



Abstracts of Plenary and Session Presentations

DAY ONE Thursday, 18th February

Keynote Address:

Infants and Young Children as Makers of Meaning About Themselves in Relation to People, Things and Themselves

Edward Z Tronick, PhD

Infants and children are makers of meaning about themselves in relation to people, things and themselves. The meanings they make shape their developmental pathways for good or ill mental health. But unlike adults who make symbolic meanings infants meanings are emotional and somatic. Using video tapes of infants and children making and failing to make meaning, including infants and children in the still-face paradigm and playing games, we will explore the consequences for typical and atypical development, culture and the effects of stress and psychopathology.

The Neurobiology of Parent-Infant Attachment in Normative and High Risk Development

Ruth Feldman, PhD

The parent-infant bond provides the foundation for children's social, emotional, and cognitive growth. Processes of bond formation are expressed in unique parental behaviors that involve the parent's close adaptation to the infant's non-verbal cues and are supported by specific physiological systems. In this talk, I will describe the parent-infant behavioral repertoire and interaction synchrony and its contribution to infant development across childhood and adolescence. Recent findings from our lab on the neuropeptide Oxytocin (OT), which has repeatedly been implicated in processes of bond formation in mammals, and its involvement in human attachment will be presented, including the assessment of OT across pregnancy, comparison of mothers and fathers at the transition to parenthood, the effects of parent-infant touch on OT release, and the disruptions to the oxytocinergic systems in cases of maternal postpartum depression. These data highlight the involvement of OT in human attachment, the associations between OT and parent-infant synchrony and touch, and the cross-generation transmission of the neurobiology of parenting. Three high-risk conditions that disrupt the bonding process by reducing maternal availability to the infant are examined as unique windows to assess the effects of maternal deprivation on the neurobiology of attachment: (a) prematurity, (b) maternal post-partum depression, and (c) war-related trauma. I will present longitudinal data demonstrating the effects of each condition on

maternal and infant physiology, the mother-child relationship, and the infant's emotion regulation. Finally, I address the role of touch in the formation of attachment relationships by presenting results from a 10-year longitudinal study on the effects of skin-to-skin contact (Kangaroo Care) during the neonatal period on the development of premature infants. The talk concludes by discussing the implications of early maternal unavailability on the child's capacity for social affiliation throughout life and the relevance of the findings for the development of specific interventions in infancy.

Mothers, mirrors and reflective functioning: trauma in early infant-parent relationships

Louise Newman, FRANZCP

Early relational trauma impacts infant psychosocial and neurobiological development. Parents with unresolved traumatic experiences and conflicts regarding the self-as-parent may experience fundamental difficulties in 'reading' and responding to the emotional communication of their infant and in reflecting on the inner world or subjectivity of the infant. These distortions of early mirroring and emotional interaction result in confusing experiences for the infant, of being 'misunderstood' or 'misperceived', and if persistent, disrupt early development of the self. Parents with a background of attachment-related trauma may also re-enact past trauma in the relationship with the infant who may be identified with past traumatic attachment figures. Reflective capacity and the capacity to understand the infant's emotional world is also disrupted by past trauma suggesting that this should be a focus for therapeutic intervention with high risk dyads.

Watch, Wait and Wonder – the space for developing parental reflection to promote change

Denise Guy, MBChB, FRANZCP

A significant 'road' to ensuring social, emotional and behavioural change for symptomatic infants and preschoolers is to promote their developing a secure attachment. Parental reflective capacity has emerged as the most significant factor underlying the parent's ability to support this for their child. Interventions utilising the research on reflective capacity, reflective function and mentalisation are demonstrating effectiveness beyond that achieved by a focus on improving parental sensitivity. The understandings from this research can be utilised to improve intervention outcomes as will be discussed with reference to a child-led dyadic intervention that deliberately creates a space for thinking about the minds of others and is known to improve the security of attachment.

