



Brainwave[™]
build a lifetime in the first three years

Submission to the *Review of the Family Court*

Brainwave Trust Aotearoa

February 2012

Brainwave Trust Aotearoa (CC40312)
PO Box 55 206, Eastridge,
Auckland, 1146, New Zealand

Tel/Fax: (09) 528 2138
Email: brainwave@xtra.co.nz
Web: www.brainwave.org.nz

Table of Contents

1 Introduction 3

2 Key messages 3

Background Research..... 4

3 Early Brain Development..... 4

4 Risk and Protective Factors..... 5

5 NZ Statistics..... 6

Responses to Review Questions 6

6 Chapter 2: A Court Under Pressure6

7 Chapter 3: The Changing Family Court 8

8 Chapter 4: Focusing on Children..... 9

9 Chapter 5: Supporting Self Resolution..... 11

10 Chapter 6: Focusing on Alternate Dispute Resolution Services 11

11 Chapter 7: Entering the Court 11

12 Chapter 8: Pathways and Processes in Court 12

13 Conclusion..... 13

14 References 14

15 End notes 18

Contact Personnel

Sue Wright, Executive Director sue@brainwave.org.nz
Lope Ginnen, Chair lope.ginnen@xtra.co.nz
Keryn O’Neill, Researcher lee.keryn@xtra.co.nz

1 Introduction

- 1.1 Brainwave Trust Aotearoa is a registered charitable trust (CC40312), which disseminates information about the recent advances in understanding of brain development.
- 1.2 Brainwave Trust's purpose is to raise public awareness about recent multidisciplinary findings into brain development research and to educate everyone who has an impact on the early life of children about the important implications of this knowledge on our children's physical, social, intellectual and emotional development.
- 1.3 We make this submission to provide scientific evidence, from neuroscience as well as other biological and social sciences, to inform the discussion prompted by *Reviewing the Family Court, A Public Discussion Paper* dated 20 September 2011.
- 1.4 Brainwave can provide a more detailed verbal presentation to further explain this material.
- 1.5 This submission provides background information from relevant research prior to addressing the issues raised in the discussion paper.

2 Key messages

One day every child in New Zealand will get the best start in life because parents and the whole community understand the impact that early experiences have on the developing brain and ultimately on the healthy development of our society.

Brainwave Vision

- 2.1 Every infant needs the opportunity to develop a predictable, warm, loving, nurturing relationship with at least one adult in a parental role. To achieve this, a parent¹ needs to be physically and emotionally available to his or her infant and to provide a consistent, safe, secure environment that enables them to develop this relationship.
- 2.2 A parent needs to be equipped with the understanding and skills for the task of parenting. Positive parenting can be taught.

¹ The Trust recognises that not all children are raised by their parents but uses the term 'parent' throughout to refer to all those in a parental role, for example grandparents or extended family, who have the daily responsibility to raise and love a child. This is in order to differentiate from the generic term 'caregiver' which may create confusion with those who are paid to be in a child's life.

- 2.3 The barriers that inhibit the ability of some parents to develop this relationship need to be removed or minimised, for example poverty, family violence, drug and alcohol addiction, mental illness, and isolation.
- 2.4 Children who are vulnerable have brains that are wired up to deal with their negative environment (boys more frequently hyper alert, girls more frequently closing down and disconnecting perhaps to escape violence/abuse). They will often present at school ill equipped to learn or develop healthy relationships.

Background Research

3 Early Brain Development

- 3.1 All a baby's organs, other than the brain, are fully formed at birth. The most rapid period of brain growth occurs in the period from birth to approximately three years of age.¹ To illustrate, the brain has reached 80 – 90% of its adult volume by 2 years of age.²
- 3.2 The human genome is now understood to contain a set of possibilities which are expressed differently depending upon the experiences encountered.³
- 3.3 Brain plasticity enables the experiences a child has to influence their brain development.⁴ This plasticity can be a "double edged sword that leads to both adaptation and vulnerability."⁵ For example, chronic stress during these formative years can have potentially lasting impacts on memory, learning, physical and mental health.⁶ This can occur when the stress is ongoing or the child lacks adult emotional support.⁷
- 3.4 There are several possible mechanisms through which elevated levels of stress chemicals can impact brain development including loss of neurons, delays in myelination, and abnormalities in pruning.⁸
- 3.5 Infant brain development and the parent-infant relationship are interlinked. Brain growth and associated behavioural change is important to the development of the relationship, likewise the parent and the environment they create for the child has an impact on how the neurodevelopment proceeds.⁹ The security of a child's attachment to their parents, for example, is a strong predictor of their later school performance.¹⁰ It is also important for the development of the child's ability to regulate their emotions and relate to others.¹¹
- 3.6 A secure attachment and associated emotional development is the basis for other aspects of development. The increasing over-emphasis on very young children's academic skills relative to other domains may be detrimental to children's overall outcomes.¹²

