

CHW



Link

# mental health and intellectual disability...

## coordinator's message...

Welcome to the third edition of the school link newsletter for 2013,

Firstly thank you to our partners at Ageing Disability and Home Care, Department of Family and Communities, Department of Education and Communities and all the relevant schools and our Health colleagues for all the fantastic collaboration that has occurred since our program began in 2009. Because of this joint effort we were fortunate enough to be awarded the 2012 Mental Health Matters Award for cross sector collaboration at a special lunch at NSW Parliament House, presented by the Minister for Mental Health Kevin Humphries on 10<sup>th</sup> October. The award was funded by the NSW Mental Health Association who works towards a society free from prejudice and discrimination against people living with mental illness via community awareness. To find out more about the other mental health award winners click on the link to the NSW Mental Health Association here: [http://www.mentalhealth.asn.au/images/MHM2012/mhm2012\\_program\\_.pdf](http://www.mentalhealth.asn.au/images/MHM2012/mhm2012_program_.pdf)

In our efforts to improve the evidence base for mental health promotion, prevention and early intervention for children with an intellectual disability, School-Link has been working with 11 schools this year to implement the existing Group Stepping Stones Triple P (GSSTP) Parenting program within the school environment through joint school and ADHC co-facilitators. We have had some fantastic preliminary results that we are in the process of preparing for publication. A sneak peak of these results includes a reduction in parental stress, anxiety and depression levels by approximately 50% post intervention and behaviour changes that were noticeable in the classroom, with an approximate 25% reduction in disruptive behaviour. To our delight some of the schools who have taken part in GSSTP in 2012 have taken the time to write for us in this edition see pages 14-15. We are continuing this research in 2013 and have been overwhelmed by the amount and quality of schools expressing an interest to take part, so stayed tuned for further developments. ●

We wish you a safe and happy holiday and look forward to more editions in 2013. Happy Reading.  
Jodie Caruana, School-Link Coordinator  
[jodie.caruana@health.nsw.gov.au](mailto:jodie.caruana@health.nsw.gov.au)

Left to Right: Associate Professor David Dossetor, School-Link Coordinator Jodie Caruana, Minister for Mental Health Kevin Humphries and School-Link Officer Hebah Saleh



## contents...

- 1 Coordinators Message  
*Jodie Caruana*
- 2 Moving to Learn, Learning to Move:  
The importance of Motor Development in Mental health and Intellectual Disability  
*Associate Professor David Dossetor*
- 7 Resources and Readings
- 8-10 Interview with Professor  
Eric Emerson
- 11 Upcoming Training
- 12-13 The Medicine Cabinet:  
Mood Stabilisers  
*Judy Longworth*
- 14-15 Triple P Stepping Stones
- 16 Ruth article  
*Ruth Still*
- 17 Sensory Modulation Workshop  
*Sarah White*
- 18-19 Book Review  
*Associate Professor David Dossetor*

Learn more about School-Link and the Children's Hospital at Westmead project on [www.schoollink.chw.edu.au](http://www.schoollink.chw.edu.au)



## a note from David Dossetor...



### Moving to Learn, Learning to Move: *the importance of motor development in mental health and intellectual disability*

Associate Professor David Dossetor,  
Child Psychiatrist with a special interest in  
Intellectual Disability and Autism,  
Area Director for Mental Health,  
The Children's Hospital at Westmead.

#### Introduction

The recent excitement of the Olympics emphasises how much value we put on superlative motor performance. The finest motor and visuo spatial skills are honed with thousands of hours of practice, training and education. There is superlative planning, organisation, and anticipation as well as repetition and recall of experience that is part of the development of such skills.

Team work and competition also integrates these with complex empathy skills. Can we call this gifted "motor intelligence"? Motor skills certainly are recognised as one of Gardner's 8 types of intelligence.

Gardner is a Psychologist who has challenged the debate that intelligence is single concept or attribute of general intelligence or "g" (1999). Gardner established there are a number of reliable and validated distinct skill sets which are only loosely correlated with each other. They are:

- Spatial
- Linguistic
- Logical-mathematical
- Bodily-kinesthetic
- Musical

- Interpersonal
- Intrapersonal
- Naturalistic

Gardner articulated several criteria for a behaviour to be an intelligence and these included: potential for brain isolation by brain damage, place in evolutionary history, presence of core operations, susceptibility to encoding (symbolic expression), a distinct developmental progression, the existence of savants, prodigies and other exceptional people, and support from experimental psychology and psychometric findings. The first 3 intelligences are the most fluid abilities and therefore most linked with the notion of an underlying general intelligence. My interest as a clinician is more about the clinical implications when one or more of these intelligences are specifically delayed, and I think they may provide explanations for different developmental disorders. Some other developmental disorders might be clumsiness, language problems and associated reading problems, intellectual disability, Autistic Spectrum, dyscalculia and ADHD.

I have generally felt that the contribution of motor skills to development are not sufficiently considered in mental health and special education. Maybe this is a dualist habit, separating the wellbeing of the mind from the wellbeing of the body. The justification for this may be the lack of evidence-based practice to demonstrate the secondary benefit to other domains of development and wellbeing through improving motor skills and performance. However, many physiotherapists will contend that promoting physical development contributes to other areas of developmental competence and emotional well-being, it is just that these influences need to be supported by empirical research. Yet there is so little research in this area.

In the study of general health and longevity, the importance of fitness and regular activity have more recently been recognised, (as well as diet and genetic risk factors and too much screen time), eg in the epidemics of obesity and cardiovascular disease. Exercise is also shown to be good for mental health and is the best universal community intervention for depression. However, the longer the hours we work and the less activity, the more we increase our mortality (Bauman *et al*, 2012).

