met in a patterned repetitive way for other reparation to occur (Perry, 2006). Perry and Pollard (1998) wrote of the need for interventions to match the child's developmental age, rather than chronological age. Language is primarily mediated through the limbic system and fine and gross motor development through the diencephalic system, which is lower in the brain. The sequential principle, therefore, suggests that attention be paid first to developing functions mediated through lower systems if they are underdeveloped or compromised, such as fine and gross motor skills (Perry, 2006). Another relevant principle is the use-dependent function or "use it or lose it" principle. As described by Perry, if "the developing child is spoken to, the neural systems mediating speech and language will receive the sufficient stimulation to organize and function normally. A child who does not hear words will not have this capacity expressed" (p. 36).

Interventions which have been found beneficial in assisting language development include high-intensity training which can lead to children's increased language proficiency and capacity for holding attention (Pakulak & Wray, 2018). Another element is relational scaffolding.

"Language competence is acquired through the relational milieu of parent-child interactions" (Snow, 2009, p. 100). Whether it is the parent, other caregivers, and other adults and children in the child's relational context, the provision of safe, regulated opportunities to communicate, play and experiment are crucial (Perry, 2006).

Language and culture are strongly linked concepts, even when the primary language is ostensibly English in an English-speaking country. For example, in many Aboriginal families in Victoria, Aboriginal English is a particular form of linguistics and is recognised as a language (Butcher, 2008). It is important to not make assumptions about children having poor English, when it may be a different form of English. One of the conclusions from a report by the House of Representatives Standing Committee on Aboriginal and Torres Strait Islander Affairs (2012) was that: "Language is inseparable from culture, kinship, land and family and is the foundation upon which the capacity to learn, interact and to shape identity is built" (p. 213).

Potential Mechanisms and Examples for Recovery

There were several themes from the interviews and surveys about mechanisms for recovery for children dealing with developmental neglect and language problems identified in the analysis. Dr Perry's emphasis on sequential development in the interview, implies that for children to recover from neglect, their current developmental needs must be met as well as reparation for developmental needs not met in the past.

One carer wrote in the survey of changes that occurred quickly for a four-year-old boy's eating and communication through the support of doctors, a speech pathologist and an OT. Another carer wrote of the many years of speech therapy and OT to help the 17-year-old young woman build her skills. A carer for a four-year-old Aboriginal boy responded on their overall approach by writing: "Routine, structure, play, childcare, Speech therapy, Love and affection" (C9).

In a survey response by a speech pathologist and family therapist, she described a three-year-old Aboriginal girl whose "Language development was further impacted by very limited social interactions for the child, as caregivers were unwell with substance abuse and mental health difficulties, often asleep or substance affected". The interventions used with this child included psychoeducation with the caregiver, providing resources to the caregiver and other professionals, and advocacy. Part of her approach was "trauma-informed demonstration of

strategies from the Hanen It Takes Two to Talk program[4], in play with the child in front of the caregiver, then allowing the caregiver to practice in session" (P15).

In a survey response describing a ten-year-old Australian non-Indigenous girl, the social worker wrote that the interventions were:

- NMT brain maps and recommendations
- Sensory activities to target her brain areas from the bottom up - use of brain booster cards Input from OT and Speech Pathologist
- Drama group therapy with other girls of a similar age in our service
- Theraplay informed sessions with her maternal grandmother (carer)
- Psycho-education with her carers and school around trauma and the neurodevelopmental impact.
- Encouragement of co-regulatory activities to be completed by carers and school. (P64)

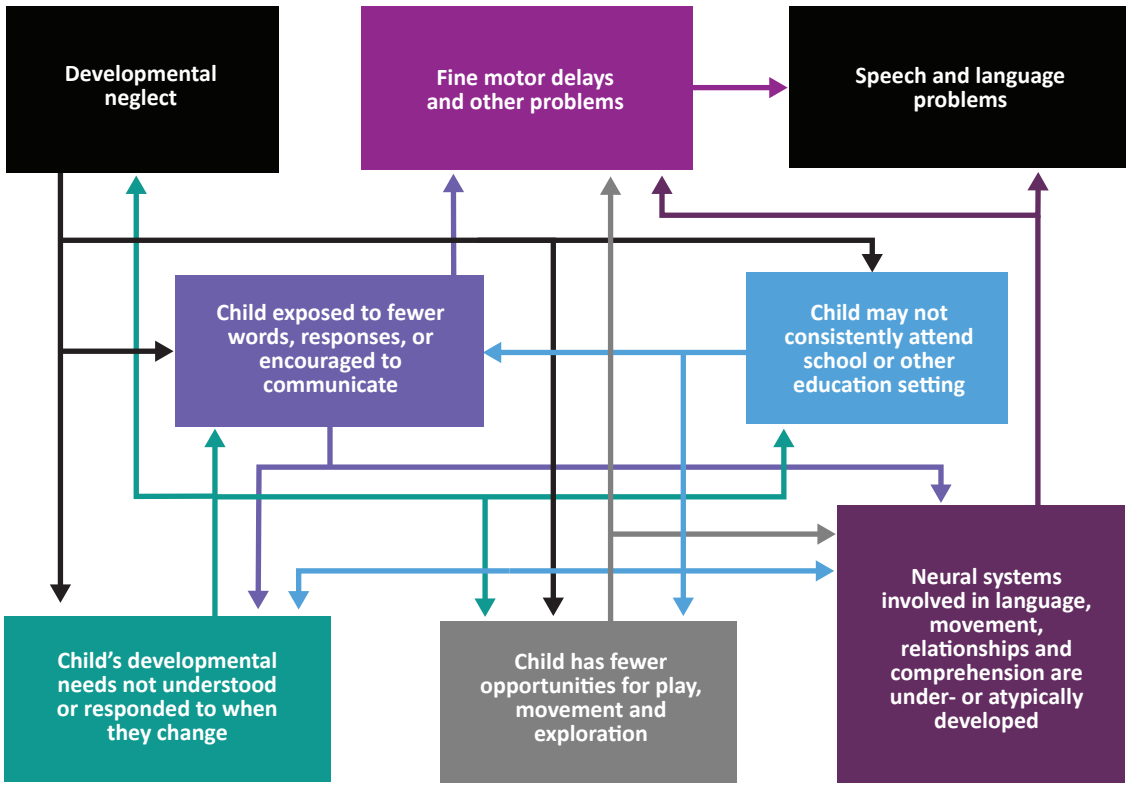
Summary Diagrams Linking Mechanisms for Harm and Recovery

Figure 7-12 depicts pathways based on the findings from the study and the literature for how developmental neglect (top left corner) can contribute to children having poor speech and language (top right corner). Developmental neglect equates to reduced exposure to environmental stimulation including access to positive consistent relationships, exposure to language and opportunities for expression and may also involve reduced opportunities for physical stimulation such as through movement and play. As noted in Dr Perry's interview and in the literature, there is cause for considering poor fine motor development as part of the pathway for poor language development. Unlike the previous examples of neglect and the child's problems, this diagram does not include the stress-response system or trauma as a major mediator or mechanism between developmental neglect and language problems.

[4] http://www.hanen.org/Programs/For-Parents/It-Takes-Two-to-Talk.aspx

Figure 7-12

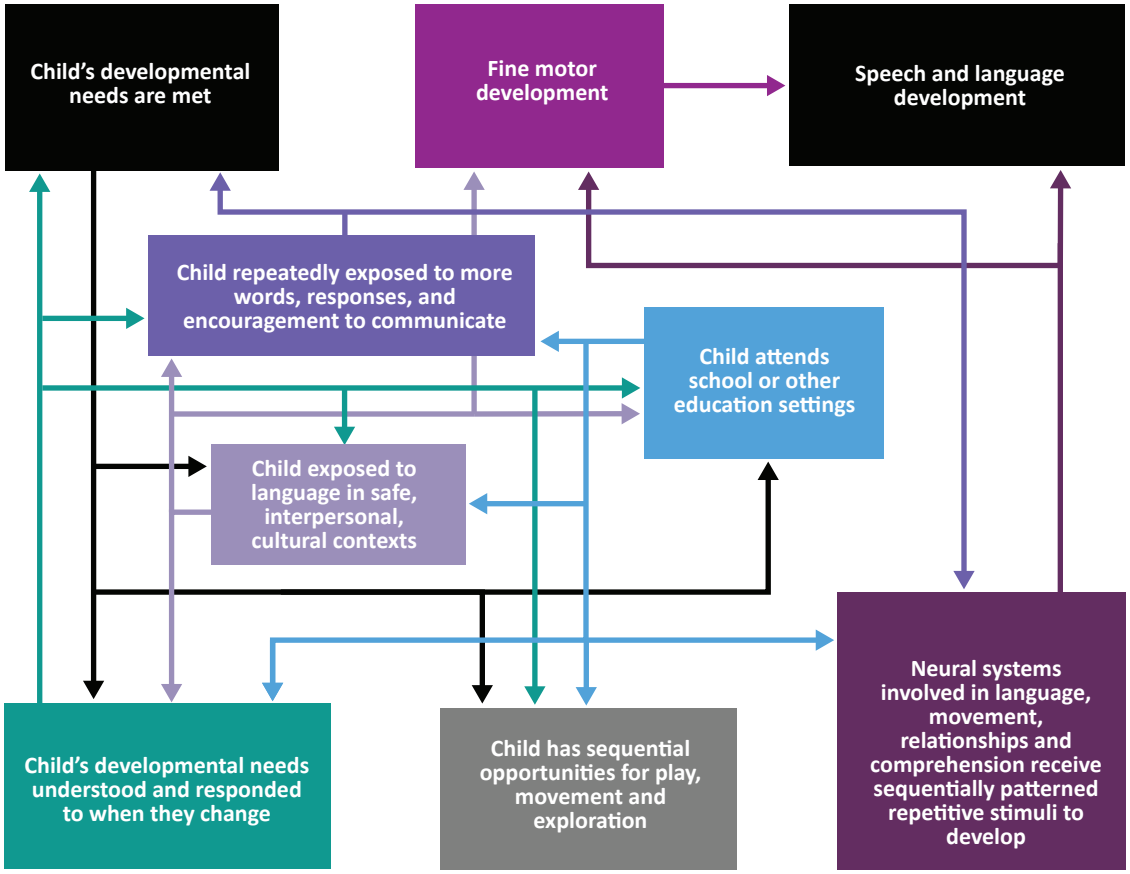
Drawing of Biopsychosocial and Cultural Mechanisms Between Developmental Neglect and Language Problems



As shown in Figure 7-13, as with the other examples, there is attention to both the neglect and the presenting problem when considering recovery. However, informed by the interviews with the experts, there is an emphasis on different aspects of development that need to be incorporated into the intervention as it is about developmental stage not just age. There is an emphasis on the sequential nature of development and congruence with the child's relationships and culture. Similar to the other examples, there is attention to the biopsychosocial and cultural mechanisms for change.

Figure 7-13

Drawing of Biopsychosocial and Cultural Mechanisms for Recovery from Developmental Neglect and Language Problems



Cultural Neglect and Low Cultural Pride

Cultural neglect was described in the survey as the child's "cultural needs not met, e.g., no or limited access to cultural identity, connection with community, cultural safety". The survey did not use a standardised measure of cultural pride. The descriptor in the survey under the emotional problems domain was "Lack of cultural pride (e.g., lack of positive connection with cultural identity &/or sense of belonging to community)".

What is Recovery?

It is proposed that recovery involves the child's cultural needs being consistently met and that the child develops a positive cultural identity and sense of belonging with their cultural community. This is likely to present differently in different cultures (e.g., Agathonos-Georgopoulou, 1992; Hughes, 2006).

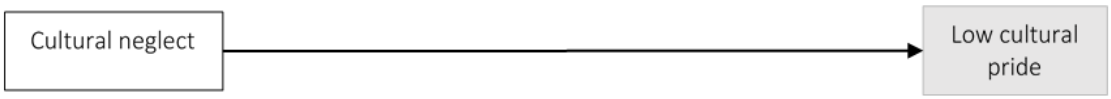
Descriptors and Examples of Harms

There were 72 children (33.3%) described as experiencing cultural neglect and 56 children (25.9%) as having low cultural pride. Thirty children (13.9%) experienced both cultural neglect and low cultural pride. There was minimal description of what this looked like by the survey respondents. Cultural neglect and low cultural pride were not explicitly discussed in the interviews or through the surveys, so the implications for mechanisms of harm and for recovery are informed by the literature and extrapolated from other findings on neglect and principles of recovery.

In terms of unadjusted odds, the presence of cultural neglect, the child being older, and being Aboriginal were each predictive of the child having low cultural pride. When the odds were adjusted, only cultural neglect remained predictive. In other words, low cultural pride was not predicted by being Aboriginal or being an adolescent, but by having their cultural needs not met (Figure 7-14). In the cluster analysis, low cultural pride was in a cluster with self-harm, suicidal ideation, and several health problems (see Figure 5-1).

Figure 7-14

Basic Representation of Neglect-Related Variables Predicting Children Having Low Cultural Pride



Literature Summary of Links Between Cultural Neglect and Low Cultural Pride

Cultural Neglect. The cultural neglect construct is discussed in detail in the literature review (page 15) and earlier in this chapter (page 247). Although there was little research found on its impacts on children, there was a substantial body of qualitative research describing the absence of cultural safety and cultural continuity or the presence of cultural abuse and cultural trauma for Australian Aboriginal children and communities (e.g., Commission for Children and Young People, 2016; Human Rights Equal Opportunity Commission, 1997) and other Indigenous and minority communities (e.g., Brave Heart & DeBruyn, 1998; Chandler & Proulx, 2006). “Culture is a double-edged sword. Because of human beings’ dependence on it, its loss becomes traumatic” (deVries, 1996, p. 400).

Low Cultural Pride. In their study on navigating racism across school, home and cultural contexts in Hawai’i, Yeh et al. (2021) described cultural pride as including respect for self and others and connection to cultural traditions. General neglect and low cultural pride were identified in one study in the scoping literature review (Chapter 2) where Hodson et al. (2006)

found the only form of maltreatment predictive of low cultural pride was physical and emotional neglect.

Research has found the role of parents in teaching children to be proud of their culture is a major influence on not only the child's cultural identity but other outcomes such as lower levels of anxiety (e.g., Bannon et al., 2009; Hernández et al., 2014; St. Vil, 2009). This assumes children are living with or interacting with family, however, this is not always the situation for children involved in the CPS system. As such, the family may have less proximal and powerful influence over cultural identity compared to others in the child's microsystems such as carers, school, and friends. This suggests two mechanisms between cultural neglect and low cultural pride. The first is if the child has less access to family and community who could otherwise instil knowledge and sense of pride in culture. The second is if those in the child's proximal circle do not undertake this role.

Although being older was no longer a predictive factor for low cultural pride, it was a predictive factor for cultural neglect and the concept of adolescence is understood as the stage where young people are dealing with challenges of identity or confusion (Erikson, 1971). As they individuate from family and develop a personal self-image, they are influenced by the preceding stages of development (Erikson, 1965). In the event of cultural neglect where cultural knowledge, exemplars and guidance are withheld or missing, there is no obvious path for children and adolescents developing a positive cultural identity. In her study on Black youth in Britain, St. Vil (2009) wrote:

> Race and ethnicity are elements in identity development as critical as any other identifier, such as religious identification, orientation, ability and other factors, particularly among Black youth. These identifiers are particularly poignant during the adolescent stage, which is expected to be a period when cognitive capacities, as well as, emotional abilities mature and develop. This is not to say that racial and ethnic identity development does not begin at an earlier age, nor that Black youth are the only persons to experience these processes. (p. 86)

St Vil's (2009) comments also illustrate the individuality and intersectionality of identity formation including faith, sexual and gender identity, and abilities, and the combination of possible identities. Though not a feature that arose through the data in this study, they are important to incorporate when considering risks to self-worth and personal pride. Cultural neglect could impact the psychosocial resources available to children coping with stressors or trauma. The strength of the individual's identity and connection with their culture is considered a

factor that increases resilience to adversity including neglect, abuse, and other traumas (Chandler & Proulx, 2006; Gee et al., 2014).

Recovery from Cultural Neglect and Low Cultural Pride. As with other forms of neglect, the platform for recovery is cessation of the neglect. Like other forms of neglect, the child is not a blank slate where the harms have not occurred. If children have not been exposed to positive cultural experiences, they may reject or be fearful of these without preparation (e.g., Commission for Children and Young People, 2016; Human Rights Equal Opportunity Commission, 1997).

Introducing or strengthening relational connections with people in their family and cultural community appears a necessary early step in any recovery process. According to St. Vil (2009) this not only offers children access to support but enables them to see positive reflections of their cultural community, enhancing a sense of belonging to those with shared heritage. "This can be especially supportive in withstanding a dominant community that is seemingly hostile to people of color, immigrants, and other groups" (St. Vil, 2009, p. 86).

Fostering Healthy Futures (FHF) was the only intervention described in the systematic review (Chapter 2, page 63) that explicitly incorporated strategies to build the child's cultural identity (Taussig et al., 2013). In their community-based participatory research in Canada Dubnewick et al. (2018) found "traditional games can enhance the participation of Indigenous peoples in sport by (a) promoting cultural pride, (b) interacting with Elders, (c) supporting connection to the land, (d) developing personal characteristics, and (e) developing a foundation for movement" (p. 213). Elements of cultural pride in sports includes linkages with teachings, history, and cultural protocols. It was described as "*their* way, you know it's part of *their* culture" (Dubnewick et al., 2018, p. 213). They reflected not only a belonging of people and place but over time.

There are many examples of programs and strategies for Aboriginal communities in Australia to build cultural connection and identity for both children and adults as part of a healing journey. Though none of these appeared specific to cultural neglect or low cultural pride, "healing through culture" is the antithesis of both (e.g., Black et al., 2019; Coade et al., 2008; Frankland et al., 2010; Gee et al., 2014). In a review of the evidence of Indigenous cultures' emphasis on healing through culture in Australia, USA, Canada, and New Zealand, there were six cultural domains: country and caring for country, cultural knowledge and beliefs, language, self-determination, family and kinship, and cultural expression (Bourke et al., 2018).

In a study on ethnic pride for Mexican teenagers in the USA, Hernández et al. (2014) found a predictor of youth ethnic pride was their parents teaching children to be proud of their

culture, referred to as cultural socialisation. This was amplified in the presence of parental warmth and considered a means of promoting competence and wellbeing as well as being a protective factor against risk. This is more complex when children are separated from their families, especially if raised in a culturally neglecting environment.

In a study on African American primary school-aged children, cultural socialisation by their parents predicted lower levels of child anxiety (Bannon et al., 2009). They found "parental endorsement of cultural pride reinforcement messages acts as a significant influence on urban African American child anxiety independent of its association with other child and family variables" (p. 84). They noted reinforcement of cultural pride was positively associated with other outcomes including self-esteem, anger control, less physical aggression, and academic achievement.

A study on language immersion in Canadian kindergartens for First Nations children by Morcom (2017) suggested an avenue to self-esteem and other gains after a loss of culture, may be through strategies that build cultural pride:

> The cultural pride these participants show indicate that strong immersion may be effective in countering the loss of language, culture, and cultural pride brought about by the residential school system and the western-style day school system. … They indicate that by bringing culture and language into the classroom in a meaningful way and reinforcing their value and sophistication, Aboriginal children can blossom in personal and cultural pride and a love of learning. (Morcom, 2017, p. 378)

For Māori young people, Webber and O'Connor (2019) proposed the use of genealogy or "whakapapa" and Māori storytelling and knowledge as pedagogical tools within schools to promote cultural pride:

> The need for social belonging, for seeing oneself as socially connected, is a basic human motivation … and a sense of social connectedness predicts favourable outcomes … A positive sense of Māori identity plays an important role in healthy adjustment and school functioning and can have a significant influence on how Māori students deal with adverse circumstance. (p. 3)

Potential Mechanisms and Examples for Recovery

The overall theme from the literature on mechanisms for recovery for children dealing with cultural neglect and low cultural pride would seem straightforward; that is to meet children's cultural needs including regular exposure to positive cultural elements that enable the children to

learn about their culture and its implications for their identity, such as who they are and where they belong.

Dr Miller's interview covered cultural abuses over the years for Aboriginal people in Australia and the associated loss and grief. As part of an intervention, Dr Miller stated: "You've got to look at development and you've got to have the child culturally safe, so connectedness". Dr Perry stated no model will account for the full picture of being human including culture. He noted a model needs to direct people to consider a range of levels or they will miss key elements:

> no single lens is going to give you the full picture of a human being or humankind or culture or anything. And so, this is why, you know again I think one of the things we tried to do with our approach, is to force people to think about the problems you're looking at from different perspectives even in our treatment planning part. (Dr Perry)

A possible neurobiological and cultural mechanism to support recovery would be to expose the children to the range of sensory information such as culturally-laden sights, sounds, smells, tastes, touch, and movement with sufficient pattern and repetition to facilitate a positive association with these experiences (e.g., Perry, 2006). In contrast, a one-off contact with a community Elder, or the gift of a cultural symbol would be insufficient. Another neurobiological mechanism would be to link such sensory information with consistent positive relationships so the child experiences these as rewarding, as described in Dr Perry's interview.

Psychosocial mechanisms could build on these neurobiological mechanisms and help children explore meaning behind their cultural identity, community, language, land, and other elements to weave their personal and cultural story together. Examples of this were described in Bannon et al. (2009), Black et al. (2019), Morcom (2017), and Webber and O'Connor (2019).

There were scant comments in the survey responses on cultural neglect, low cultural pride, and cultural interventions. A professional survey response touched on disconnection from culture as part of the child's experience of neglect and connection with culture as part of a strategy. Other comments within that survey response implied: (1) professionals needed to form connections with the child's cultural community; (2) the systems' response to the child separated them from land and culture; and (3) the care team did not incorporate cultural knowledge. In a carer's survey response, there was mention of involvement of an Aboriginal Elder in the child's life, having an Aboriginal organisation involved, and the child engaged in an Aboriginal youth group.

Summary Diagrams Linking Mechanisms for Harms and Recovery

Figure 7-15 depicts a pathway for how cultural neglect (top left corner) could contribute to children having low cultural pride (top right corner). Although data from the surveys provided evidence of the predictive association, there was minimal qualitative commentary to explore this further and so the literature has been the main source of information about possible mechanisms. All neglect is understood within an ecological-systems context including factors at the macrosystem level such as poverty, housing, social stressors, and other structural factors. Cultural neglect and low cultural pride are particularly influenced by macrosystem factors such as systemic racism (e.g., Bamblett & Lewis, 2007; Newton, 2019). A key feature in this pathway is the child's limited capacity to develop positive cultural pride in the absence of broader positive messages and the presence of negative toxic messages at a societal and system level, especially if they are not routinely exposed at an interpersonal level through their microsystems to members of their cultural community.

Figure 7-15

Drawing of Biopsychosocial and Cultural Mechanisms Between Cultural Neglect and Low Cultural Pride

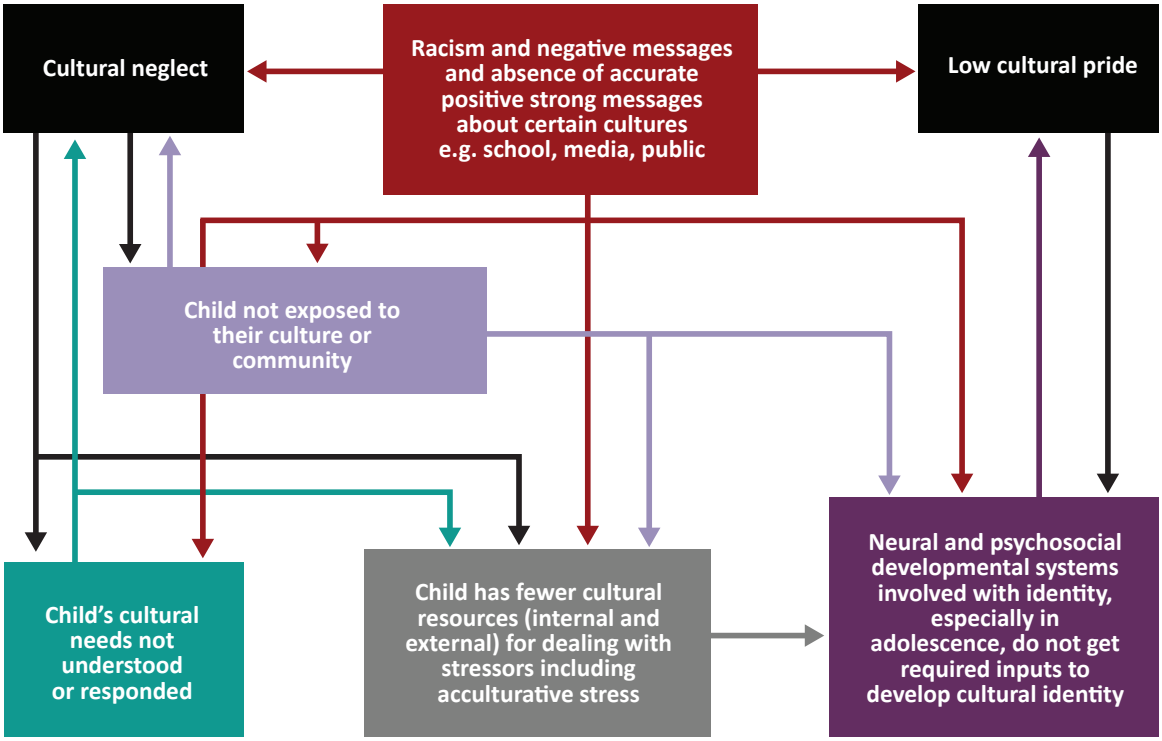
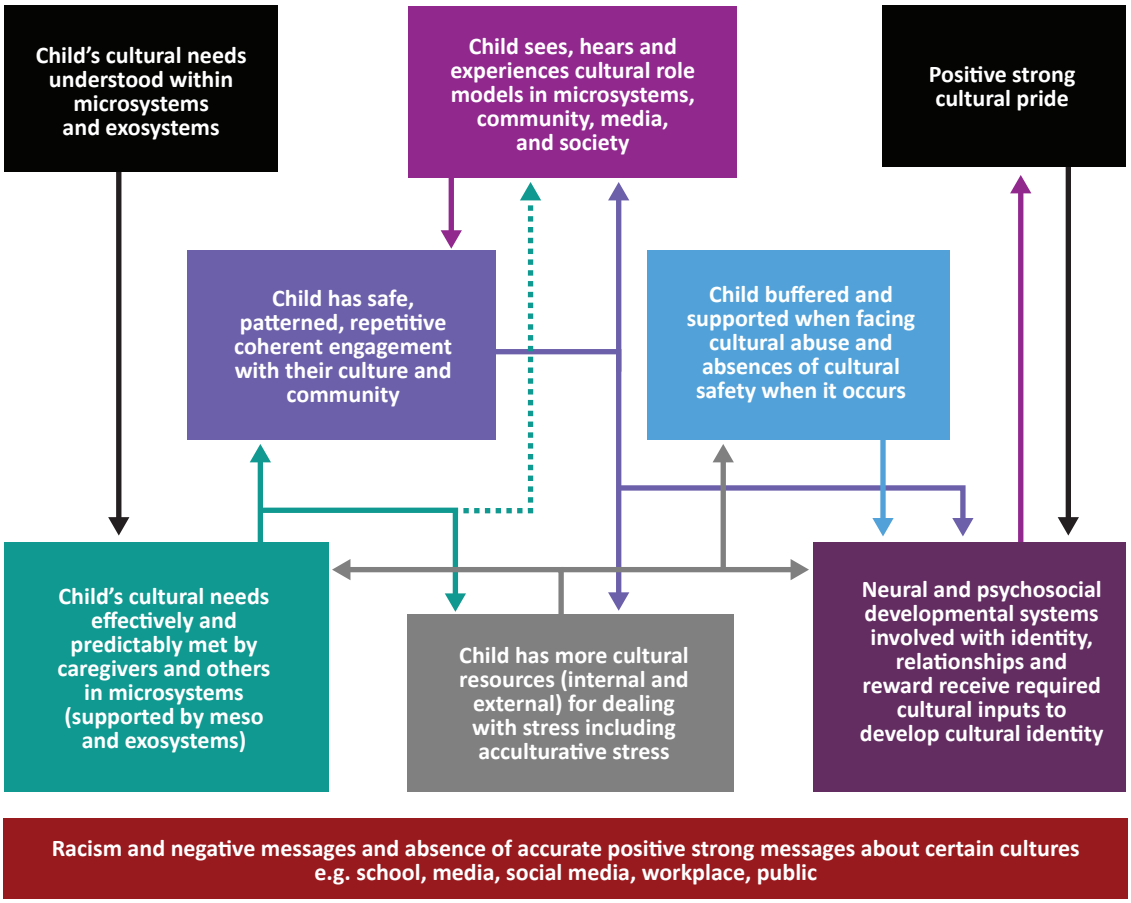


Figure 7-16 portrays recovery from cultural neglect by having their cultural needs met (top left corner) and developing positive cultural pride (top right corner). This diagram, however, differs from the diagrams on other forms of neglect, due to the recognition that interventions with the child and their microsystems do not impact the presence of racism and other assaults to

cultural safety in the broader community or society (Figure 7-16). They can provide important buffers and support children to develop cultural resilience and deal with acculturative stress (Berry, 2006; Schwartz et al., 2010). Nonetheless, to tackle the larger issues requires an equally large approach. Individual and collective history cannot be erased, and neither can the reality of racism and its implications for children, families, communities, carers, and professionals. Apart from advocacy and education, no strategies or other suggestions were made on how to combat structural and systemic factors in the survey responses, yet this is an area that requires further discussion across fields of practice, disciplines, and socio-political levels. At the child and microsystem levels, there is a need to ensure that not only do children from particular cultural communities have access to their own community, language, and symbols, but that they can experience their culture through every sensory input, such as sights, sounds, and tastes. It could be argued that the entrenched nature of some of the macrosystemic factors including systemic racism, poverty, and structural disadvantage indicates they should be listed at the base of every diagram portraying mechanisms of harm and that they are still present when activating mechanisms of recovery. This was more explicit in the description of cultural neglect but will be discussed further in the broader theory of change.