4 Risk and Protective Factors

- 4.1 Most children are exposed to some combination of risk and protective factors.
- 4.2 Risk factors are conditions or events that temporally precede and increase the likelihood of a range of poor outcomes.¹³ These outcomes include learning and behavioural difficulties, substance use disorders, criminal offending and imprisonment, impaired physical and mental health, poor educational outcomes, and reduced employment opportunities.¹⁴ The notion of multifinality¹⁵ suggests that one factor will not lead to the same outcome for every individual. Risk factors operate cumulatively¹⁶ and it is the number of risk factors rather than the presence of a particular risk factor that increases the likelihood of poor outcomes.¹⁷
- 4.3 Examples of risk factors include maternal depression, alcohol in pregnancy, poverty, child maltreatment, emotional neglect, parental stress, and family violence.¹⁸ None of these determine that a given child will experience poor outcomes however each additional risk factor increases the likelihood of that occurrence.
- 4.4 Emotional neglect has been researched less than other forms of maltreatment, however it can have a greater adverse impact on children's outcomes than physical abuse or neglect, particularly when it occurs during the first two years of life.¹⁹ It occurs when parents are emotionally unavailable to their child and unresponsive to their emotional and attachment needs, despite perhaps adequately meeting other needs such as nutrition and medical attention. Emotional neglect can occur across the socio-economic spectrum (SES).
- 4.5 Protective factors lead to a higher likelihood of positive outcomes.²⁰ The cumulative effect of protective factors is important, as is the balance between the numbers of risk versus protective factors a child is exposed to.²¹
- 4.6 The key protective factor involves the child developing a secure attachment to their parent(s) during the early years.²² The security of this attachment depends upon both the quantity and quality of a parent's interaction with their child.²³ The security of the child's attachment can affect their emotional, psychological and cognitive development, with developmental and behavioural problems often having their origins in disturbances of this relationship.²⁴
- 4.7 Due to the interactions among risk factors, a reduction in some risks, even where other risks remain, may still make a substantial difference for children due to a reduced likelihood of synergistic effects.²⁵

5 NZ Statistics

- 5.1 NZ is currently ranked 28 out of 30 OECD countries in terms of outcomes for children across 20 dimensions of child outcomes.²⁶ NZ's youth suicide rate is the second highest of 13 OECD countries, both for young males and young females.²⁷ The teen pregnancy rate in NZ is the second highest in the OECD.²⁸
- 5.2 The financial cost of poor outcomes for children has been estimated at approximately 3% of GDP (approximately \$6 billion)²⁹ including health, welfare, remedial education, crime and justice, and lower productivity costs.
- 5.3 In terms of maltreatment, NZ is one of the few OECD countries where the number of children dying from intentional injury has increased since the 1980s.³⁰ NZ's rate of non-accidental death is 4 - 6 times higher than the average of other OECD countries.³¹ In the 2009/10 year, of over 55,000 notifications to Child Youth & Family requiring further action, almost 20,000 involving children from birth to 5 years of age.³²
- 5.4 In an OECD comparison of spending on parental leave per child as a percentage of GDP, NZ rated the lowest out of the 25 countries ranked.³³
- 5.5 Internationally NZ has the 8th largest proportion of under-3-year-olds in licensed childcare, out of 24 nations.³⁴ If attending childcare were the solution, NZ would be expected to be performing significantly better internationally than it currently does.
- 5.6 In light of these statistics, it cannot be an option to do no more than we are currently doing.

Responses to review questions

This submission does not attempt to answer every question posed in the discussion paper. Based upon the research summarised in the preceding sections Brainwave advocates the following:

6 Chapter 2: A Court under pressure

- 6.1 **Are the issues outlined in Chapter 2 the main issues facing the Family Court? If not, what other issues should we look at? Do you have any evidence to support your view?**
 - 6.1.1 The primary responsibility of parents is to ensure that their child has the ongoing opportunity to develop a secure relationship with at least one loving adult, in addition to ensuring their physical needs for safety, nutrition and general care are met. This can be challenging particularly for those who did not themselves receive adequate parenting in their early years.
 - 6.1.2 There are critical and sensitive periods in brain development during which rapid changes take place, and after which it becomes difficult to recapture those developments. The

creation of a secure attachment bond with a loving adult occurs during a critical and sensitive period in the first one to two years of a baby's life.

- 6.1.3 Care arrangements in infancy should support the growth and consolidation of the primary relationship and, where possible, at the same time allow for familiarity and growing attachment with the other parent.
- 6.1.4 An issue facing the Family Court is that the Court process is the same regardless of the age or development stage of the child, even though the detrimental impact of delay and/or exposure to negative experience is far greater for a child under the age of three than it is for older children. There is no formal expedited process for cases about young infants.
- 6.1.5 Another issue is that there is no easily identifiable process to review care arrangements in the first couple of years of a child's life to accommodate both the need for the infant to develop a primary relationship with a loving parent and the familiarity and growing attachment with the other parent. During this period of rapid brain development the best arrangement for the infant may well result in him or her spending far more time in the care of one parent rather than the other. A parent who agrees to such an arrangement to support a primary attachment with the other parent can be subsequently excluded from opportunities to develop *their* growing attachment relationship with their infant. Currently he or she has little recourse but to file fresh proceedings. The delays inherent in the current system do not inspire confidence that such an application will be dealt with within the infant's critical period of development, which can be a factor against parents agreeing to truly child focused care arrangements in the first place. The current system also invites re-litigation of all issues rather than providing a review process focused on adjusting arrangements to match an infant's development.
- 6.1.6 In Children, Young Persons & Their Families Act cases a six monthly review of plan does not meet the needs of very young infants, whose opportunity to form a secure attachment with a loving adult does not necessarily match the timeframes that his or her parents require to make the changes necessary to safely parent them or the formal Court review process.