When one looks at the developmental profile of many with intellectual disability, motor development is often an area of protected or better development. Maybe this is because in evolutionary terms, motor development was established and refined before the other skill domains of communication such as logico-deduction and emotional/social intelligence. Perhaps it is more "hardwired" and less vulnerable to problems of development. The public image of cerebral palsy and primary motor development problems, such as through the Special Olympics, is that they are otherwise "normal".

Professor Amanda Kirby is an academic and general practitioner who has made

---

**“The contribution of  
motor skills to  
development are not  
sufficiently considered  
in mental health and  
special education...”**

---

this an area of special study and she has been closely associated with establishment of the Dyscovery Centre in Cardiff. She was the keynote speaker at the Children's Hospital Educational Research Institute (CHERI) in 2010 ([www.cheri.com.au](http://www.cheri.com.au)) and argued that problems of motor development are a central part of specific learning disorders. I have drawn broadly from her presentations and ideas.

#### Definition

Developmental Coordination Disorder (DCD) is defined in DSMIV by:

- A. Performance in daily activities that require motor coordination is substantially **below that expected given the person's** chronological age and measured intelligence. This may be manifested by marked delays in achieving motor milestones (e.g., walking, crawling, and sitting), dropping things, "clumsiness", poor performance in sports, or poor handwriting.
- B. The disturbance in Criterion A significantly interferes with academic achievement or activities of daily living.
- C. The disturbance is not due to a general medical condition (e.g., cerebral palsy, hemiplegia, or muscular dystrophy) and does not meet criteria for a Pervasive Developmental Disorder.

D. If Mental Retardation is present, the motor difficulties are in excess of those usually associated with it. (The ICD10 equivalent of Specific Development Disorder of Motor Function (WHO, 1993) has an exclusion criteria of intellectual disability, so I shall not refer to it further because of the explicit prejudice).

DCD has a long history but over the years has been called various names: the "Awkward" child, Minimal Brain Dysfunction (1949), minimal cerebral palsy, perceptual-motor dysfunction, visuo-spatial disability, the clumsy child syndrome, developmental apraxia and most recently developmental dyspraxia. Developmental dyspraxia is described as *an impairment or immaturity of the organisation of movement*. It is an *immaturity in the way that the brain processes information*, which results in messages not being properly or fully transmitted. The term dyspraxia comes from the word praxis, which means 'doing, acting'. Dyspraxia affects the planning of what to do and how to do it. It is associated with problems of perception, language and thought. The term dyspraxic has been used for motor problems not due to documented basic motor impairment such as cerebral palsy (Dewey, 1995).

### Brief outline of Stages of Motor Development

*eg as described in the Bailey Scales*

**0-2 years:** Normal development involves loss of primitive reflexes-e.g. selected-sucking, palmar grasp, Babinski, walking; developing spontaneous movements-e.g. supine kicking, increased postural control, locomotion and manual control.

At **one month** may hold up head momentarily. **Two months** lifts head when placed on stomach, hold up head briefly when held in a seated or standing position.

**Three months** holds head and shoulders up when placed on stomach. Puts weight on forearms. **Four months** holds head up well in sitting position, can lift head to a 90-degree angle when placed stomach, may start to roll over. **Five months** has full head control, when pulled by hands to a sitting position, the head stays in line with body. **Six months** rolls over (front to back first), bears a large percentage of body weight when held in a standing position.

**Seven months** can stand with support, may sit without support for short periods, pushes upper part of body up while on stomach. **Eight months** stands while holding onto furniture, sits well unsupported, gets up on hands and knees, and may start to crawl backwards.

**Nine months** crawls first by pulling body forward with hands, may move around a room by rolling.

**Ten months** pulls up to standing, is very steady while sitting, moves from sitting to crawling position and back, crawls well.

**Eleven months "cruises," walking while** hanging onto furniture, walks with two hands held. **Twelve months** walks with one hand held, may walk with hands and feet, stands unsupported for longer periods of time.

**12 and 15 months:** Pincer grip—the ability to hold objects between thumb and index finger.

**Fifteen months** walks without help, crawls up stairs, gets into a standing position without support.

**Eighteen months** seldom falls while walking, can walk and pull toy, runs, climbs stairs holding railing, may walk backward.

**2-7 years:** progresses on to developing and improving: body control, walking, running, jumping, hopping, throwing, balancing and catching. Fine motor skills include manual skills, such as self-help skills, drawing and writing, and growing spatial and temporal accuracy.

**Two years** kicks a ball, walks up and down stairs two feet per step.

**Two and a half years** jumps with both feet, jumps off step, can walk on tiptoe.

**Three years** goes upstairs one foot per step, stands on one foot briefly, rides tricycle, runs well.

**Four years** skips on one foot, throws ball well overhand, jumps a short distance from standing position.

**Five years** hops and skips, good balance, can skate or ride scooter.

**Between 7 and puberty:** it is essential that fundamental skills are in place. During this period children start to: refine skills, play with skills in different situations, combine them and integrate them in social and recreational play. Maximum performance and gender differences start to play a part. Spatial and temporal accuracy starts to play a major part and during this period it is one area that improves significantly in terms of prediction and performance.

### Recognition of DCD:

**By 4-6 years** this may be manifest by: unable to throw ball with direction, unable to catch ball, not exploring playground equipment, not alternating steps on descent of stairs, can't do up zips, can't cut along a line, difficulty sitting at table & chair, immature pencil grip.

**By 7-8 years:** writing, participating in ball sports, cannot ride a bike, messy eater - can't cut meat, cannot tie shoes, self-care tasks- dressing, cleaning teeth/wiping bottom still difficult.

**By 9-10 years:** Academic grades are impacted by written work, social isolation, decreased fitness level/weight gain, frustration with writing/ homework, victimisation/bullying.

**By 11-12:** Writing at speed, self-organisation, organisation of work, still slow getting dressed/shoes, emotional and social interaction with peers mismatch, problems with mathematics associated.