Figure 7-16

Drawing of Biopsychosocial and Cultural Mechanisms for Recovery from Cultural Neglect and Low Cultural Pride



Stage 5. Foundational Theory of Change

Stage 5 represents a culmination of the earlier stages of building this theory of change through the critical realism lens, particularly informed by the retroductive analysis on the examples provided on mechanisms of harm and recovery (Stage 4), to create a foundational theory of change for recovery from neglect. This chapter has described and highlighted various elements to consider in a theory of change by way of examples from the survey respondents and experts, use of metaphor, and integrating the literature with the qualitative and quantitative data analysis.

Figure 7-17 is a conceptual overview of what could inform the theory of change to support children's recovery from neglect. It begins with acknowledging the child's history of neglect including what biopsychosocial, cultural, and structural mechanisms have contributed to harms. With this understanding, the first goal in the theory of change would be to meet the child's needs, that is, to cease the neglect. Having identified what human, practical, and system resources are needed to meet these needs, including identifying barriers that need to be resolved,

biopsychosocial, cultural, and possibly system mechanisms come into play. This is a major step towards recovery, without which recovery is unlikely.

There are programs and interventions available to potentially activate several mechanisms for meeting children's needs. As described in the systematic literature review (Chapter 2, page 63), these are focused on changes in caregivers' behaviours, motivations and relationships with the children. My study, however, was primarily focused on what happens next. Even when children's ordinary needs are being met, further work is required to activate the biopsychosocial and cultural mechanisms to enable them to reach their potential. It is these mechanisms for translating children's needs being met into actual and perceived recovery, as represented by the circle, that I elaborate on in the foundational theory of change.

Figure 7-17

Basic Conceptual Diagram of a Theory of Change for Recovery from Neglect

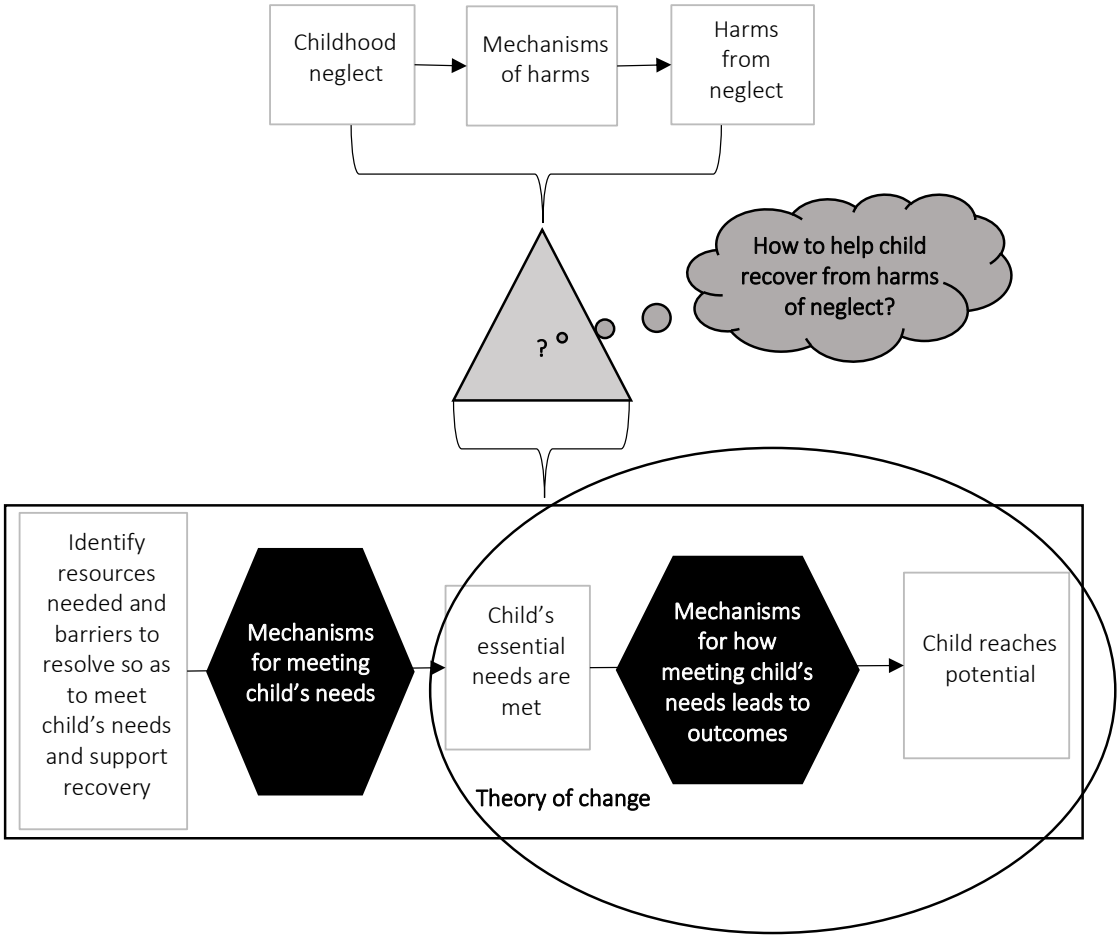


Figure 7-17 could be interpreted as suggesting that by meeting children's ordinary but essential needs they will reach their potential. Yet this would not recognise the impact of certain needs not having been met in the past. The essential needs of children who have experienced serious neglect are arguably more complex than those who have not experienced neglect

(Horwath, 2013). These children are likely to share the typical needs of their developmental peers but with additional needs that come from their biopsychosocial and cultural self, having grown up in a life of many absences.

Using retroductive analysis, the key question I explored was: *What is required for recovery to be possible?* In addition to considering this question through the examples just discussed (Stage 4), the challenge was to consider this across the variety of possible problems experienced by the child. Informed by the literature, expert interviews and survey responses, I propose for children to reach and continue to reach their potential in all domains, the following needs to be true:

- They receive the inputs and experiences necessary to develop and grow in each domain.
- They receive these inputs and experiences in a pattern and modality, in accordance with the relevant developmental pathways and their relational and cultural context.

I separated *inputs* and *experiences* to recognise the difference between what the child receives (actual) and the child's perceptions (subjective experience), as noted in the expert interviews. For example, it is not only feeding the child but the child experiencing being fed and satiated, and not being anxious about whether or not they will be fed again.

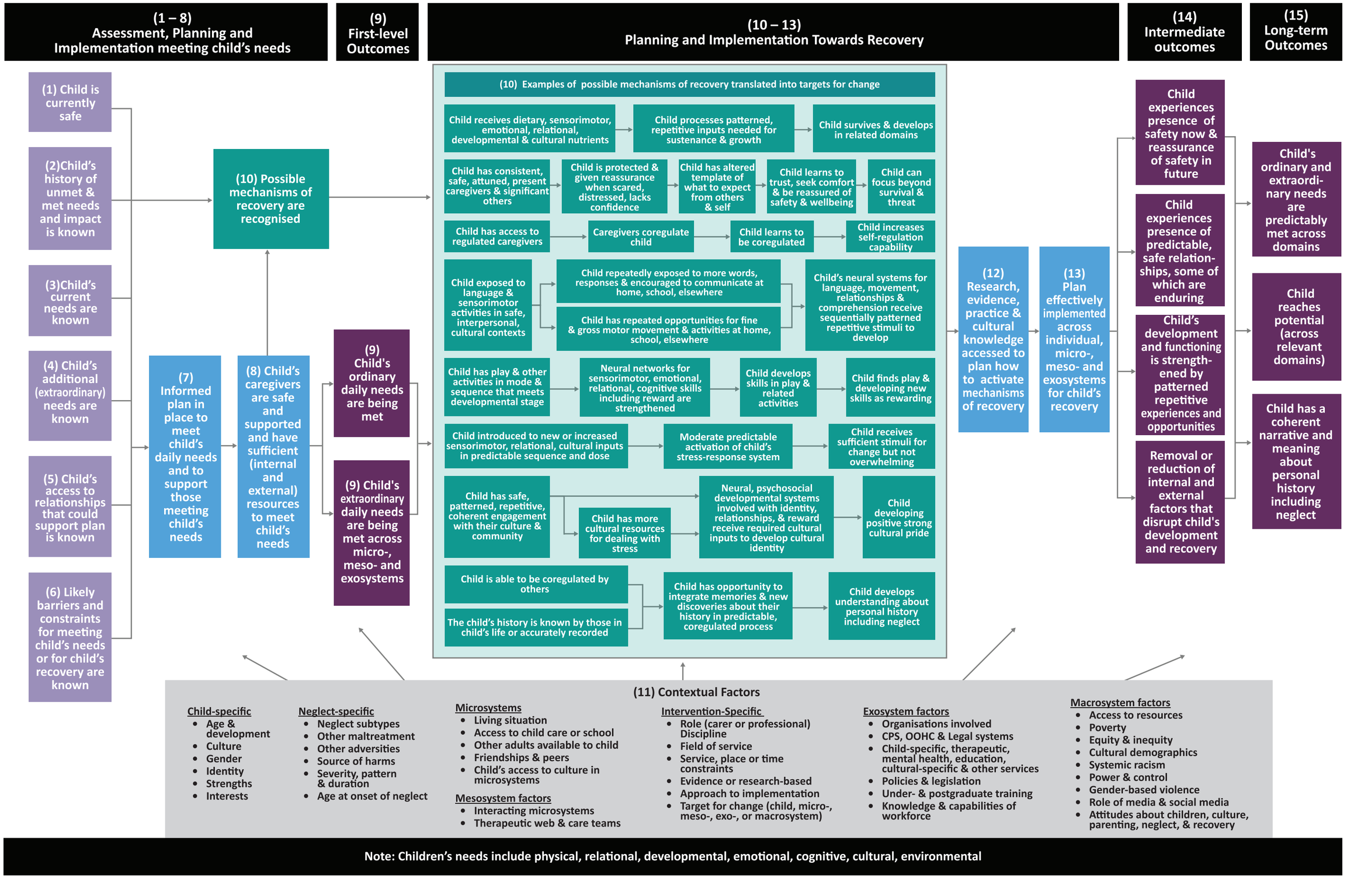
As described in Chapter 6 (page 180), the concept of recovery implies three elements: (1) the child is no longer neglected; (2) there is resolution of the presenting problems to the extent possible; and (3) the actuality and perception by the child of their safety and having their needs met. The child no longer being neglected was summed up by the code *presence and replenish*. This code was developed through the qualitative analysis of the interviews and surveys. It refers to meeting the child's unmet needs (i.e., turning absence into presence) and acknowledges the impact of neglect means the child may consistently require assurance that their needs will be met (i.e. replenish). Safety is a dynamic state, as is meeting a child's needs. As the child grows and their situation changes, so will the role of parenting, teaching, and engaging them in their community need to change.

Figure 7-18 depicts a proposed foundational theory of change highlighting the key elements towards recovery from neglect. Consistent with the research question on child neglect, my foundational theory of change does not explicitly describe recovery from other types of maltreatment or adversity, although other maltreatment, adversities and different aspects of the children's micro- and other systems should inform the approach to supporting the child's recovery, as indicated under contextual factors.

My theory of change is foundational in recognition of two factors: (1) It is proposed without specifying the neglect subtypes or presenting problems and without being limited to a specific age-group, gender, culture, or living situation. Testing this theory of change to see if applicable to children of different age, gender, culture or living situation and neglect subtype will be an important means of validation. (2) It is proposed without specifying the roles or disciplines, service type or role of organisation involved in the intervention. Depending on the scope of practice; access to other services; organisational context; the service and legal systems; and other factors, the details in this theory of change model could vary, but it is intended the overall model remains applicable. All of these are important contextual factors, as indicated near the base of the diagram. A more detailed theory of change is also likely to be populated with inputs and outputs specific to the program (Funnell & Rogers, 2011). I have documented examples of possible mechanisms for recovery, recognising they are not a complete picture of all possible mechanisms. They have been selected based on what emerged in the analysis of the interviews and surveys as well as from the literature review.

Figure 7-18

Foundational Theory of Change for Recovery from Neglect



Following is a proposed guide numbered for each element described in the theory of change in Figure 7-18. Although presented as a linear process in accordance with most theories of change (Funnell & Rogers, 2011), it will need to be populated and applied dynamically in response to the changes likely to be experienced in the child's world. The base of Figure 7-18 details the various biopsychosocial and cultural needs of children, to be kept in mind throughout the process. These represent the child's day-to-day needs that are met through ordinary or extraordinary means, as well as the child's recovery needs. Recovery needs are defined as those needs beyond the day-to-day that will enable them to reach medium to longer-term goals. Again, they may be ordinary – as in most children in their community take them for granted but these children have not been able to, and extraordinary – as in additional efforts will be required to enable the child to have these needs met. For example, as mentioned earlier child who has experienced trauma and neglect may benefit from psychotherapy about the traumatic event, but the experience of neglect means they may require a different approach before or as part of that psychotherapy.

The intent of the theory of change diagram (Figure 7-18) is that it provides a foundational approach to thinking about how to help children recover from neglect. The various possible applications of this theory of change will be discussed in Chapter 8.

(1 – 8) Assessment, Planning and Implementation to Meet Child's Needs

1. Establish Safety

Establishing children's immediate safety was a strong theme throughout the study and acknowledged to be broader than their experience of neglect. As such, although this theory of change for recovery is in response to neglect, if the child is unsafe for whatever reason, recovery will be stymied until that is resolved. Ensuring immediate safety may occur through supporting caregivers to meet the child's needs or taking protective action directly or through referral to other services. The carer survey responses reflected a range of ways they demonstrate safety to the children in their care.

Establishing safety represents both assessment and action. For example, if the child is living with family, with a history of neglect, family violence and other adversities, professionals tasked with supporting the child's recovery from neglect would need to clarify if those risks are still present, if it is their role to directly address those risks, or if another service is or needs to be focused on that task. The answer to these questions will inform what aspects of the theory of change can be activated and when. If it is the professionals' role to intervene to safeguard the child, there will be additional elements to the theory of change such as focusing on parental or caregiver behaviours. These were not the subject of this study. An absence of safety does not

mean the other elements in this theory of change cannot be actioned, but that they are less likely to achieve the outcomes desired until safety is reached. At this stage, the child may not yet perceive they are safe.

2. Child's History

Knowledge on what the child has and has not experienced, and the implications of unmet needs informs intervention to first meet those needs, and second, to inform recovery. This can inform a carer as to why the eight-year-old child may not respond to age-typical play. This child's essential needs will be met by not only receiving education but by the carer ensuring the child is supported at home with study, a good sleep routine, and so forth. A teacher will be assisted by knowledge of the child's developmental and educational history. The child may have additional education needs due to missed formal education and informal social learning that usually occurs in school. The child may require support to be in a classroom with other children, for example, or with catching up on curriculum they missed from earlier years. A clinician in a therapeutic service would benefit from as thorough a history on the child's met and unmet needs as possible, including the timing of these absences, to plan their intervention.

There were minimal findings in this study on children's history of positive experiences due primarily to the questions that were asked. Nonetheless, knowledge on which of the child's needs were consistently met can also inform intervention. This element suggests going beyond finding out that 'this child experienced neglect' or even 'this child experienced physical, emotional and developmental neglect'. Such an assessment would benefit by being able to say 'this child was not regularly fed in the first two years or life', 'this child received mixed messages about being loved by her parents when they were going through a divorce when she was four', or 'this child was discouraged from playing with other children when they began primary school'.

3. Child's Current Situation

Assessing children's current needs, which are being met or not met, provides another lens to evaluate their safety. Recognising how the child's needs are being met can also inform what is working to the child's benefit. If a child is placed with carers providing good quality care in all areas, for example, then intervention would build on this foundation. If carers are meeting most of the child's needs but are less able to meet the child's needs for cognitive stimulation, this could inform planning on whether those needs could be supplemented in other ways (e.g., therapeutic child care, tutoring, additional support at school or home). It is helpful to distinguish here between the child's daily and longer-term needs as the former need to be met in order for the latter to be possible.

4. Child's Extraordinary Needs

Determining if the child has additional needs due to past neglect or for other reasons is an essential step towards recovery. The child may have additional needs for physical, emotional, relational, cultural, developmental, or behavioural functioning, and thus providing typical care may not be sufficient. Determining if the child has extraordinary needs will be informed by the previous two elements (i.e., knowledge of the child's past and current situation). In this study, carers provided rich examples of ordinary needs that had become extraordinary because of the child's experience of neglect, such as when and how to hug a child and how to take them shopping.

Understanding mechanisms for harm assists in the planning and prioritisation of which needs should be met as a matter of priority. If becoming dysregulated at school, for example, is related to the child being overwhelmed with stress and frightened of failure and the unfamiliar, this not only clarifies some of the child's extraordinary needs, but points to potential mechanisms and interventions for recovery. How to feed a child who does not know how to use utensils, how to hug a child who does know what to expect next, and how to set limits on a child who does not recognise structure, are examples from carer survey responses. As with children's ordinary needs, distinguishing between daily and longer-term extraordinary needs will guide sequencing of intervention.

5. Access to Relationships

This element considers the informal and formal social relationships the child has access to that could form part of a therapeutic web, as coined by Dr Perry, and cited in several professional surveys. Who are the people present in the child's microsystems? Is this an element that needs to be strengthened, such as enlisting more people in the child's life or more intentional and positive interactions by those already known to the child. Examples from the surveys were carers providing reassurance and presence for the child without expecting a lot in return. Another example from a professional survey response was exploring if the child's cultural connections could be increased and supported. This element includes adults in the family, school and community, friendships, siblings, and peer relations. Introducing new relationships may need to be staggered and begin with more parallel interactions consistent with an earlier developmental stage, than assuming the child is ready for dyadic face-to-face interactions. Perry et al. (2016) recommended: "The primary clinical strategy is to be present, parallel, patient, and persistent" (p. 143). Although access to positive relationships is an essential need, and may be identified in elements 2 and 3, it is listed separately. This is because the presence of relationships provides the

platform by which to support the child through change and facilitates the ability to meet other needs.

NMT has a measure referred to as “current relational health” which includes caregivers, kinship, cultural groups, school, friendships, faith group, services, and other important people in the child’s lives (Perry & Hambrick, 2008). Whether it is this, or another form of assessment, it is necessary to consider whether the child’s relational context is sufficiently present and supportive to assist the child through recovery and if it includes people with the ability to support certain areas of recovery, such as cultural or language development. It also signifies if meeting the child’s needs can be distributed across microsystems to support the level of repetition and consistency of approach required. If the child does not have access to current healthy relationships, this becomes a target of intervention (Perry, 2009).

6. Barriers and Constraints

Numerous barriers may constrain meeting the child’s needs or supporting recovery even when their age-typical needs are being met. They may be at an individual, microsystem, mesosystem, exosystem, and macrosystem level. Drs Dubowitz and Miller, for example, discussed possible barriers in parents’ motivation or ability to change, which may be a feature of them feeling blamed and shamed by individuals and the service and legal system. Not every barrier can be a target of intervention and certainly not by every professional or carer, especially exo- and macrosystem factors. Nevertheless, identification of barriers to change can support the focus and implementation of the plan (Taplin & Rasic, 2012). Although this element is noted early in the theory of change, identifying and planning to resolve or circumvent potential barriers and constraints continues throughout.

As an example, an Indigenous child’s cultural needs may not be met by their carers due to lack of knowledge and understanding about the child’s culture (microsystem). This may be reflected in the child’s care team where the child’s cultural needs are not discussed (mesosystem). There may be a lack of training on cultural identification and cultural safety in the OOHC agency and the CPS (exosystem). There may be specific geographical community factors, such as local history and loss of language. Systemic racism and cultural trauma are likely macrosystem factors. Plans can be put in place to identify the child’s culture, educate caregivers and the care team about the child’s cultural needs, assess if the child’s needs including culture can be met or if alternative arrangements need to occur, and instigate training and supports to enable the workforce and carers to be more attuned to the issues pertaining to cultural safety and wellbeing. There is a growing call to combat systemic and individual racism, including within

the child welfare system (e.g., Benson, 2022; Black et al., 2022; Cantey et al., 2022; Cao et al., 2022; Frankland et al., 2010). In a response to the Australian Human Rights Commission's National Anti-Racism Framework, the Victorian Aboriginal Child Care Agency (2022) cited Ibram Kendi, who wrote: "the only way to undo racism is to consistently identify and describe it – and then dismantle it" (p. 4).

7. Plan for Action to Meet Child's Daily Needs

Having identified the child's historical and current situation, the next element is to plan actions to meet or further meet the child's day-to-day needs. This element is the next level of the theory of change as it can only occur effectively, if informed by the previous six elements. It is about the child's everyday needs whether they can be met in ordinary or typical ways or whether they require extraordinary measures. For example, providing an abundance of food after insufficiency can be overwhelming, indigestible, and unpalatable. The same can apply to other physical, developmental, relational, emotional, cultural, and cognitive nutrients. Preparation may be needed for the child to take in such sustenance without further harm. Whether it is food, language, play, boundaries, friendship, love or knowledge, the theory of change needs to be informed by a trajectory from going from nothing to something to enough. Having gone from too little too late, we need to ensure we do not overcorrect (i.e., too much too soon). In addition to being less effective, it may exacerbate the child's stress response (Gaskill & Perry, 2014).

Understanding what needs have been missed due to neglect, informs the sequence, pattern, and plan as to how and when to expose the child to new inputs and experiences. Given many of these children have had an excess of unmet needs, the question may be where to start. The findings in this study, supported by the literature, indicate the first need is safety. This is the existence and perception of safety. How the child has experienced an absence of safety or a lack of confidence in their safety will guide what needs to occur first. Whether it is Maslow's (1954) hierarchy of needs or applying a biopsychosocial and cultural model (Engel, 1977), we begin with providing for unmet needs that threaten immediate survival. For example, if the child has not been fed or their immediate health needs are not met, start there. Yet for all the importance of these life-enabling needs, they are not enough. Children's other safety needs including psychological, relational, and cultural along with non-life-threatening physical needs are intertwined and informed by the meanings placed on them by the child.

Supported by the findings from interviews with the experts, and emphasised by Dr Perry, the next daily need is relationships. Attachment theory and related research has shown children's need for proximity with one or more caregivers is beyond their physical need for food. Infants and

young children are unable to meet their own needs and need caregivers to do so (Cassidy, 2008). If children have no-one in their life who they believe loves them, or thinks about them when not directly present, that is a priority. However, as raised in the interviews with Drs Miller and Nelson, although the child's experience of being loved is essential, it is not enough. Children's need for relationships cannot be separated from their developmental, psychological, cultural, and physical needs as it is through relationships that most needs will be met. The qualities of relationships that can meet children's daily needs include that they are safe, nurturing, attuned, responsive, and available (Cassidy, 2008). The broader relationships that form part of the child's therapeutic web are important to enable the child to receive a coherent, congruent approach to their care and wellbeing, as assessed in element 5.

