



From the Chair

This last month I have been unwell. Not a major illness – just a painful and difficult broken arm, requiring surgery. The Brainwave team has been fantastic, carrying on without me, and I thank them for that.

I am sharing this with you because it has been a marvelous reminder about a few issues children, and some adults, face all the time – powerlessness and vulnerability.

It only took a dumb fall to turn my life upside down; suddenly I'm dependent on others. I hate it. And the brain changes that have gone along with it have been amazing. Just a few nights in hospital and I find myself inarticulate and unassertive in the face of authority. All of a sudden my normally reasonably competent and relatively confident brain has gone to pieces. My cortex has gone missing and my limbic system is in overdrive. I'm unable to get my needs met.

It really has made me stop and think about children. So often they are dependent and vulnerable and have so little control over their lives. No wonder they act like children.

This newsletter features articles from two of our talented presenters who have brought the focus back onto our vulnerable and dependent little ones; putting them where they should be, at the center of the issue. How do they learn, and how can we support this time of development – calmly.

I write this on the eve of the launch of the Families Commission research project "healthy families, young minds and developing brains: enabling all children to reach their potential". This report serves to highlight that while the majority of New Zealanders are raising their children in a loving, supportive, nurturing environment, there are a large number of families where children are growing up in an atmosphere of abuse, neglect and violence.

Children are most vulnerable to damage before the age of three. Having a caring and supportive family who provide consistency and stability can make a difference to their futures. They depend on us.

Brainwave depends on others too. By now most will be aware of the impact that the global recession has had on the funder trusts and the impact this is having on many local charities. But the current economic downturn can still provide opportunities for giving and generosity. With this newsletter we have included a donation envelope because we know we can make a little go a long way. Please help us ensure that our committed people continue to reach more New Zealand families.

Sue Younger



Take a Deep Breath

Sometimes it's not so much children's behaviour that's a problem, but rather our reactions to it.

Writing about the massive importance of staying calm during family interactions is really easy when my house is empty and quiet, but in practical terms, it's as much of a struggle for this mother as it is for most.

What helps is a basic knowledge of the science around staying calm, why it's so important for children to learn to do so: their emerging ability to regulate begs for chilled-out interactions.

Also, knowing a couple of simple techniques for staying calm helps the process of parenting more than anything else I can think of.

A new study from Zero to Three (an education and advocacy group from the USA) used surveys with parents to unpack attitudes and experiences regarding behaviour and children. The results of the study seem to align with the anecdotal evidence I've gathered from parents in New Zealand, through questions during presentations and the many chats afterward.

Even more telling than the list of things creating parental disharmony (tantrums, problems with sharing; both examples of typical and healthy behaviour for those under three, but that's another story!) is the fact that so many parents describe "having trouble controlling their own anger" (as cited in Zero to Three's paper) as one of the most difficult aspects of parenting. One of the cornerstones of Brainwave's work is Bruce Perry's neurosequential model. This gives us a tool for understanding the impact of stress on brain function, for making sense of the intrinsic knowledge most of us seem to have about how much harder it is to be calm and rational during stressful times.

And most people I've asked seem to agree: parenting small children, dealing with the financial and practical realities of running a home, even something as seemingly straightforward as attempting to have a brief telephone conversation while a child is in the house (the constant interruptions! The misbehaviour! Aaargh!) ... these are stressful occurrences.

In neurobiological terms, it seems that stress hormones, especially cortisol, make it harder

to access our cortexes. It's as though our mammalian brain usurps our Homo sapiens brain, albeit temporarily. Homo sapiens = the Wise Ones, so wise parenting decisions must be made here!

So how do we get back into our cortexes? How do we regain the benefits of our wise brains, enabling us to see child behaviour for what it is, for example limit testing as a healthy way of asserting independence, difficulties with sharing as a typical response from a still-egocentric being – instead of as a crazy-making, nerve-shredding, straw-that-breaks-the-parent's-back?

Breathe in. Breathe out. Repeat.

Deep, abdominal breaths not only help in re-oxygenating the cortex, supporting the reclamation of control by Homo sapiens, but slow, calm breaths also disrupt the cycle of stress as controlled by the Vagus Nerve, linking the brain stem to heart, stomach and lungs.

Conscious breathing is the best parental advice I know of – not only will it support an adult's ability to respond to children's challenging behaviour using knowledge instead of impulses and emotions; it helps us to find a calmer tone, and it sets our children a powerful example of how to respond to frustration. Any behaviours we exhibit with consistency, our children will absorb and reflect back to us. Patterned neuronal activity meets common sense.