These descriptions imply connections between motor development and independence skills, fine motor eg writing, reduced activity and low self-esteem. Other related challenges include peer relationship problems, internalising mental health problems such as anxiety and depression, problems of executive function of organisation, planning, attention and academic achievement.

### Objective Measurement of Motor Development

There are a number of objective measures of Motor Development which enable objective measurement of the extent of delay such as the Lincoln-Oseretsky Motor Development Scale which assesses the development of motor skills in children and adults. Areas covered include fine and gross motor skills, finger dexterity and speed, and hand-eye coordination. The test consists of 36 tasks arranged in order of increasing difficulty. These include walking backwards, standing on one foot, touching one's nose, jumping over a rope, throwing and catching a ball, putting coins in a box, jumping and clapping, balancing on tiptoe while opening and closing one's hands, and balancing a rod vertically.

Norms for each part of the test are provided for children aged 6-14 with percentiles. Alternatively, the Bruininks-Oseretsky Test of Motor Proficiency (BOTMP) or the Bruininks-Oseretsky Test of Motor Proficiency, second edition (BOT-2) may be used to assess fine and gross movement skill development in individuals with mild to moderate motor coordination deficits. The test is suitable for individuals aged 4 to 21 years. The complete BOT-2 features 53 items and is divided into 8 subtests: fine motor precision (7 items), fine motor integration (8 items), manual dexterity (5 items), bilateral coordination (7 items), balance (9 items), running speed and agility (5 items), upper limb coordination (7 items), strength (5 items). The items in every subtest become progressively more difficult. A short form of the BOT-2 can be used as a screening tool to achieve rapid and easy scoring reflecting overall motor proficiency. The BOT-2 Short Form comprises a subset of 14 items of the BOT-2 Complete Form.

### Subtyping DCD

DCD can be divided into Verbal Dyspraxia,

Fine Motor Dyspraxia or Whole body coordination Problems.

- **Developmental verbal dyspraxia or articulatory dyspraxia** (also called childhood apraxia of speech in the USA) is sometimes described as a specific condition with problems of motor development of speech and causes linguistic or phonological impairment. Problems include: difficulties controlling speech organs, with difficulties making speech sounds, or difficulties sequencing sounds within a word or sentence, difficulty controlling breathing and phonation, slow language development and associated difficulty feeding.
- **Fine Motor Problems** lead to problems with handwriting which may be due to movement recognition and coordination difficulties, problems with the correct pencil grip and hand ache with writing. It can also cause difficulty with using a knife and fork, doing buttons and shoelaces, brushing teeth, doing hair or make-up, and a range of other daily activities.
- **Whole body movement, coordination and body image problems** can affect gross motor activities including walking, running, climbing and jumping. It can also involve poor timing, poor balance including tripping over one's feet, problems of combining movements into controlled sequences and remembering the sequences, problems with spatial awareness or proprioception, problems picking up objects and holding them eg pencils due to poor muscle tone, clumsiness, knocking things over or bumping into people, problems with laterality, determining left versus right, ambidexterity, problems chewing foods, problems with judging distance such as of moving objects.

These problems can be associated with memory problems, especially short term, and especially for instructions, difficulty organising time and remembering deadlines, increased propensity to lose things, problems with tasks that include sequences such as cooking. People with DCD may have sensory processing problems with abnormal over or under sensitivity to physical stimuli such as touch, light, sound and smell.

Difficulty doing physical tasks may need extra energy and lead to fatigue, often associated with low muscle strength and endurance. Hypotonia may be associated with increase soreness and fatigue and increase balance problems.

The consequences of a diagnosis of DCD:

### prognosis and co-morbidity

Of those who have DCD, 50-80% of people have persisting problems of DCD into adulthood affecting: learning to drive, independent living skills, organisation of self and time, handwriting, anxiety and depression (eg Rasmussen and Gillberg, 2000). The broader message is that **DCD doesn't come on its own but is associated** with social and communication skills, executive functioning skills, literacy and numeracy difficulties. There is also a huge secondary impact with bullying, weight gain (Cairney *et al*, 2005), Self-esteem (Skinner and Piek, 2001), less peer-peer

**“The broader message is that DCD doesn't come on its own.. ”**

interaction with stigmatisation (Segal *et al*, 2002), internalisation (Sigurdsson *et al*, 2002) and anxiety and depression

### Different Clinical Presentations

There are a number of ways that children with DCD present, which varies according to age and to different services: Children may present in various ways: delayed speech, fidgety, withdrawn, refusing to write, avoiding reading, delayed walking, **failing at school, 'odd gait', parent who has DCD**, poor organisation and time management. A different bias can lead to a different route into services: reading and spelling to special education; motor delay, problems of self-care and writing problems to physiotherapy; problems of social communication to the speech therapist, attention problems and negative behaviour to paediatricians or CAMHS teams.

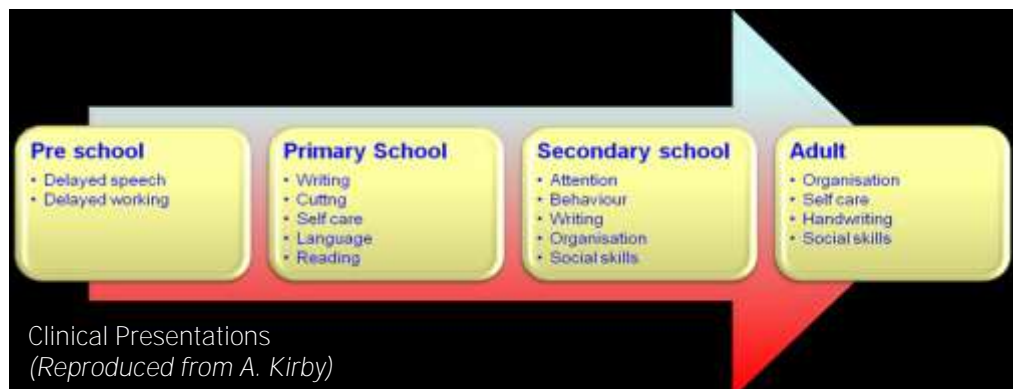
### My fundamental clinical rules of Development:

- Behaviour and emotions should always be considered in a developmental context.
- Development needs to be considered in the different domains of development: Motor, Sensory, Independence Skills, Expressive and Receptive Communication Skills and most importantly Social Development Skills and Imagination.
- If there is intellectual delay, then it is likely to be uneven across the different developmental domains.
- If one domain is delayed, then there is an increased risk of another domain of development being delayed.