Five other considerations when prioritising the child's needs, in addition to safety and relationships, are proposed based on the findings from the interviews and surveys:

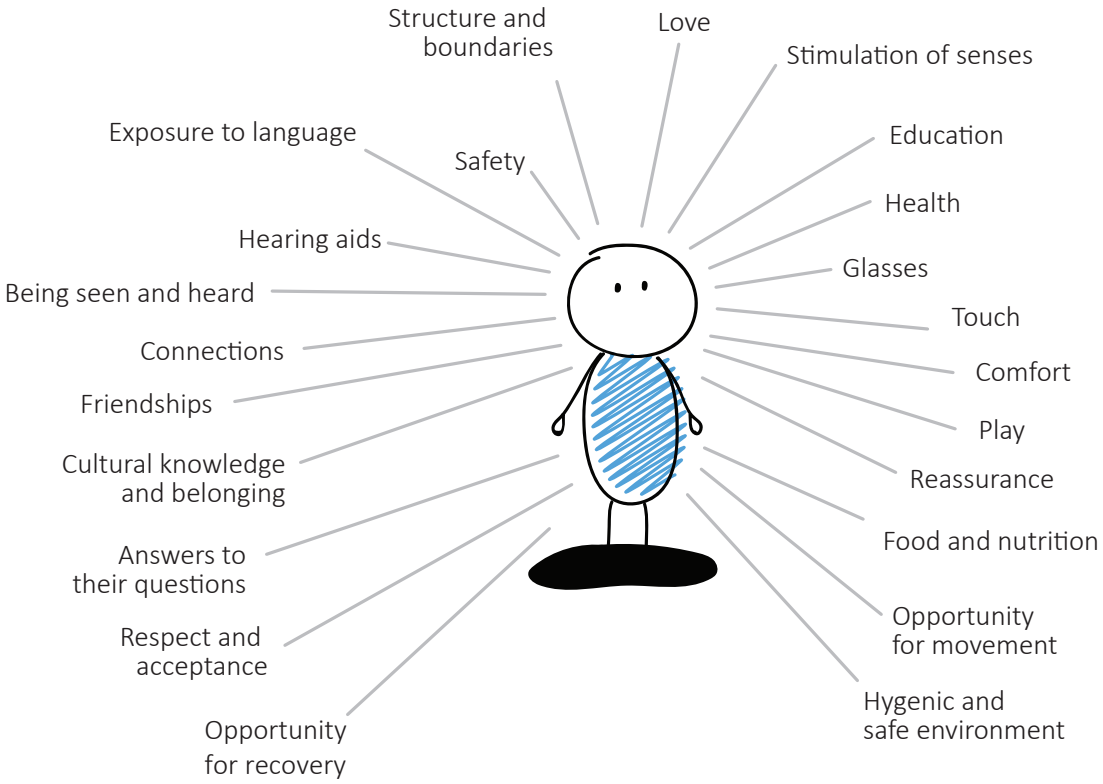
- Child led – what is the child telling and showing they need? Through their body, actions and voice – what is distressing or painful or of value to them?
- Struggles – what causes the most problems for the child's day-to-day functioning? These may not be the same as what causes the caregivers or the teachers the most problems, but there is a probable overlap.
- Sequencing – what is understood about the sequence of development that can guide the sequencing of intervention? Perry (2005) cautioned that if the child has missed earlier foundational experiences, these should be prioritised before higher order capabilities can be properly developed.
- Visibility – Making the child and their ordinary and extraordinary needs visible is an important counter-intervention if neglect, chaos, or elements of the system have made it difficult to see the child or to see beyond their behaviour.
- Times and places – Thinking about the child's daily needs means day and night. As neglect can be a 24/7 experience, the child's sleep routine, breakfast, travelling to and from school and other parts of the day need to be recognised. Similarly, what happens in the child's home, whether they live in OOHC or with family, is about the loungeroom, kitchen, bedroom, bathroom, and back yard, as illustrated by the carer survey responses. It is also about the classroom, school yard, local shopping centre, nearby playground, and the setting of the professionals.

The survey responses provided numerous examples of children's ordinary and extraordinary daily needs as illustrated in Figure 7-19. Most of these needs would be understood as daily needs even when needing to be provided in extraordinary ways. It is not a complete list as needs vary due to age, gender, culture, sexual or gender identity, faith, ability, and many other

factors. Visualising the needs of children as described in this study provides a backdrop for the elements in the theory of change and offers examples when thinking about children's daily needs. For children who have been neglected, not even being able to see and hear others can be taken for granted.

Figure 7-19

Overview of Children's Needs Identified in the Study



8. Caregivers are Safe and Resourced to Meet Child's Needs

To be available, responsive and self-regulated to respond throughout the day and night to a child who is overly clingy or distant, demanding or perpetually sad, and not regulated in their physical and emotional state, caregivers need to be safe and supported in their own right. They need sufficient internal and external resources to cope and respond effectively to the changing or entrenched needs of the child or children they care for. If the caregivers are the child's parents who had previously neglected their child, they are also likely to have extraordinary needs. As described by Drs Miller and Dubowitz and one of the professional survey respondents, amongst other needs, the parents will need compassion including self-compassion.

This element assumes in order for the caregivers to meet the child 's ordinary and extraordinary daily needs, let alone long-term recovery needs, they need to be safe, secure, and supported. If that is not the case, then the plan and implementation to meet the child's needs,

should incorporate how to support the caregiver in their situation. This is a "both and" approach, as described by Dr Miller. If the caregivers are foster parents or kinship carers, they will also have identified areas of need for support so as to access the internal and external resources required to meet the child's needs.

This is one of the elements where the implications from the LCA results are particularly relevant. If a caregiver is caring for one or more children who have the suite of problems identified in Class 3 (most problems), then the level of support needed is likely to be higher, than if the child's problems were more indicative of Class 1 (fewest problems). Even for children in Class 1, however, there could be a range of health and development issues requiring attention and yet the child may go under the radar especially if the caregiver is overwhelmed with other children or other demands.

This element is written through the lens of what the child's caregivers need. It also could apply to the child's teachers, early childhood education and care providers, and anyone else charged with responsibility to help meet the child's daily needs.

(9) First-Level Outcomes

As noted repeatedly by the experts, the survey respondents and the literature, the first stage of recovery is the child's ordinary and extraordinary day-to-day needs are being met, indicating the child is no longer subject to neglect. This does not suggest every need is now continuously met. This is a dynamic process as children develop and their needs change, such as the psychosocial stages identified in Erikson's (1965) model. The outcome of children's needs being met will be highly varied based on their age, culture, gender, identity, living situation, and broader social and structural factors. For a child who has experienced serious neglect, it is likely that meeting some needs may require a more staged approach. Unlike the linear portrayal in the theory of change diagram, it is probable that whilst this first-level of outcomes indicates efforts are in place to meet the child's needs, further work on supporting their recovery may be required before longer term needs can be met. Ultimately, this first level of outcomes creates the conditions for recovery to be possible.

In accordance with the theory of change approach, these outcomes of having their ordinary and extraordinary daily needs met, requires that this occurs across the micro- and other systems as per the previous elements.

(10 – 13) Planning and Implementation for Child Recovery

10. Mechanisms for Recovery

A critical realism perspective defines mechanisms as real, but neither actual nor observed (Bhaskar, 2008; Danermark et al., 2019). They are subjectively understood and open to ongoing hypotheses. In accordance with the theory of change approach, to recognise possible mechanisms of recovery requires knowledge about the child's experience of neglect and the nature of their ordinary and extraordinary needs (elements 1 to 6). It also requires that efforts are underway to meet the child's immediate daily needs (element 8). I explored mechanisms of harm to consider whether they offered ideas of possible mechanisms for change. For example, I reviewed the literature on discussion of mechanisms of language development for typical children and for those vulnerable due to neglect or other factors. I looked for examples of interventions which described potential mechanisms for change.

There are eight examples provided of possible mechanisms for recovery and how these may translate into targets for change. Some appear as linear, such as if the child increases their self-regulatory capability, they must have learnt to be coregulated. In order to be coregulated, they needed caregivers to coregulate with them. In order for this to occur, the child needed access to a regulated caregiver. Although the logic appears linear, it is influenced by many factors including access to others, such as teachers, who are regulated and can coregulate the child, the child's age, and what factors influenced the child's physical and emotional dysregulation in the first place. Another example is the child developing positive cultural pride. This example was directly informed from the retroductive analysis of cultural neglect and low cultural pride (page 292). In this example, the mechanisms are summarised: for the child to have positive sense of cultural pride, their neural and psychosocial systems involved with identity formation receive the requisite cultural inputs to develop this positive identity. Other systems involved include those which mediate the child's responses to relationships and to reward and pleasure. In order for the child to receive these cultural inputs they need interactions within their cultural community that are sufficiently repetitive, patterned, and coherent so they do not receive mixed messages, such as if living with caregivers not from the same cultural group. Not only will access to their cultural community enable the child to receive cultural inputs necessary to change their template of what to expect, so too can their cultural community strengthen the child's access to internal and external resources that assist them deal with stress, including acculturative stress.

Element 10 was the most informed by metaphors used in the interviews and surveys as well as those emerging through coding and memos. Scaffolding, space, templates, pathways,

catching up, secure base, safe haven, nutrients, narrative, dose, sustenance, sequence, mastery, growth, and regulation were some. Water was also a common metaphor. For example, it represented the different degrees in which children could benefit from intervention – from a "trickle-down" effect to being "bathed" in sensory experiences. As mentioned earlier (page 254), the most fitting for many of these elements was that of growth or catching up.

11. Contextual Factors

The experts raised contextual factors to understand the harms of neglect and the process of recovery. There were also comments in the professional and carer surveys that suggested other factors or provided examples. These contextual factors are relevant throughout the entire theory of change with particular resonance when thinking about mechanisms of recovery. For each example provided in element 10, the starting points for the chain of mechanisms, are particularly influenced by contextual factors. For example, the child to have safe engagement with their culture and community, will be influenced by numerous factors impacting on the community, as well as on the child and their caregivers. The exosystem and macrosystem factors incorporate many mechanisms for change. Although these are likely beyond the scope of influence of the caregiver or professional they nonetheless impact on the child and their recovery.

When discussing the identification of barriers and constraints (element 6), these factors as well as those which may facilitate or enable recovery should be explored. These may impact the mechanisms for recovery, as well as limit or expand the scope of options. Considering these from an ecological-systems perspective assists the process of building theories (Creamer, 2022) as does the critical realism perspective (Eastwood, 2011). These factors include:

- Child-specific factors, such as age and development, child's cultural background and identity, gender and gender identity, sexuality, abilities, interests and beliefs.
- Neglect-specific factors, such as subtypes and the nature of these experiences, presence of other adversities, source of harm (e.g., family, OOHC, community, system), severity and duration of harm, and age at onset of neglect.
- Microsystem factors include the child's living situation (e.g., with family, in OOHC or frequently changing); whether the child attends early childhood services or school; child's access to close people in their cultural community; and who are the people in the child's life.
- Mesosystem factors include the child's access to a therapeutic web of people intentionally interacting with and for the child to support their safety and recovery; and the concept of a care team where professionals, caregivers, and family meet to plan for

or with the child and are tasked to hold the child in mind. Other mesosystems include caregiver and teacher interactions; and parent and carer interactions.

- Intervention-specific factors will impact on the planning and implementation, especially the role of the agents of change being professionals, carers, or both. The discipline and field of service of the professional is also an influencing factor. The choice of types and targets of intervention include whether it has an evidence or research-base, and how it is supported in implementation. These factors are both part of the contextual factors described under element 11 and inherent to the planning and implementation described in elements 12 and 13.
- Exosystem factors are those which impact on the child's microsystems. For example, the organisation who supports the foster parents, CPS, OOHC and legal systems, therapeutic or mental health services for children or adults, education, relevant policies and legislation and the knowledge and capabilities of the workforce including undergraduate and postgraduate training.
- Macrosystem factors include accessibility of resources, degree of poverty and access to a safety net, questions of equity and inequity, gender-based violence and the societal response, power and control and how they manifest, cultural demographics in the society and how any minority culture, Indigenous or other groups may be marginalised, whether there is systemic racism and how it is manifested, role of media in all its forms and how it represents childhood and parenting; and the broader societal expectations and values about children, parenting and different types of interventions.

12. Plan for Activating Mechanisms for Recovery

As with the plan for meeting children's daily needs, planning interventions and strategies to activate the mechanisms for recovery needs to be tailored to the child and their context. There was considerable discussion by the experts of factors to consider for planning for recovery. Three themes were particularly noteworthy: (1) making the absent, present; (2) the child becoming visible; and (3) time and place. These were also relevant for element 7. Making the absent present has been the underpinning theme for emphasising meeting the child's ordinary and extraordinary needs. In this element it is beyond the child's daily needs as it is focusing on their needs related to longer term recovery. The child becoming visible acknowledges they were always there, but unseen, unheard and not sufficiently in mind. Any mechanisms for change need to ensure these are reversed at every system level.

In terms of time, there were several elements including sequencing of intervention. Dr Perry noted in his interview that he and his colleagues focus on "the sequence of how the brain

develops, the sequence of how the brain processes information, and sequence by which we think you can help the brain recover". Neuroscience provides the foundation to inform sequencing, according to Perry (2006), such as:

- The brain develops from the bottom up, beginning in utero.
- The age of the child when their needs were first not met informs what part of the brain was actively developing at that time and so was primed to be organised by receiving inputs that did not come or came in a chaotic way.
- The sequence of how the brain processes information is largely from the bottom-up. Although it is the cortex that mediates understanding information, information is received through sight, sound, smell, taste, and touch which are processed through the lower parts of the brain.

Time was important in other ways, such as the need for sufficient repetitions to make changes, duration over time, incremental implementation, and pacing. Starting as early as possible in the child's life and in their exposure to neglect was a clear message. Although agreeing with this imperative, Daniel et al. (2011) also called attention to the need to intervene at all ages. Their call to "start early as well as late" (p. 121) is consistent with the findings from this study given the breadth of ages of children presenting with so many problems. Another aspect of time were the many comments in the interviews and surveys that referenced the child's past, present and future. This fits with the children having an opportunity when they are developmentally and emotionally ready to make sense of their past, to have someone present who can witness their current processing of experiences, and to have a sense of a future including hope.

The place of intervention is not limited to whether therapy should be in a clinical room or around a kitchen table. This was rarely discussed except through Dr Miller's descriptions of the work able to occur in the family home. The examples provided by the carer survey responses as described earlier enable multiple therapeutic moments to occur in a variety of places within the home, the car or the broader community.

A theme relating to both time and place was ensuring consistency and predictability. This was the strongest theme across all sources of data pertaining to what children need – consistency over time, place, and microsystems. Predictability for children who have grown up with uncertainty and chaos was often emphasised.

Actions described in the survey responses included those with the potential to influence functions mediated by the lower parts of the brain, such as sensory-based interventions, massage, music, animal-assisted therapies, and rocking the child. Actions with the potential to

influence the limbic system included the attachment and relationship-based interventions and strategies. The carer's demonstration of love and commitment over time, waiting until the child is ready to be held and hugged, or validating their emotions in a calm and co-regulatory way were relational actions by carers. Actions targeting cortical functions included cognitive behavioural approaches, and other talk-based therapy. Cultural interventions could cover each domain depending on whether the mode was sensory, relational, or cognitive. As identified in the interviews with experts and the online surveys with professionals and carers, actions focused on changing the systems-response to the child or buffering the child from these contextual and systemic factors are important, particularly through the use of education and advocacy.

13. Implement Plan Towards Recovery

Implementation of any plan often grapples with many competing realities and ideas. A key message from this study emphasises consistency and predictability. Ensuring the people in the child's life are collaborating in the intervention is also key. As children are interacting with multiple microsystems, the more these systems interact with each other, as in the mesosystems, and enable a coherent approach for the child, the more likely the timing, the place and the people will be available and present as planned. Ensuring attention to exosystem factors were described mainly in the interviews as they pertained to how to influence the environments of the children. There was particular emphasis on advocacy, education of professionals, and challenging ideas and assumptions.

(14) Intermediate Outcomes

In element 10, there were several examples of targets for change as a result of recognising possible mechanisms for recovery. They are as diverse as are the needs and experiences of children. Nonetheless, there were four key outcomes informed by the analysis of the expert interviews and surveys that were likely to be common across many children, none of which would be possible if the previous elements had not occurred. These are:

1. The child experiences safety in the present and is reassured of their future safety in terms of physical, emotional, and cultural safety. This sense of safety could be indicated, for example, through the child having less physical and emotional dysregulation, less impulsivity, increased confidence in exploration and learning, improved sleep, regulated eating patterns, expressing sense of safety, and a positive future orientation. Even at this intermediate outcome stage, safety remains dynamic and may alter with changing circumstances.

2. The child experiences relationships as safe and predictable, with at least some, being enduring. This could be indicated, for example, through the child forming more secure attachments to caregivers, having friendships, engaged with their cultural community, and experiencing relationships as rewarding. As Dr Miller noted, one indicator could be the child being invited to another child's birthday party.
3. The child has received patterned, repetitive positive inputs over time that builds developmental and functional capabilities. This could be indicated, for example, through improved fine and gross motor skills, language, regulated sleep patterns, ability to form friendships, regulate emotions, perform academically at their potential, and problem solving.
4. Removal or reduction of factors that disrupt the child's development and recovery. Internal factors that can impede the child's recovery if they remain unaddressed include pain, sensitised stress systems, lack of sleep, and ill-health. External factors include exposure to other maltreatment and adversity, the child's physical environment, multiple changes of placement, exposure to racism, not being visible, caregivers being unsupported, and services not working together collaboratively. This outcome could be indicated, for example, by the child not being distracted by imminent hazards and discomfort, not having to deal with conflicting and anomalous messages about self and others, and their various microsystems being congruent in their approach. Reducing the impact of more distal factors such as through influencing the exo- and macrosystems can also feature in this outcome. This would typically require community-wide

This proposed foundational theory of change does not address all the barriers and constraints, nor the contextual factors described in Figure 6-12. It does, however, place the responsibility for resolving or mitigating service or system-related problems on the professionals, not the children or families. As evidenced in some of the carer surveys, carers have also undertaken this role.

(15) Long-Term Outcomes

A long-term outcome is the child's ordinary and extraordinary needs predictably being met. A related outcome is for the child to reach their potential across relevant domains. The third long-term outcome is for the child to develop an understanding of their personal history and its meaning. How these outcomes are assessed was not covered in detail in this study but remains an important question.

Understanding their history and current circumstances is about how the child makes meaning of their own story so it is not in fragmented shards but a coherent narrative (Herman, 1992; Rose, 2012). This process may look different to recovery from other forms of maltreatment, as the child's story is about absences, possibly intermixed with traumatic events, but not limited to events or episodes. As with the other outcomes, this will appear different for a younger child than an adolescent, but each could be supported to find ways of making sense of their own memories. One of the most compelling metaphors to describe the potency of unresolved memories about neglect and trauma for parents that intrude into the present is "ghosts in the nursery" (Fraiberg et al., 1975). This could also be used to symbolise the task of helping children dispel the ghosts and misremembered or misunderstood chapters in their own history.

Recovery from neglect across all domains represents an enormous task, and it may not be appropriate for a carer or professional to have this ambitious aim for intervention. If the child has this aim, that is another matter. The ability to achieve this aim will be in large part dependent on the aims of the child who experienced neglect, especially older children and adolescents. It may be that focusing on goals that are immediately relevant to the child and caregiver is the more productive strategy (Ford et al., 2015). This was supported by comments from the four experts. Nonetheless, a sense of what a long-term outcome may look like for each child provides a sense of direction.

Summary

In describing the stages of this study, a major theme was preliminary confirmation that cultural neglect and developmental neglect have face validity as constructs and are useful for informing intervention, although require further exploration.

Through an iterative non-linear approach of examining the findings from this study and the literature, I have proposed a foundational theory of change. The intent of this theory of change is to alleviate the consequences of serious neglect for the children. It draws on the work of others and considered each element (from 1 to 15) from an ecological-systems and biopsychosocial and cultural perspective. It identifies the large number of factors to consider inherent to the concept of child neglect and has linked these within a conceptual framework for the foundational theory of change.

8. Conclusion

Knowledge from any profession is often mismatched to the complex, changing, uncertain, and challenging realities with which they are faced (Schon, 1983). Child neglect is a striking example of such a reality; first and foremost, for the child; then those who care for the child and the professionals tasked with protecting the child and supporting their recovery. In this mixed method critical realist grounded theory study, I have asked questions on what recovery from neglect looks like and what can be done to make it possible. I explored the overall research question: *What key elements of a theory of change can inform choice and/or design of interventions to help children recover from the harms of serious neglect?*

Child neglect is a tangible phenomenon that too many children experience. It is not limited to a theoretical construct, yet it is a theoretical construct mired in many subjective interpretations and judgements not only on the nature of neglect, but the nature of childhood, recovery and healing.

In this chapter, I describe the study's contribution to new knowledge and testing of new ideas. I consider how my key findings can inform practice and service design. I conclude with describing the study limitations and identify areas for future research.

Contribution of the Study and Findings

The rationale for this study was the prevalence and harms of child neglect and the scarcity of research on how children may be supported to recover from neglect. This research constitutes the first step to address the gap, by asking the question: *How can we help children recover from neglect?* Not being able to apply an evidence-base, which demonstrably does not yet exist, I focused on possible mechanisms of harm and recovery to build a foundational theory of change. This theory of change is developed to inform design, adaptation, or application of interventions, and of research to attest and contest their effectiveness in practice. The proposed theory of change lays the foundation that can be built on by others or transformed into a markedly different approach.

My approach to the research question addressed the often siloed approach to practice and research, as described in the interviews with experts. This is highly problematic when neglect can affect every biopsychosocial and cultural domain in childhood and requires those of us tasked with caring for and working with children subject to neglect to collaborate and integrate our practice and research. The method and methodology behind my work aimed to unite concurring

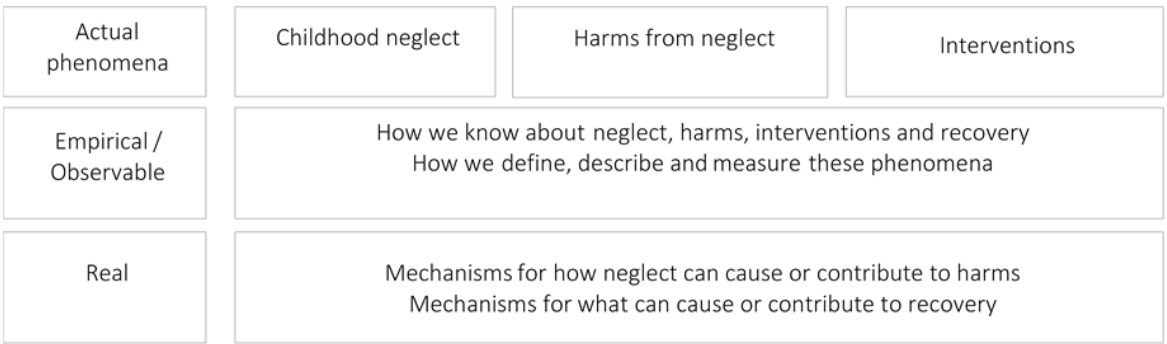
and contrasting ideas from various perspectives to look at the children who have experienced neglect and ask: *How can we help these children in their recovery?*

In applying critical realism and critical realist grounded theory for this study I have developed and adapted its application in this field of child neglect. I was unable to find many examples of its application in social work, with exceptions of Oliver (2012) and Bunt (2018), and no examples in child neglect.

Critical realism holds that reality is objective and subjective and how we understand reality is through subjective experience (Bhaskar, 2011; Danermark, 2019). Critical realism's frame of overlapping levels of reality are the *actual*, the *empirical* or *observed*, and the *real* (Bhaskar, 2008). I contend child neglect is in the actual domain as well as being a social construct. Childhood neglect, along with other maltreatment, is a fact for too many children that occurs whether it is seen or heard. Nonetheless, whether it is called neglect or "survival of the fittest" (Spencer, 1872), a child will die if not fed, and will be endangered if not protected. The *actual* domain is the existence of, or in the case of neglect the absence of, certain events regardless of the value or condemnation placed upon it. Conversely, the meanings of neglect, its classifications, harms, interventions, and recovery and how they are defined are social constructions. Our knowledge and ability to understand and perceive neglect in all its forms, and subject it to research, is in the empirical domain. Mechanisms underpinning how neglect can cause or contribute to harms and how interventions or other experiences can cause or contribute to recovery are in the real domain (Figure 8-1). We cannot know reality, but we can construct ideas and theories to try to understand it (Houston, 2010; Oliver, 2012).

Figure 8-1

The Action, Empirical, and the Real – Neglect and Recovery with a Critical Realist Lens



By adapting the work of Danermark et al. (2019) and Eastwood (2011), I have applied critical realism and theory building to building a theory of change. Traditionally, theories of change are developed through workshops (Funnell & Rogers, 2011), of which there was some critique in the context of theory building (Blamey & Mackenzie, 2007). This was not possible in this study due to the COVID pandemic and restrictions (see page 6). Adapting the critical realism stages of theory building to developing a theory of change has expanded how this approach can be applied. Critical realism involves a complex set of ideas and constructs and I have taken heed of the invitation by Danermark et al. (2019) to be flexible in how I applied the approach when applying it to a foundational theory of change.

Implications of Findings

Expanding and Testing Neglect Subtypes

This study applied the following definition of neglect; when children have not had their essential needs met by those in a position to do so. A point of difference in this study was the number of neglect subtypes explored. Although it is not uncommon to find description of multiple neglect subtypes (e.g., Barron & Jenny, 2011; Daniel et al., 2011; Jackson et al., 2022; Mennen et al., 2010; Nelson et al., 2014; Rebbe, 2018), few studies cover more than general, physical or emotional neglect in terms of outcomes or interventions (Chapter 2, page 22).

This study attempted to identify the different dimensions of neglect by gathering knowledge and perceptions from experts, carers, professionals and the literature. I explored what physical, emotional, medical, supervisory, developmental, cultural neglect, and global/multiple neglect looked for children as described by carers and professionals. The inclusion of cultural and developmental neglect were unusual, yet the findings suggest these are valuable additions. Cultural neglect, in particular, is the invisible child of an already hard to see phenomena. Detection of cultural neglect becomes more likely if it is named. I have described cultural neglect as the unfinished construct, as the nature and implications of this term and what it denotes in terms of a neglect subtype, is best explored with those communities most impacted, such as Indigenous communities.

Harms Associated with Neglect

The study was about serious neglect, which was defined as when neglect was associated with significant harms. The results of the surveys suggest there are a wide range of harms, many of which impact children regardless of age, gender, or culture. It was notable, however, that Aboriginal children in this cohort of children exposed to neglect were more likely to present with

certain problems, such as depression, risk-taking, and severe tantrums. Even more common, was that children exposed to cultural neglect were likely to experience multiple harms. Cultural neglect was predictive of children presenting with problems in every domain except mental health. Only global/multiple neglect predicted more harms for children than cultural neglect. It is possible the high prevalence of most of the other neglect subtypes in this study, especially emotional, physical, and developmental neglect, made it difficult to distinguish them in the analysis. Regardless, cultural neglect was associated with many problems besetting children. It suggests cultural neglect is worth further exploration in research, and that cultural needs of children, should be given due weight.

A Foundational Theory of Change for Recovery from Neglect

Lipsey (1993) described three potential sources to inform treatment theory or theory of change; namely, existing explanatory theories; building theories; and applying theories from established interventions in other contexts. In this study, I focused on building a foundational theory of change but also considered explanatory theories and unpacking established interventions.