My goal, then, housed in my cortex, is to respond to frustration with an elongated sigh followed by some smooth, deep breaths – rather than the yelling, door slamming and foot stamping my lower brain longs for. Wish me luck.

To read the study from Zero to Three:

http://www.zerotothree.org/site/DocServer/29-3_Parlakian.pdf?docID=8261

For more about stress response systems:

<http://www.managingstress.com/articles/physiology.htm>
<http://www.fi.edu/learn/brain/stress.html>

Miriam McCaleb BTchLn, DipT-ECE
Brainwave Trust Presenter

Paediatric Perspective

Implicit in the Brainwave message about how our brains are 'wired' according to our early childhood experiences, is the idea that much of the crime in society could be eliminated if all children had an equal start in life.

If we could ensure that our infants were all nurtured and loved and were raised in households without poverty, violence, neglect and abuse, so that their brains became wired in a positive fashion, we might be able to avoid much of the criminal and violent offending in society.

This idea was one of many in the exploration of what causes the crime in our society at the recent ministerial meeting (Drivers of Crime) organised by the Hon. Simon Power, Minister of Justice, and the Hon. Dr Pita Sharples, Minister of Maori Affairs. In their brief to invited participants they acknowledged the need for a new approach to dealing with offending and victimisation in NZ; instead of responding to crime after the event, looking to prevent it happening in the first place.

Over 100 participants from around NZ were invited to meet and listen to each other's perspectives. Experts as well as people at the coalface from many areas; prevention, intervention, research, academia, medicine,

education, sociology, corrections, the courts, youth workers, parliament and officialdom, met and were asked not only to provide opinion but also listen to other perspectives with an open mind.

The meeting was introduced by a thought provoking lecture by Prof. Richie Poulton who heads an ongoing longitudinal study in the Dunedin Multidisciplinary Health and Development Unit. In his address, 'Drivers of Crime: What Can the Evidence Tell Us?' Prof. Poulton identified many predictors (the usual suspects), but only four causal factors that can influence a person's propensity for criminal behaviour; heritability, maternal mental health, childhood maltreatment and poverty.

The subsequent group discussions unearthed 2 main points. Firstly there is no one simple answer to this issue, and the interplay of factors stemming from family, community and educational environments drives crime. In addition, alcohol and drug use, mental health issues and the justice system's response to crime all contribute further. The second point was that these drivers of crime are the same for Maori and non-Maori. However the common risk factors such as poverty, transience, young mothers, solo parenting have a higher prevalence in Maori and the issues of colonisation and the Treaty processes were thought to have played an important role in Maori over-representation in crime statistics. Comment was made about the fact that although these drivers of crime are the same, the responses to these may be different for

Maori and other cultural groups. This means that consideration needs to be given to Maori ownership, voice and whanau concepts when finding solutions.

While not a driver of crime, the media were singled out as contributing to the public perception of crime by over-sensationalising. In addition it was noted that Government policies are often fragmented and lack commitment to long-term approaches. The work that needs to be done to restore communities, to improve and support parenting and nurturing skills will not see the full effect for a generation – the equivalent of many election-cycles!

It was heartening as a Brainwave Trust participant to see that the Brainwave message is reaching many people. (One important theme to emerge was the failure to provide the right environment to enable children to thrive and be nurtured as an important driver of crime.) Other themes included poor parenting, abnormal attachment, deficient education, disconnectedness from society, lack of family, cultural, community support structures. It was also heartening to have a government initiative focusing on prevention of crime in this way, but it remains to be seen what is done with what seemed a universal acknowledgment of the drivers of crime and a universal will to find a solution. Submissions have been made, and a further report will emerge. Hopefully some Government action will follow. Watch this space!

**Dr Simon Rowley MBCHB, FRACP (Paed.)
Trustee, Brainwave Trust**

From the Executive Director

We continue to achieve a lot with little. My meetings with funders and philanthropic trusts are frequently interspersed with reminders of the impact the global recession has on charities and the funds available for distribution. While we constantly look at ways to streamline our already efficient processes we also celebrate our successes and are grateful for the dedicated professionals who contribute to Brainwave pro bono or at much reduced rates. Last year we increased our presentations by almost 50% to over 300 and, more importantly, we established or strengthened important relationships with NGOs and politicians that will assist that momentum.