**Accordingly the rule of developmental disorders is:** Where there is one developmental disorder, there is more likely to be a second, or even a third.

### High risks of comorbidity:

The rules of development arise from clinical experience, but are demonstrated by the high risks of co-morbidity of developmental disorders. Although DCD and ADHD each occur at 7% in the community, they co-occur in 50% (Gillberg & Gillberg, 1998). What is more, in their study the ADHD/DCD group had a much worse psychosocial outcome 15 years later at 22 years than either on its own. In the ADHD/DCD group 58% had a poor outcome compared with 13% in the comparison group ( $p < .001$ ). Remaining symptoms of ADHD, antisocial personality disorder, alcohol abuse, criminal offending, reading disorders, and low educational level were overrepresented in the ADHD/DCD groups. The combination of ADHD and DCD appeared to carry a particularly gloomy outlook. The Swedes have even given this combination a separate diagnosis of DAMP (Disorder of Attention, Motor control and Perception). Kirby and Salmon (2007) suggested the overlap was between 21-40%. DAMP is associated with Autistic Spectrum traits in 36% and Aspergers Syndrome in 21% (Fitzgerald). Kaplan and colleagues (1997) found that out of those with DCD 25% had ADHD and dyslexia, 22% had dyslexia on its own and 10% had ADHD.



Early development speech problems are associated with DCD in 60% (Missiuna *et al*, 2007). DCD is also associated with language problems (verbal dyspraxia), specific reading retardation, spelling problems, dyscalculia, dysgraphia, ASD, and problems of executive function, in particular in working or short term memory.

Kirby has a neat clinical breakdown of **executive function skills**.

- **Activation skills:** the ability to organise and prioritise (not procrastinate).
- **Focus:** sustaining and shifting attention (not reading the same paragraph over and over).
- **Effort: the regulation of effort (can't shut off energy).**
- **Emotions:** keeping things in perspective.
- **Memory:** what was said and what was the sequence.
- **Action:** monitoring and regulating self (not impulsive, without considering the context, can't adjust pace).

Executive Function Deficits are found in ADHD, ASD, DCD, Dyslexia and Dyscalculia. DCD often causes problems of anxiety, low self-esteem and depression. It is a common cause of being bullied.

Paradoxically others young people with DCD may have specific strengths in areas such as reading, numeracy or memory.

Mood lability in the context of DCD with or without other neurodevelopmental disorders, I feel is a cause for prognostic caution. This is not the same as Bipolar Disorder, but it certainly is a vulnerability to disorder behaviour and emotional problems and can benefit from treatment with mood stabilisers. Kirby takes pains to

explain how other developmental disorders overlap in similar ways, or the overlap between ADHD and ASD/Aspergers (see below)

### Brain connectivity and genetics

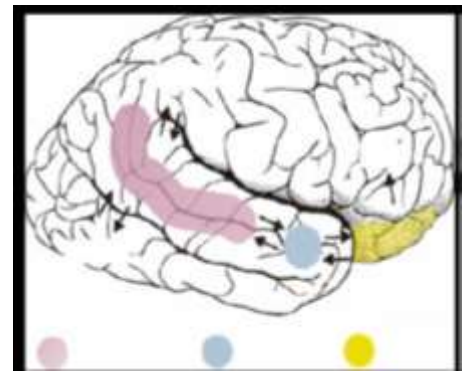
A conference at University of NSW called **"networks and neuroscience: the connected brain"** was held on the 7th of September 2012 which shone a light on the latest technologies that are providing new insights into the imaging and functioning of the brain. The way different parts of the brain grow and shrink at different ages and in different conditions can be shown. For example frontal lobe growth and connectivity clearly continues to grow into the 20s which in turn explains why teenagers are risk takers and challenge the boundaries before the last stages of executive function is laid down.

Jay Giedd from the National Institute of Mental Health, Bethesda, described in evolutionary terms, the growth of brain size in hominids was associated with rate of climate change, not whether the climate was hot or cold, indicating that Homo Sapiens brain size is associated with skills in adaptability. The duration and extent of skills development in Homo Sapiens is dependent on a prolonged duration of protective parenting. Tribal Homo sapiens only protect their offspring till 10 years old, and thus teenage attributes give survival skills that they use to work as a group in a challenging environment. MRI spectroscopy can show which parts of the brain work together in different activities.