To build the foundational theory of change, I conducted a scoping literature review on the harms from neglect and a systematic review of interventions being applied to or for children impacted by neglect. I interviewed four leaders in the field of child abuse and neglect with >1500 publications between them and surveyed 216 professionals and carers across 10 countries on what they were doing to help children who had experienced serious neglect. In addition to foster parents, given the breadth of possible harms, I sought a diverse group of professionals including social workers, psychologists, psychiatrists, speech pathologists, occupational therapists, teachers, doctors, and nurses.

Fifteen elements were described in the foundational theory of change. A strong theme emerging from the study was to first stop the neglect (see Figure 7-18). The first phase (elements 1 to 9) of the theory of change was on meeting the children's needs. These were: (1) establishing safety; (2) assessing child's history of unmet and met needs; (3) assessing child's current state of having met and unmet needs; (4) determining whether the child had extraordinary needs as a result of neglect; (5) assessing child's current access to relationships as this would form the context for intervention; (6) identifying barriers or constraints to meeting the child's needs or impeding recovery; (7) planning how to meet the child's ordinary and extraordinary needs; and (8) supporting the caregivers. This then led to element 9, which was the first-level outcomes as to whether the child's ordinary and extraordinary needs were being met.

A child cannot recover from neglect if their essential needs remain unmet. It became evident, in the interviews with experts and survey responses from professionals and carers, that there was not a clear demarcation between prevention and recovery, especially in terms of prevention of neglect continuing or recurring. A related theme from the data was the imperative of safety as the platform by which further interventions were likely to be effective. The absence of danger is not the same as the presence of safety, especially in terms of whether the child feels safe and secure. Safety subsumes the notion of the child's needs being met, but also that the child perceives a sense of safety.

The next phase of the foundational theory of change was predicated on the child's needs being met or were in the process of being met. Elements 10 to 13 were on planning and implementation of interventions beginning with (10) exploring and understanding potential mechanisms for recovery; (11) recognising contextual factors across the individual, microsystem, mesosystem, exosystem, and macrosystem levels; (12) planning for action towards recovery; and (13) implementing the plan. The last two elements (elements 14 to 15) were on different levels of recovery including (14) intermediate outcomes; and (15) long-term outcomes. As illustrated in Figure 7-18, contextual factors including micro-, meso-, exo- and macrosystems not only impact potential mechanisms for recovery but need to be recognised from the outset in terms of possible barriers and constraints for change, as well as targeting and implementing interventions.

Recovery is not that the child will be the same as if neglect had never occurred. In the interviews and surveys, although there were comments on reversing the negative harms of neglect, there was no inference that the aim was to erase the past. Most respondents intimated that neglect was likely to leave some mark for the child, the degree of which was not known. Throughout the study was the mix of hope and realism.

Another theme in the planning and implementation elements was that if neglect is about absence, recovery requires intentional presence. This includes attention to timing, dose, and sequencing of what is being made present. Examples were the presence of hugs, love, play, food, people, language, education, movement, and culture. There was also recognition that the unfamiliar can be threatening and so even offering a child something that is healthy and positive, can be experienced as overwhelming or even threatening. "The whole process of development involves the sequential and iterative process of being exposed to new experience, leaving a comfort zone, and ultimately making the once unfamiliar familiar" (Perry et al., 2016, p. 133).

Applying the Foundational Theory of Change

The proposed theory of change was, by intention, foundational. It is presented to be tested in several ways. The first would be to consider how it would be made fit for purpose in terms of a child's presentation and history. Questions to explore would include its application with different cultural groups, age-groups, and experiences of neglect. For example, in its current form it could provide a reflective practice or supervision tool (Taylor, 2020) when supporting those caring or working with children who have been neglected. Questions could include (i) where is the child in this process at the moment, (ii) where are we and other services involved with the child, (iii) are there areas in this theory of change we could give more attention (iv) how will we know when the child has their daily ordinary and extraordinary needs met, (v) are any of these mechanisms at play or what others could help us understand the harms of neglect and the process of recovery. A second area is how to make it fit for purpose for different roles and disciplines and within different organisations, fields of service, and service and legal systems. A particular question is how it could be useful for carers and those supporting carers. Another potential application would be as a review tool for intervention design or services currently purporting to deliver interventions for children who have experienced neglect. This could identify strengths and gaps in the service design or implementation as well as informing the further development of the theory of change. Similar usage could apply to policy development.

It is intended that when applied to certain populations by various roles and organisations, there would be further refinement, especially in terms of mechanisms for recovery. For it to be applicable to specific cultural groups, a process to explore if it has cultural validity (e.g., Kūkea Shultz & Englert, 2021) would be important to test out the assumptions underlying the theory of change. The next research question could be to explore an applied version of this theory of change with the children who fit within the four classifications of presenting problems, as suggested through the latent class analysis (LCA). This could both test and improve the theory of change and validate or otherwise the classifications of common presentations associated with child neglect.

Limitations of this Study

Limitations in the design of the study and survey design were described in Chapter 3 (page 108). Of note, was my decision to not seek participation of children and families, and not undertaking the planned focus groups due to COVID-19 restrictions which could have tested out aspects of the theory of change. The most significant gap, in my view, despite attempts to do so, was not interviewing an Aboriginal or other Indigenous leader in the field. The significance of not

having this input became more marked when the results were analysed of the 50 Aboriginal children described in the surveys. The combination of these limitations highlights the importance of recognising that the theory of change described in Chapter 7 is both proposed and foundational.

Additional limitations came to my attention during the conduct of the study. The interviews were planned as semi-structured but varied more than intended due to technical issues with one phone interview, and the opportunity to meet one of the interviewees in person led to two sessions. The same questions were asked of each expert, but more time was available for some compared to others.

A difficulty in the surveys was a technical problem which led to 14 carers not accessing the items on physical health problems. This problem was accounted for in the analysis. Two questions in the professional survey were difficult to analyse. One was on the child's living situation. Respondents could select multiple options due to the possibility that children had moved placements or lived between family and OOHC. This, however, complicated the data interpretation and thus analysis was limited. The other question that was difficult to interpret was asking professional respondents to signify the fields they had worked in over the past 12 months. This was a closed-choice question, but they could select multiple options. It appeared several respondents may have completed this question as if it was asking what services were involved with the child, as some answers were wide-ranging. As such, the responses to this question were not analysed in detail.

Although it is a common challenge to decide what to include in a survey to be sufficiently comprehensive and yet not too large or unwieldy for respondents to complete (Sarantakos, 2005), there were two items I would have added in hindsight. In the professional and carer survey question on presenting problems, I did not have an item on whether the child had difficulties with food or eating. This was an oversight given it had been raised in the literature and by one of the experts and was subsequently identified in free-text responses by several survey respondents. Second, in the professional survey, there was a question on what factors informed professional interventions. It was an omission to not include an item on whether the child's culture informed decision-making about interventions. These items would be useful additions for future studies on neglect or intervention.

A challenge in this study was how to determine a culturally appropriate classification across different cultures from different countries. Many countries have their own frames of reference which becomes complicated when trying to combine data. As there was missing or

unclear data on children's culture in 9.3% of surveys, and small numbers of children in some cultural groups, analysis of culture for the 14.8% of surveys reflecting children outside of Australia was particularly limited. Similarly, the small number of children identified as transgender or "other" made it not possible to undertake analysis on this aspect of gender and identity.

In terms of analysis, the comparison between different neglect subtypes of the children described in the surveys must be understood in the context that this analysis did not compare children who had experienced neglect with children who had not. Rather it compared children who experienced different neglect subtypes. It was necessary to use a purposeful and convenience sample, and so this also needs to be taken into consideration.

Future Research

There are at least four areas for future work that this study has informed. The first is how we define, understand, and research neglect subtypes. There is widespread understanding that neglect is not monolithic but is experienced by children in multiple ways as described through different neglect subtypes. Future research, therefore, needs to consider more than physical and emotional neglect. In addition, I recommend consideration of developmental neglect and cultural neglect as neglect subtypes for inclusion in research as informed by this study, but with an important caveat. For cultural neglect to be a valid construct, it needs to be examined by specific cultural groups, in particular Indigenous and minority cultures. Whether this occurs using Western research methodologies, Indigenous or decolonised research methodologies, or a combination (Ryder et al., 2020), it is important to determine if there is cultural validity to this concept of cultural neglect and how it would be applied. For example, is it relevant, safe and meaningful for those for whom it describes (Wilson et al., 2022)

Second, the findings in this study suggest further exploration of certain questions. It would be useful to consider the findings from the LCA to either verify or alter the classifications. Following that, it would be beneficial to determine if these or other classifications provide a reasonable means of exploring further questions about children who experience neglect. For example, whether the children in the class with the most problems (Class 3), share other characteristics apart from neglect subtypes, being older, and Aboriginal. A research question could be, for example, to explore an applied version of this theory of change with children who fit within the four classifications of presenting problems, to discover if there are different mechanisms or pathways for recovery.

Another important area of research is on interventions being applied to children who have experienced neglect. As discussed in the systematic literature review (Chapter 2, page 63),

to undertake this research implies that such interventions exist. In terms of interventions already used with children exposed to child maltreatment, a research agenda would include expanding ways to better distinguish which children experienced neglect, and its subtypes, and exploring if there were different outcomes. Models that explicitly incorporate child neglect, such as the Neurosequential Model of Therapeutics (NMT), could also be subject to further research for this cohort of children. Finally, it is hoped this study may generate ideas for design or adaptation of interventions, informed by the foundational theory of change, that could be tested in the field. It would be important to consider whether it would be beneficial to develop or adapt cultural-specific models of recovery from neglect, such as developed by Gee et al. (2014), for Aboriginal social and emotional wellbeing.

Summary

My study explored the nature of neglect including that which is less visible, and the nature of recovery. It culminated in 15 elements of a foundational theory of change to inform the way we can contribute to how a child recovers from neglect. The following quote from a professional survey illustrates some of the key elements of the foundational theory of change: assessment, safety, need, human contact, developmentally-informed, and a future orientation built on hope and recognition of the child's journey so far:

> The child needs to be held in mind and thought about in order for the child to feel valued. The introduction of touch is imperative. A baby needs to be held, a toddler cuddled and an older child hugged when they are able to receive a hug. (P99)

This is the first study of its kind to address the literature, research, and practice gap in the field of child neglect. The next steps are to further explore some of the constructs, particularly cultural neglect, and to examine and build on the foundational theory of change with the scrutiny of practice.

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Appendix 1

Glossary of Terms

Key Terms Used in Study	
Term	Definition and/or description
Child neglect	When a child has not had their essential needs met by those in a position to do so
General neglect	When the form of neglect is not specified
Serious child neglect	When a child has not had their essential needs met to the extent it can or has caused serious harm to the child
Physical neglect	Child's physical needs are not met e.g., not receiving adequate food, hydration, clothing, shelter, safe environment, safety in general, hygiene
Medical neglect	Child not receiving sufficient medical, dental, other health care or treatment
Supervisory neglect	Child not receiving adequate supervision and attention required at developmental stage to keep them safe. This can include being abandoned
Emotional neglect	Child's emotional needs are not met, such as not receiving necessary emotional and relational interactions or opportunities e.g., lack of love, belonging, nurturance, emotional warmth, attention
Developmental neglect	Child's developmental needs are not met, e.g., not supported in education, play, other necessary developmental stimulation. This definition incorporates educational neglect.
Cultural neglect	Child's cultural needs not met, such as no or limited access to cultural identity, connection to community, cultural safety.
Global neglect	Child experienced most neglect subtypes or pervasive sensory deprivation.
Global/multiple neglect	Where a survey respondent in this study selected global neglect or where they selected four or more neglect subtypes.
Institutional neglect	Children raised in some residential institutions where they experienced serious social emotional deprivation or global neglect (e.g. Almas et al., 2012).
System neglect	Laws, policies and systems that do not meet the needs of children. Sometimes referred to as institutional neglect referring to the institutional policies (Newton, 2019). System neglect refers to the source of neglect rather than the needs of the children not being met.
Abandonment	When caregivers desert or abandon a child intentionally (Chiang et al., 2022). In this study it was subsumed under supervisory neglect.
Environmental neglect	Environmental neglect is sometimes defined as a form of physical neglect, namely where the child's environment is not meeting their needs such as for hygiene and safety. In this study it was a form of physical neglect.
Child maltreatment	Child maltreatment is the abuse and neglect that occurs to children under 18 years of age. It includes all types of physical and/or emotional ill-treatment, sexual abuse, neglect, negligence and commercial or other exploitation, which results in actual or potential harm to the child's health, survival, development or dignity in the context of a relationship of responsibility, trust or power. (World Health Organization, 2020, Key facts section)

Trauma	Individual trauma results from an **event**, series of events, or set of circumstances that is **experienced** by an individual as physically or emotionally harmful or life threatening and that has lasting adverse **effects** on the individual's functioning and mental, physical, social, emotional, or spiritual well-being. (Substance Abuse and Mental Health Services Administration, 2014, p. 7)
Cultural safety	"an environment which is safe for people; where there is no assault, challenge or denial of their identity, of who they are and what they need. It is about shared respect, shared meaning, shared knowledge and experience, of learning together with dignity, and truly listening". (Ramsden and Whakarumhauis (1990), cited by Williams, 1999, p. 213)
Systemic racism	A form of racism that exists across a society within and between institutions and organisations. It involves complex interactions of societal systems, practices and ideologies that produce and perpetuate inequities for cultural minorities. These macrosystemic mechanisms operate independently of the intentions and actions of individuals, so even if individual racism is not present, the adverse conditions and inequalities for cultural minorities continue to exist (Gee & Ford, 2011). It is also known as institutional or structural racism.
Acculturative stress	Acculturation describes the experiences of people becoming exposed to different cultural influences whilst retaining or discarding their culture. Acculturative stress is the resulting stress that can occur from this process (Berry, 2006; Schwartz et al., 2010).
Aboriginal	Unless otherwise stated, Aboriginal refers to Australian Aboriginal and/or Torres Strait Islander, who are the Indigenous people of Australia
Indigenous	Indigenous people from any country.
Culturally and linguistically diverse (CALD)	In Australia, one of the phrases used to describe people from a multicultural, multifaith perspective is culturally and linguistically diverse. It does not include Australian Aboriginal or Torres Strait Islander people.
Children	From birth to their 18th birthday
Carer	Although a carer can denote any form of caregiver, in this study it refers to foster parents unless otherwise specified.
Caregiver	Any person in a caregiving role of a child including biological parent, foster parent, kinship carer, or residential carer.
Care team	A regular meeting with services and caregivers to ensure services and systems are on the same page in holding the child and the intervention plan in mind. It can include caregivers, parents, and where possible, children (McRae, 2020). Care teams are "an opportunity for key people working with the child and family to come together on a regular basis to reflect, share their thinking and understanding and coordinate each person's role in supporting the child and family" (Coade et al., 2008, p. 14).
Foster care	Foster parents are recruited and assessed to care for children in general, and then provided training and ongoing support and supervision. They may provide short-term or long-term care; for one or several children in the foster parents' home. This is different to the definition in the US were foster care is equated to any form of out-of-home care (U.S. Department of Health & Human Services Administration for Children and Families, 2022)

Kinship care	Child is living with relatives or other people known to immediate or extended family. This may be formally organised through CPS or informally through the family or other means.
Residential care	In Australia, residential care is usually up to four young people placed in a home in the community and cared for by rostered staff. This model is similar to group homes in the US.
Residential Treatment Center	A model of residential care primarily in North America. Are usually large centres for young people with additional needs such as substance use, mental health, and youth justice. Some include schools on site. Some form part of the out-of-home care system for children in the child protective system.
Therapeutic Residential Care (TRC)	Therapeutic residential care (TRC) is a form of residential care. In Australia it is similar to residential care but with additional therapeutic services and processes.
Child Care	Early childhood, education and care services are centre-based, or family based in Australia. It does not include preschools. (Australian Institute of Health and Welfare, 2020)
Preschool	Kindergarten
Primary school	In Australia, primary schools are schools for children ranging in age from five to 12 years. In the USA these are referred to as elementary schools. Each country may vary in the age-range of children in this type of education.
Secondary school	In Australia, secondary schools are schools for children and young people usually ranging in age from 12 to 18 years. They are also referred to as high schools.
Child protective service (CPS)	The role of "preventing and responding to violence, exploitation, abuse, neglect and harmful practices against children… When children cannot live safely at home, child protection systems prioritise children's physical, mental, and psychosocial needs to safeguard their lives and futures (UNICEF 2021)". (Australian Institute of Health and Welfare, 2022, p. 4)
Out-of-home care (OOHC)	Out-of-home care is overnight care for children less than 18 years unable to live with their families due to child safety concerns (Australian Institute of Health and Welfare, 2022). It can include foster care, kinship care, residential care, or in some countries, residential treatment centers.
DFFH	Amongst other portfolios, Department of Families, Fairness and Housing. is responsible for policy and delivery of the child protection system in Victoria, Australia and for policy and funding of the OOHC, family services, reunification, and therapeutic systems.
DHHS	The Victorian Department of Health and Human Services changed its name to the Department of Families, Fairness and Housing in 2021.
Intervention	Actions undertaken by a professional of any discipline or field of practice and by carers of children that include a therapeutic intent or an intent to make positive changes for the child.
Formal interventions	Interventions with documentation of their constituent parts and how they are implemented. They may be a program or model of practice, treatment approach, or a practice element that is a discrete action within a formal intervention
Informal interventions	Actions undertaken by carers or professionals with or for the child not formally described as interventions.

Program theory	Program theory is an explicit theory of how an intervention, program, strategy or policy can contribute to a chain of intermediate results and then to the outcomes. It has two parts: theory of change and theory of action (Funnell & Rogers, 2011).
Theory of change	"The theory of change is about the central processes or drivers by which change comes about for individuals, groups, or communities". (Funnell & Rogers, 2011, p. xix)
Theory of action	"The theory of action explains how programs or other interventions are constructed to activate these theories of change". (Funnell & Rogers, 2011, p. xix)
Biopsychosocial	This model incorporates the biological, psychological (e.g., thoughts, emotions, behaviors), and social (e.g., socioeconomical, socioenvironmental, and cultural) factors, play a major role in health and disease (Engel, 1977).
Ecological-systems perspective	Developed by Bronfenbrenner (1979), this perspective examines the evolving interactions between the developing person and their environment. The environment is conceived of a set of nested interacting structures: microsystems, mesosystems, exosystems and macrosystems.
Microsystem	"A microsystem is a pattern of activities, roles, and interpersonal relations experienced by the developing person in a given setting with particular physical and material characteristics". (Bronfenbrenner, 1979, p. 22)
Mesosystem	"A mesosystem comprises the interrelations among two or more settings in which the developing person actively participates (such as, for a child, the relations among home, school, and neighborhood peer group; for an adult, among family, work, and social life)". (Bronfenbrenner, 1979, p. 25)
Exosystem	'An exosystem refers to one or more settings that do not involve the developing person as an active participant, but in which events occur that affect, or are affected by, what happens in the setting containing the developing person". (Bronfenbrenner, 1979, p. 25)
Macrosystem	"The macrosystem refers to consistencies, in the form and content of lower-order systems (micro-, meso-, and exo-) that exist, or could exist, at the level of the subculture or the culture as a whole, along with any belief systems or ideology underlying such consistencies". (Bronfenbrenner, 1979, p. 26)
Critical realism	A philosophical basis developed by Bhaskar (2008) for research that distinguishes between the actual, the real and the empirical or observable domains. It is not tied to a specific methodology but often uses mixed methods and retroductive logic.
Grounded theory	Grounded theory is a research methodology where theories are constructed theories by building theoretical analyses from data and checking theoretical interpretations. The emphasis is on interpretation arising from data, and looking through further sampling to explore these interpretations, rather than testing. Data analysis occurs throughout data collection iteratively (Corbin & Strauss, 2008).
Critical realist grounded theory	Critical realist grounded theory addresses the actual, the empirical, and the meanings (the real) made of them. It approaches data, usually through mixed method, with the preconceived concepts of emergence and generative mechanisms, such as through retroduction, and pursues emancipatory, rather than only descriptive, goals (Oliver, 2012).

Deductive logic	A form of logic or inference that moves from the general to the specific. It considers what has been identified, such as a theory or data, and tests that against other data. (Blaikie, 2018)
Inductive logic	A form of logic or inference that moves from the specific to the general through descriptions of the data and patterns to broader themes, concepts or theories. (Blaikie, 2018)
Abductive logic	A form of logic or inference that moves from the specific to the general, emphasising the discovery of lay concepts, surprising information, and meanings. This is followed by an iterative process, potentially including induction and deduction, towards a more explicit description and explanation, such as a theory. (Blaikie, 2018)
Retroductive logic	A form of logic or inference that moves from the specific to the general and/or the general to the specific. It aims to describe the observable whilst explaining possible underlying structures and generative mechanisms that led to certain characteristics (Blaikie, 2018).

Note. This glossary is primarily based on terminology used in Australia unless otherwise indicated.

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Appendix 2

Supplementary Information for Scoping Literature Review (Part 1)

Supplementary file

Title: Childhood neglect and its implications for physical health, neurobiology and development – A scoping review of the literature

Physical health problems

Table 4b: Associations between physical health problems with neglect

Physical Health	Authors reporting significant findings	Authors reporting non-significant findings
Fatality	Brandon et al. (2013), Chang et al. (2016), Jung et al. (2020), Klevens and Leeb (2010), Knight and Collins (2005), Lee et al. (2017), Makhlouf and Rambaud (2014), Michaels and Letson (2021), Rogers et al. (2021), Welch and Bonner (2013), Yamaoka et al. (2015)	
Cardiovascular issues	Buisman et al. (2018), Chen and Lacey (2018), Clemens et al. (2018), Dong et al. (2004), Flores-Torres et al. (2020), Dong et al. (2004), Johnson et al. (2017), Matthews et al. (2014), Schrepf et al. (2014), Skowron et al. (2011), Widom et al. (2018).	Buisman et al. (2018), Crosswell et al. (2014), Nikulina and Widom (2014)
Respiratory problems	Clemens et al. (2018), Lee et al. (2017), Widom et al. (2012)	Abajobir, Kisely, Williams, Strathearn, Suresh, et al. (2017)
Central nervous system health problems	Clemens et al. (2018), Spitzer et al. (2012),	
Pain and pain-related ailments	Beal et al. (2020), Filippon et al. (2013), Karatzias et al. (2017), Macedo et al. (2019)	Raphael and Widom (2011)
Sensory processing problems	Chugani et al. (2001), Serafini et al. (2016), Widom et al. (2012)	
Diabetes	Clemens et al. (2018), Widom et al. (2012)	Flores-Torres et al. (2020)
Cancer	Clemens et al. (2018)	
Oral health problems	Thelen et al. (2011), Widom et al. (2012)	
Skin problems	Besiroglu et al. (2009), Chang et al. (2016)	
Infectious diseases	Hahm et al. (2010), Haydon et al. (2011), Jewkes et al. (2010), Kang et al. (2002), Kidman et al. (2018)	Wilson and Widom (2008), Wilson and Widom (2009)
Hormonal problems	Azoulay et al. (2020), Denholm (2013), Thurston et al. (2008)	
Unwanted or youth pregnancies	Abajobir, Kisely, et al. (2017a), Young-Wolff et al. (2021)	
Sleep problems	Chugani et al. (2001), McPhie et al. (2014), Pfaff and	Abajobir, Kisely, et al.

