Bumps, Babies and Beyond

DECEMBER 2014

A message from our lead investigator, Dr Delyse Hutchinson…

How Triple B is tracking: In 2014 we finalised all assessments on the Triple B Study. With over 1,600 families participating from NSW and WA, this was a major achievement. I once again want to say how truly grateful we are to have had so many generous families giving their time and energy through their involvement in the project.

In this newsletter we have updates on recent research findings from the project. This includes work from doctoral students and staff. Topics under study include: infant cognition and prenatal alcohol exposure; alcohol use while breastfeeding; infant sleep and mothers' wellbeing; and mother-infant bonding.

Preschool follow-up: Thank you to the families that were part of our age three preschooler follow-up. We have assessed approximately 100 families. Unfortunately we were not awarded government funding from the NHMRC this round and so will be unable to offer this assessment to all study families. However, if your child is turning three years of age in the next six months and you are interested in having a developmental assessment, please contact Ingrid Honan via i.honan@unsw.edu.au. Ingrid is a neuropsychology student on the project. As part of her doctoral work she will be following up a larger subsample of eligible families. Details of Ingrid's work on establishing Australian standards for assessing early child development are included in this newsletter.

Primary school follow-up: The next major developmental transition the study children will go through will be starting primary school. This can be both an exciting and challenging time for children and their parents, with many new learnings and developments. We intend to apply for research funding to continue to follow up the children at age six years. We shall keep you all informed about whether we are awarded funding to start this new assessment. Better understanding of child development and resilience through these early years will have important implications for health promotion and early intervention.

In 2016 we are planning to conduct a small pilot study with the first children to reach six years. We may be in touch with some of you over the coming months if you have a child who has just turned six years, or who will be six in 2015. We are planning to conduct another child development assessment with a summary report for families to keep. More details are provided at the end of this newsletter.

Findings to date: Over the last year our findings have been presented at conferences both in Australia and internationally. A summary of some of these findings is provided on pages two and three of this newsletter. We look forward to presenting more exciting results from Triple B with many important questions being currently investigated

On behalf of our entire research team we wish you and your family all the very best for the upcoming holiday season.

Warm regards,
Dr Delyse Hutchinson
Developmental Clinical Psychologist and Senior Research Fellow

Prenatal Alcohol Exposure and Infant Cognition

Clare McCormack is a PhD student investigating alcohol use in pregnancy and later infant cognitive development. This year she presented findings in Europe at the Annual Alcohol Epidemiology Symposium of the Kettil Bruun Society, as well as at a number of local Symposiums. In a subsample of 500 participants she found:

- Around two-thirds of women consumed some alcohol during pregnancy, though this consumption was usually at low levels (less than seven standard drinks per week, and no more than two standard drinks per occasion).
- Women who drank alcohol tended to be older, have higher levels of education and were from higher income families than those who did not drink.
- Alcohol consumption at low levels during pregnancy was not related to infant cognitive development at 12 months of age, after taking other factors into account, such as income, education, age and IQ of mothers.

These results are preliminary, and it is important to note that the National Health and Medical Research Council guidelines state: "for women who are pregnant or planning a pregnancy, not drinking is the safest option".

The next step will be to consider the influence of alcohol consumption by partners; to examine alcohol consumption prior to awareness of pregnancy; and to include our full number of families.

Alcohol Consumption and Breast Feeding

Dr Judy Wilson completed an article examining alcohol use during the breastfeeding period in over 400 participants. The study found that:

- 90% of women breastfed their babies for at least the first eight weeks after birth; most of these women (61%) consumed alcohol during this period.
- Alcohol consumption was generally low, averaging less than the equivalent of two glasses of wine per week.
- The vast majority (95%) of women used one or more strategies designed to minimise any alcohol passed onto their infants via breastmilk, such as waiting until after feeding to drink, or using formula or expressed milk if they had consumed alcohol.
- Low-level alcohol consumption during breastfeeding, when combined with strategies to reduce alcohol in breastmilk, did not have adverse effects on infants' cognitive, social or physical development at 8 weeks or 12 months.

We hope to extend this research in the future to examine the effects of heavier drinking during the breastfeeding period on infants' behaviour and development.

Mother-Infant Bonding

Larissa Rossen is a PhD student studying the mother-infant bond. Larissa recently presented findings at local Symposiums on her work examining predictors of the mother-infant bond 8 weeks after birth. Results indicated that:

Investigator team

Professor Richard Mattick
Professor at the National Drug and Alcohol Research Centre, University of New South Wales

Doctor Delyse Hutchinson
Senior Research Fellow at the National Drug and Alcohol Research Centre, University of New South Wales

Professor Steve Allsop
Director at the National Drug Research Institute, Curtin University of Technology

Professor Jake Najman
Director at the Queensland Alcohol and Drug Research and Education Centre, University of Queensland

Professor Elizabeth Elliot
Professor of Paediatrics and Child Health, University of Sydney

Associate Professor Lucy Burns
Associate Professor at the National Drug and Alcohol Research Centre, University of New South Wales

Doctor Sue Jacobs
Visiting Medical Officer Obstetrics and Gynaecology at Royal Prince Alfred Hospital Women and Babies

Professor Craig Olsson
Professor at the Murdoch Childrens Research Institute at The Royal Children's Hospital and the Centre for Mental Health and Wellbeing Research,
Deakin School of Psychology

Professor Anne Bartu
Professor at the School of Nursing and Midwifery, Curtin University of Technology

- Mothers who reported symptoms of depression in trimester 3 subsequently reported poorer mother-infant bonding at 8 weeks post-birth.
- The stronger the bond between a mother and her developing fetus during pregnancy, the stronger the mother-infant bond at 8 weeks post-birth.