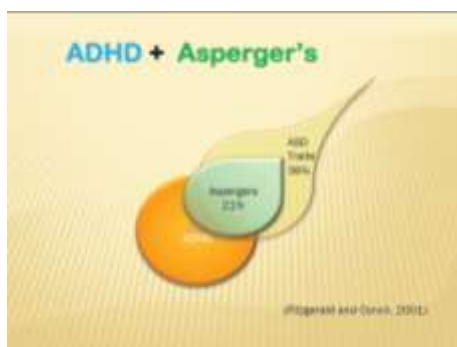
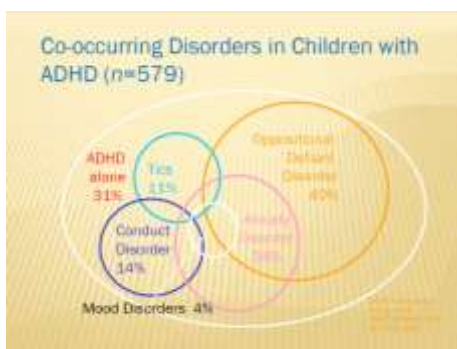
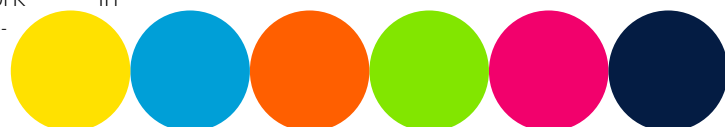
New mathematics called Graph Theory can be used to help describe the complex relationships between the relative strengths of connection between different parts of the brain and the strength of connections within an area of the brain, and functional MRI Spectroscopy can identify sub-skills within these localised nodes. Using MRI Spectroscopy Eddie Harman Jones demonstrated that the left frontal lobe activation is associated with approach emotions (including anger) and the right frontal lobe is associated with withdrawal. This activity is affected by posture (leaning forwards or back) and can be altered by trans cranial magnetic stimulation (a low strength electrical pulse on the skin). Alex Fornito presented on the US\$40 million study of MRI imaging of **"the connectome"** i.e. the comprehensive map of brain connections and how these are affected in different diagnoses, for example the reduced fronto-temporal-posterior network in schizophrenia and the associated loss of network efficiency in schizophrenia.

The relevance of this expose is the importance of brain connectivity to a whole range of conditions. There is growing understanding on how genetics influence the strength of connection between different brain areas.

Autism is now understood as a disorder of under-connectivity of the social brain: **Superior Temporal Sulcus, Amygdala, Orbital Frontal Cortex & Fusiform Gyrus** (Pelphrey *et al*, 2011). So although the research on the connectivity of DCD has not yet happened, conceptually one can see that developmental disorders are all about developing connectivity between different functional parts of the brain. Not only is this connectivity affected by genetics, but there is also evidence that environmental stimulation is critical in determining connections and even enhancing (weak) connections and in turn leading to epigenetic and brain metabolic change (ie environment influences brain function and even the genetic control processes). For example Skye Mac-



donald from the school of psychology UNSW described how one can retrain skills like emotional recognition when it is lost in traumatic brain injury. The Queensland Brain Institute is pursuing a study of gene-protein interaction of the 700 genes associated with Schizophrenia, Autism, ADHD and Intellectual Disability. They report there are huge overlaps and interactions between the genes and proteins involved in these disorders. This cross correlative study, of **what they have termed the 'Cognitive Neurone'**, finds interactions of problems of synaptic transmission, cell adhesion, signal transduction and vesicular transport are interconnected in these disorders and these correlations lead to the implication of 4000 genes in these disorders (which are still distinct from those used in other parts of the brain and body) (Claudianas, personal communication, 2012). These models are starting to look at the importance of cerebral



location and the life span variation of gene activity. It is of interest to note that the genetics of the single gene studies is passé, as no single gene deficit or neurotransmitter deficiency replicates any psychiatric disorders. Valsa Eapen, Professor of Child Psychiatry at Liverpool Hospital in Sydney, has pointed out how vulnerability genes influence the risk of several developmental disorders rather than being disorder specific. In a further article she describes the neuropathogenetic model that links a **number of proteins involved in “trans-synaptic complexes” can explain the overlap between Tourettes Syndrome, ADHD and Autism**, illustrating that in complex systems any one of several metabolic pathways can affect a number of different processes or outcomes (Clarke *et al*, 2012).

The range of this research explains the overlap and connection between different developmental disorders and the complexity of the interacting processes. While it does not explain what is happening in an individual child it does explain why a clinician should look at the whole child, and not be looking for a single disorder.

Another personal longstanding clinical developmental disorder dictum: evidence indicates that developmental disorders are genetically associated and the developmental sequence of skill development is due to mathematical complexity of neural connection, not a particular lesion in a particular brain location. It seems that these novel approaches to research are in the process of describing how this might be so, and why developmental disorders are so interconnected. As Amanda Kirby concludes: **don't diagnose a single developmental disorder without looking at the whole child in context and see what else is going on in a child's development. In this context, adequate motor development would seem to be an important precursor for all other developmental disorders and**

indeed psychiatric disorders.

## References

Bauman, A.E., Reis, R.S., Sallis, J.F., Wells, J.C., Loos, R.J. and Martin, B.W. (2012). Correlates of physical activity: why are some people physically active and others not? *Lancet Physical Activity Series Working Group. Lancet.* Vol Jul 21; Issue 380(9838), Pp. 258-71.

Bruininks-Oseretsky. (1978) *Test of Motor Proficiency (BOTMP-BOT-2)*. [Bruininks, 1978; Bruininks and Bruininks, 2005] <http://www.thefreelibrary.com/Move-ment+skill+assessment+of+typically+developing+preschool+children%3a...-a0201944819>

Cairney, J., Hay, J., Faight, B., Hawes, R. (2005). Developmental coordination disorder and overweight and obesity in children aged 9-14y. *International Journal of Obesity.* Vol 29, Pp. 369-372.

Clarke, R., Lee, S., Eapen, V. (2012). Pathogenetic model for Tourette syndrome delineates overlap with related neurodevelopmental disorders including Autism. *Translational Psychiatry.* 2, ; doi: 10:1038/tp.2012.75

Fitzgerald, M., & Corvin, A. (2001). Diagnosis and differential diagnosis of Asperger syndrome. *Advances in Psychiatric Treatment.* Vol 7, Pp. 310-318.

Gardner, H. (1999). *Intelligence Reframed: Multiple Intelligences for the 21st Century*. New York: Basic Books.

Gillberg, M., Gillberg, C. (1998) Hyperactivity, inattention and motor control problems: Prevalence, comorbidity and background factors. *Folia Phoniatica et Logopaedica.* Vol 50, Pp. 107-117.