	Schlarb (2021), Semsar et al. (2021), Turner et al. (2020)	(2017b)
Shorter height	Abajobir, Kisely, et al. (2017a), Chugani et al. (2001), Denholm (2013), Miller et al. (2015), Munoz-Hayes et al. (2011)	
Non-organic Failure to Thrive, malnutrition or underweight	Brandon et al. (2013), Chugani et al. (2001), Iwaniec et al. (2003), Munoz-Hayes et al. (2011), O'Connor et al. (2000)	Duncan et al. (2015)
Higher BMI or overweight	Clark et al. (2014); Clemens et al. (2018), Imperatori et al. (2016), Knutson et al. (2010), Nagl et al. (2016), Power et al. (2015), Schulte et al. (2021), Shin and Miller (2012); Whitaker et al. (2007)	Bentley and Widom (2009), Brown et al. (2017), Duncan et al. (2015), Flores-Torres et al. (2020), Schneiderman et al. (2012), Suarez et al. (2021), Tietjen et al. (2010)
Less physically active	Archer et al. (2017); Power et al. (2015)	
More likely or early onset cigarette smoking	Afifi et al. (2020), Cohen et al. (2017), Collado et al. (2019), El Mhamdi et al. (2018), Hussey et al. (2006), Kisely et al. (2020), Kotch et al. (2014), Power et al. (2015), Ramiro et al. (2010), Strine et al. (2012), Wiehn et al. (2018)	Suarez et al. (2021), Subramaniam et al. (2020), Villodas et al. (2021)
Serious injuries	Brandon et al. (2013), Chang et al. (2016), Coohey (2008), Lee et al. (2017)	Ruiz-Casares et al. (2012)
Hospital admissions	Bullinger et al. (2021), Chang et al. (2016)	
General poor health or multiple health problems	Archer et al. (2017), Cuijpers et al. (2011), , Hosang et al. (2017), Hussey et al. (2006), Johnson et al. (2017), Piontek et al. (2021)	Sweeting et al. (2020)

Atypical neurobiology

Table 5b: Associations Between Atypical Neurobiology and Child Neglect		
Atypical neurobiology	**Studies reporting significant findings**	**Studies reporting non-significant findings**
Smaller head circumference (3)	Miller et al. (2015), O'Connor et al. (2000), Perry (2002)	
Smaller corpus callosum (2/1)	Sheridan et al. (2012), Teicher et al. (2004)	Mehta et al. (2009)
Smaller cortical volume, cortical atrophy (4)	Cancel et al. (2015), Hodel et al. (2015), Perry (2002), Sheridan et al. (2012)	
Smaller hippocampal volume (1/2)	Hodel et al. (2015)	Mehta et al. (2009), Tottenham et al. (2010)
Larger amygdala volume (right) (3/1)	Mehta et al. (2009), Roth et al. (2018); Tottenham et al. (2010)	Hodel et al. (2015)
Smaller left amygdala (1)	Mehta et al. (2009)	
Decreased metabolism in cortex, amygdala, hippocampus, brainstem (1)	Chugani et al. (2001)	
More connectivity between amygdala and some cortical areas, and between cortical areas; and less connectivity in others (2)	McKenzie (2017); Rakesh et al. (2021)	
Greater activation in amygdala, hippocampus (2)	Bogdan et al. (2012), Maheu et al. (2010)	
Higher allostatic load and other plasma-related stress biomarkers (2)	Moraes et al. (2018), Widom et al. (2018)	
Reduced neuroendocrine markers (1)	Munoz-Hayes et al. (2011)	
Lower cortisol levels (3)	Bruce et al. (2009), Power et al. (2012), White et al. (2017)	
Higher cortisol levels (2/1)	Gunnar et al. (2001), Sullivan et al. (2012)	Monteleone et al. (2018)
Lower oxytocin levels (1)	Scott (2017)	

Developmental problems

Table 6b: Associations Between Developmental Problems and Child Neglect		
Developmental problems	**Studies reporting significant findings**	**Studies reporting non-significant findings**
Speech and language difficulties	Chugani et al. (2001), Di Sante et al. (2020), Eigsti and Cicchetti (2004), Helder (2009), O'Hara et al. (2015), Spratt et al. (2012), Sylvestre and Merette (2010), Wade et al. (2020)	Lum et al. (2018)
Delays in gross or fine motor development	Bell et al. (2018), Chugani et al. (2001), Hanson et al. (2011), Helder (2009)	
Cognitive problems	Aas et al. (2012), Beckett et al. (2006), Bengwasan (2018); Chugani et al. (2001), Coohey et al. (2011), Cuadra (2007), Dannehl et al. (2017), Fox et al. (2011), Geoffroy et al. (2016), Helder (2009), Kira et al. (2012), Kirke-Smith et al. (2016), Maclean et al. (2017), Maclean et al. (2020), Manly et al. (2013), McKenzie (2017), Mills et al. (2011), Mills et al. (2019), Nolin and Ethier (2007), O'Connor et al. (2000), O'Hara et al. (2015), Piscitelle (2010), Pluck et al. (2011), Spratt et al. (2012), Widom et al. (2013)	Dubowitz et al. (2002),
Academic issues	Barker et al. (2017), Bell et al. (2018), Brockie et al. (2015), Chen et al. (2021), Choe (2021), Giovanelli (2018), Hagborg et al. (2018), Manly et al. (2013), Mills et al. (2019), Oh and Song (2018), Power et al. (2015), Shanahan (2010), Tessier et al. (2018); Widom et al. (2013)	
Memory problems	Aas et al. (2012), Chugani et al. (2001), Dannehl et al. (2017), Gould et al. (2012), Hawkins et al. (2021), Jimeno et al. (2021), Kira et al. (2012), Majer et al. (2010), Piscitelle (2010), Terock et al. (2020), Varnaseri et al. (2016), Xian-Bin et al. (2017)	
Attention, concentration problems	Chugani et al. (2001), Helder (2009), Kulacaoglu et al. (2017), Russ et al. (2014), Spratt et al. (2012), Xian-Bin et al. (2017)	
Executive functioning problems, impulsivity, problem solving	Brown et al. (2017), Chugani et al. (2001), Dannehl et al. (2017), Fay-Stammbach et al. (2017), Gould et al. (2012), Helder (2009), Letkiewicz et al. (2021), Martins et al. (2014), Nikulina and Widom (2013), Pluck et al. (2011), Zhang et al. (2018)	Nolin and Ethier (2007)
Moral reasoning	Cuadra (2007), Franz (2015), Nederlof et al. (2010)	
Self-care functionality	Gil et al. (2009)	
Capacity to associate cues with reward	Fries and Pollak (2017)	

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Appendix 3

Published Articles

As referenced in the text of the thesis, and in the Statement of Authorship, I have been a co-author to two papers published:

Jackson, A. L., Frederico, M., Cleak, H., & Perry, B. D. (2022). Childhood neglect and its implications for physical health, neurobiology and development – A scoping review of the literature, Developmental Child Welfare, *4*(2), 114–135. https://doi.org/10.1177/25161032221088042

Jackson, A. L., Frederico, M., Cleak, H., & Perry, B. D. (2023). Interventions to support children's recovery from neglect – A systematic review, *Child Maltreatment*, http://doi.org/10.1177/10775595231171617

Both papers are through journals published by Sage.

- The first paper (Jackson et al 2022) fits under the category of being able to be used "in your dissertation or thesis, including where the dissertation or thesis will be posted in any electronic Institutional Repository or database" https://us.sagepub.com/en-us/nam/journal-author-archiving-policies-and-re-use
- The second paper (Jackson et al 2023), is open access and so there is permission to use this in the thesis. https://us.sagepub.com/en-us/nam/reusing-open-access-and-sage-choice-content.

Appendix 4

Supplementary Information for Scoping Literature Review (Part 2)

Childhood neglect and its implications for attachment and other relationships, emotional health, mental health, and behaviours – A scoping review of the literature.

Note. If study had multiple publications relating to the same problem, they were listed once in the Table. If one study included publications on different cohorts or different types of problems, e.g. different alcohol and other drug problems these were included separately and so may not add up to same number as Tables in body of thesis.

Relationship problems

Supplementary Table S2.1

Associations Between Relationship Problems and Child Neglect

Relationship problems	Studies with significant findings	Studies with non-significant or opposite findings
Attachment	Bovenschen et al. (2016), Finzi et al. (2001), Fries and Pollak (2017), Goulter et al. (2019), Higgins et al. (2018), Lowell et al. (2014), Murphy et al. (2014), Unger (2011), Van Assche et al. (2020), Venet et al. (2007), Widom et al. (2018), Zeanah et al. (2005)	Bovenschen et al. (2016), Higgins et al. (2018), Van Assche et al. (2020)
Social skills	Bell et al. (2018), Chugani et al. (2001), Cohen and Thakur (2021), Gil et al. (2009), Lo et al. (2021), Logan-Greene and Semanchin Jones (2015), Lum et al. (2018), Maughan and Cicchetti (2002), Rus et al. (2014), van der Vegt et al. (2009), Wade et al. (2020)	Gil et al. (2009), Logan-Greene and Semanchin Jones (2015)
Poor family functioning (incl. siblings)	Fitzhenry et al. (2015), Witte et al. (2020)	
Peer relationships	Ban and Oh (2016), Choe (2021), Clarke (2015), Kazemian et al. (2011), Kwak et al. (2018), Lowell et al. (2014), Segal (2014)	Bolger and Patterson (2001), Lev-Wiesel and Sternberg (2012), Lin et al. (2016)
Gang or antisocial affiliation	Hahm et al. (2010), Kubik et al. (2019)	Yoon et al. (2020)
Hostility to others	Dias et al. (2015)	Dias et al. (2015)
Recognising others' emotions	Dias et al. (2015), Pollak et al. (2000), Young and Widom (2014)	Dias et al. (2015)
Compassion/ agreeable	Franz (2015)	Nederlof et al. (2010)
Perception of others	Talbott (2000)	
Perceived social support and acceptance	Greene et al. (2021), Taussig et al. (2013)	
Closeness	Levine (2004)	
Student-teacher relationships	Ban and Oh (2016), Choe (2021), Kwak et al. (2018)	
Intimate or romantic relationships	Colman and Widom (2004), DiLillo et al. (2009), Franz (2015), Widom et al. (2018)	Schütze et al. (2020)

Supplementary Table S2.1

Associations Between Relationship Problems and Child Neglect

Relationship problems	Studies with significant findings	Studies with non-significant or opposite findings
Extraversion (capacity for and enjoying relationships)	Franz (2015), Nederlof et al. (2010), Thelen et al. (2011)	Franz (2015), Nederlof et al. (2010)
Social phobia or withdrawal	Iffland et al. (2012), Maughan and Cicchetti (2002), Shaffer et al. (2009), Taillieu et al. (2016)	Talbott (2000)
Self-other differentiation	Musetti et al. (2021)	

Emotional problems

Supplementary Table S2.2

Associations Between Emotional Problems and Child Neglect

Emotional problems	Studies reporting significant findings	Studies reporting non-significant findings
Internalising problems	Bell et al. (2018), Berzenski et al. (2014), Cecil et al. (2017), Cohen and Thakur (2021), Cristóbal-Narváez et al. (2016), Dubowitz et al. (2002), Duprey et al. (2017), Folk et al. (2021), Freeman (2014), Hagborg et al. (2017), Hermenau et al. (2015), Horan and Widom (2015b), Hunt et al. (2017), Jose and Cherayi (2020), Kisely et al. (2018), Lamers-Winkelman et al. (2012), Lo et al. (2021), Lowell et al. (2014), Mawson and Gaysina (2021), Oh and Song (2018), Pino et al. (2015), Rus et al. (2014), Spratt et al. (2012), Thelen et al. (2011), van der Vegt et al. (2009), Wong et al. (2021), Zeller et al. (2015)	Dubowitz et al. (2002), Greene et al. (2021), Jose and Cherayi (2020)*, Lowell (2015), Marquis et al. (2008), Shanahan (2010), Tamta and Rao (2013), Woodruff (2012), Zeller et al. (2015)
Emotional dysregulation	Clarke (2015), Doucette et al. (2016), Goldstein et al. (2021), Hong et al. (2018), Jennissen et al. (2016), Maughan and Cicchetti (2002), Mills et al. (2015), Nederlof et al. (2010), Shipman et al. (2005), Talbott (2000), Tottenham et al. (2010)	Azoulay et al. (2020), Greene et al. (2021), Nederlof et al. (2010)
Not coping or reactivity to stress	Cristóbal-Narváez et al. (2016), Daruy-Filho et al. (2013), Franz (2015), Grummitt et al. (2021), Hong et al. (2018), Kidd (2006), Nederlof et al. (2010), Rauschenberg et al. (2017), Shao et al. (2021), Shipman et al. (2005), Witt et al. (2019), Zhao (2021)	Daruy-Filho et al. (2013), Franz (2015), Goldstein et al. (2021)*, Grummitt et al. (2021), Nederlof et al. (2010), Zhao (2021)
Anger expression	Cecil et al. (2017), Clarke (2015), Macarenco et al. (2021), Varnaseri et al. (2016)	Varnaseri et al. (2016)
Distress	Dias et al. (2015), Grassi-Oliveira and Stein (2008), McPhie et al. (2014), Oshio et al. (2013), Strine et al. (2012), Wark et al. (2003)	Dias et al. (2015), Strine et al. (2012), Sweeting et al. (2020)
Fear of future, hopelessness	Chen, J. et al. (2021), Martins et al. (2014)	Chen, J. et al. (2021), Sweeting et al. (2020)

Emotional processing	Cuadra (2007), Gould et al. (2012), Hong et al. (2018), Maheu et al. (2010)	Gould et al. (2012)
More callous, less conscientious	Chang et al. (2021), Collado et al. (2019), Cuadra (2007), Kimonis et al. (2013), Prior et al. (2021), Scott (2017), Varnaseri et al. (2016)	Collado et al. (2019), Prior et al. (2021), Scott (2017)
Self-efficacy	Adjorlolo et al. (2017), Clark et al. (2021), Hong et al. (2018), Perna et al. (2014), Talmon et al. (2019)	Adjorlolo et al. (2017)
Food insecurity, low enjoyment of food	Thelen et al. (2011)	Chilton et al. (2015)
Ability to understand emotions	Greene et al. (2021), Gusler and Jackson (2017), Rokita et al. (2021)	Rokita et al. (2021)
Self-esteem, self-worth	Clark et al. (2021), Clarke (2015), Klein (2014), Klein et al. (2007), Oshri et al. (2017), Silva and Calheiros (2020), Talbott (2000), Waldron et al. (2018), Wang et al. (2020), Zeller et al. (2015)	Oshri et al. (2017), Silva and Calheiros (2020), Zeller et al. (2015)
Self-perception of academic achievement	Clarke (2015), Kinard (2001)	
Self-compassion	Tanaka et al. (2011), Wu et al. (2018)	Tanaka et al. (2011)
Cultural pride	Hodson et al. (2006)	
Perceived stigma as an orphan	Hermenau et al. (2015)	
Less gratitude	Wu et al. (2018)	Wu et al. (2018)
Loneliness	Brown et al. (2016), Musetti et al. (2021)	
Somatic expressions of emotional health	Dias et al. (2015), Glaesmer et al. (2017), Hagborg et al. (2017), Talmon et al. (2019)	Dias et al. (2015), Talbott (2000),
Reward sensitivity	Babad et al. (2021)	Babad et al. (2021)
Shaming sexual beliefs	Reid and Sullivan (2009)	
Excessive phone use	Chen, Y. et al. (2021), Kwak et al. (2018)	
Gambling problems	Petry et al. (2005)	Petry et al. (2005)
Higher suggestibility	Benedan et al. (2018)	
Lower spirituality	Prior and Quinn (2010)	

* Findings are significant but opposite direction

Mental health problems

Supplementary Table S2.3

Associations Between Mental Health Problems and Child Neglect

Mental health symptoms	Studies reporting significant findings	Studies reporting non-significant findings
Mental health symptoms (general)	Archer et al. (2017), Breuer et al. (2020), Burns et al. (2004), Cuijpers et al. (2011), Fitzhenry et al. (2015), Hagborg et al. (2017), Hovens et al. (2012), Huang et al. (2012), Ports et al. (2017), Sajid and Riaz (2016), Sareen et al. (2005), Stinson et al. (2016), Stumbo et al. (2015), Sweeting et al. (2020), Wade et al. (2020), Whittle et al. (2013), Widom et al. (2013)	Fitzhenry et al. (2015), Huang et al. (2012), McLafferty et al. (2018),
Alcohol and/or other drug problems	Abajobir, Najman, et al. (2017), Abajobir, Kisely, Williams, et al. (2017), Afifi et al.	Brockie et al. (2015), Folk et al. (2021), Grummitt et al.

	(2020), Alvarez-Alonso et al. (2016), Brockie et al. (2015), Chen et al. (2011), Cohen et al. (2017), Conroy et al. (2009), Cuijpers et al. (2011), de Oliveira et al. (2018), Diaz et al. (2020), Dube et al. (2006), Dubowitz et al. (2019), Duprey et al. (2017), Horan and Widom (2015b), Hussey et al. (2006), Jewkes et al. (2010), Kenny et al. (2007), Kim (2017), Kisely et al. (2020), Kotch et al. (2014), Lalayants and Prince (2016), Lang et al. (2006), Lee and Feng (2021), Merrick et al. (2017), Mersky (2006), Moraes et al. (2018), Oshri et al. (2017), Ramiro et al. (2010), Rosenkranz et al. (2012), Schwandt et al. (2013), Shin et al. (2009), Shin et al. (2013), Subramaniam et al. (2020), Taussig (2002), Tietjen et al. (2010), Wiehn et al. (2018), Zeller et al. (2015)	(2021), Lang et al. (2006), Moraes et al. (2018), Oshri et al. (2017), Schwandt et al. (2013), Suarez et al. (2021), Subramaniam et al. (2020), Villodas et al. (2021)
Alexithymia	Aust (2013), Brown et al. (2016), Macarenco et al. (2021), Minnich et al. (2017), Paivio and McCulloch (2004), Terock et al. (2020)	Aust (2013)
Anhedonia	Cohen et al. (2019)	
Anxiety	Brown et al. (2016), Cohen et al. (2017), De Venter et al. (2017), Dias et al. (2015), Doucette et al. (2016), Fung et al. (2020), Grummitt et al. (2021), Iffland et al. (2012), Imperatori et al. (2016), Kisely et al. (2018), Lang et al. (2006), Martins et al. (2014), Negriff (2020), Spertus et al. (2003), Subramaniam et al. (2020), Tietjen et al. (2015), Van Assche et al. (2020), Wright et al. (2009)	Cohen et al. (2017), Dias et al. (2015), Imperatori et al. (2016), Lang et al. (2006), Martins et al. (2014), Moraes et al. (2018), Weltz et al. (2016)*, Van Assche et al. (2020), Villodas et al. (2021), Weltz et al. (2016)*
Depression	Adjorlolo et al. (2017), Brennan et al. (2021), Brockie et al. (2015), Brown et al. (2016), Brown et al. (2017), Cecil et al. (2017), Christ (2017), Cohen et al. (2017), Dannehl et al. (2017), de Oliveira et al. (2018), Dias et al. (2015), Diaz et al. (2020), Doucette et al. (2016), Fung et al. (2020), Gerke et al. (2006), Glaesmer et al. (2017), Grummitt et al. (2021), Hermenau et al. (2015), Hussey et al. (2006), Imperatori et al. (2016), Jardim et al. (2018), Jewkes et al. (2010), Jimeno et al. (2021), Kidman et al. (2018), Kim (2017), Kisely et al. (2018), Kong and Bernstein (2009), Lee and Feng (2021), Li et al. (2017), Lowe et al. (2016), Macedo et al. (2019), Martins et al. (2014), Merrick et al. (2017), Moraes et al. (2018), Negriff (2020), Nikulina et al. (2012), Poole et al. (2017), Schalinski et al. (2016), Selous et al. (2020), Shao et al. (2021), Spertus et al. (2003), Spitzer et al. (2012), Suarez et al. (2021), Subramaniam et al. (2020), Sunley et al. (2020), Taillieu et al. (2016), Talmon et al. (2019), Tietjen et al. (2015), Van Assche et	Biedermann et al. (2021)*, Brown et al. (2017), Cohen et al. (2006), de Oliveira et al. (2018), Dias et al. (2015), Fujiwara et al. (2010), Glaesmer et al. (2017), Grummitt et al. (2021), Helder (2009), Imperatori et al. (2016), Jardim et al. (2018), Jaschek et al. (2016), Kim (2017), Lowe et al. (2016), Shao et al. (2021), Subramaniam et al. (2020), Tyler et al. (2004), Van Assche et al. (2020), Villodas et al. (2021), Zeller et al. (2015)

	al. (2020), Watkins (2014), Wright et al. (2009), Wu et al. (2018), Zeller et al. (2015)	
Mood disorders (general)	Simmel (2007), Spratt et al. (2012), Taillieu et al. (2016), Wildes et al. (2008)	Spratt et al. (2012), Wildes et al. (2008)
Suicidality	Barbosa et al. (2014), Brandon et al. (2013), Brockie et al. (2015), Choi et al. (2017), Jardim et al. (2018), Jewkes et al. (2010), Kidd (2006), Merrick et al. (2017), Pournaghash-Tehrani Seyed et al. (2021), Stickley et al. (2020), Stinson et al. (2016), Suarez et al. (2021), Subramaniam et al. (2020), Thompson et al. (2012), Wang et al. (2019), Widom et al. (2013), Wiehn et al. (2018), Zoroglu et al. (2003)	Biedermann et al. (2021)*, Choi et al. (2017), Moraes et al. (2018), Thompson et al. (2019), Wang et al. (2019), Wiehn et al. (2018)
Self-harming behaviours	Brown et al. (2018), Goldstein et al. (2009), Hu et al. (2017), Stinson et al. (2016), Swannell et al. (2012), Wang et al. (2020), Zoroglu et al. (2003)	Baiden et al. (2017), Goldstein et al. (2009), Kabour (2007), Paivio and McCulloch (2004),
Posttraumatic symptoms	Bailey et al. (2012), Brockie et al. (2015), Cecil et al. (2017), Cohen et al. (2017), Duncan et al. (2015), Evans et al. (2013), Fung et al. (2020), Fusco and Cahalane (2013), Glaesmer et al. (2017), Grassi-Oliveira and Stein (2008), Kisely et al. (2018), Lowe et al. (2016), Lueger-Schuster et al. (2018), Negriff (2020), Raphael and Widom (2011), Schalinski et al. (2016), Spertus et al. (2003), Suarez et al. (2021)	Brockie et al. (2015), de Haan et al. (2017), Folk et al. (2021), Fujiwara et al. (2010), Greene et al. (2021), Lueger-Schuster et al. (2018), Massey (2008)*, Rameckers et al. (2021), Raviv et al. (2010)*, Segal (2014), Sullivan et al. (2006), Villodas et al. (2021)
Dissociation	Brunner et al. (2000), Cecil et al. (2017), Gerke et al. (2006), Kulacaoglu et al. (2017), Macarenco et al. (2021), Schalinski et al. (2016), Zoroglu et al. (2003)	Kulacaoglu et al. (2017), Rafati (2003), Tyler et al. (2004)
Bipolar disorder	Hosang et al. (2017), Moraes et al. (2018), Serafini et al. (2016), Subramaniam et al. (2020)	
Body dysmorphic disorder	Didie et al. (2006)	
Somatoform disorders	Fung et al. (2020)	Piontek et al. (2021)
Eating disorder or symptoms	Imperatori et al. (2016), Kong and Bernstein (2009), Mazzeo and Espelage (2002), Mills et al. (2015), Monteleone et al. (2018), Tasca et al. (2013)	Gerke et al. (2006), Guillaume et al. (2016), Hazzard et al. (2019), Kong and Bernstein (2009), Minnich et al. (2017)
Personality disorder	Cohen et al. (2013), Daruy-Filho et al. (2013), Fitzhenry et al. (2015), Fung et al. (2020), Helgeland and Torgersen (2004), Kors et al. (2020), Krastins et al. (2014), Kulacaoglu et al. (2017), Lobbestael et al. (2010), Taillieu et al. (2016), Varnaseri et al. (2016)	Cohen et al. (2013), Daruy-Filho et al. (2013), Fitzhenry et al. (2015), Villodas et al. (2021)
Conduct disorder/ODD	Simmel (2007), VanMoffaert (2016)	
Obsessive compulsive symptoms	Dias et al. (2015), Kong and Bernstein (2009), Subramaniam et al. (2020)	Dias et al. (2015), Kong and Bernstein (2009), Renkema et al. (2020)
Psychotic or related symptoms	Aas et al. (2016), Abajobir, Kisely, Scott, et al. (2017), Cristóbal-Narváez et al. (2016), Dias et al. (2015), Ucok and Bikmaz (2007)	Dias et al. (2015), Fisher et al. (2010)

Schizophrenia	Aas et al. (2016), Bennouna-Greene et al. (2011), Cancel et al. (2015), Xian-Bin et al. (2017)

* Findings are significant but opposite direction

Note. There were 32 studies reporting findings on alcohol and/or drug use but some of these resulted in multiple publications reporting on different findings and so the number of publications referenced in this Table is 38.

Behavioural problems

Supplementary Table S2.4

Associations between Behavioural Problems and Child Neglect

Behavioural problems	Studies reporting significant findings	Studies reporting non-significant findings
Externalising problems (general)	Benedan et al. (2018), Berzenski et al. (2014), Chugani et al. (2001), Cohen and Thakur (2021), Degli Esposti et al. (2020), Diaz et al. (2020), Dubowitz et al. (2002), Hagborg et al. (2017), Hermenau et al. (2015), Hunt et al. (2017), Jose and Cherayi (2020), Kaufman (2003), Kazemian et al. (2011), Kisely et al. (2018), Knutson et al. (2004), Kotch et al. (2014), Levesque et al. (2010), Manly et al. (2013), McGuire et al. (2018), Mills et al. (2013), Mustillo et al. (2011), Negriff (2020), Pino et al. (2015), Rus et al. (2014), Silva and Calheiros (2020), Simmel (2007), Spratt et al. (2012), Vahl et al. (2016), van der Put et al. (2015), van der Vegt et al. (2009), Villodas et al. (2015), Wen et al. (2019), Zeller et al. (2015)	Folk et al. (2021), Hunt et al. (2017), Jose and Cherayi (2020), Lowell (2015), Negriff (2020), Shanahan (2010), Silva and Calheiros (2020), Woodruff (2012), Yoon et al. (2020)
Aggression or violence	Allen (2011), Cuadra (2007), González et al. (2016), Hussey et al. (2006), Kimonis et al. (2013), Knutson et al. (2005), Kotch et al. (2008), Logan-Greene and Semanchin Jones (2015), McGuigan et al. (2018), Shaffer et al. (2009), Spratt et al. (2012), Stinson et al. (2016), Talbott (2000), van der Put et al. (2015), Van Wert et al. (2017), Widom et al. (2013)	Asscher et al. (2015), Bolger and Patterson (2001), Hodgdon (2009), Kabour (2007), Logan-Greene and Semanchin Jones (2015), Spratt et al. (2012)
Violent offending	Chang et al. (2021), Malvaso et al. (2019), Mersky (2006), Savage et al. (2014), Smith et al. (2005), Widom and Maxfield (2001)	Cuadra (2007)
Sexual offending	Boakye (2020), Connolly and Woollons (2008), Cuadra (2007)	Cuadra (2007)
Criminal offending (general)	, Clarke (2015), Cuadra (2007), Diaz et al. (2020), Hahn Fox et al. (2015), Horan and Widom (2015a), Jonson-Reid and Barth (2000), Kazemian et al. (2011), Kenny et al. (2007), Kim et al. (2016), Logan-Greene and Semanchin Jones (2015), Malvaso et al. (2019), Maughan and Cicchetti (2002), Maughan and Moore (2010), Mersky (2006), Savage et al. (2014), Smith et al. (2005), Taussig (2002), Van Wert et al. (2017), VanMoffaert (2016), Vidal et al. (2017), Watkins (2014), Williams et al. (2010)	Cuadra (2007), Logan-Greene and Semanchin Jones (2015), Snyder and Merritt (2014)
Sexual behaviour placing self at risk	Abajobir et al. (2018), Diaz et al. (2020), Hahm et al. (2010), Haydon et al. (2011), Horan and Widom (2015b), Kidman et al. (2018), Klein et al. (2007), Levesque et al. (2010), Ramiro et al. (2010), Wilson and Widom (2011)	Ramiro et al. (2010), Wilson and Widom (2008)

Sexual exploitation	Beckett (2011), Wilson and Widom (2010)	Diamond-Welch and Kosloski (2020)
Risk taking	Babad et al. (2021)	Babad et al. (2021)
Fire lighting	Root et al. (2008)	
Instigating family violence	Brennan et al. (2021), DiLillo et al. (2009), Fonseka et al. (2015), Milaniak and Widom (2015), Straus and Savage (2005), Widom et al. (2014)	
Running away	Hahm et al. (2010), Thrane et al. (2006), Wilson and Widom (2010)	Sullivan and Knutson (2000)

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Appendix 5

Supplementary Information for Systematic Literature Review

Supplementary File
Interventions to support children's recovery from neglect – A systematic review

Supplementary Table.