We sent out a challenge to all MPs last June, that if they intended to make any single decision which might affect the first three years of a child's life, it was their responsibility to familiarise themselves with the internationally accepted research that underpins our message.

One presentation was to then Opposition MP, Paula Bennett. Our message had such an impact that following her appointment as Minister for Social Development, Minister Bennett asked us to return and present to a further group of around 20 of her colleagues. Minister Judith Collins continues to take an active interest in our work in the women's prisons. It is exciting and inspiring to know that the importance of the first three years, as evidenced by the neuroscience, will be factored into the government's thinking.

We welcome the report from the Families Commission "healthy families, young minds and developing brains: enabling all children to reach their potential" (which is available on <http://yesvote.org.nz/files/2009/04/developing-brains-in-young-children.pdf>.) You may recall an article in our last issue which sparked discussion about the "other brain drain"; not referring to the migration of Kiwi ingenuity overseas, but to the number of children who each year are deprived of the opportunity to reach their potential through abuse or neglect by the people who should love and care for them. Both these pieces of research show that these children are more likely to become a significant drain on our economic growth through lack of productivity and become major consumers of

welfare, health and criminal justice budgets. Heckman, a Nobel prize-winning economist, demonstrates a very clear diminution of benefit the later the intervention; he suggests the average rate of return for an investment in the school years is less than half that gained by investing in the preschool years. This and other research clearly highlights the need to focus our attention, and our policies, on the first few crucial years of life.

Late last year, we added a new DVD to our collection of resources. This 15 minute DVD is aimed at parents and looks at how loving relationships in the first three years of life affect brain development. It contains simple, evidence-based information for families that can have profound implications for the future of their children. The DVD has been well received by parents and communities from a wide range of backgrounds with its valuable and consistent messages appealing to and benefiting all. We have 500 copies available free to parents and organisations in the Auckland and Northland areas. We are grateful to ASB Community Trusts for providing these free copies in their catchment area. Please contact Sandie on sandie@brainwave.org.nz if you would like to order copies. This parent focused DVD will be available throughout New Zealand from July.

I would like to finish by acknowledging the wonderful support we have received from the following organisations. Without this and the support of a wonderful group of individual sponsors, Brainwave Trust would struggle to continue. We are very grateful for their commitment and support which enables us to deliver our information into the communities:

The ASB Community Trust, JR McKenzie Trust, Tindall Foundation, Fletcher Trust, New Zealand Lottery Grants Board, East Auckland Zonta, United Way, Beef & Lamb New Zealand, SPARC Active Movement, Auckland Airport Community Trust, COGS, Kiwi Community Trust, Southern Trust, The Sir Thomas and Lady Duncan Trust, Gen-I, The First Sovereign Trust, Gwen Malden Charitable Trust, Canterbury Community Trust and Lion Foundation.

**Kim van Duiven
Executive Director**

Learning is Child's Play

The message that the first few years of life are extremely important for brain development is becoming more widely known. What may be less clear is how to put this knowledge into practise.

Parents wanting to give their child the best start are faced with a huge variety of choice and much commercially-driven pressure to ensure that their child makes the most of this developmental opportunity. The bewildering number of toys and activities currently available for our babies and young children is enough to send parents' cortisol levels into orbit. And that's before the credit card bill arrives.

Children need stimulation, but as with many things, moderation is key. More is not necessarily better. Many children today are at risk of being over-stimulated or over-scheduled and this can actually impede rather than encourage their optimal brain development.

During the first years of a child's life it is play, not scheduled instruction, which contributes the most to brain development (Frost, 1998). We don't need to formally "teach" our young children in order for them to learn. Children have their own interests and by being supported to follow these they are likely to be getting the stimulation that they need. Play provides a wonderful opportunity for parent and child to have fun together, deepening their relationship. Children also need opportunities for some play on their own. This provides many opportunities to develop their imagination, problem-solve and develop other skills that are less likely to develop in adult-directed play. At times, boredom may provide the impetus for the child to make their own discoveries and create their own fun, fantastic life skills and great stimulation for a growing brain. Simple toys that allow children to use their imagination and creativity have many benefits over the endless plastic creations currently

available (Ginsburg, 2007). Blocks, play dough, a sandpit, versatile dress-ups (as opposed to Disney inspired ones), crayons and paper provide endless options. Household objects such as boxes, blankets, pots and pans can also provide many hours of fun and learning. The toys and activities that offer the most stimulation for a growing brain often don't have the "educational" label on them!