DAY TWO Friday 18th February

Plenary Presentation:

"Fetal Origins" of Infant Mental Health Disorders

Barry Lester, PhD

Advances in biology have changed the way we think about infants at risk. We learned from the "fetal origins" literature that nutritional compromise in utero is associated with adult metabolic and other disorders and there is increasing evidence for similar associations with mental health disorders. Although fetal programming processes are thought to be involved, the specific mechanisms are not known. The heuristic model presented here suggests one pathway for understanding how altered fetal programming results in the later development of mental health disorders. Drawing from work on the effects of prenatal cocaine exposure, the model suggests that prenatal stress alters the expression of key placental genes that affect the fetal neuroendocrine system through epigenetic mechanisms. The combination of this biological embedding of prenatal insult with an environmentally toxic postnatal environment creates chronic wear and tear on the neuroendocrine system resulting in the development of behavior disorders.

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The Development and Validation of an Intervention to Prevent Early Conduct Problems: The Family Check Up

Daniel Shaw PhD

The talk will begin with a review of theoretical and empirical work on pathways of early-starting conduct problems, highlighting findings from the author's own 20-year longitudinal study of toddlers at risk for early-starting pathways and convergent findings from other relevant studies. Next, the chasm between basic research and translating this knowledge to the world of prevention science will be discussed, including the inherent challenges in using knowledge gained from basic research in real world settings. The final part of the talk will introduce the Family Check Up as a vehicle for bridging this chasm and creating the climate of change for families with young children at high risk for early-starting pathways. Findings from two longitudinal trials examining the efficacy of the Family Check Up will be presented, including expected and unexpected collateral effects on child and parent outcomes.

Effectiveness of early parenting interventions for child problem behaviour: Translating research evidence into the real world

Frances Gardner PhD

This talk will examine the extensive evidence base from many countries for the effectiveness of early parenting programmes: for whom do they work and how, for what problems, in what contexts; to what extent do they work in 'real world' service settings, with diverse cultures, and with disadvantaged and marginalised populations? Can evidence-based parenting interventions be taken 'to scale'? What are some of the challenges and possibilities in trying to do this? The talk will draw on Professor Gardner's experience of conducting randomised controlled trials of parenting interventions for preventing and treating conduct problems in various service contexts in England, Wales and the USA, as well as literature from other parts of the world.

Parent-Child Interaction Therapy

Cheryl McNeil, PhD

Early intervention for children with severe behavior problems has been found to improve their long-term outcomes. This workshop describes Parent-Child Interaction Therapy (PCIT), an intervention that has documented effectiveness for helping parents manage aggression and defiance in young children (2 to 7 years). PCIT is unique in that it is a short-term parent training approach that involves direct coaching of parent-child interactions. Parents receive immediate feedback in such areas as praising appropriate behavior, interacting at the child's developmental level, ignoring inappropriate behavior, giving good instructions, and teaching children to stay in timeout. In PCIT, behavioral techniques are integrated with traditional play therapy skills to enhance parent-child relationships. This workshop will appeal to mental health professionals who work with physically abusive parents and/or preschoolers from various cultural backgrounds who are overactive, defiant, and aggressive.

“Children Born Very Preterm: A Double Hazard Population”

Lianne Woodward, PhD

Approximately 1-2% of live births are very preterm (<32 weeks' gestation), and with advances in medical care the majority of these infants now survive (> 85%). In contrast, morbidity rates have not improved with more than 50% of very preterm survivors subject to later, clinically significant, neurodevelopmental challenges that impact a child's school progress and life course opportunities. This aim of this presentation is to provide an overview of recent Australasian and international research developments relating to the longer term challenges that children born very preterm and their families may face, as well as the clinical, neurological and socio-contextual processes that contribute to later risk. The importance of a developmental perspective will be emphasised as well as the need to recognise the double, biological and social, hazard nature of this population.

Fueling Preterm Infant Development Through Family-Based Interventions in the NICU

Rosemarie Bigsby, ScD, OTR/L, BCP, FAOTA.

The Neonatal Intensive Care Unit (NICU) presents unique challenges for preterm infants, as well as for every member of the care team, especially parents. In this presentation, a psychosocially-based model of care will be discussed. This contextual model for intervention acknowledges the occupational roles, developmental tasks and cultural expectations for infant, parent and staff alike, all of which influence our ability to optimize development for fragile infants. Strategies for enhancing parent participation in developmental assessment and evidence-based interventions will be presented, including early initiation of nurturing touch and breastfeeding. Advantages of and issues arising from the recent move from open-bay to single-family room NICU environment will also be discussed.