6.2 **How can we better ensure that professionals working in the Family Court have adequate training? What changes are needed to the skills of people working in the Family Court?**

- 6.2.1 An essential element of training for all Family Court professionals is to ensure that they have a clear understanding about child development, particularly in the first three or so years of life; about how a child's early experiences can impact on their brain development with potentially life long consequences; and about how primary care and contact arrangements can impact (and in some cases imperil) the opportunity for an infant to form a secure attachment to at least one loving adult.

7 Chapter 3: The Changing Family Court

7.1 What do you consider are the most important social, economic and environmental changes that may affect the Family Court over the next five to ten years?

7.1.1 The NZ statistics set out above summarise the poor outcomes for NZ children on a number of indicators. It is predictable that change of a scale significant enough to improve these outcomes will take considerably longer than five to ten years to implement. In the meantime the Family Court must deal with an increasing number of children whose parents and families are ill equipped to provide adequate parenting or to navigate child focused decision making processes because of their own poor outcomes when they themselves were children.

7.2 Should any changes be made to the Family Court's current jurisdiction?

7.2.1 In paragraph 80 of the discussion paper there is a suggestion that all family violence cases should be heard in the District Court as part of its criminal jurisdiction. Such a change risks the emphasis shifting away from the welfare and interests of the child to the interests of the adult litigants. There is specialist expertise in the Family Court to deal with the complexities of care arrangements for children exposed to family violence. Parents accused of violence in Family Court proceedings do not necessarily face criminal sanctions. If family violence cases are dealt with in the criminal jurisdiction there is a disincentive to admit to wrongdoing, which can obscure or delay gathering the necessary facts to protect children and/or establishing safe ways for children to maintain their relationship with their parent.

7.2.2 Any changes to the Family Court jurisdiction should enhance the ability of the Family Court to respond quickly and effectively to disputes about the care arrangements for very young children, for example by freeing up judicial resource or implementing complimentary processes.

8 Chapter 4: Focusing on Children

8.1 What measures do you think could be used to manage and reduce conflict between parents following separation?

- 8.1.1 Increased education could be made available about the impact on the developing brain that prolonged exposure to conflict can have. Learning that excessive levels of the 'stress hormone' cortisol can interfere with the developing brain (and in some cases may cause irreversible structural changes) can trigger protective action by a parent, or by extended family members.
- 8.1.2 Implementation of a process that fosters understanding of the process of attachment in the very early years and that enables a carefully managed review process during the early years of infant development could reduce parental conflict.
- 8.1.3 The definition of a child in need of care and protection includes when serious differences between parents (or guardians or other caregivers) of a child exist to such an extent that the physical, mental or emotional wellbeing of the child is being seriously impaired - s14(1)(h) Children, Young Persons & Their Families Act 1989. This is the case for children of all ages but the research shows that the potential for harm to the developing brain requires intervention for young infants of highly conflicted parents to occur far sooner than it currently does.

8.2 What criteria could be used to decide whether and when to appoint lawyer for child? What are the main tasks that lawyers for children should undertake in proceedings?

- 8.2.1 In paragraph 103 of the discussion paper there is reference to confusion about whether a lawyer for child should advocate for the child's views, their best interests or a combination of the two. The balance of the discussion about the role of lawyer for child primarily addresses the role of ascertaining and/or advocating a child's views. This submission focuses on the role to advocate the best interests of an infant, who is too young to verbally express a view.
- 8.2.2 An important function of lawyer for child (or other appropriately trained professional) to advocate for a pre-verbal child's interests, particularly their need to have an opportunity to form a secure attachment with at least one adult and for impediments to that opportunity to be minimised or removed. Given the critical and sensitive period of brain development that enables the formation of such attachments early appointment of lawyer for child is recommended in disputes about infants under the age of three, and is considered essential for babies under a year old. Lawyer for child also has a role to ensure that proceedings progress within appropriate timeframes.

8.3 What changes, if any, do you consider are necessary to clarify the welfare and best interests of the child principle in the Care of Children Act, for

example should principles such as the 'delay', 'no order' or 'finality' principle be introduced?

8.3.1 A new principle should be introduced to the Care of Children Act: *"that the child in his or her early years should have an ongoing opportunity to develop a secure attachment to at least one parent or other primary caregiver."*

8.3.2 Any other changes, deletions or additions to the principles must take into account child and infant developmental needs.

8.4 How else might more certainty be achieved in law when making care arrangements for children? What might be the risks and benefits of any of the proposals or suggestions you have made?

8.4.1 In paragraph 112 of the discussion paper it is suggested that there be provisions in the law to act as a starting point for decision making. Any formulaic approach to care arrangements for children risks overlooking a child's developmental and individualised needs.