Learning and brain development is not limited to toys and activities specifically created for children, but also by following their interests in participating in the real world. Household activities that most adults consider work are also rich with opportunities for learning. Hanging out the washing, baking, grocery shopping and weeding the garden provide many opportunities for exploration and learning - and while the task inevitably takes longer, it can be much more fun for the adult too.

Everyday life is full of naturally occurring learning opportunities. Watching the rubbish truck, road works, rain going down the drain, or a rainbow, can capture the interest of a child when shared with a parent. Take time to stop, observe, and talk with your child about the things happening around them, and when possible move on only when your child's interest is waning. Be confident in the knowledge that you have just provided them with the stimulation they need, and it didn't cost a cent!

Rich sensory experiences that are so vital for optimal brain development are readily available in nature. Playing with the sand at the beach, feeling the bark on trees, smelling flowers, or listening to birds singing, enjoyed with a loving parent all provide stimulation prompting brain



connections to form. Sensory experiences can be a messy business and children benefit from being able to enjoy such experiences fully, without anyone worrying about the washing!

Playful, creative children who have had plenty of unscheduled, non-screen (TV, computer etc) time for play throughout their early years are more likely to arrive at school with their natural curiosity intact and a strong desire to learn that will benefit them more than those whose infancy and pre-school years have been filled with scheduled activities and little time for play.

Keryn O'Neill, MA Psych
Brainwave Presenter

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Presentations Update June 2009

Demand continues for Brainwave Trust presentations around the country. With our new and busy presenters in Wellington, Hawke's Bay and the Far North these areas are now being well serviced. We welcome our new Dunedin based presenter, Marcia Cassidy, who is ready to start presenting in the Otago region. Please contact us to make a booking for your group if you are in this area.

After months of searching for the right, motivated and passionate people to train for the Hamilton area, we finally have three potential presenters. By the time this goes to print they should be ready to take bookings from parent groups and agencies in the Waikato region.

We are continuing to deliver our Brainwave sessions to mothers in prisons. Auckland presenter, Wendy Nelson, is managing this Auckland based session funded by Zonta East Auckland. She is getting valuable feedback from the women she is working with. This is a project dear to our hearts and is well received by the mothers we work with. Their evaluations of the presentations inform us how understanding our message helps them make different choices about their parenting. We are also grateful to the Sir Thomas and Lady Duncan Trust for funding to further develop this programme and deliver to all three women's prisons later this year.

We have almost completed a contract with the Ministry of Social Development for 24 presentations, 2 at each of the Child Youth and Family Centres for staff, foster caregivers and local community partners. We are very excited to be working in partnership with CYF to deliver this important information to those who work directly with the children and families most at risk.

One of the most common pieces of feedback we receive is that our information about infant brain development should be a part of the school curriculum and be taught to teens before they become parents. We could not agree more and this has been on our wish list for many years! Excitingly, Brainwave has been invited to work on a trial programme for an Auckland school - the pilot programme will be delivered to a year 7/8 class and a year 13 class later this term. We will keep you updated with this project's progress.

Brainwave presenters have already been booked to deliver training sessions and keynote addresses at many conferences and staff professional development courses this year. If you are organising one of these then please consider booking one of our excellent presenters to deliver a Brainwave session as a part of your programme. Contact Jane Valentine-Burt on jane@brainwave.org.nz or ph. (09) 416 5385, mobile 0274 444 104 or go to www.brainwave.org.nz

Jane Valentine-Burt
Presentation Coordinator

Growing Up in New Zealand



About four years ago, a group of policy makers were talking about child health and development in New Zealand. The more they talked, the more they realised that there was no across-the-board information covering all aspects of a child growing up in 21st century New Zealand.

And so, the idea for a new longitudinal study was born. The result is Growing Up in New Zealand, a longitudinal study of 7,800 New Zealand-born children starting from before they are born and running until they are about 20 years old.

Growing Up in New Zealand is designed to get good information about raising happy, healthy children so we can improve the lives of all New Zealand children. It will provide a better understanding of the early pathways that lead to distinct developmental outcomes for this generation of children.

This research is unique in New Zealand as it is the first longitudinal study to start collecting information about children before their birth, and also the first to interview the child's father (or mother's partner) as well as the mother.