Who Owns This Baby?

Louise Webster MBChB, FRANZCP, FRACP(Paed) Toni Shepherd NZDB, B.Com, Grad Dip Psych. NZAP, MNZAC, Waka Oranga and Leah K. Andrews M.B., Ch.B., FRANZCP, PG Cert Clin Ed

Neonatal medicine and the care of very sick preterm babies has advanced significantly in the past 20 years, with increased survival rates of very low birth-weight infants who would previously have died. The importance of 'family centred care' and the placing of the infant and family at the centre of the care process has also received increasing recognition in recent years, with most New Zealand NICUs aiming to provide family centred care. There are however many obstacles to this process, and many parents still talk of feeling that their baby does not belong to them during neonatal care. NICU staff may find it more challenging to engage in family centred care with indigenous families and immigrant families, particularly when those families are having to manage other stresses and disadvantages in addition to the birth of a preterm infant.

In this presentation we review the development of family centred care and discuss the issues that make this challenging for services to deliver in the current environment. We also discuss issues that are important to indigenous families who are parenting a preterm infant in a NICU.

DAY THREE Saturday 20 February

Plenary Presentation:

Infant Development, Environment and Lifestyle (IDEAL) Study: Impact of Prenatal Methamphetamine Exposure on Child Development

Linda LaGasse, PhD

Methamphetamine (MA) use is a world-wide public health problem with recent reports of approximately 250 million users, exceeding cocaine and heroin combined. MA use among pregnant women is of great concern because little is known about the impact of MA on the fetus. We are conducting the first prospective, longitudinal study (IDEAL) of MA use and child outcome from birth to age 3 years in the US and Auckland, NZ. The purity of MA, health care, financial supports, and mandatory child removal for prenatal drug use differ between the US and NZ and offer an opportunity to determine how the child rearing environment may shape

development of MA exposed children. Despite greater adversity reported by US versus NZ mothers, we find no increase in medical problems or birth defects in MA exposed newborns and a similar pattern of subtle neurobehavior deficits associated with MA exposure. By age 3 years in the US cohort, there are no deficits associated with MA exposure on developmental status, language, motor performance or behavioral problems. But these null results may be deceiving! In our study of cocaine exposed children, we observed relatively few effects in the first 3 years, but during school age, cocaine exposed children had more IQ deficits, special education, externalizing behavior and psychopathology. These findings could reflect brain maturation of areas initially affected by prenatal exposure but may also result from vulnerable children growing up in adverse environments. The IDEAL study provides a means to untangle exposure from environment to develop effective interventions in children with prenatal drug exposure.

Promoting the early identification of infants and toddlers with an Autism Spectrum Disorder

Cheryl Dissanayake, PhD.

A brief overview of the evidence on the signs of autism in infancy will be given based on the results of retrospective home video and parent report studies, as well as from prospective studies of high risk infant siblings and the few available community-based studies. Although to date no primary level instrument has proved sufficiently robust to recommend universal screening, it will be argued that the problem lies in the approach of using a one-off screen at a given age. A developmental surveillance approach, where infants are monitored regularly throughout their first two years for the development of early social attention and communication behaviours by primary health care professionals will be recommended. The results from a large community based study in Melbourne using this approach will be reported which has resulted in an 81% ascertainment rate for ASD, with the remaining children (with one exception) either having a developmental and/or language delay. The need for education on the early signs of autism of primary care professionals will be emphasized, as the value of early identification and intervention cannot be underestimated.

Psychiatric Evaluation of Children with Autism Spectrum Disorders

Todd Levine, MD.

Children with Autism Spectrum Disorders (ASDs) are recognized as having multiple behavior problems including those related to attention, disruptive behaviors, and anxiety. Reducing these symptoms is important to maximizing learning and functional potential in these children. However, understanding psychiatric problems in the context of children with deficits in communication and socialization, along with repetitive behaviors and interests, provides particular challenges, especially in very young children. We will explore how psychiatric symptoms may present differently in children with ASDs and how to categorize them to help in treatment planning. We will also discuss the importance of delineating symptoms of ASDs from co-occurring disorders. Therapeutic options will be explored, including medication strategies.