8.4.2 As identified in the footnote to the suggestion that a child spend equal shared time between parents as a starting point, some research literature advises against such a presumption as it can increase the mental health risks for children, particularly when the parents are in conflict or when the children are very young.

8.4.3 In the third bullet point there is the suggestion of "standard parenting orders based on psychological, developmental and social evidence about what care arrangements work best for children at a particular age that may be modified to a child's particular circumstances. Standard orders could be made for three groups: preschool, school and secondary school children and tailored to the individual child's and family's circumstances."

8.4.4 An approach based on psychological, developmental and social evidence is supported, as is acknowledgement of a differential response for different age groups. However discussion of this particular option must consider that within the preschool age there are very different and critical periods of brain development in the very early years (for example the opportunity to develop a secure attachment relationship in the first one to two years of life, discussed above) compared with the developmental needs of a three or four year old.

8.4.5 Such an approach must also accommodate the correct (and swift) identification of who an infant's primary attachment relationship is with and what is required for this individual child within this individual family to be able to secure that attachment relationship. Expert assistance at this stage (for example from a psychologist with a brief focused on just this question) is recommended.

9 Chapter 5: Supporting Self-Resolution

9.1 Provision and delivery of information/parenting through separation programmes/accreditation of lawyers who specialise in family law

- 9.1.1 Information provided to participants in the Family Court process should include information about infant brain development, particularly information about how early experiences impact on infant brain development; about critical and sensitive time periods of brain development; and the critical importance of the development in the first one to two years of a secure attachment relationship with at least one parent or other primary caregiver.
- 9.1.2 The Parenting through Separation programme (and any other programme developed to deliver information to parents) should provide the above information, as well as strategies that separated parents can engage to positively foster their infant's developmental needs.
- 9.1.3 Any accreditation process for family lawyers should include demonstration by the family lawyer of a clear understanding of the above information.

10 Chapter 6: Focusing on Alternative Dispute Resolution (ADR) Services

- 10.1 Any ADR service that is developed must consider how the process will ensure that the outcomes meet the developmental needs of the child or infant. This is particularly so if the process doesn't include provision for independent advocacy on behalf of the child, which can often happen if a child is too young to express a view. There is a risk that a mediated settlement in relation to a young infant may meet the needs of the adult participants (for example an adult need to achieve closure or a "fair" outcome), but overlook the infant's need to develop a secure primary attachment relationship.

11 Chapter 7: Entering the Court

11.1 Should all Family Court applications be screened to determine their appropriate pathway? What kind of skills and training should the person carrying out the screening have?

- 11.1.1 If a screening process is adopted, any case involving a dispute about the care arrangements for a child under the age of three years old should be placed in an urgent or intensively managed track (as should cases involving family violence or care and protection issues for children of all ages). The risk of harm to infant brain development should conflicted care arrangements not be resolved swiftly, or should the infant lose an opportunity to form a secure attachment to at least one loving adult, is such that an urgent or intensively managed track is necessary.

11.1.2 It is essential that the person carrying out the screening has skills, training and experience in child development and infant brain development (including an understanding of attachment theory) and an understanding of the dynamics of child neglect and family violence.

12 Chapter 8: Pathways and processes in the Court

12.1 How can we help people with complex social needs? Are proceedings in the Family Court the right response or should social agencies be involved?

12.1.1 Consideration should be given to a specialist response for cases involving infants. Some overseas jurisdictions have piloted programmes where the Court partners with other government and community agencies (notably organisations with infant mental health expertise) to support an outcome where infants can safely remain with a parent. For example Dr Deborah Weatherston of the Michigan Infant Mental Health Association spoke at the 2012 Infant Mental Health Association Aotearoa NZ (IMHAANZ) conference about the 'Baby Court' model developed in Michigan.

12.2 How might specialist information for the Court be more targeted, focused and timely? What criteria might be used to decide whether to request a specialist report?

12.2.1 An important role for a specialist report writer is to assess the primary attachment relationship for an infant so that care arrangements can be implemented to support the security of that relationship during the critical stages of infant brain development. There are some suggestions about the process in the interdisciplinary journal *Family Court Review's* July 2011 special edition: "*Attachment Theory, Separation and Divorce: Forging Coherent Understandings for Family Law*":
<http://onlinelibrary.wiley.com/doi/10.1111/fcre.2011.49/issue-3/issuetoc>

12.2.2 A report from an appropriately skilled attachment theory specialist addressing this single issue can focus decision making for infants in a timely and ultimately cost effective manner and, importantly, contribute to an outcome that is developmentally appropriate and enhances the long term welfare of a child.