*Articles Screened as Potentially Eligible in Systematic Review on Child Neglect (*n = *64)*

Citation	Databases	Interventions	Country of origin	Distinguish neglect	Post neglect intervention	Child outcomes	Met criteria for review
Aarons et al. (2019)	Sociological	SafeCare	USA	Yes	Yes	No	No
Adrihan et al. (2018)	ERIC	Early Intervention program	USA	No	Yes	No	No
Andrews et al. (2018)	Sociological	Breaking the Cycle	Canada	No	No	No	No
Azid and Yaacob (2016)	ERIC	Intelligence enrichment activities	Malaysia	No	yes	Yes	No
Bai et al. (2009)	ERIC	Case coordination	USA	No	Not clear	Yes	No
Barto et al. (2018)	Sociological	Massachusetts Child Trauma Project (ARC, CPP, TF-CBT)	USA	No	Yes	Yes	No
Bernard et al. (2015)	Other	ABC	USA	Yes	Yes	Yes	Yes
Bernard et al. (2012)	PsycINFO	ABC	USA	No	Yes	Yes	No
Bos et al. (2011)	PsycINFO	BEIP	Romania	Yes	Yes	Yes	Yes
Bullock et al. (2019)	Sociological	NA	England (UK)	Yes	No	No	No
Caron et al. (2016)	Sociological	ABC	USA	No	Yes	No	No
Chinitz et al. (2017)	Sociological	CPP and Court model	USA	No	Yes	Yes	No
Congdon (2010)	Sociological	Enhanced infant mental health case management	USA	No	Yes	Yes	No
Conti et al. (2021)	Sociological	Pro Kind (NFP)	Germany	No	No	Yes	No
Dorrepaal et al. (2010)	ERIC	Stabilising group treatment	The Netherlands	No	No	Yes	No
Esposito et al. (2021)	Sociological	NA	Canada	Yes	No	No	No
Fox et al. (2011)	ERIC	BEIP	Romania	Yes	Yes	Yes	Yes
Freisthler et al. (2021)	Embase	Enhancing Permanency in Children and Families program	USA	No	Yes	Yes	No
Ghosh Ippen et al. (2011)	ERIC	CPP	USA	No	Yes	Yes	No
Hahn et al. (2019)	Sociological	Child and family traumatic stress intervention	USA	No	Yes (an intervention but not neglect)	Yes	No

Hicks and Dayton (2019)	Sociological	NA	USA	No	No	No	No
Holmes et al. (2018)	Sociological	NA	USA	Yes	No	Yes	No
Hornfeck et al. (2019)	Sociological	Adoption	Germany	No	No	Yes	No
Iwaniec et al. (2003)	PsycINFO	Tailored therapeutic interventions	Northern Ireland (UK)	No	Yes	Yes	No
Jonson-Reid et al. (2018)	Sociological	Home visitation	USA	No	Yes	No	No
Jouriles et al. (2010)	PsycINFO	Project Support (parenting program)	USA	No	Yes	Limited	No
Lachman et al. (2017)	Sociological	Sinovuyo Caring Families Program for Young Children (parent training)	South Africa	No	No	Yes	No
Lanier et al. (2018)	Embase	Triple P	USA	No	Yes	Yes	No
LeCroy and Davis (2017)	Sociological	Healthy Families	USA	No	Yes	Yes	No
Linares et al. (2006)	PsycINFO	Incredible Years adaptation	USA	Yes	Yes	Yes	Yes
Mayfield and Vollmer (2007)	ERIC	Home-based peer tutoring in mathematics	USA	No	Yes	Yes	No
McCoy et al. (2021)	Embase	Parenting for Lifelong Health for Young Children	Thailand	Yes	No	Yes	No
McCullough and Mathura (2019)	Sociological	Neuro-Physiological Psychotherapy	England (UK)	No	Yes	Yes	No
Meysen and Kelly (2018)	PsycINFO	Child Protection	England, Wales (UK), Germany, Portugal, Slovenia	No	No	No	No
Osofsky et al. (2007)	PsycINFO	CPP and Court model	USA	No	Yes	Yes	No
Peters et al. (2021)	PsycINFO	TF-CBT	Australia	No	Yes	Yes	No
Pino et al. (2019)	Other	Say-Do-Say Correspondence Training	Spain	Yes	Yes	Yes	Yes
Powell and Davis (2019)	Sociological	Journey of Hope (school-based)	USA	No	Yes	Yes	No
Purvis et al. (2007)	Sociological	The Hope Connection	USA	No	Yes	Yes	No
Quek et al. (2017)	Sociological	NA	Australia	Yes	No	Yes	No
Rogel et al. (2020)	PsycINFO	Neurofeedback training for children	USA	No	Yes	Yes	No

Roque-Lopez et al. (2021)	Sociological	Multi-modal program (mindfulness, expressive arts and EMDR)	USA	No	Yes	Yes	No
Sailaa (2019)	Sociological	Mindfulness-based group therapy	England (UK)	No	Yes	Yes	No
Sasser et al. (2019)	Sociological	NA	USA	No	No	Yes	No
Schaeffer et al. (2021)	Sociological	MST	USA	Yes	Yes	No	No
Schilling et al. (2020)	Sociological	Triple P	USA	No	No	Yes	No
Schultz et al. (2007)	PsycINFO	Equine-assisted psychotherapy	USA	No	Yes	Yes	No
Scivoletto et al. (2011)	Sociological	Programa Equilíbrio (Equilibrium Project)	Brazil	Yes	Yes	Yes	Yes
Self-Brown et al. (2018)	Sociological	SafeCare Dads to Kids program	USA	No	No	No	No
Self-brown et al. (2017)	Sociological	SafeCare Dads to Kids program	USA	No	No	No	No
Sicotte et al. (2018)	Sociological	Incredible Years	Canada	Yes	Yes	No	No
Slemaker et al. (2017)	Embase	SafeCare Home Safety module	USA	No	No	No	No
Stacks et al. (2020)	Sociological	Infant Mental Health Home Visiting and Court model	USA	No	Yes	Yes	No
Stamoulis et al. (2017)	Embase	BEIP	Romania	Yes	Yes	Yes	Yes
Taussig et al. (2013)	Sociological	FHF	USA	Yes	Yes	Yes	Yes
Taussig et al. (2019)	Sociological	FHF	USA	No	Yes	Yes	No
Teeuw et al. (2017)	Embase	Range of interventions	The Netherlands	Yes	Yes	No	No
Tiwari et al. (2018)	Sociological	SafeCare Parent-Child Interactions module	USA	No	No	No	No
Turner et al. (2017)	Sociological	Functional Family Therapy-Child Welfare	USA	No	Yes	Yes	No
Turner-Halliday et al. (2017)	Sociological	New Orleans Intervention Model (Court model)	Scotland (UK)	No	Yes	No	No
Usacheva et al. (2021)	Sociological	Parent-Child Interaction Therapy	USA	No	Yes	Yes	No
Weegar et al. (2018)	Sociological	SafeCare	Canada	Yes	Yes	No	No

Yildiz et al. (2020)	Sociological	Child and Adolescent Substance Abuse Treatment Center's inpatient treatment	Turkey	Yes	Yes	No	No
Zeedyk et al. (2009)	PsychINFO	Intensive Interaction	Romania	No	Yes	Yes	No

NA = not applicable, as no interventions specified.
ABC = Attachment Biobehavioral Catchup, ARC = Attachment Regulation Competency, BEIP = Bucharest Early Intervention Program, CPP = Child-Parent Psychotherapy, EMDR = Eye Movement Desensitization and Reprocessing, FHF = Fostering Health Futures, MST = MultiSystemic Treatment, NFP = Nurse-Family Partnership; TF-CBT = Trauma-Focused Cognitive Behavioral Therapy.

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Appendix 6

Semi-Structured Interview Schedule with Experts

Overall research question

What are the key elements of a theory of change that can inform choice and/or design of interventions and strategies to help children recover from the harms of serious neglect?

Guiding questions

1. How is the phenomena of serious neglect and its impacts on children understood by various disciplines and roles involved in the children's lives?
2. What are mechanisms by which children may be harmed by different sub-types and other dimensions of neglect?
3. What mechanisms are involved in recovery from the impacts of neglect for children and can these be translated into targets for change when planning interventions?
4. What, if any, interventions are being used to help children recover from the consequences of serious neglect, in what context and by whom?
5. What, if any, perceived barriers or constraints can impede the application or perceived efficacy of interventions?
6. What factors influence the choices of interventions?

[The focus of these questions will vary depending on the key informant. For example, if the key informant is a leader in the Aboriginal community, the focus will be on Aboriginal children. If the key informant has focussed on children who have experienced a particular type of neglect, the focus will be on that type of neglect – this will be at the expressed wish of the informant]

Setting the scene

My name is Annette Jackson and I am a PhD candidate with La Trobe University. I have worked in social work in the area of child abuse and neglect for many years. My supervisors form part of the research team, and are Margarita Frederico, Helen Cleak and Bruce Perry.

You will have received the Participant Information Sheet which outlines the aims of this study.

The aims of this research are:

1. To explore opinions about serious neglect, its impacts and possible interventions to help children who have been affected.
2. To discover and describe approaches used by professionals and foster parents that aim to reduce or redress the harmful consequences of neglect.
3. To build the beginnings of a theory of change about how to alleviate the consequences of serious neglect for children and to consider what further research is required.

Specific focus of interviews with key informants

This study involves three phases beginning with interviews, followed by an online survey and concluding with focus groups. The first phase of interviews involves talking with key informants who are experts and leaders of the field, such as yourself, who have been identified as having a high level of knowledge in this area. Approximately four to six key informants are being sought for these interviews.

These interviews have two purposes: (i) To seek the views of experts/leaders in the field about how children can recover from neglect and a theory of change; and (ii) To inform the content of the questions in the surveys and focus groups of a broader sample of professionals and carers to further develop a theory of change.

Do you have any questions or wish to clarify anything before we begin?

Confirm consent in general and consent to be recorded.

Interview

Background information:
(If this information is already known and available in written form, the question may just be to confirm that it is accurate and up-to-date).

1. What is your current place of employment (organisation, country) and role?
2. What are your qualifications?
3. How would you describe your discipline and/or field of work?
4. How many years have your worked in this field associated with child neglect?
5. Please describe the nature of your work experience with child neglect (e.g. nature of role, focus, current interest)
6. Please cite key publication/s (if applicable) that best describe your work in this area and/or your ideas about how children can recover from neglect. (If not already sent via email).

Definitions

7. How do you define child neglect, and in particular serious neglect? (This is to provide context for other answers)

Consequences of neglect

8. In your opinion, what are some of the harms that can occur to children as a result of serious neglect (of any sub-type)?
9. What is it about neglect that contributes to these consequences? (i.e. What are the possible mechanisms by which neglect is harmful?)
10. What possible mediating or moderating factors influence the impact of neglect on children?

Recovery from impact of neglect / achieving long-term outcome

11. How would you describe the most important long-term outcome for children recovering from the impact of serious neglect?
12. How would we know when a child has recovered from the consequences of neglect? (What does it look like? What are some indicators of recovery?)

13. What is needed in order for a child to recover from the consequences of neglect? (What are the preconditions for achieving the long-term outcome?)
14. In what way does/could your discipline (or area of work) particularly contribute to helping children recover from impact of neglect?
15. What are examples of interventions, strategies, experiences or other inputs that can help a child recover from the consequences of neglect (or achieve the long-term outcome)?
16. What factors inform or influence choices of how to help a child recover from the consequences of neglect?
17. What are possible constraints or barriers to help a child recover from consequences of neglect?
18. What might be some of the misunderstandings about childhood, neglect or recovery that we need to resolve – in your discipline, area of work or in general (if not already identified in previous question)
19. As a leader in your field, what would be one of the key messages you would want others to be mindful of when thinking about helping children recover from the impacts of neglect?
20. Is there anything else you think would be helpful for us to know?

General queries:

21. Do you wish to be identified in this study as one of the experts/leaders in the field? (You may make or change this decision at a later time up until publication or other public release of information).

[If yes – complete separate consent form]

22. Are there particular publications that would be useful for this study from other authors? If so, please cite.
23. Are you happy to be contacted at a later stage if there is a specific query (e.g. by email)?

Yes/ No/ Maybe

Would you like a copy of the publications that are submitted throughout the study?

Yes /No/ Maybe

Thank you for your participation, time and ideas.

Appendix 7

Human Ethics Committee Consent Form

LA TROBE UNIVERSITY

COLLEGE OF SCIENCE, HEALTH AND ENGINEERING

Department of Community and Clinical Allied Health
La Trobe University
Victoria 3086 Australia

MELBOURNE CAMPUSES
Bundoora
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REGIONAL CAMPUSES
Bendigo
Albury-Wodonga
Mildura
Shepparton

La Trobe University
University Human Ethics Committee
Consent Form regarding identification of participant

Project Title: CAN WE UNDO HARMS FROM THE PAST? – DEVELOPING A THEORY OF CHANGE TO REDRESS DEVELOPMENTAL CONSEQUENCES OF SERIOUS CHILDHOOD NEGLECT

Consent to be identified as an expert informant

If you agree with the following statements please select yes.

1) I understand that this consent form does not supersede the consent form signed regarding my overall participation in this study, and is limited to whether or not I wish to be identified in publication or other public presentation of this research.

   Yes [ ] No [ ]

2) I agree to be identified by name and title (as provided by me below in this consent form) as participating in this research as a key-informant. I understand that by such agreement, I am not responsible for any of the content or conclusions provided in the thesis, conference papers or published in journals or other publications.

   Yes [ ] No [ ]

3) I understand that even though I agree to be involved in this research and be identified, I can withdraw from the study, and where possible I can withdraw my data up to four weeks following the completion of my participation in the research. I can request that no information that can be attributed to me will be used unless it has already been submitted for publication or release. I also understand that I can continue to participate in the study, but withdraw my permission to be identified.

   Yes [ ] No [ ]

4) I acknowledge I have received a 'withdrawal to be identified' form and that if I wish to withdraw my permission to be identified, I would sign, date and send that form to the research team at al3jackson@students.latrobe.edu.au.

   Yes [ ] No [ ]

5) I understand that once a paper or other document with my identification has been submitted for publication or release I can no longer withdraw my consent to be identified.
   Yes [ ] No [ ]

LA TROBE UNIVERSITY

FACULTY OF HUMANITIES AND SOCIAL SCIENCES

Name of Participant (as how you wish to be identified) (block letters):

Role and organisation of Participant (as how you wish to be described) (block letters)

Signature:

Date

Name of Investigator (Annette Jackson):

Signature:
Date

Name of Student Supervisor (Professor Margarita Frederico):

Date:

Please return this form to Annette Jackson, al3jackson@students.latrobe.edu.au, 045 035 8681**. Please note that if you wish to ring Annette and you are in a country other than Australia, you will need to ring + 61 45 035 8681**

Ethics approval reference number: HEC17-098

Appendix 8

Summary of Initial Sample of key Informants for Interviews

Summary of Initial Sample of Key Informants

	Overall list (n = 21)	First pool (n = 12)	Response (n = 12)		
Source of key informants			Yes	No	No response
Publications only	13	6	2	3	1
Professional networks only	4	3	1		2
Publications and professional networks	4	3	1		2
Country					
Australia	5	3	1		2
USA	12	7	3	2	2
United Kingdom	3	2		1	1
Brazil	1				
Discipline or Role					
Australian Aboriginal Elder or leader	4	2			2
Social worker	4	3	1	1	1
Psychologist	8	4	1	1	2
Child and Adolescent Psychiatrist	3	2	1	1	
Paediatrician	2	1	1		
Neuroscientist	2	2	2		
Family therapist	2	1	1		
Other	3	1			1
Gender					
Female	15	7	1	1	5
Male	6	5	3	2	

Note. Six key informants had more than one discipline or role identified in this table. Two respondents who declined invitation were from the same work group as one of their team who agreed to participate. Information about potential informants who were not sent an email or who did not respond was based on their publications and information available via their organisation's website.

Appendix 9

Online Survey - Professional Version

The online professional survey was structured to branch out to two parallel sets of questions depending on whether the respondent was answering based on their own practice or their team's practice. As such this survey appears twice as long in paper, than it did online. The order of the items for most questions was randomised by the digital program and so may not have appeared in the same order as it does on paper.

Introduction

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Hello,

Topic: **HELPING CHILDREN WHO HAVE EXPERIENCED SERIOUS NEGLECT**

We are seeking your participation in this survey due to your work with children, some of whom may have previously experienced neglect.

What is this survey about?
Data from this survey will inform understanding about the role of professionals from different fields and disciplines in working with children of different ages who have experienced serious neglect. It is part of a broader PhD study on children's recovery from the implications of neglect.

> Serious neglect is defined as when a child's essential needs, such as developmental, emotional, social, cultural, physical, and/or medical needs, have not been met to the extent it is likely to lead to significant harm.

Who is conducting this survey?
This research is conducted as part of a PhD study at La Trobe University (Melbourne, Australia) by Annette Jackson.

Professor Margarita Frederico is the primary supervisor with Dr Helen Cleak and Dr Bruce D. Perry as co-supervisors. This study is not externally funded.

Confidentiality
Regardless of how you found out about this survey, all responses are confidential. No individual's name or her or his responses will be shared with any employer, government department or other organisation. Only the research team will have access to the data, which is held securely, as outlined in the Participant Information Statement.

Themes and unidentifiable quotes will be shared later with focus groups and in publications to be available for anyone interested in this topic.

No identifying information about children, families, carers or other workers is sought. We ask you not to mention any names or other identifying information.

Who can do this survey
The survey is voluntary.

It is relevant for professionals from a variety of fields, such as doctors (e.g. paediatricians, general practitioners, psychiatrists, other doctors), dentists, maternal and child health nurses, community nurses, other nurses, occupational therapists, speech pathologists, physiotherapists, optometrists, other allied health professionals, infant, child or adolescent mental health services; teachers and other education workers (e.g. preschool, primary/elementary school, high school, education support services), child care and early childhood centres, disability services, child protection, out-of-home care services, case management services, therapeutic and counselling services, infant, child, youth and family services, and Indigenous and other cultural specific services.

You may be a direct practitioner and/or supervise practitioners who have worked with children in the past 12 months. This survey is relevant to you if at least one of the children you or your staff have worked with in these 12 months had previously experienced serious neglect.

This survey is available to individual professionals directly, and via organisations and networks across several countries. The survey is only available in English.

There is a separate survey for foster parents but that is only available in Victoria, Australia. For more information please see the Participant Information Statement.

What is in this survey
The questions in this survey have been informed by the literature and interviews with key informants. The next phase of the research - focus groups - will be informed by the themes arising from these surveys.

We recognise that you have likely worked with children who have experienced more than one form of maltreatment. For the purposes of this study we ask you to reflect on their experience of neglect.

There are 18 questions about your work with children who have experienced serious neglect, whether that is a small or major part of your role over the past 12 months. Some of these questions ask you to focus on a particular child you or your team worked with who experienced neglect. This asks you to reflect on your particular way of working with children in this situation. This section also asks for your ideas about children's recovery from neglect. Depending on some of your answers there may be some additional questions. There are then 6 questions about your work role to provide context. Questions are a mixture of multiple choice and free text.

Finally, there is a question about whether you may be interested in participating in a focus group (online or face-to-face). If you select 'yes', there are further questions seeking your contact details. You will be contacted later and given further information about the focus group, at which time you can decide if you wish to proceed.

As this survey is for a diverse range of professionals across multiple countries, please do not use acronyms unless you first spell them out. Although some questions are described as optional most require a response in order to complete the survey. A message will appear and the question will be in yellow if an answer is still required.

Although you can access this survey on a computer or smart phone, you may find it easier to read and enter your responses on a computer.

This survey takes approximately 30 minutes to complete. At the end of the survey you have the option of printing out a copy of your responses if you wish.

It is preferable to set aside the time, if you can, to complete the survey in one sitting. However, you can close your computer and at a later time click on the survey link again. It will open to where you last entered information as long as it is within 2 weeks of when you last entered information on the survey.

More information
The participant information statement is attached via this link which you can save or print if you wish. Participant Information Statement_Professionals.pdf

How and when do I give consent and participate in this research?
By completing this survey you are showing your consent to participate in this research.

To begin the survey, click the arrow at the bottom of this page to take you to the next page.

If you wish you may send the link to this survey to other professionals you think may be interested.

This survey will be available between November 2019 to end of January 2020.

If you no longer wish to submit this survey
If during the process of filling in the survey you decide you wish to withdraw your consent and no longer wish to participate, do not complete the survey. If you do not complete the survey, your data will not be included in the research.

If you have completed the survey and later wish to withdraw your responses, please see the Participant Information Statement which details how to withdraw and the timelines in which it is possible. Note: it will only be possible to withdraw your data if you have entered your contact details.

Thank you
We thank you for the time and thought taken to complete this survey!

La Trobe University Ethics approval reference number: HEC17-098.

Part A. Your or your team's work_branch question

. This section asks you to reflect on your or your team's professional experience with children and with serious neglect.
[Note: Throughout this survey, 'children' refers to children aged 0 to 17 years]

If you work directly with children, please reflect on your direct work experience with children.

If you manage others who work directly with children (in addition to or instead of yourself), decide whether to reflect on your own or your team's experience. You may find it easier to answer some of the questions based on your own direct experience, if that is an option. Whichever you choose, please be consistent when considering your answers throughout the survey. Thank You!

Q1. **Please indicate whether your answers will be based on your direct work with children or on the work of your team.** (Select one)
[Note: Serious neglect is defined as when a child's essential needs, such as developmental, emotional, social, cultural, physical, and/or medical needs, have not been met to the extent it is likely to lead to significant harm]

- ○ My answers will be based primarily on my **direct professional experience** with children over the past 12 months, at least one of whom had previously experienced serious neglect.
- ○ My answers will be based primarily on **my team's experience** with children over the past 12 months, at least one of whom had previously experienced serious neglect.
- ○ Neither myself nor my team have to my knowledge worked with children over the past 12 months who had previously experienced serious neglect.

Part B1. Your work with children and neglect

Q2. **Estimate how many children in total you worked with over the past 12 months?** (Select one)
[Note: This question is about all children you worked with directly over the past 12 months, not just those who experienced neglect]

○ 1 to 5	○ 26 to 30	○ 51 to 60	○ 101 to 110	○ 151 to 160	○ 201-300
○ 6 to 10	○ 31 to 35	○ 61 to 70	○ 111 to 120	○ 161 to 170	○ 301-400
○ 11 to 15	○ 36 to 40	○ 71 to 80	○ 121 to 130	○ 171 to 180	○ 401-500
○ 16 to 20	○ 41 to 45	○ 81 to 90	○ 131 to 140	○ 181 to 190	○ 501-600
○ 21 to 25	○ 46 to 50	○ 91 to 100	○ 141 to 150	○ 191 to 200	○ Over 600 (Describe)

Q3. **Estimate how many children you worked with directly over the past 12 months, whom you believe had previously experienced serious neglect?** (Select one)

○ 1 to 5	○ 26 to 30	○ 51 to 60	○ 101 to 110	○ 151 to 160	○ 201-300
○ 6 to 10	○ 31 to 35	○ 61 to 70	○ 111 to 120	○ 161 to 170	○ 301-400
○ 11 to 15	○ 36 to 40	○ 71 to 80	○ 121 to 130	○ 171 to 180	○ 401-500
○ 16 to 20	○ 41 to 45	○ 81 to 90	○ 131 to 140	○ 181 to 190	○ 501-600
○ 21 to 25	○ 46 to 50	○ 91 to 100	○ 141 to 150	○ 191 to 200	○ Over 600 (Describe)

Q4. What percentage of the children you worked with in the past 12 months do you estimate had previously experienced each type of neglect?
[Note: These types of neglect are not mutually exclusive as children may experience multiple types.]

[Note: Select the % that best reflects your estimate for each type of neglect. Each type of neglect requires an answer to be registered, including 'Other type of neglect.']
[Note: To assist your thinking about percentages, you estimated between **${q://QID200/ChoiceGroup/SelectedChoices}** was the number of children you worked with in the past 12 months who previously experienced serious neglect.]

	0	1-20 %	21-40%	41-60%	61-80%	81-100%
Emotional neglect (not receiving necessary emotional and relational interactions or opportunities, e.g. lack of love, belonging, nurturance, emotional warmth, attention)	○	○	○	○	○	○
Supervisory neglect (not receiving adequate supervision or attention required at children's developmental stage to keep them safe. Includes being abandoned)	○	○	○	○	○	○
Medical neglect (not receiving sufficient medical, dental, other health care or treatment)	○	○	○	○	○	○
Developmental neglect (developmental needs not met, e.g. not supported in education, play, other necessary developmental stimulation)	○	○	○	○	○	○
	0	1-20 %	21-40%	41-60%	61-80%	81-100%
Physical neglect (physical needs not met, e.g. not receiving adequate food, hydration, clothing, shelter, safe environment, safety in general, hygiene)	○	○	○	○	○	○
Cultural neglect (cultural needs not met, e.g. no or limited access to cultural identity, connection with community, cultural safety)	○	○	○	○	○	○
Global neglect (experienced all or most types of neglect)	○	○	○	○	○	○
Other type of neglect (Describe)	○	○	○	○	○	○
	0	1-20 %	21-40%	41-60%	61-80%	81-100%

. For the remaining questions in this section (Q5-14), please reflect on <u>one</u> child you worked with in the past 12 months whom you believe had previously experienced serious neglect.
You will be asked non-identifying questions about the child (Q5-8), the child's experience of neglect (Q9), whether the child presents with any specific problems (Q10-11) and what your intervention or treatment was (Q12-14). Please consider an example which demonstrates your work with children who have experienced serious neglect.
[Note: No identifying information is to be included]

Q5.
How old is this child? (Child's age when you last saw him/her)

▼

Q6. What is this child's gender?

- ○ Male
- ○ Female
- ○ Other (describe)

Q7. What is this child's cultural background?

- ○ Describe
- ○ Don't know

Q8a. Where was the child living when you were working with him/her in the past 12 months?
[Note: If the child lived in different places over this 12 months, select as many as relevant]
[Note: This is not about where the child experienced the neglect, but where the child lived when you worked with him/her in the past 12 months.]

- ☐ Living with one or both parents
- ☐ Extended family or friends
- ☐ Independently living in community
- ☐ Hospital

- [ ] Foster care (living with accredited foster parent)
- [ ] Residential care (up to 6 children in residence)
- [ ] Residential treatment (more than 6 children in residence)
- [ ] Homeless
- [ ] Other (Describe without using acronyms)
- [ ] Not known

Q8b. What type of area does the child usually live in?
(Select the one that best describes where the child lived in past 12 months)

- ○ In a city/urban area
- ○ In a country town/rural area
- ○ In a remote area

Q9. Which type / types of neglect do you believe the child had previously experienced?

- [ ] **Physical neglect** (physical needs not met, e.g. not receiving adequate food, hydration, clothing, shelter, safe environment, safety in general, hygiene)
- [ ] **Emotional neglect** (emotional needs not met (not receiving necessary emotional and relational interactions or opportunities, e.g. lack of love, belonging, nurturance, emotional warmth, attention)
- [ ] **Developmental neglect** (developmental needs not met, e.g. not supported in education, play, other necessary developmental stimulation)
- [ ] **Supervisory neglect** (not receiving adequate supervision and attention required at children's developmental stage to keep them safe. Includes being abandoned)
- [ ] **Medical neglect** (not receiving sufficient medical, dental, other health care or treatment)
- [ ] **Cultural neglect** (cultural needs not met, e.g. no or limited access to cultural identity, connection to community, cultural safety)
- [ ] **Global neglect** (experienced most types of neglect)
- [ ] **Other** (describe)

Q10. In your opinion did this child present with any of these problems in the past 12 months?
[Note: If you select 'Yes' or 'May be', you will see more detailed questions about that problem]
[Note: Each problem area requires an answer, including 'Other'.]