Australian research indicates that antenatal depression is experienced by around 9% of women so it is important to monitor symptoms of depression, particularly during pregnancy. The research also supports the importance of promoting bonding early in pregnancy. Next Larissa's PhD will look at parent-infant bonding at age 12 months.

Early Infant and Maternal Sleep Patterns

Hannah Fiedler works on the Triple B Study as part of the Doctorate of Clinical Psychology program. Hannah's thesis aims to examine the sleep patterns of Australian infants from birth to 12 months, and to examine the relationship between maternal mental health and infant sleep patterns. Early results show that:

- As infants progress through the first year of life, there is a gradual reduction in the frequency and duration of sleep.
- Mothers generally rate their infant's sleep as positive.
- Mothers who rate their infants sleep positively also rate their own sleep more highly. This relationship was weakest from birth to 8 weeks, when there is a lot of variability in sleep patterns and routines are not yet established.

Next the research will investigate the relationship of infant sleep with development in: cognitive, physical and socio-emotional functioning at 12 months of age.

New Research Perspectives: Age Three Follow- up

Ingrid Honan has been working with the study since 2011 and has recently been awarded a scholarship to conduct her PhD in neuropsychology. Ingrid's research aims to provide an Australian reference group for the Bayley Scales III of Infant and Toddler Development at ages 12 months and three years. Presently, there is no Australian reference group available – this means that Australian children's scores are compared to children from other countries such as the United States, yet it is likely that Australian children differ in their development from other countries due to lifestyle and cultural differences. Ingrid's research will enhance our ability to accurately detect developmental delay in young children, which will have significant benefits for clinicians, researchers and families with young children.

Would you like to have your preschool child tested? Ingrid will be contacting a small group of families whose children turn three years of age to participate in her research. Participating children will be reassessed using the Bayley Scales III of Infant and Toddler Development; the same developmental assessment conducted at 12 months of age. The feedback we have received so far regarding this component of the study has been very positive, with families receiving a written developmental report for their child at three and seeing their child's progress over time. We will be continuing to contact a selection of families over the next year to provide them the opportunity to participate in this exciting extension of the study. If you would like to participate and your child is nearing three years of age, please contact Ingrid on (02) 9385 0382; alternatively, she may be in contact with you shortly.

Research Team

Hannah Fiedler
Doctor of Psychology candidate
(02)9385 0190

Ingrid Honan
PhD candidate
(02) 9385 0382

Clare McCormack
PhD candidate
(02) 9385 0386

Aurora Popescu
WA Team Manager
(08) 9266 1600

Larissa Rossen
PhD candidate
(02) 9385 0146

Judy Wilson
Research Fellow
(02) 9385 0148

Age 6 Follow-Up

As mentioned above, we intend to apply for funding to complete another development assessment with your child after they start school. This is an exciting transition period for families and their children, where children are exposed to new social and learning environments and begin their path in formal education.

The Wechsler Intelligence Scale for Children- Fifth Edition (WISC-V) is an internationally recognised, standard measurement tool which can be used to assess the cognitive capacities of children from six to around 17 years of age. Administered by an independent trained assessor, the WISC-V assesses five domains of development including your child's ability to: understand and produce language (verbal comprehension), construct and solve visual puzzles (visuospatial skills), hold and manipulate information in mind (working memory), rapidly process new information (processing speed), and problem solve/draw connections between abstract concepts (fluid reasoning). A number of engaging tasks, such as paper and pencil and block assembly tasks are administered over approximately 60 minutes. Scores obtained on the assessment can then be combined to provide an overall intelligence quotient for your child.

Our team consists of clinical and neuropsychologists with a high degree of training and expertise in the field of developmental psychology. The assessment is tailored to your child's age and abilities and, in most cases, is a lot of fun.

Completing this assessment can be beneficial for families. As part of your participation in the study, you will receive a copy of a written report outlining how your child is performing on the cognitive domains outlined above compared to his/her same age peers. The WISC-V is very costly if completed privately and is expected to be the primary benefit for families taking part in the study. It can help identify your child's strengths and weaknesses; information which can help you tailor your child's education approach to ensure they reach their full potential.

Have you moved recently?

Or changed phone numbers, email addresses or any other contact details? If so, you can update your details on our confidential website:

http://ndarc.med.unsw.edu.au/content/project-participant

If you have any queries or comments or would like further information please contact us at:
antenatalstudy@unsw.edu.au

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