13 Conclusion

- 13.1 Research from multiple disciplines indicates the importance of a positive start during pregnancy and the early years in order for children to have healthy outcomes across the life span. Central to this positive start is the need for all infants and children to have the opportunity to develop a secure attachment with their parents as a foundation for their future development. A range of Government actions are needed to truly acknowledge and support the primacy of this parent-child relationship.
- 13.2 Attempts to improve outcomes for NZ children require sustained effort along two parallel paths. First, greatly improved support to all infants and their parents, to improve outcomes at the population level, and secondly, prompt identification and effective interventions for those children at heightened risk and their family/whanau. The Family Court has a significant role in both paths.
- 13.3 Any change considered for the Family Court process must address how the change in law or process will impact on a child's development, particularly infant brain development and the need to develop a secure attachment with a parent or other primary caregiver.
- 13.4 It will need to be a long-term approach, and the full benefits are unlikely to be seen for some years, however failure to do so will result in high rates of children continuing to experience a variety of preventable poor outcomes, with huge associated costs at the individual and societal level.

14 References

- Baker, M., Gruber, J., & Milligan, K. (2008). Universal Child Care, Maternal Labor Supply, and Family Well-Being. [Article]. *Journal of Political Economy*, 116(4), 709-745.
- Bedford, M., & Sutherland, K. (2008). Early childhood education in New Zealand: Do we have a runaway train? *The First years: Nga Tau Tuatahi New Zealand Journal of Infant and Toddler Education* 10(1), 38-42.
- Bennett, J. (2008). *Early Childhood Services in the OECD Countries: Review of the Literature and Current Policy in the Early Childhood Field*. UNICEF Retrieved from http://www.unicef-irc.org/publications/pdf/iwp_2008_01_final.pdf.
- Boden, J. M., Fergusson, D. M., & Horwood, L. J. (2010). Risk factors for Conduct Disorder and Oppositional/Defiant Disorder: Evidence from a New Zealand birth cohort. *Journal of the American Academy of Child and Adolescent Psychiatry*, 49(11), 1125-1133.
- Calam, R., Sanders, M. R., Miller, C., Sadhnani, V., & Carmont, S. A. (2008). Can technology and the media help reduce dysfunctional parenting and increase engagement with preventative parenting interventions? *Child Maltreatment*, 13(4), 347-361.
- Campbell, F. A., Wasik, B. H., Pungello, E., Burchinal, M., Barbarin, O., Kainz, K., . . . Ramey, C. T. (2008). Young adult outcomes of the Abecedarian and CARE early childhood educational interventions. *Early Childhood Research Quarterly*, 23, 452-466.
- Carroll-Lind, J., & Angus, J. (2011). *Through their lens: An inquiry into non-parental education and care of infants and toddlers*. Wellington, NZ: Office of the Children's Commissioner Retrieved from www.occ.org.nz/publications.
- Chaffin, M., Silovsky, J. F., Funderburk, B., Valle, L. A., Brestan, E. V., Balachova, T., . . . Bonner, B. L. (2004). Parent-Child Interaction therapy with physically abusive parents: Efficacy for reducing future abuse reports. *Journal of Consulting & Clinical Psychology*, 72(3), 500-510.
- Child Poverty Action Group. (2011). *Left Further Behind: How Policies Fail the Poorest Children in New Zealand*. Auckland, NZ: Child Poverty Action Group Retrieved from www.cpag.org.nz.
- Clarke, S. H., & Campbell, F. A. (1998). Can intervention early prevent crime later? The abecedarian project compared with other programs. *Early Childhood Research Quarterly*, 13(2), 319-343. doi: 10.1016/s0885-2006(99)80042-8
- Cohen, N. J., Lojkasek, M., Muir, E., Muir, R., & Parker, C. J. (2002). Six-month follow-up of two mother-infant psychotherapies: Convergence of therapeutic outcomes. *Infant Mental Health Journal*, 23(4), 361-380. doi: 10.1002/imhj.10023
- Cohen, N. J., Muir, E., Lojkasek, M., Muir, R., Parker, C. J., Barwick, M., & Brown, M. (1999). Watch, wait, and wonder: Testing the effectiveness of a new approach to mother-infant psychotherapy. *Infant Mental Health Journal*, 20(4), 429-451.
- Dalli, C., White, E. J., Rockel, J., Duhn, I., Buchanan, E., Davidson, S., . . . Wang, B. (2011). *Quality early childhood education for under-two-year-olds: What should it look like? A literature review*. Wellington, NZ: Ministry of Education Retrieved from www.educationcounts.govt.nz/publications.
- Davies, E., Rowe, E., & Hassall, I. (2011). Preventing neglect of children in their early years: Some thoughts on action. *Social Work Now*, 48, 3-9.
- Dawson, G., Ashman, S. B., Panagiotides, H., Hessler, D., Self, J., Yamada, E., & Embry, L. (2003). Preschool outcomes of children of depressed mothers: Role of maternal behavior, contextual risk, and children's brain activity. *Child Development*, 74(4), 1158-1175.
- De Bellis, M. D. (2005). The psychobiology of neglect. *Child Maltreatment*, 10(2), 150-172.
- Doyle, O., Harmon, C. P., Heckman, J. J., & Tremblay, R. E. (2009). Investing in early human development: Timing and economic efficiency. *Economics and Human Biology*, 7, 1-6.
- Dunlap, G., Strain, P. S., Fox, L., Carta, J. J., Conroy, M., Smith, B. J., . . . Sowell, C. (2006). Prevention and intervention with young children's challenging behavior: Perspectives regarding current knowledge. *Behavioral Disorders*, 32(1), 29-45.