Kaplan, B. J., Crawford, S. G., Wilson, B. N. & Dewey, D. (1997). Comorbidity of developmental coordination disorder and different types of reading disability. *Journal of Internal Neuropsychological Society.* Vol 3, Pp. 54.

Missiuna, C., Gaines, R. & Pollock, N. (2002) Recognizing and referring children at risk for

developmental coordination disorder: Role of the speech language pathologist. *Journal of Speech-Language Pathology & Audiology.* Vol 26, Pp. 172-9.

MTA Cooperative Group. (1999). Moderators and mediators of treatment response for children with attention-deficit/hyperactivity disorder. *Archive of General Psychiatry.* Vol 56, Pp. 1088-1096.

Pelphrey, Shultz et al, JCPP 2011)

Rasmussen, P. and Gillberg, C. (2000). Natural outcome of ADHD with developmental coordination disorder at age 22 years: a controlled, longitudinal, community-based study. *Journal of the American Academy of Child and Adolescent Psychiatry.* Vol 39, Iss 11, Pp. 1424-31.

Segal, R., Mandich, A., Polatajko, H., Cook, J. (2002). Stigma and its management: a pilot study of parental perceptions of the experiences of children with developmental coordination disorder. *American Journal of Occupational Therapy.* Vol 56, Pp. 422-428.

Sigurdsson, E., Os J, Fombonne E. (2002). Are impaired childhood motor skills a risk factor for adolescent anxiety? Results from the 1958 UK birth cohort and the National Child Development Study. *American Journal of Psychiatry.* Vol 158, Pp. 1044-1046.

## Recommended Reading:

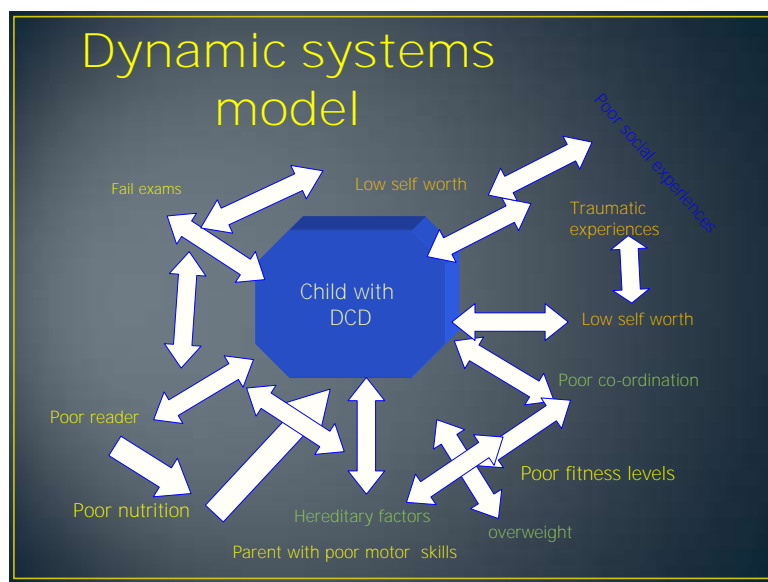
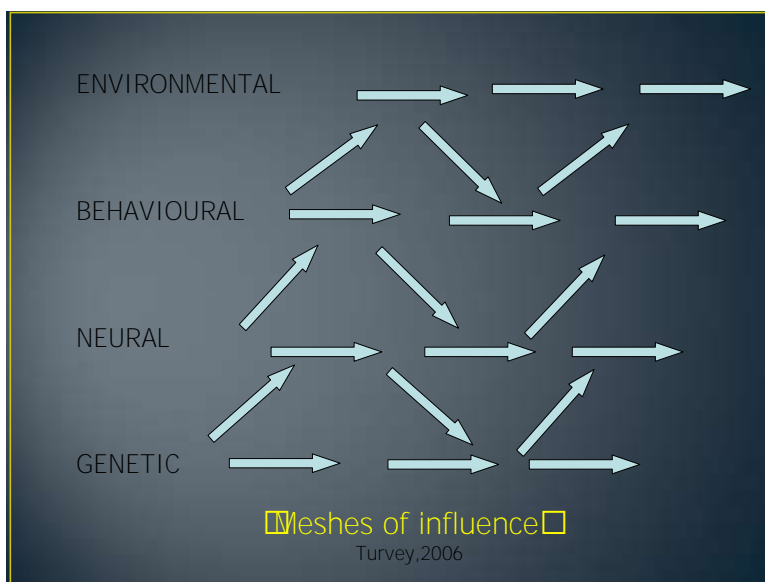
Miller-Keane Encyclopedia and Dictionary of Medicine, Nursing, and Allied Health, 5th ed. and Child Development Institute, <http://www.childdevelopmentinfo.com>.

Gross Motor Skills - symptoms, average, Definition, Description, Common problems <http://www.healthofchildren.com/G-H/Gross-Motor-Skills.html#ixzz22laRUJ00>

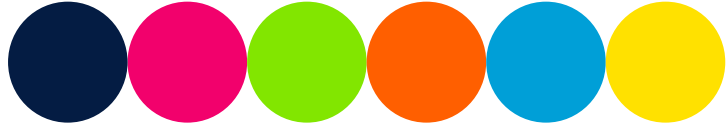
<http://www.dyspraxiafoundation.org.uk/>

<http://www.cheri.com.au/documents/DCD2010Overviewhandout.pdf>

Kirby, A. (2006). *Dyspraxia: The Hidden Handicap*. Souvenir Press.