It also aims for proportionate representation of European, Maori, Pasifika, Asian and other ethnic groups to reflect the wide cultural diversity of New Zealand's children and their families.

The research asks questions about health and wellbeing, family/ whanau, education, psychological & cognitive development, the neighbourhood and environment and culture & identity so that holistic information about children in the context of their families and community can be gathered.

Every year, the child's parents (mother, father or parent's partners) will be interviewed to get a better understanding of the range of influences on their child, which over time, have an impact on it. When the child is old enough, he or she will be interviewed too.

Support for Growing Up in New Zealand has been great. Already 2,400 women have registered to be part of the study, and their partners are taking up our invitation to become involved in Growing Up too. So far, 70% of dads and partners have become participants and are adding that important second parent perspective to their child's development.

We are also very fortunate to have outstanding support from many community organisations and health professionals working with pregnant women. So many of these organisations have told us that they see Growing Up in New Zealand as a practical way to improve the lives of this generation of New Zealand children and update the 37-year old Dunedin and Christchurch studies, which have demonstrated how valuable longitudinal studies are for policy.

If you, or anyone you know is expecting a baby before 25 December this year, and lives in the Auckland, Counties-Manukau or Waikato DHB regions, we would love you to be a part of Growing Up in New Zealand. Your age, relationship status, baby's birth order, ethnicity or any other factors do not have any effect on you or your baby taking part in Growing Up in New Zealand. Every pregnant woman is invited to take part.

For more information, or to enrol, you can call us free on 0508 476946 or go online at www.growingup.co.nz.

**Dr Susan Morton is the Director of Growing Up in New Zealand
Brainwave Trust Committee Member**

From Brainwave Canterbury

It has been a positive start to 2009 for the Canterbury Brainwave team. We have been delighted with the success of two local funding applications; our thanks to the Southern Trust for much needed new equipment for presentations and to Canterbury Community Trust for funding our local part time administrator.

We continue with Project Outreach, a multifaceted programme designed to deliver the Brainwave Trust message to those most in need of receiving it in our area.

Strategic alliances with several government agencies have been strengthened because we believe that our success to date would not be possible without the support and help we receive from these associations. Nor without the financial support we receive from funders and individuals whose belief in what we do makes our goal of reaching out to communities and families at risk, achievable.

**Emma Harrington
Canterbury Administrator**

Book Review



Attachment Focused Parenting: Effective Strategies for Care for Children

Daniel A. Hughes - Published by
WW Norton & Co

Daniel Hughes, respected psychologist and attachment specialist, explains in this latest work how, in attachment focused parenting, a parent uses the unique knowledge that emerges from her relationship with her child as a guide to child rearing. He describes the nature of this relationship based knowledge and the factors that are central to its development. Parents, caregivers and practitioners are offered strategies, tools and techniques to facilitate secure attachment - the essential foundation to the healthy parent-child relationship.

Hughes proposes an attitude of "Connection versus Correction"; an idea that might evoke in the reader a sense of relief that raising a child can be a loving, co-operative process of shared experience and attunement. To some parents, it may seem more like a daunting battle-field of discipline and hard work, interspersed with some feel-good times.

He helps us to better appreciate that the parent-child relationship is a two-way interaction, with each being greatly influenced and affected by the other. According to Hughes, latest research indicates parents are wise to walk with, rather than stand above, their children while guiding them through developmental processes that will lead to a coherent life.

Hughes discusses the importance of inter-subjectivity; joining the child in his experience, experiencing it with him, matching his affective state, and exploring the experience with him to better make sense of it ... "this is where the mind and the heart meet". He also stresses the relevance during the adolescent years of having developed this ability to attune to the inner world of your child and provides an invaluable roadmap to effectively love, discipline and communicate with children, irrespective of age.

Readers are challenged to examine their own attachment history which inevitably impacts upon the way in which they interact with their own offspring. Insights and questions are offered to facilitate this process.

In this work, Hughes endeavours to "build a bridge from the vast body of knowledge emerging from neuroscience and child development research to child rearing principles and interventions." He describes ways to set limits, provide guidance and manage the responsibilities and difficulties of daily life, while at the same time communicating safety, fun, joy and love.

**Angela Marriott
Canterbury Chairperson**

Making a Donation

Would you like to make a donation, small or large, to assist us with our work?

Please check our website, www.brainwave.org.nz (under the "make a donation" button on the main menu) or call **09 528 3981** or email us, for details.

Receipts will be issued - donations are tax deductible.

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