- Egeland, B. (2009). Taking stock: Childhood emotional maltreatment and developmental psychopathology. *Child Abuse & Neglect, 33*, 22-26.
- Eyberg, S. M., & Bussing, R. (2010). Parent-child interaction therapy for preschool children with conduct problems. In R. C. Murrihy, A. D. Kidman & T. H. Ollendick (Eds.), *Clinical Handbook of Assessing and Treating Conduct Problems in Youth* (pp. 139-162): Springer Science + Business Media.
- Families Commission. (2011). *Teenage Pregnancy and Parenting*. Wellington, NZ: Retrieved from www.nzfamilies.org.nz.
- Fearon, R. P., Bakermans-Kranenburg, M. J., van IJzendoorn, M. H., Lapsley, A. M., & Roisman, G. I. (2010). The significance of insecure attachment and disorganization in the development of children's externalizing behavior: A meta-analytic study. *Child Development, 81*(2), 435-456.
- Fergusson, D. M., Boden, J. M., & Hayne, H. (2011). Childhood Conduct Problems. In P. Gluckman & H. Hayne (Eds.), *Improving the Transition: Reducing Social and Psychological Morbidity During Adolescence* (pp. 59-78). Auckland, NZ: Office of the Prime Minister's Science Advisory Committee.
- Fergusson, D. M., Horwood, L. J., Grant, H., & Ridder, E. M. (2005). *Early Start Evaluation Report*. Christchurch, NZ: Early Start Project Ltd Retrieved from <http://www.earlystart.co.nz/pdf/evalreport.pdf>.
- Fergusson, D. M., McNaughton, S., Hayne, H., & Cunningham, C. (2011). From evidence to policy, programmes and interventions. In P. Gluckman & H. Hayne (Eds.), *Improving the Transition: Reducing Social and Psychological Morbidity During Adolescence* (pp. 287-300). Auckland, NZ. Retrieved from www.pmcsa.org.nz.
- Fergusson, D. M., Stanley, L., & Horwood, L. J. (2009). Preliminary data on the efficacy of the Incredible Years Basic Parenting Programme in New Zealand. *Australian and New Zealand Journal of Psychiatry, 43*, 76-79.
- Gluckman, P., Low, F., & Franko, K. (2011). Puberty and adolescence: Transitions in the life course. In P. Gluckman & H. Hayne (Eds.), *Improving the Transition: Reducing social and psychological morbidity during adolescence* (pp. 19-34). Auckland, NZ: Office of the Prime Minister's Science Advisory Committee. Retrieved from www.pmcsa.org.nz.
- Graham-Bermann, S. A., Gruber, G., Howell, K. H., & Girz, L. (2009). Factors discriminating among profiles of resilience and psychopathology in children exposed to intimate partner violence. *Child Abuse & Neglect, 33*, 648-660.
- Gutman, L. M., Sameroff, A. J., & Cole, R. (2003). Academic growth curve trajectories from 1st Grade to 12th Grade: Effects of multiple social risk factors and preschool child factors. *Developmental Psychology, 39*(4), 777-790.
- Harold, G. (2011). Families and children: A focus on parental separation, domestic violence and child maltreatment. In P. Gluckman & H. Hayne (Eds.), *Improving the Transition: Reducing social and psychological morbidity during adolescence*. Auckland, NZ: Office of the Prime Minister's Science Advisory Committee.
- Hosking, G., & Walsh, I. (2005). *The WAVE Report 2005: Violence and what to do about it*. Surrey, UK: WAVE Trust Retrieved from www.wavetrust.org.
- Infometrics Ltd. (2011). *1000 days to get it right: The effectiveness of public investment in New Zealand Children*. Retrieved from http://www.everychildcounts.org.nz/_w/wp-content/uploads/2011/08/ECCInfometricsInvestmentinchildrenAug11.pdf.
- Jacob, J. I. (2009). The socio-emotional effects of non-maternal childcare on children in the USA: A critical review of recent studies. *Early Child Development & Care, 179*(5), 559-570. doi: 10.1080/03004430701292988
- Knickmeyer, R. C., Gouttard, S., Kang, C., & et al. (2008). A structural MRI study of human brain development from birth to 2 years. *The Journal of Neuroscience, 24*(47), 12176-12182.
- Loeb, S., Bridges, M., Bassok, D., Fuller, B., & Rumberger, R. W. (2007). How much is too much? The influence of preschool centers on children's social and cognitive development. *Economics of Education Review, 26*(1), 52-66. doi: 10.1016/j.econedurev.2005.11.005