## resources...



- *The National Disability Organisations Clearinghouse* is designed with the disability sector in mind, the intent of the site is to enable easier access to disability sector information and facilitate communication between the National Disability Organisations. There are 13 organisations featured on the website. [www.ndoch.govspace.gov.au](http://www.ndoch.govspace.gov.au)
- *Families NSW* have released set of resources for Dad's encouraging interaction with their children. These are fun sheets that can be printed out and given to Dad's with children of many ages and abilities. Download them from <http://www.families.nsw.gov.au/resources/dads.htm>. These can be great resources for mum's too!
- *Epilepsy Action Australia* has launched an online academy providing epilepsy education. Current courses include SeizureSmart which helps to improve understanding of epilepsy and Emergency medications for seizures. Visit [www.epilepsy.org.au/online-academy](http://www.epilepsy.org.au/online-academy) or call Epilepsy Action Australia on 1300 37 45 37.
- There are several *International Day of People with a Disability* events occurring in a variety of areas. Check the website for events near you [www.idpwd.com.au](http://www.idpwd.com.au). Two Art events include Bankstown, 5th December 2012 10am-12pm includes a showcase of local artworks, service provider information and art workshop at Bankstown Art Centre. Contact 9791 9211 or email [deedee.sanjose@bankstown.nsw.gov.au](mailto:deedee.sanjose@bankstown.nsw.gov.au). Greystanes Disability Services Art Exhibition in Katoomba will run from the 5-9th December 2012. Contact Debra Brown on 4784 4541.
- *OurHealth* is a new website where consumers can share ideas, issues and healthcare experience to contribute to improvements in the health system. Visit [www.ourhealth.org.au](http://www.ourhealth.org.au) to have your say and participate in a series of online training modules.
- **Diverse Minds, Erskineville** is offering a transition into secondary school program for children with Asperger's. Contact [admin@diverseminds.com.au](mailto:admin@diverseminds.com.au) or 9519 1519.
- The Australian Journal of Rural Health is a multidisciplinary refereed journal with free access. Visit their website to read specific articles about mental health. Visit [http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1440-1584](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1440-1584)
- **Now available to order is the new comic book themed peer awareness teaching resource, 'The 100% Awesomes'**. The lesson plan, for pupils in years five to seven in mainstream schools, is about celebrating difference and focuses on utilising people's strengths and supporting their weaknesses. Specifically this is an Autism peer awareness lesson. This is an English resource, so email [info@autismeducationtrust.org.uk](mailto:info@autismeducationtrust.org.uk) for more information or visit their website at [www.autismeducationtrust.org.uk](http://www.autismeducationtrust.org.uk).
- **"MyTime" playgroups** provide extra support for parents of children 0-5 with a disability or chronic medical condition such as Down Syndrome and Autism. The "MyTime" play helper leads children in activities such as singing, drawing, playing with toys, so parents can spend valuable time catching up with, learning from and helping other parents. The Playgroups operate during school terms from 10am-12noon on Mondays at Belmore Youth Resource Centre and Wednesdays at Punchbowl Primary School. Contact Tresillian Family Care Centres on 9787 0864.

## reading list...

Fahim, C., Yoon, U., Nashaat, N.H., Khalil, A.K., El-Belbesy, M., Mancini-Marie, A., Evans, A.C., and Meguid, N. (2012). Williams syndrome: A relationship between genetics, brain morphology and behaviour. *Journal of Intellectual Disability Research*. Vol 56, Iss 9, Pp. 879-894.

Although this article is quite technical, there is some benefit in having a good read through to learn a little more about this perplexing syndrome.

Gardner, H. (1983). *Frames of Mind: The Theory of Multiple of Intelligences*. New York: Basic Books.

**If you want to learn more about Howard Gardner's Theory of Multiple Intelligences as discussed in Dr Dossetor's article on page 2, this is the original book that describes the initial theory.**

Shahshi, V., Veerapandiyam, A., Schoch, K., Kwopil, T., Keshavan, M., Ip, E., and Hooper, S. (2012). Social skills and associated psychopathology in children with chromosome 22q11.2 deletion syndrome: implications for interventions. *Journal of Intellectual Disability Research*. Vol 56, Iss 9, Pp. 865-878.

Great to see an article about 22q11.2. They are far and few between, so get your hands on this one.

Stainton, T and Clare, I.C.H. (2012). Editorial; Human rights and intellectual disabilities: an emergent theoretical paradigm. *Journal of Intellectual Disability Research*. Vol 56, Iss 11, Pp. 1011-1013.

This edition of the *Journal of Intellectual Disability Research* has many articles from around the world. Take your time to sift through a few, and if you cant, at least read the editorial.

Vedi, K. and Bernard, S. (2012). The mental health needs of children and adolescents with learning disabilities. *Current Opinion in Psychiatry*. Vol 25, Iss 5, PP. 353-358.

The review includes studies published in the last 12-18 months. A good catch-up read, even if there has not been much headway.

# interview with professor Eric Emerson...

## Interview with Professor Eric Emerson

*Eric Emerson is Professor of Disability Population Health at the Centre for Disability Research and Policy at the University of Sydney and Professor of Disability and Health Research at the Centre for Disability Research at Lancaster University in the UK. Professor Emerson is an active researcher in the field of intellectual disabilities (learning disabilities). He previously held appointments at the University of Manchester, University of Sydney, University of Kent at Canterbury and in a range of health care organisations in the UK and Canada.*

*His current research interests include understanding the social, cultural and economic bases of the health and social inequalities faced by disabled children, their families and adults with intellectual or developmental disabilities. Building resilience among and improving the physical and mental health of disabled children, their families and adults with intellectual/developmental disabilities. Policy and practice relating to disabled children, their families and adults with intellectual/developmental disabilities. Disability in low and middle income economies.*

*Below is a candid interview with Professor Emerson that gives us some insight into one of the great minds of research in intellectual disability.*

### How did you start working in the field of Intellectual Disability?

I went to see if there was a nursing assistant appointment nearby as I had worked a bit as a nursing assistant, but they didn't have any jobs at the time but they told me that across the road was a mental handicap hospital who were looking for an assistant psychologist so I just popped along and they gave me a job, it was pure chance.