	No	May be	Yes
Physical health problems	○	○	○
Developmental delays &/or problems	○	○	○
Attachment & other relationship problems	○	○	○
Emotional health problems	○	○	○
Mental health problems	○	○	○
Behavioural problems	○	○	○
Other (Describe)	○	○	○

Q10a. In your opinion, did this child present with any of these physical health problems, compared to children of similar age?
[Note: If you don't believe the problem is possible for a child of this age, select 'Not applicable.']

	No	May be	Yes	Not applicable
Frequent &/or serious infections	○	○	○	○
Sexual health problems (e.g. sexually transmitted disease)	○	○	○	○
Suck &/or swallow problems	○	○	○	○
Frequent &/or serious illnesses	○	○	○	○
Dysregulated heart rate (high, low or erratic heart rate)	○	○	○	○
	No	May be	Yes	Not applicable
Physical health problems requiring frequent or ongoing medication	○	○	○	○
Overweight	○	○	○	○
Frequent &/or serious skin conditions	○	○	○	○
Sensory loss (e.g. loss of hearing, sight, touch, smell, taste)	○	○	○	○
Growth problems (e.g. small for age)	○	○	○	○
	No	May be	Yes	Not applicable
Uncontrolled urination &/or soiling	○	○	○	○
Frequent &/or serious dental health problems	○	○	○	○
Underweight	○	○	○	○
Sleep problems (e.g. frequent nightmares, not getting to sleep, not staying asleep, sleeping too much)	○	○	○	○

	No	May be	Yes	Not applicable
Other physical health problems (Describe)				

	No	May be	Yes	Not applicable

Q10b. In your opinion, did the child present with any of these **developmental problems,** compared to children of similar age?

[Note: If you don't believe the problem is possible for a child of this age, select 'Not applicable.']

	No	May be	Yes	Not applicable
Problems with short-term or working memory (e.g. forgetting what was just said, finding it difficult to track progress or sequencing of tasks)				
Not doing as well at school compared to current capability				
Difficulties with problem solving, planning, understanding cause and effect				
Cognitive delays (not including intellectual disability)				
Limited ability for self care				

	No	May be	Yes	Not applicable
Speech and language delays or difficulties				
Problems with long-term memory				
Problems with attention &/or concentration				
Gross motor problems (e.g. problems with movement, uncoordinated, clumsy)				
Fine motor problems (e.g. problems with writing, picking things up)				

	No	May be	Yes	Not applicable
Lack of impulse control, problems delaying gratification				
Intellectual disability (child assessed by psychologist as having an intellectual disability)				
Sensory processing problems (e.g. overly seeking or avoiding sounds, light, touch, taste, smells)				
Other developmental problems (Describe)				

	No	May be	Yes	Not applicable

Q10c. In your opinion, did the child present with any of these **attachment and other relationship difficulties,** compared to children of similar age?

[Note: If you don't believe the problem is possible for a child of this age, select 'Not applicable.']

	No	May be	Yes	Not applicable
Difficulty in trusting others				
Avoids physical contact with others				
Superficial interactions with others				
Attempts to control others				
Often clingy, overly distressed at separation from carers				

	No	May be	Yes	Not applicable
Isolates self from others				
Associating with peers involved in antisocial activities				
Keeps distance, rarely shows distress at separation from carers or pleasure in their company				
Indiscriminately seeks affection, including with strangers				
Poor social skills (e.g. doesn't know how to interact with others)				

	No	May be	Yes	Not applicable
Lack of empathy for others				

	No	May be	Yes	Not applicable
Difficulties recognising or understanding other's emotions				
Few positive interactions with peers, has limited number of friendships				
Other relationship problems (Describe)				
	No	May be	Yes	Not applicable

Q10d. In your opinion, did the child present with any of these **emotional health problems,** compared to children of similar age?
[Note: If you don't believe the problem is possible for a child of this age, select 'Not applicable.']

	No	May be	Yes	Not applicable
Difficulties expressing emotions				
Lack of remorse				
Over-compliance, denies own needs				
Low self-esteem				
Limited capacity to experience or express pleasure				
	No	May be	Yes	Not applicable
Less likely to cope under stress				
Does not feel needs are ever met, feels deprived				
Sense of hopelessness				
Difficulties recognising or understanding own emotions				
Lack of cultural pride (e.g. lack of positive connection with cultural identity &/or sense of belonging to community)				
	No	May be	Yes	Not applicable
Difficulties regulating and managing emotions				
Low self-efficacy (e.g. lack of belief in own capacity)				
Difficult to comfort				
Other emotional health problems (Describe)				
	No	May be	Yes	Not applicable

Q10e. In your opinion, did the child present with any of these **mental health problems,** compared to children of similar age?
[Note: Responses do not need to be limited to when there is a formal diagnosis]

[Note: If you don't believe the problem is possible for a child of this age, select 'Not applicable.']

	No	May be	Yes	Not applicable
Alcohol &/or other drug problems				
Depression symptoms				
Suicidal behaviours				
Post traumatic stress symptoms (e.g. overly aware of possible danger, startles easily, relives traumatic memories, avoids potential reminders)				
Mental health problems needing prescribed medication				
	No	May be	Yes	Not applicable
Anxiety symptoms				
Dissociation (e.g. disconnection of thoughts, feelings, frequent spacing out)				
Self-harming behaviours				
Other mental health problems (Describe)				
	No	May be	Yes	Not applicable

Q10f. In your opinion, did the child present with any of these **behavioural problems,** compared to children of similar age?
[Note: If you don't believe the problem is possible for a child of this age, select 'Not applicable.']

	No	May be	Yes	Not applicable
Sexual behaviour placing self at risk	○	○	○	○
Frequent, severe &/or persistent tantrums	○	○	○	○
Aggression or violence towards others	○	○	○	○
Sensation seeking, risk-taking behaviours	○	○	○	○
Criminal behaviours	○	○	○	○
Sexual behaviour placing others at risk	○	○	○	○
Defiance, not accepting limits	○	○	○	○
Running away	○	○	○	○
Fire lighting	○	○	○	○
Other behavioural problems (Describe)	○	○	○	○
	No	May be	Yes	Not applicable

Q11a. In your opinion, did serious neglect contribute to any of these problems for this child? (Select one that best fits your opinion)

- ○ Yes
- ○ May be
- ○ No

Q11b. In your opinion, how did serious neglect contribute to these problems for this child?
[Describe possible pathways between serious neglect and any of these problems.]

Q12. Which of the following describes your role in helping this child who experienced serious neglect?
[Select as many as relevant].

- ☐ Assessment of child's health, development and/or well-being
- ☐ Assessment of impact of neglect on child
- ☐ Assessment of parent/s
- ☐ Assessment of carers (not including parent)
- ☐ Direct physical treatment with child (e.g. surgery, physical therapy, medication) (Describe without using acronyms)
- ☐ Direct counselling with child
- ☐ Family counselling
- ☐ Other therapeutic treatment with child (Describe without using acronyms)
- ☐ Educating parent/s or carer/s about child's needs and how to meet those needs
- ☐ Assisting child in learning and development
- ☐ Providing or supporting alternative care
- ☐ Providing or supporting enriched care (Describe without using acronyms)
- ☐ Case management for child
- ☐ Taking legal or administrative actions
- ☐ Identifying gaps between what child needs and services offered
- ☐ Referral to other services
- ☐ Preventing further neglect (Describe without using acronyms)
- ☐ Coordination of services
- ☐ Advocacy on behalf of child
- ☐ Other (Describe without using acronyms)
- ☐ None of the above

Q13. Did you use particular interventions or strategies to help this child recover from harms associated with serious neglect? (Select one)

- Yes - specific to neglect
- Yes - including, but not limited to neglect
- No

Q14. What particular interventions or strategies did you use with this child to assist his / her recovery from harms associated with serious neglect?

. The next five questions (Q.15-18) are about your opinion on children who have experienced neglect and recovery in general.

These next questions are not about a specific child but your general views of working with children who have experienced serious neglect.

Q15. Does knowing children have experienced serious neglect influence your treatment or interventions with each child? (Select one)

Not at all	A little	To some extent	A lot	A great deal
○	○	○	○	○

Q16. What is it about your work with children who have experienced serious neglect that you believe makes a positive difference?

Q17. Which of these do you take into consideration to inform your choice of how to help children recover from serious neglect?

	Never	Sometimes	About half the time	Most of the time	Always	Not applicable
Child is currently safe	○	○	○	○	○	○
Whether neglect was chronic or intermittent	○	○	○	○	○	○
Other abuse experiences	○	○	○	○	○	○
Child's current living arrangements (e.g. with parents or in out-of-home care)	○	○	○	○	○	○
Parent's wishes	○	○	○	○	○	○
Presenting problem	○	○	○	○	○	○

	Never	Sometimes	About half the time	Most of the time	Always	Not applicable
Availability of consistent attachment figure	○	○	○	○	○	○
Child's wishes	○	○	○	○	○	○
Type of neglect	○	○	○	○	○	○
Child is no longer neglected	○	○	○	○	○	○

	Never	Sometimes	About half the time	Most of the time	Always	Not applicable
Willingness of parent/carer to be involved	○	○	○	○	○	○
Child's current stage and developmental functioning	○	○	○	○	○	○

	Never	Sometimes	About half the time	Most of the time	Always	Not applicable
Role of other professionals with child	○	○	○	○	○	○
Child's current age	○	○	○	○	○	○
Child's age at time neglect began	○	○	○	○	○	○
Carer's wishes	○	○	○	○	○	○
Child's current health	○	○	○	○	○	○
Other (Describe)	○	○	○	○	○	○

	Never	Sometimes	About half the time	Most of the time	Always	Not applicable

Q18. Which of these have been a major influence on how you help children recover from serious neglect? (Select those you believe are most influential in your role)

- ☐ Organisation policies and guidelines
- ☐ Professional discipline guidelines
- ☐ Evidence-informed practice
- ☐ Suggestions from specialists (Describe role)
- ☐ What carers have shown or told you
- ☐ What children have shown or told you
- ☐ Advice from colleagues &/or mentors
- ☐ Books &/or articles
- ☐ A specific theory of change (Describe without using acronyms)
- ☐ Your life experience
- ☐ Supervision
- ☐ Training &/or conferences
- ☐ Undergraduate education
- ☐ Postgraduate education
- ☐ Government policies and guidelines
- ☐ Other research
- ☐ Internet &/or social media
- ☐ What parents have shown or told you
- ☐ Professional work experience
- ☐ Other (Describe without using acronyms)
- ☐ None of the above

Part B2. Your team's work with children and neglect

Q1b. Approximately how many staff in your team work with children? (Select one)
[Note: if you manage multiple teams decide which are most applicable to this survey and respond to this and subsequent questions with the same team/s in mind]

- ○ 1 to 10
- ○ 11 to 20
- ○ 21 to 30
- ○ 31 to 40
- ○ 41 to 50
- ○ 51 to 60
- ○ 61 to 70
- ○ 71 to 80
- ○ 81 to 90
- ○ 91 to 100
- ○ 101 to 150
- ○ 151 to 200
- ○ 201 to 250
- ○ 251 to 300
- ○ 301 to 350
- ○ 351 to 400
- ○ 401 to 450
- ○ 451 to 500
- ○ Over 500 (Describe)

Q2. Estimate how many children in total your team/s worked with over the past 12 months. (Select one)
[Note: This question is about all children your team/s worked with in the past 12 months, not just those who experienced neglect]

- ○ 1 to 10
- ○ 11 to 20
- ○ 21 to 30
- ○ 31 to 40
- ○ 41 to 50
- ○ 51 to 60
- ○ 61 to 70
- ○ 71 to 80
- ○ 81 to 90
- ○ 91 to 100
- ○ 101 to 120
- ○ 121 to 140
- ○ 141 to 160
- ○ 161 to 180
- ○ 181 to 200
- ○ 201 to 220
- ○ 221 to 240
- ○ 241 to 260
- ○ 261 to 280
- ○ 281 to 300
- ○ 301 to 320
- ○ 321 to 340
- ○ 341 to 360
- ○ 361 to 380
- ○ 381 to 400
- ○ 401 to 450
- ○ 451 to 500
- ○ 501 to 600
- ○ 601 to 700
- ○ 701 to 800
- ○ 801 to 900
- ○ 901 to 1000
- ○ Over 1000 (Describe)

Q3.
Estimate how many children your team/s worked with over the past 12 months, whom you believe had previously experienced serious neglect. (Select one)

[Note: These and subsequent questions are based on your opinion. You may have formed your opinion directly or from your team]

- ○ 1 to 10
- ○ 11 to 20
- ○ 21 to 30
- ○ 61 to 70
- ○ 71 to 80
- ○ 81 to 90
- ○ 141 to 160
- ○ 161 to 180
- ○ 181 to 200
- ○ 261 to 280
- ○ 281 to 300
- ○ 301 to 320
- ○ 361 to 380
- ○ 381 to 400
- ○ 401 to 450
- ○ 601 to 700
- ○ 701 to 800
- ○ 801 to 900

31 to 40	91 to 100	201 to 220	321 to 340	451 to 500	901 to 1000
41 to 50	101 to 120	221 to 240	341 to 360	501 to 600	Over 1000 (Describe)
51 to 60	121 to 140	241 to 260			

Q4. What percentage of the children your team worked with in the past 12 months do you estimate had previously experienced each type of neglect?

[Note: These types of neglect are not mutually exclusive as children may experience multiple types.]
[Note: These and subsequent questions are based on your opinion. You may have formed your opinion directly or from your team]
[Note: Select the % that best reflects your estimate for each type of neglect. Each type of neglect requires an answer to be registered, including 'Other type of neglect'.]
[Note: To assist your working out percentages of children who experienced these types of neglect, you estimated between **${q://QID201/ChoiceGroup/SelectedChoices}** was the number of children your team worked with in the past 12 months who had previously experienced serious neglect.]

	0	1-20%	21-40%	41-60%	61-80%	81-100%
Medical neglect (not receiving sufficient medical, dental, other health care or treatment)						
Supervisory neglect (not receiving adequate supervision or attention required at children's developmental stage to keep them safe. Includes being abandoned)						
Physical neglect (physical needs not met, e.g. not receiving adequate food, hydration, clothing, shelter, safe environment, safety in general, hygiene)						
Developmental neglect (developmental needs not met, e.g. not supported in education, play or other necessary developmental stimulation)						
	0	1-20%	21-40%	41-60%	61-80%	81-100%
Emotional neglect (not receiving necessary emotional and relational interactions or opportunities including lack of love, belonging, nurturance, emotional warmth, attention)						
Cultural neglect (cultural needs not met, e.g. no or limited access to cultural identity, connection with community, cultural safety)						
Global neglect (experienced all or most types of neglect)						
Other type of neglect (Describe)						
	0	1-20%	21-40%	41-60%	61-80%	81-100%

. For the remaining questions in this section (Q5-14), please reflect on <u>one</u> child your team/s worked with in the past 12 months whom you believe had previously experienced serious neglect.

You will be asked non-identifying questions about the child (Q5-8), the child's experience of neglect (Q9), whether the child presents with any specific problems (Q10-11) and what your intervention or treatment was (Q12-14). Please consider an example which demonstrates your team's work with children who have experienced serious neglect.

[Note: No identifying information is to be included]

Q5.
How old is this child? (Child's age when your team last saw him/her)

▼

Q6. What is this child's gender?

- Male
- Female
- Other (describe)

Q7. What is this child's cultural background?

- Describe
- Don't know

Q8a. Where was the child living when your team were working with him/her in the past 12 months?

[Note: If the child lived in different places over this 12 months, select as many as relevant]
[Note: This is not about where the child experienced the neglect, but where the child lived when you worked with him/her in the past 12 months.]

- [ ] Living with one or both parents
- [ ] Extended family or friends
- [ ] Foster care (living with accredited foster parent)
- [ ] Residential care (up to 6 children in residence)
- [ ] Residential treatment (more than 6 children in residence)
- [ ] Independently living in community
- [ ] Hospital
- [ ] Homeless
- [ ] Other (Describe without using acronyms)
- [ ] Not known

Q8b. What type of area does the child usually live in?
(Select the one that best describes where the child lived in past 12 months)

- ○ In a city/urban area
- ○ In a country town/rural area
- ○ In a remote area

Q9. Which type / types of neglect do you believe the child had previously experienced? (Select as many as relevant)
[Note: These and subsequent questions are based on your opinion. You may have formed your opinion directly or from your team]

- [ ] **Physical neglect** (physical needs not met, e.g. not receiving adequate food, hydration, clothing, shelter, safe environment, safety in general, hygiene)
- [ ] **Emotional neglect** (emotional needs not met (not receiving necessary emotional and relational interactions or opportunities, e.g. lack of love, belonging, nurturance, emotional warmth, attention)
- [ ] **Developmental neglect** (developmental needs not met, e.g. not supported in education, play, other necessary developmental stimulation)
- [ ] **Supervisory neglect** (not receiving adequate supervision or attention required at children's developmental stage to keep them safe. Includes being abandoned)
- [ ] **Medical neglect** (not receiving sufficient medical, dental, other health care or treatment)
- [ ] **Cultural neglect** (cultural needs not met, e.g. no or limited access to cultural identity, connection to community, cultural safety)
- [ ] **Global neglect** (experienced most types of neglect)
- [ ] **Other** (describe)

Q10. In your opinion, did this child present with any of these problems in the past 12 months?
[Note: If you select 'Yes' or 'May be', you will see more detailed questions about that problem]
[Note: Each problem area requires an answer, including 'Other'.]
[Note: These questions are based on your opinion. You may have formed your opinion directly or from your team]

	No	May be	Yes
Physical health problems	○	○	○
Developmental delays &/or problems	○	○	○
Attachment & other relationship problems	○	○	○
Emotional health problems	○	○	○
Mental health problems	○	○	○
Behavioural problems	○	○	○
Other (Describe)	○	○	○

Q10a. In your opinion, did this child present with one or more of these physical health problems, compared to children of similar age?
[Note: If you don't believe the problem is possible for a child of this age, select 'Not applicable.']

	No	May be	Yes	Not applicable
Uncontrolled urination &/or soiling	○	○	○	○
Frequent &/or serious illnesses	○	○	○	○
Underweight	○	○	○	○
Sleep problems (e.g. frequent nightmares, not getting to sleep, not staying asleep, sleeping too much)	○	○	○	○
Sexual health problems (e.g. sexually transmitted disease)	○	○	○	○
	No	May be	Yes	Not applicable
Dysregulated heart rate (high, low or erratic heart rate)	○	○	○	○
Frequent &/or serious infections	○	○	○	○
Sensory loss (e.g. loss of hearing, sight, touch, smell, taste)	○	○	○	○
Frequent &/or serious dental health problems	○	○	○	○
Overweight	○	○	○	○
	No	May be	Yes	Not applicable
Suck &/or swallow problems	○	○	○	○
Growth problems (e.g. small for age)	○	○	○	○

	No	May be	Yes	Not applicable
Frequent &/or serious skin conditions	○	○	○	○
Physical health problems requiring frequent or ongoing medication	○	○	○	○
Other physical health problems (Describe)	○	○	○	○
	No	May be	Yes	Not applicable

Q10b. In your opinion, did the child present with one or more of the following **developmental problems,** compared to children of similar age?

[Note: If you don't believe the problem is possible for a child of this age, select 'Not applicable.']

	No	May be	Yes	Not applicable
Lack of impulse control, problems delaying gratification	○	○	○	○
Not doing as well at school compared to current capability	○	○	○	○
Problems with long-term memory	○	○	○	○
Gross motor problems (e.g. problems with movement, uncoordinated, clumsy)	○	○	○	○
Cognitive delays (not including intellectual disability)	○	○	○	○
	No	May be	Yes	Not applicable
Intellectual disability (child assessed by psychologist as having an intellectual disability)	○	○	○	○
Problems with attention &/or concentration	○	○	○	○
Speech and language delays or difficulties	○	○	○	○
Problems with short-term or working memory (e.g. forgetting what was just said, finding it difficult to track progress or sequencing of tasks)	○	○	○	○
Difficulties with problem solving, planning, understanding cause and effect	○	○	○	○
	No	May be	Yes	Not applicable
Fine motor problems (e.g. problems with writing, picking things up)	○	○	○	○
Limited ability for self care	○	○	○	○
Sensory processing problems (e.g. overly seeking or avoiding sounds, light, touch, taste, smells)	○	○	○	○
Other developmental problems (Describe)	○	○	○	○
	No	May be	Yes	Not applicable

Q10c. In your opinion, did the child present with one or more of the following **attachment and other relationship difficulties,** compared to children of similar age?

[Note: If you don't believe the problem is possible for a child of this age, select 'Not applicable.']

	No	May be	Yes	Not applicable
Avoids physical contact with others	○	○	○	○
Often clingy, overly distressed at separation from carers	○	○	○	○
Associating with peers involved in antisocial activities	○	○	○	○
Superficial interactions with others	○	○	○	○
Isolates self from others	○	○	○	○
	No	May be	Yes	Not applicable
Indiscriminately seeks affection, including with strangers	○	○	○	○
Poor social skills (e.g. doesn't know how to interact with others)	○	○	○	○
Lack of empathy for others	○	○	○	○
Difficulty in trusting others	○	○	○	○

	No	May be	Yes	Not applicable
Keeps distance, rarely shows distress at separation from carers or pleasure in their company				
	No	May be	Yes	Not applicable
Attempts to control others				
Difficulties recognising or understanding other's emotions				
Few positive interactions with peers, has limited number of friendships				
Other relationship problems (Describe)				
	No	May be	Yes	Not applicable

Q10d. In your opinion, did the child present with one or more of the following **emotional health problems,** compared to children of similar age?
[Note: If you don't believe the problem is possible for a child of this age, select 'Not applicable.']

	No	May be	Yes	Not applicable
Difficulties recognising or understanding own emotions				
Lack of remorse				
Less likely to cope under stress				
Over-compliance, denies own needs				
Low self-esteem				
	No	May be	Yes	Not applicable
Difficulties expressing emotions				
Difficult to comfort				
Does not feel needs are ever met, feels deprived				
Lack of cultural pride (e.g. lack of positive connection with cultural identity &/or sense of belonging to community)				
Difficulties regulating and managing emotions				
	No	May be	Yes	Not applicable
Sense of hopelessness				
Limited capacity to experience or express pleasure				
Low self-efficacy (e.g. lack of belief in own capacity)				
Other emotional health problems (Describe)				
	No	May be	Yes	Not applicable

Q10e. In your opinion, did the child present with one or more of the following **mental health problems,** compared to children of similar age?
[Note: Responses do not need to be limited to when there is a formal diagnosis]

[Note: If you don't believe the problem is possible for a child of this age, select 'Not applicable.']

	No	May be	Yes	Not applicable
Mental health problems needing prescribed medication				
Depression symptoms				
Self-harming behaviours				
Dissociation (e.g. disconnection of thoughts, feelings, frequent spacing out)				
Alcohol &/or other drug problems				
	No	May be	Yes	Not applicable
Suicidal behaviours				
Post traumatic stress symptoms (e.g. overly aware of possible danger, startles easily, relives traumatic memories, avoids potential reminders)				
Anxiety symptoms				

	No	May be	Yes	Not applicable
Other mental health problems (Describe)				

No May be Yes Not applicable

Q10f. In your opinion, did the child present with one or more of the following **behavioural problems,** compared to children of similar age?
[Note: If you don't believe the problem is possible for a child of this age, select 'Not applicable.']

	No	May be	Yes	Not applicable
Sensation seeking, risk-taking behaviours				
Running away				
Defiance, not accepting limits				
Sexual behaviour placing self at risk				
Fire lighting				
Criminal behaviours				
Sexual behaviour placing others at risk				
Frequent, severe &/or persistent tantrums				
Aggression or violence towards others				
Other behavioural problems (Describe)				

No May be Yes Not applicable

Q11a. **In your opinion, did serious neglect contribute to any of these problems for this child?** (Select one that best fits your opinion)
[Note: These questions are based on your opinion. You may have formed your opinion directly or from your team]

- Yes
- May be
- No

Q11b. **In your opinion, how did serious neglect contribute to these problems for this child?**
[Describe possible pathways between serious neglect and any of these problems.]

Q12. **Which of the following described your team's role in helping this child who experienced serious neglect?**
[Select as many as relevant].

- Assessment of child's health, development and/or well-being
- Assessment of impact of neglect on child
- Assessment of parent/s
- Assessment of carers (not including parent)
- Direct physical treatment with child (e.g. surgery, physical therapy, medication) (Describe without using acronyms)
- Direct counselling with child
- Providing or supporting enriched care (Describe without using acronyms)
- Case management for child
- Taking legal or administrative actions
- Identifying gaps between what child needs and services offered
- Referral to other services
- Prevention of further neglect (Describe without using acronyms)

- [ ] Family counselling
- [ ] Coordination of services
- [ ] Other therapeutic treatment with child (Describe without using acronyms)
- [ ] Advocacy on behalf of child
- [ ] Educating parent/s or carer/s about child's needs and how to meet those needs
- [ ] Other (Describe without using acronyms)
- [ ] Assisting child in learning and development
- [ ] None of the above
- [ ] Providing or supporting alternative care

Q13. Did your team use particular interventions or strategies to help this child recover from harms associated with serious neglect? (Select one)

- ○ Yes - specific to neglect
- ○ Yes - including but not limited to neglect
- ○ No

Q14. Describe particular interventions or strategies your team have found helpful for this child to assist his/her recovery from harms associated with serious neglect. (If applicable)

. The next four questions (Q.15-18) are about your opinions on children and recovery in general.

These next questions are not about a specific child, but your general views of working with children who have experienced serious neglect. This may be informed by your direct experience and/or by the experience of your team members.

Q15. Does knowing children have experienced serious neglect influence your team's treatment or intervention with each child? (Select one)

None at all	A little	To some extent	A lot	A great deal
○	○	○	○	○

Q16. What is it about your team's work with children who have experienced serious neglect that you believe makes a positive difference?

Q17. Which of these do you believe are taken into consideration by your team in their choice of how to help children recover from serious neglect?