- Loeber, R., Burke, J. D., & Pardini, D. A. (2009). Development and etiology of disruptive and delinquent behavior. *Annual Review of Clinical Psychology, 5*, 291-310. doi: 10.1146/annurev.clinpsy.032408.153631
- Lupien, S. J., McEwen, B. S., Gunner, M. R., & Heim, C. (2009). Effects of stress throughout the lifespan on the brain, behaviour and cognition. *Nature Reviews: Neuroscience, 10*, 434-445.
- Mardani, J. (2010). *Preventing Child Neglect in New Zealand*. Wellington, NZ: Office of the Children's Commissioner Retrieved from www.occ.org.nz/publications.
- McCain, M. N., Mustard, J. F., & Shanker, S. (2007). Early Years Study 2: Putting science into action Retrieved from cecd_general@councilecd.ca
- Mental Health Commission. (2011). *A Literature Review: Prevention and Possibilities*. Wellington, NZ: Mental Health Commission Retrieved from <http://www.mhc.govt.nz>.
- Ministry of Social Development. (2011a). *The Green Paper for Vulnerable Children: Every child thrives, belongs, achieves*. Wellington, NZ: Ministry of Social Development Retrieved from <http://www.msd.govt.nz/documents/about-msd-and-our-work/work-programmes/policy-development/green-paper-vulnerable-children/green-paper-for-vulnerable-children.pdf>.
- Ministry of Social Development. (2011b). *The Statistical Report for the Year Ending June 2010*. Wellington, NZ: Ministry of Social Development, Retrieved from www.msd.govt.nz.
- Morton, S. M. B., Atatoa Carr, P. E., Bandara, D. K., Grant, C. C., Ivory, V. C., Kingi, T. R., . . . Waldie, K. E. (2010). *Growing Up in New Zealand: A longitudinal study of New Zealand Children and their families. Report 1: Before we are born*. Auckland: Growing Up in New Zealand Retrieved from <http://www.growingup.co.nz/media/12254/growing%20up%20in%20new%20zealand%20before%20we%20are%20born%20nov%202010.pdf>.
- Moss, E., St-Laurent, D., Dubois-Comtois, K., & Cyr, C. (2005). Quality of attachment at school age. In K. A. Kerns & R. A. Richardson (Eds.), *Attachment in Middle Childhood* (pp. 189-211). New York, NY: The Guilford Press.
- Muennig, P., Schweinhart, L., Montie, J., & Neidell, M. (2009). Effects of a prekindergarten educational intervention on adult health: 37 year follow-up results of a randomized controlled trial. *American Journal of Public Health, 99*(8), 1431-1437.
- National Scientific Council on the Developing Child. (2005). Excessive Stress Disrupts the Architecture of the Developing Brain: Working Paper #3.
- Niccols, A. (2007). Fetal alcohol syndrome and the developing socio-emotional brain. *Brain and Cognition, 65*(1), 135 - 142.
- OECD. (2011). Family database: Key characteristics of parental leave systems. Retrieved from <http://www.oecd.org/dataoecd/45/26/37864482.pdf>
- Olds, D. L. (2008). Preventing Child Maltreatment and Crime with Prenatal and Infancy Support of Parents: The Nurse-Family Partnership. [Article]. *Journal of Scandinavian Studies in Criminology & Crime Prevention, 9*, 2-24. doi: 10.1080/14043850802450096
- Olds, D. L., Kitzman, H., Hanks, C., Cole, R., Anson, E., Sidora-Arcoleo, K., . . . Bondy, J. (2007). Effects of nurse home visiting on maternal and child functioning: Age -9 follow-up of randomized trial. *Pediatrics, 120*(4), e832-e845.
- Owens, E. B., & Shaw, D. S. (2003). Poverty and early childhood adjustment. In S. S. Luthar (Ed.), *Resilience and vulnerability: Adaptation in the context of childhood adversities* (pp. 267-292). Cambridge, UK: Cambridge University Press.
- Parsons, C. E., Young, K. S., Murray, L., Stein, A., & Krangelbach, M. L. (2010). The functional neuroanatomy of the evolving parent-infant relationship. *Progress in Neurobiology, 91*, 220-241. doi: 10.1016/j.pneurobio.2010.03.001
- Rutter, M. (2011). Biological and experiential influences on psychological development. In D. P. Keating (Ed.), *Nature and Nurture in Early Child Development* (pp. 7-44). New York, NY: Cambridge University Press.
- Sameroff, A. J. (2009). The transactional model *The transactional model of development: How children and contexts shape each other* (pp. 3-21). Washington, DC: American Psychological Association.