Identification of autism in infants and toddlers: clinical approach and research strategies

Steve Sheinkopf, PhD

While the presentation of autism is highly atypical and readily identifiable by early childhood, the disorder can be subtle in its presentation during the toddler period. Despite recent advances, it has been especially difficult to identify very early signs of autism in infancy. This has significant implications for both clinical practice and research. The nature of autism's early presentation, coupled with individual differences in early development complicate differential diagnosis in the toddler period. The identification of signs of autism in early infancy has been particularly challenging. Early indicators of social functioning have been found by late in the first year of life, but remain quite elusive in infants under 6 months of age. This lecture will review approaches to early diagnosis in toddlers, as well as novel approaches to studying potential signs of autism in early infancy. Videotape examples of infants and children with autism, as well as those with typical development, will be used

to illustrate important concepts. Preliminary results from ongoing research on autism in early infancy will also be reviewed.

"Awhitia ngā Hākuitanga Hākorotanga: Cherishing the living breath of our ancestors." A Māori mana-enhancing and practical tuakana-teina parent coaching programme, aimed at treating severe behavioural difficulties in very young children.

Tania Cargo, MA, PGDipClinPsych Lyn Doherty, Judyth Hilton, Ann Taiapa-Johnson

The importance of the earliest relationship between parents and infants is well documented in Māori history. Literature from the early 1800's reveals how highly valued Māori babies and very young children were in whānau, whilst oral histories and whakataukāki provide evidence of cultural values associated with early parent-infant relationships. "*Nā te moa i takahi te rātā: the young rātā when trodden on by a moa will never grow straight*" is a whakataukāki which illustrates the importance of the earliest relationship and demonstrates the long term consequence of abusive early parenting. In Aotearoa today most Māori babies grow up in mana-enhancing whānau where they are nurtured into happy, healthy, fully contributing adults. Unfortunately there is also a disproportionate number of our whānau who are struggling and under resourced, whose beautiful Māori babies are being diagnosed with a variety of "disruptive behavior disorders" which often predict a negative future pathway, if effective interventions are not implemented early. During this presentation you will hear about my PhD research "Awhitia ngā Hākuitanga Hākorotanga", which aims to support our most vulnerable Māori parents and their infants through a mana-enhancing, sensitive-responsive, practical tuakana-teina parent coaching programme. Come along to share the kōrero o mua, kōrero whakakakata me kōrero pono.

Pacific Islands Families Study Symposium: Aspects of Mental Health

Janis Paterson, PhD, Gerhard Sundborn, PhD, El-Shadan Tautolo

The Pacific Islands Families Study (PIF) is a large scientifically and culturally robust longitudinal study that is following a birth cohort of approximately 1000 Pacific children and their families in order to track child and family development and wellbeing. To date, parent and child assessments have been carried out at 6-weeks, 12-months, 24-months, 4-years and 6-years of age. The overall aim of the PIF study is to determine the pathways leading to successful adaptation as the cohort and their families negotiate critical developmental transitions, notably the key developmental stages of infancy and childhood, transitions to early education and school, and the influence of the socio-cultural context and family environment on Pacific children. The rich longitudinal PIF data, provides a unique opportunity to examine multiple exposures on a range of health and developmental outcomes, contributing significantly to public health and environmental epidemiology and the health of New Zealand children. In this presentation we will (1) give an overview of the PIF Study, (2) present findings in the areas of postnatal depression, child behaviour problems, mental health of Pacific fathers, and (3) describe future directions as the children in the cohort develop towards adolescence

Now we know what works in perinatal and infant mental health, what next?

Colin Hamlin, Senior Advisor, Policy and Service Development, NZ Ministry of Health

Sally Merry, MBChB, FRANZCP, MD

This presentation describes the way the New Zealand Ministry of Health, informed by evidence of what works, is considering perinatal and infant mental health and development. It also looks at where perinatal and infant mental health fits with Government health priorities and suggests a way forward for service development in the current economic environment.