	Never	Sometimes	About half the time	Most of the time	Always	Not applicable
Child's current stage and developmental functioning	○	○	○	○	○	○

	Never	Sometimes	About half the time	Most of the time	Always	Not applicable
Child is currently safe						
Child's wishes						
Other abuse experiences						
Parent's wishes						
Whether neglect was chronic or intermittent						

	Never	Sometimes	About half the time	Most of the time	Always	Not applicable
Willingness of parent/carer to be involved						
Presenting problem						
Availability of consistent attachment figure						
Carer's wishes						
Child's age at time neglect began						
Child's current health						

	Never	Sometimes	About half the time	Most of the time	Always	Not applicable
Type of neglect						
Child is no longer neglected						
Child's current living arrangements (e.g. at home or in out-of-home care)						
Child's current age						
Role of other professionals with child						
Other (Describe)						

	Never	Sometimes	About half the time	Most of the time	Always	Not applicable

Q18. Which of these have been major influences on how you help children recover from serious neglect? [Select those most influential in their role]

- Suggestions from specialists (Describe role)
- Advice from colleagues &/or mentors
- Government policies and guidelines
- Professional work experience
- Professional discipline guidelines
- Postgraduate education
- Supervision
- Organisation policies and guidelines
- What parents have shown or told you
- Evidence-informed practice
- Your life experience
- Undergraduate education
- Books &/or articles
- What children have shown or told you
- What carers have shown or told you
- A specific theory of change (Describe)
- Internet &/or social media
- Training &/or conferences
- Other research
- Other (Describe without using acronyms)
- None of the above

Part C. This section asks background questions about your role

. This section asks background questions about your role

Q19. What is your professional discipline?
[Note: If you have more than one discipline, please select all relevant boxes]
[Note: This is not about your team but your own discipline}

- Community worker (or welfare worker)
- Cultural specific worker
- Dentist
- Early childhood educator (including child care centre, preschool teacher)
- Family Therapist
- General Practitioner (community doctor)
- Infant Mental Health specialist
- Neuroscientist
- Nurse (community or hospital)
- Physiotherapist (physical therapist)
- Psychiatrist
- Psychologist (if so, what type)
- Residential Care worker
- Social worker
- Speech Pathologist (Speech therapist)
- Teacher
- Youth worker
- Other type of therapist (Describe)

- [ ] Occupational Therapist
- [ ] Paediatrician
- [ ] Other (Describe without using acronyms)

Q20. List the field/s you worked in over the past 12 months (that informed your responses to this survey) (Select as many as applicable for past 12 months)

- [ ] Child Protection
- [ ] Foster care
- [ ] Residential care or residential treatment
- [ ] Kinship care service
- [ ] Other out-of-home care (Describe without using acronyms)
- [ ] Family support service
- [ ] Youth support service
- [ ] Youth Justice
- [ ] Education
- [ ] Early Childhood service (e.g. preschool, kindergarten, child care centre)
- [ ] Mental health service for children
- [ ] Trauma specific service for children
- [ ] Other counselling service (Describe)
- [ ] Other therapeutic service (Describe)
- [ ] Health service
- [ ] Dental clinic
- [ ] Maternal and infant health service
- [ ] Allied Health Service (Describe without using acronyms)
- [ ] Early intervention service
- [ ] Disability Service
- [ ] Cultural specific service (Describe without using acronyms)
- [ ] Other (Describe without using acronyms)

Q21. How long have you worked in your field? (Select one)

Less than 1 year	1-5 years	6-10 years	11-15 years	16-20 years	21-25 years	More than 25 years
○	○	○	○	○	○	○

Q22. In which country do you currently work?

▼

Q22b. In which State or Territory do you currently work?

- ○ Australian Capital Territory
- ○ New South Wales
- ○ Northern Territory
- ○ Queensland
- ○ South Australia
- ○ Tasmania
- ○ Victoria
- ○ Western Australia

Q23. What cultural or ethnic group do you most identify with (Optional)

Q24. Prior to completing this survey how frequently have you reflected on the question of how children recover from the impacts of neglect? (Select one)

Not at all	To some extent	A lot
○	○	○

Part D. Seeking interest in focus group

. Are you interested in participating in a focus group?

Q25.
If interested in possibly participating in a focus group (online or face to face) select yes. If you select no, this is the final question. (Select one)
Note: If you select Yes, your details will be used to contact you regarding the focus group, not for data analysis. If you select Yes, you may still decline to be involved in the focus group at a later time if you wish.
Note: If you select No or leave this question blank you will not be contacted, unless you contact the research team separately.

- ○ Yes
- ○ No

Q26. **Please type your First and Last name**

First name	
Last name	

Q27a. **Please type the best email address to contact you**

Email address	

Q27b. **Please retype the same email address to confirm address**

Confirm email address	

Appendix 10

Online Survey – Carer Version

The online carer survey did not have the branch structure of the professional survey. The order of the items for most questions was randomised by the digital program and so may not have appeared in the same order as it does on paper.

Introduction

.

Hello,

Topic: **HELPING CHILDREN WHO HAVE EXPERIENCED SERIOUS NEGLECT**

We are seeking your participation in this survey due to your role as a foster parent with children who may have previously experienced neglect.

What is this survey about?
Data from this survey will inform understanding about the role of foster parents in caring for children of different ages who have experienced neglect. This survey is only about children placed in your care as a foster parent, not other children living in your household. It is part of a broader PhD study on children's recovery from the implications of serious neglect.

> Serious neglect is defined as when a child's essential needs, such as developmental, emotional, social, cultural, physical, and/or medical needs, have not been met to the extent it is likely to lead to significant harm.

Who is conducting this survey?
This research is conducted as part of a PhD study at La Trobe University (Melbourne, Australia) by Annette Jackson.

Professor Margarita Frederico is the primary supervisor with Dr Helen Cleak and Dr Bruce D. Perry as co-supervisors. This study is not externally funded.

Confidentiality
Regardless of how you found out about this survey all responses are confidential. No individual's name or her or his responses are shared with any Foster Care Agency, Foster Care Association of Victoria (FCAV), government department or other organisations. Only the research team will have access to the data, which is held securely, as outlined in the Participant Information Statement.

Themes and unidentifiable quotes will be shared later with focus groups and in publications to be available for anyone interested in this topic.

No identifying information about children, families, other carers or workers is sought. We ask you to not mention any names or other identifying information.

Who can do this survey
The survey is voluntary. It is relevant for foster parents who live in Victoria, Australia who have had children in their care in the past 12 months.

This survey is only available in English.

There is a separate survey for professionals across various health, education and welfare fields. For more information please see the Participant Information Statement.

What is in this survey?
The questions have been informed by the literature and interviews with key informants. The next phase of the research - focus groups - will be informed by the themes arising from these surveys.

We recognise that you have likely cared for children who have experienced more than one form of maltreatment. For the purposes of this study we ask you to reflect on their experience of neglect.

There are 18 questions about the children in your care who have previously experienced serious

neglect. We ask you to focus on the past 12 months. Some of the questions ask you to focus on one child in your care in this past 12 months, although not including identifying information. This section also asks for your ideas about children's recovery from neglect. Depending on some of your answers there may be additional questions. There are then 4 questions about your role as a foster parent to provide context. There are a mixture of multiple choice and free text questions.

Finally, there is a question about whether you may be interested in participating in a follow-up face-to-face focus group with other foster parents. If you select 'yes', there are further questions seeking your contact details. You will later be contacted and given further information about the focus group, at which time you can decide if you wish to proceed.

This survey takes about 30 minutes to complete. At the end of the survey you have the option of printing a copy of your responses if you wish.

It is preferable to set aside the time if you can to complete the survey in one sitting. However, if needed, you can close your computer and at a later time click on the survey link again. It will open to where you last entered information as long as it is within 2 weeks of when you last entered information on the survey.

More information
The participant information statement is attached via this link which you can save or print out if you wish. Participant information Statement_Foster Parents.pdf

How and when do I give consent and participate in this research?
By completing this survey you are showing your consent to participate in this research.

To begin the survey, click the arrow at the bottom of this page to take you to the next page.

Although some questions are described as optional most require a response in order to complete the survey. A message will appear and the question will be in yellow if an answer is still required.

Although you can access this survey on a computer or smart phone, you may find it easier to read and enter your responses on a computer.

This survey will be available between November 2019 to end of January 2020.

If you no longer wish to complete this survey
If during the process of filling in the survey you wish to withdraw your consent and no longer wish to participate, do not complete the survey. Your data will then not be included in the research.

If you have completed the survey and later wish to withdraw your responses, please see the Participant Information Statement which details how to withdraw and the timelines in which it is possible. Note: it will only be possible to withdraw your data if you have entered your contact details.

Support
If during this survey you become worried about a child or for other reasons wish to seek support, we recommend you contact one of the following:

- Your Foster Care Worker or Team Leader
- The Foster Care Association of Victoria (03) 9416 4292

Thank you
We thank you for the time and thought taken to complete this survey!

La Trobe University Ethics approval reference number: HEC17-098.

Part A. Your care of children with neglect

. This section asks you to reflect on your experience in caring for children in the past 12 months and then more specifically on a child who has previously experienced serious neglect.

[Note: Throughout this survey, 'children' refers to children aged 0 to 17 years, unless otherwise specified]

Q1. **Which statement best describes your experience in the past 12 months as a foster parent?**
[Note: This question is about all the children you cared for, not just those who experienced neglect.]
[Note: This survey is relevant for all types of foster care.]

- I have cared for the same children continuously for longer than the past 12 months
- I have cared for the same children continuously over most/all of the past 12 months
- I have cared for some children continuously for longer than the past 12 months and other children for shorter placements during this past 12 months
- I have cared for some children continuously over most/all of the past 12 months and other children on shorter placements in the past 12 months
- I have cared for children for brief or short-term placements in the past 12 months

Q2.
How many children have been in your care as a foster parent in the past 12 months?
[Note: This question is about all the children you cared for in the past 12 months, not just those who experienced neglect. It is only about children placed with you as a foster parent.]
[Note: This question is about the number of children not the number of placements. For example, if you had 1 child in your care on different occasions last year, that counts as 1. If you had a sibling group of 3 children on one (short or long) occasion that counts as 3.]

0	1	2	3	4	5	6	7	8	9	10	11 or more
○	○	○	○	○	○	○	○	○	○	○	○

Q3. **How many children in your care in the past 12 months do you believe had previously experienced serious neglect?**
[Note: This question is about the number of children not the number of placements. For example, if you had 1 child in your care on different occasions last year, that counts as 1. If you had a sibling group of 3 children on one (short or long) occasion that counts as 3.]

[Note: Serious neglect is defined as when a child's essential needs, such as developmental, emotional, social, cultural, physical, and/or medical needs, have not been met to the extent it is likely to lead to significant harm.]

0	1	2	3	4	5	6	7	8	9	10	11 or more
○	○	○	○	○	○	○	○	○	○	○	○

Q4. **What informed your opinion about whether the children in your care over the past 12 months had previously experienced serious neglect?**
[Note: Every option for this question requires a response including 'Other'.]

	Never	Sometimes	Always

	Never	Sometimes	Always
Information received from foster care agency at beginning of placement	○	○	○
Information from Child Protection	○	○	○
Information through supervision / other conversations with foster care worker	○	○	○
Information received through care team meetings	○	○	○
	Never	Sometimes	Always
Information received from a therapeutic or counselling service	○	○	○
What the child told me	○	○	○
What the child's family told me	○	○	○
What another agency told me	○	○	○
	Never	Sometimes	Always
I guessed as I did not receive any information	○	○	○
What the child showed through their actions (Describe)	○	○	○
Other (Describe)	○	○	○
	Never	Sometimes	Always

Q5. How many children in your care in the past 12 months do you believe had previously experienced each type of neglect?

[Note: These types of neglect are not mutually exclusive as children may experience multiple types.]
[Note: Each type of neglect requires an answer, including 'Other type of neglect'.]
[Note: As your answer for how many children in your care in the past 12 months who experienced neglect was **${q://QID189/ChoiceGroup/SelectedChoices}**, your answers for this and related questions should not be higher than that.]

	0	1	2	3	4	5	6	7	8	9	10	11 or more	Don't know
Medical neglect (not receiving sufficient medical, dental, other health care or treatment)	○	○	○	○	○	○	○	○	○	○	○	○	○
Supervisory neglect (not receiving adequate supervision or attention required for children's developmental stage to keep them safe. Includes being abandoned)	○	○	○	○	○	○	○	○	○	○	○	○	○

	0	1	2	3	4	5	6	7	8	9	10	11 or more	Don't know
Developmental neglect (developmental needs not met, e.g. not supported in education, play, other necessary developmental stimulation)	○	○	○	○	○	○	○	○	○	○	○	○	○
Emotional neglect (not receiving necessary emotional and relational interactions or opportunities, e.g. lack of love, belonging, nurturance, emotional warmth, attention)	○	○	○	○	○	○	○	○	○	○	○	○	○
	0	1	2	3	4	5	6	7	8	9	10	11 or more	Don't know
Physical neglect (physical needs not met, e.g. not receiving adequate food, hydration, clothing, shelter, safe environment, safety in general, hygiene)	○	○	○	○	○	○	○	○	○	○	○	○	○
Cultural neglect (cultural needs not met, e.g. no or limited access to cultural identity, connection with community, cultural safety)	○	○	○	○	○	○	○	○	○	○	○	○	○
Global neglect (experienced all or most types of neglect)	○	○	○	○	○	○	○	○	○	○	○	○	○
Other type of neglect (Describe)	○	○	○	○	○	○	○	○	○	○	○	○	○
	0	1	2	3	4	5	6	7	8	9	10	11 or more	Don't know

. For the remaining questions in this section Q6 to Q15, please consider one child you cared for in the past 12 months whom you believe experienced one or more types of neglect.

You will be asked non-identifying questions about the child (Q6-8), the child's experience of neglect (Q9), whether the child presents with any specific problems (Q10-11), and what strategies or other things you have tried to help the child (Q12-15). No identifying information is to be included.

Q6. **How old is this child?** (Child's age when you last cared for him / her)

▼

Q7. **What is this child's gender?**

- ○ Male
- ○ Female
- ○ Other (describe)

Q8. What is this child's cultural background?
[Select as many as applicable]

- [ ] Australian Aboriginal &/or Torres Strait Islander
- [ ] Australian - not Aboriginal &/or Torres Strait Islander
- [ ] Culturally and linguistically diverse background
- [ ] Don't know

Q9. Which type /types of neglect do you believe this child previously experienced? (Select as many as relevant)

- [ ] **Physical neglect** (physical needs not met, e.g. not receiving adequate food, hydration, clothing, shelter, safe environment, safety in general, hygiene)
- [ ] **Emotional neglect** (not receiving necessary emotional and relational interactions or opportunities, e.g. lack of love, belonging, nurturance, emotional warmth, attention)
- [ ] **Supervisory neglect** (not receiving adequate supervision or attention required for children's developmental stage to keep them safe. Includes being abandoned)
- [ ] **Cultural neglect** (cultural needs not met, e.g. no or limited access to cultural identity, community or cultural safety)
- [ ] **Developmental neglect** (developmental needs not met, e.g. not supported in education, play or other necessary developmental stimulation)
- [ ] **Global neglect** (experienced all or most types of neglect)
- [ ] **Medical neglect** (not receiving adequate medical, dental, other health care or treatment)
- [ ] **Other types of neglect** (describe)

Q10. In your opinion did this child present with any of these problems whilst in your care?
[Note: If you select 'yes' or 'may be' you will see more detailed questions about that problem.]
[Note: Each problem area requires an answer, including 'Other'.]

	No	May be	Yes
Physical health problems	○	○	○
Developmental delays &/or problems	○	○	○
Attachment & other relationship problems	○	○	○
Emotional health problems	○	○	○
Mental health problems	○	○	○
Behavioural problems	○	○	○
Other (Describe)	○	○	○

Q10a. In your opinion, did this child present with any of these **physical health problems** compared to children of similar age?
[Note: If you don't believe the problem is possible for a child of this age, select 'Not applicable.']

	No	May be	Yes	Not applicable
Frequent &/or serious illnesses	○	○	○	○

	No	May be	Yes	Not applicable
Sensory loss (e.g. loss of hearing, sight, touch, smell, taste)	○	○	○	○
Dysregulated heart rate (high, low or erratic heart rate)	○	○	○	○
Frequent &/or serious dental health problems	○	○	○	○
Uncontrolled urination &/or soiling	○	○	○	○
	No	May be	Yes	Not applicable
Underweight	○	○	○	○
Sexual health problems (e.g. sexually transmitted disease)	○	○	○	○
Growth problems (e.g. small for age)	○	○	○	○
Physical health problems requiring frequent or ongoing medication	○	○	○	○
Suck &/or swallow problems	○	○	○	○
	No	May be	Yes	Not applicable
Overweight	○	○	○	○
Frequent &/or serious skin problems	○	○	○	○
Frequent &/or serious infections	○	○	○	○
Sleep problems (e.g. frequent nightmares, not getting to sleep, not staying asleep, sleeping too much)	○	○	○	○
Other physical health problems (Describe)	○	○	○	○
	No	May be	Yes	Not applicable

Q10b. In your opinion, did this child present with any of these **developmental problems** compared to children of similar age?

[Note: If you don't believe the problem is possible for a child of this age, select 'Not applicable.']

	No	May be	Yes	Not applicable
Intellectual disability (child assessed by psychologist as having an intellectul disability)	○	○	○	○
Lack of impulse control, problems delaying gratification	○	○	○	○
Difficulties with problem solving, planning, understanding cause and effect	○	○	○	○

	No	May be	Yes	Not applicable
Fine motor problems (e.g. problems with writing, picking things up)	○	○	○	○
Limited ability for self care	○	○	○	○
	No	May be	Yes	Not applicable
Problems with attention &/or concentration	○	○	○	○
Problems with short-term or working memory (e.g. forgetting what was just said, finding it difficult to track progress or sequencing of tasks)	○	○	○	○
Speech and language delays or difficulties	○	○	○	○
Sensory processing problems (e.g. overly seeking or avoiding sounds, light, touch, taste, smells)	○	○	○	○
Problems with long-term memory	○	○	○	○
	No	May be	Yes	Not applicable
Gross motor problems (e.g. problems with movement, uncoordinated, clumsy)	○	○	○	○
Cognitive delays (not including intellectual disability)	○	○	○	○
Child not doing as well at school compared to current capability	○	○	○	○
Other developmental problems (Describe)	○	○	○	○
	No	May be	Yes	Not applicable

Q10c. In your opinion, did this child present with any of these **attachment &/or other relationship problems** compared to children of similar age?

[Note: If you don't believe the problem is possible for a child of this age, select 'Not applicable.']

	No	May be	Yes	Not applicable
Isolates self from others	○	○	○	○
Few positive interactions with peers, has limited number of friendships	○	○	○	○
Associates with peers involved in antisocial activities	○	○	○	○
Attempts to control others	○	○	○	○

	No	May be	Yes	Not applicable
Difficulties recognising or understanding other's emotions	○	○	○	○
	No	May be	Yes	Not applicable
Superficial interactions with others	○	○	○	○
Often clingy, overly distressed at separation from carers	○	○	○	○
Keeps distance, rarely shows distress at separation from carers or pleasure in their company	○	○	○	○
Indiscriminately seeks affection, including with strangers	○	○	○	○
Difficulty in trusting others	○	○	○	○
	No	May be	Yes	Not applicable
Lack of empathy for others	○	○	○	○
Avoids physical contact with others	○	○	○	○
Poor social skills (e.g. doesn't know how to interact with others)	○	○	○	○
Other relationship problems (Describe)	○	○	○	○
	No	May be	Yes	Not applicable

Q10d. In your opinion did this child present with one or more of the following **emotional health problems** compared to children of similar age?
[Note: If you don't believe the problem is possible for a child of this age, select 'Not applicable.']

	No	May be	Yes	Not applicable
Less likely to cope under stress	○	○	○	○
Difficult to comfort	○	○	○	○
Low self-efficacy (e.g. lack of belief in own capacity)	○	○	○	○
Does not feel needs are ever met, feels deprived	○	○	○	○
Low self-esteem	○	○	○	○
	No	May be	Yes	Not applicable
Sense of hopelessness	○	○	○	○
Difficulties recognising or understanding own emotions	○	○	○	○

	No	May be	Yes	Not applicable
Difficulties regulating and managing emotions	○	○	○	○
Lack of remorse	○	○	○	○
Limited capacity to experience or express pleasure	○	○	○	○
	No	May be	Yes	Not applicable
Over-compliance, denies own needs	○	○	○	○
Difficulties expressing emotions	○	○	○	○
Lack of cultural pride (e.g. lack of positive connection with cultural identity &/or sense of belonging to community)	○	○	○	○
Other emotional health problems (Describe)	○	○	○	○
	No	May be	Yes	Not applicable

Q10e. In your opinion did this child present with one or more of the following **mental health problems** compared to children of a similar age?
[Note: Responses do not need to be limited to when there is a formal diagnosis.]

[Note: If you don't believe the problem is possible for a child of this age, select 'Not applicable.']

	No	May be	Yes	Not applicable
Anxiety symptoms	○	○	○	○
Self-harming behaviours	○	○	○	○
Post traumatic stress symptoms (e.g overly aware of possible danger, startles easily, relives traumatic memories, avoids potential reminders)	○	○	○	○
Mental health problems needing prescribed medication	○	○	○	○
Suicidal behaviours	○	○	○	○
	No	May be	Yes	Not applicable
Dissociation (e.g. disconnection of thoughts, feelings, frequent spacing out)	○	○	○	○
Alcohol &/or other drug problems	○	○	○	○
Depression symptoms	○	○	○	○
Other mental health problems (Describe)	○	○	○	○

	No	May be	Yes	Not applicable
	No	May be	Yes	Not applicable

Q10f. In your opinion, did this child present with one or more of the following **behavioural problems** compared to children of similar age?
[Note: If you don't believe the problem is possible for a child of this age, select 'Not applicable.']

	No	May be	Yes	Not applicable
Aggression or violence towards others	○	○	○	○
Sexual behaviour placing others at risk	○	○	○	○
Running away	○	○	○	○
Criminal behaviours	○	○	○	○
Fire lighting	○	○	○	○
Sexual behaviour placing self at risk	○	○	○	○
Frequent, severe &/or persistent tantrums	○	○	○	○
Sensation seeking, risk-taking behaviours	○	○	○	○
Defiance, not accepting limits	○	○	○	○
Other behavioural problems (Describe)	○	○	○	○
	No	May be	Yes	Not applicable

Q11a. **In your opinion, did serious neglect contribute to any of these problems?** (Select one that best fits your opinion)

- ○ Yes
- ○ May be
- ○ No

Q11b. **In your opinion, how did serious neglect contribute to these problems for this child?**
[Describe possible pathway between serious neglect and any of these problems.]

Q12a. **Did you use particular approaches or strategies to help this child recover from harms associated with serious neglect?** (Select one)

- Yes
- No

Q12b. **What approaches or strategies did you use with this child?**

Q13. **Please describe an example of something you did or said to the child that you believed may have helped his /her recovery from some of the harms associated with serious neglect** (if applicable)

[Note: No identifying information about the child or others is to be provided.]

Q14. Which services, if any, have you found helpful for the child to assist his/her recovery from serious neglect? (Select as many as relevant)

- ☐ Psychiatrist
- ☐ Infant mental health specialist
- ☐ Dental service
- ☐ Therapeutic service
- ☐ General Practitioner or community doctor
- ☐ Foster care worker
- ☐ Hospital
- ☐ Child Care or Early Childhood Educator
- ☐ Youth service
- ☐ Mental health service
- ☐ Occupational Therapy
- ☐ Paediatrician
- ☐ School &/or education related service
- ☐ Speech pathology
- ☐ Other (Describe)
- ☐ Disability Service
- ☐ Cultural specific service
- ☐ None of the above
- ☐ Physiotherapy
- ☐ Maternal & Child Health Nurse
- ☐ Not needed
- ☐ Child Protection

Q15. In your opinion, in what way were the services more or less helpful in assisting the child's recovery from harms associated with serious neglect?

. The next four questions (Q.16-18) are about your opinion on children and recovery in general (not just about a particular child)

Q16. **Does knowing a child has experienced serious neglect influence how you care for the child on a day-to-day basis?** (Select one)

Not at all	A little	To some extent	A lot	A great deal
○	○	○	○	○

Q17. **What is it about your care of children who have experienced serious neglect that you believe makes a positive difference?**

Q18. **Which of these have been a major influence on how you care for children who have experienced serious neglect?** (if applicable)
[Select as many as relevant]

- ☐ Previous education
- ☐ Suggestions from specialists (Describe role)
- ☐ Suggestions from school or educational service
- ☐ Training &/or conferences
- ☐ Supervision and other conversations with Foster Care worker
- ☐ Your experience as a foster parent
- ☐ Your employment experience (Describe)
- ☐ What children have shown or told you
- ☐ Suggestions from a doctor or other health professional
- ☐ Your life experience
- ☐ Government policies and guidelines
- ☐ Suggestions from other foster parents
- ☐ Foster Care Agency policies and guidelines
- ☐ Evidence-informed practice (responding to child in line with a formal model of care supported by research)
- ☐ Internet &/or social media
- ☐ Your experience as a parent
- ☐ Books &/or articles
- ☐ Suggestions from parents of the children in your care
- ☐ Other research
- ☐ Suggestions from your friends &/or family
- ☐ Other (Describe)
- ☐ None of the above

Part C. This section asks background questions about your role

. This section asks background questions about your role as a foster parent

Q19. **How long have you been a foster parent?** (Select one)

Under 1 year	1-5 years	6-10 years	11-15 years	16-20 years	21-25 years	More than 25 years
○	○	○	○	○	○	○

Q20. **What cultural or ethnic group do you most identify with** (Optional)

Q21. **Which best describes the area you live in?**

- ○ City/urban area
- ○ Country town/rural area
- ○ Remote area

Q22. **Prior to completing this survey how frequently have you reflected on the question of how children recover from the impacts of neglect?** (Select one)

Not at all	To some extent	A lot
○	○	○

Part D. Seeking interest in focus group

. Are you interested in participating in a focus group with other foster parents?

Q23.
If interested in possibly participating in a focus group with other foster parents please select yes. If you select no, this is the final question.
Note: If you select Yes, the details you provide will be used to contact you regarding the focus group, not for data analysis. If you select Yes, you may still decline to be involved in the focus group when approached.
Note: If you select No or leave this question blank you will not be contacted, unless you contact the research team separately.

- ○ Yes
- ○ No

Q24. Please type your First and Last Name

First name

Last name

Q25a. Please type the best email address to contact you

Email address

Q25b. Please retype the same email address to confirm address

[This is the final question in the survey]

Confirm email address

Appendix 11

Organisations Asked to Participate in Survey Distribution

*Categories of Organisations Asked to Participate in Survey Distribution (*n *= 50)*	Directly approached	Agreed	Declined	No response
Aboriginal Community Controlled Organisation	1	1		
Community Service Organisation (including Out-of-Home Care)	6	4	1	1
Government Departments	4	2		2
Universities	4	3		1
Child and Adolescent Mental Health Services	6	0		1
Therapeutic services related to child abuse and neglect	11	8	1	2
Hospitals (not mental health)	1	1		
Discipline-specific networks	8	6	2	
Field or role specific networks or alliances	5	3		2
Trauma-related networks	4	3		1
Broad service system networks	2	2		

Note. Three organisations had separate services or networks under more than one category and are numbered under each relevant category.