- Sameroff, A. J., Gutman, L. M., & Peck, S. C. (2003). Adaptation among youth facing multiple risks: Prospective research findings. In S. S. Luther (Ed.), *Resilience and vulnerability: Adaptation in the context of childhood adversities*. Cambridge, UK: Cambridge University Press.
- Sanders, M. R., & Morawska, A. (2010). Prevention: The role of early universal and targeted interventions. In R. C. Murrihy, A. D. Kidman & T. H. Ollendick (Eds.), *Clinical Handbook of Assessing and Treating Conduct Problems in Youth* (pp. 435-454): Springer Science+Business Media. doi: 10.1007/978-1-4419-6297-3_17
- Sanders, M. R., Stallman, H. M., & McHale, M. (2011). Workplace Triple P: A controlled evaluation of a parenting intervention for working parents. *Journal of Family Psychology, 25*(4), 581-590.
- Sattler, J. M. (2008). *Assessment of Children: Cognitive Foundations* (5th ed.). San Diego, CA: Jerome M. Sattler, Publisher, Inc.
- Schore, A. N. (2000). Attachment and the regulation of the right brain. *Attachment and Human Development, 2*(1), 23-47.
- Schore, A. and McIntosh, J. (2011). *Family Law and the Neuroscience of attachment*, Part I. *Family Court Review, 49*:501-512. doi10.1111/j.1744-1617.2011.01387.x
- Scott, S., Sylva, K., Doolan, M., Price, J., Jacobs, B., Crook, C., & Landau, S. (2010). Randomised controlled trial of parent groups for child antisocial behaviour targeting multiple risk factors: the SPOKES project. *Journal of Child Psychology & Psychiatry, 51*(1), 48-57. doi: 10.1111/j.1469-7610.2009.02127.x
- Shonkoff, J. P., & Phillips, D. A. (2000). *From Neurons to Neighborhoods: The Science of Early Child Development*. Washington, DC: National Academy Press.
- Stanley, P. (2008). The new multi-ministry response to conduct problems. *Kairaranga, 9*(1), 13-19.
- Twardosz, S., & Lutzker, J. R. (2010). Child maltreatment and the developing brain: A review of neuroscience perspectives. *Aggression and Violent Behavior, 15*, 59-68.
- UNICEF. (2008). *The Child Care Transition, Innocenti Report Card 8*. Florence, Italy: UNICEF Innocenti Research Centre.
- Waldegrave, C., & Waldegrave, K. (2009). *Healthy Families, Young Minds and Developing Brains: Enabling all children to reach their potential* Wellington, NZ: Families Commission Retrieved from www.nzfamilies.org.nz.
- Webster-Stratton, C. H., & Reid, M. J. (2010). The incredible years program for children from infancy to adolescence: Prevention and treatment of behavior problems. In R. C. Murrihy, A. D. Kidman & T. H. Ollendick (Eds.), *Clinical Handbook of Assessing and Treating Conduct Problems in Youth* (pp. 117-138): Springer Science + Business Media.
- Welsh, B. C., Sullivan, C. J., & Olds, D. L. (2010). When early crime prevention goes to scale: A new look at the evidence. *Prevention Science, 11*, 115-125.
- Yates, T. M., Obradovic, J., & Egeland, B. (2010). Transactional relations across contextual strain, parenting quality, and early childhood regulation and adaptation in a high-risk sample. *Development and Psychopathology, 22*, 539-555.
- Zigler, E., & Styfco, S. J. (1994). Is the Perry preschool better than Head Start? Yes and no. *Early Childhood Research Quarterly, 9*, 269-287.

15 End Notes

¹ Rutter, 2011

² Knickmeyer, Gouillard, Kang, & et al, 2008

³ Sameroff, 2009

⁴ Parsons, Young, Murray, Stein, & Kringelbach, 2010

⁵ Shonkoff & Phillips, 2000

⁶ Twardosz & Lutzker, 2010

⁷ National Scientific Council on the Developing Child, 2005

⁸ De Bellis, 2005

⁹ Parsons et al., 2010

¹⁰ Moss, St-Laurent, Dubois-Comtois, & Cyr, 2005

¹¹ Schore, 2000

¹² Clarke & Campbell, 1998

¹³ Loeber, Burke, & Pardini, 2009; Lupien, McEwen, Gunner, & Heim, 2009

¹⁴ Ministry of Social Development, 2011a

¹⁵ Cicchetti & Rogosch, 1996

¹⁶ Boden, Fergusson, & Horwood, 2010; Hanson & Carta, 1996; Sameroff, 2000

¹⁷ Belsky & Fearon, 2002; Egeland, 2009; Gutman, Sameroff, & Cole, 2003; Loeber et al., 2009; Nelson, Stage, Duppong-Hurley, Synhorst, & Epstein, 2007; Sameroff et al., 2003; Watamura, Phillips, Morrissey, McCartney, & Bub, 2011

¹⁸ Boden, Fergusson, & Horwood, 2010; Dawson et al., 2003; Egeland, 2009; Graham-Bermann, Gruber, Howell, & Girz, 2009; Niccols, 2007; Owens & Shaw, 2003; Sameroff, Gutman, & Peck, 2003; Yates, Obradovic, & Egeland, 2010

¹⁹ Egeland, 2009

²⁰ Gutman, Sameroff, & Cole, 2003; Loeber et al., 2009; Owens & Shaw, 2003

²¹ Cicchetti & Valentine, 2006, cited by Egeland, 2009

²² Bowlby, 1969, cited by Fearon, Bakermans-Kranenburg, van IJzendoorn, Lapsley, & Roisman, 2010

²³ Bowlby, n.d. cited by Schore, 2000

²⁴ Shonkoff & Phillips, 2000, cited by UNICEF, 2008

²⁵ Rutter, 2011

²⁶ Infometrics Ltd, 2011

²⁷ <http://socialreport.msd.govt.nz/health/suicide.html>

²⁸ Families Commission, 2011

²⁹ Infometrics Ltd, 2011

³⁰ Child Poverty Action Group, 2011

³¹ Harold, 2011

³² Ministry of Social Development, 2011b

³³ OECD, 2011

³⁴ UNICEF, 2008