### What type of clients were you seeing to begin with?

When I was working in that hospital it was a range of people including for example people with severe self-injury. Then when I trained as a clinical psychologist I worked in mental health services for a bit then went back into intellectual disability and began to work more and more with people with challenging behaviour, I guess I just got interested in the area and began to specialise in that area.

### What piece of work influenced your career?

It would be the work of the early behaviourists, without a doubt. It is difficult to think about how different things were in those days but the radical new ideas that were coming out were actually showing that people with very severe intellectual disability could change. There was huge potential there, that could be tapped if we did things right. Doing things right was getting the environment right and getting the support right. That was a radical departure from the way people were thinking

---

**“Both countries are moving heavily towards a model of disability provision which devolves more and more power to families and individuals...”**

---

before, that this was all inevitable, biological, driven by internal pathology and disease. So there is this group of people saying well actually it is nothing to do with that (perhaps overstating the argument), they did some fantastic work in the early days in the 60s and early 70s kind of demonstrating what potential for change there might be among people that society might have completely written off, and that was very influential and I became a card carrier for behaviour analysts for a decade or so.

### What about your own work? What piece of work do you think may have changed your career?

It would be two, or three things really. One was an opportunity to work with Jim Mansell at the Tizard Centre, I don't know whether you have heard, but he sadly died recently after fighting cancer for a number of years. That opportunity to work with Jim for three years when we set up a kind of specialist advisory consultancy service in the southeast of England specifically working with the most challenging people we could find, which was certainly a remarkable opportunity which certainly changed my career path completely and led on to writing books on challenging behaviour and that kind of stuff. The other thing that probably changed things was after I left Tizard Centre and went to a

research centre in Manchester we did lots of work for the government looking at the quality and costs of supported accommodation services and that had pretty profound impact on the way services are being provided certainly in the UK with the closure of what were becoming the new institutions. I think the third big change was coming over to Australia in 2003/2004 where I spent five months working with Trevor Parmenter and that was on sabbatical, which was the first time I had ever had the opportunity to get away from the daily job sit back and think about what was going on and that's the time in which is discovered that this whole different world and way of thinking about things which are the social determinants of health and that certainly has had a major impact on what I have done so far.

### What do you enjoy about your connections with Australia?

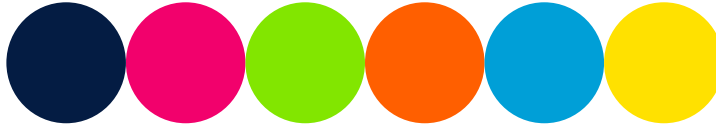
I would like to say the sunshine, but not this summer. It's a number of things, the culture, a much better work-life balance that people have over here (I know people complain, go to the UK and see there is a difference).

There is a very European way of looking at things which tends to complicate matters. It is like we are weighed down by history; in a living crypt we are surrounded by a three hundred year old building you are continually reminded of history, repetitions of history and how difficult it is to change things. The Americans are completely opposite, they don't seem to have a clue and think you can change things at the drop of a hat and both extremes have their problems but I quite like that in Australia there seems to be a happy middle, where they meet somewhere in the middle of that. There isn't that cynicism that pervades a lot of discussions in the UK but neither is there a naive belief that you can change things that you pick up from many North Americans. So I think there is a happy medium there and also the way people approach life, and their jobs, and I really like working at the University of Sydney. It is just a really good place to work.

### With your international perspective, how do you feel services fair for people with intellectual disability in comparison with the UK?

I think it is really hard to answer that question because what is clear if you look at either of those countries is just the





massive variability in the quality and what is provided. I think both countries share a **common problem in that they don't have enough services**. So there are lots of families out there in particular receiving very little or no support who we really should be supporting. They ought to have a right to descent quality support. I think that is something the two countries have in common, pretty much at the same level I think. **I don't see a great difference there.**

There is a difference to an extent in the types of accommodation services that we provide in that we as an English government decided that cluster housing was really not going to be provided in England and so all people providing cluster housing are having to close them down while at the same time in NSW they are opening them so there is some differences there but of course that varies from state to state and if you try to summarise across Australia it is like trying to summarise across England, there is such variability depending on which state you live in but also which local authority you live in, it is really difficult to try to get the big picture.

The big picture is one of variability and overall insufficient investment in services and support.

There are a lot of things they have in common. I think both countries are moving heavily towards a model of disability provision which devolves more and more power to families and individuals, I think that is generally a good thing as long as it is done well. Both countries having the same aspirations of social inclusion for people with disability and that is definitely to be welcomed. But both countries are finding a way of doing it.

Everywhere still has a lot of work to do, **there is no green grass over the hill I'm afraid**, despite what the Americans say, because having worked in North America, **the difference between the reality of what's on the ground and the rhetoric you hear when Americans are speaking at conferences is just huge**. Like everywhere there are some really good programs and really good examples but when you look at the routine provision; that is a different matter

**What do you think is the biggest challenge for people with intellectual disability?**

I think the biggest challenge is the discriminatory and disablist attitudes which pervade society in which they live in. They are people with such low social status who **really don't count, and that's their biggest problem**; all the other things tend to flow



**from that, they don't get support and are just rather ignored, they politically just don't count and are generally looked down upon as being less than human.** Why on earth do we invest in money to allow parents to abort fetuses with Down Syndrome **if we don't believe that they are not worth it?**

**What changes to the quality of life of people with intellectual disability have you seen over your career?**

Huge changes in things like the quality of out of home living environments we provide.

I started in the mental handicap hospital that was a large institution but at the same time we had these huge Victorian institutions but if you look at the quality of the living environment it has changed out of all recognition. It is still not good enough but compared with where we were 35 years ago there is just this huge change. And I think, certainly in the UK for the time being, we have won the argument **that you don't need institutional provision; that has been a long battle.** That has been a major change. Just that leap within policy in professional communities that if you have anything that looks **institutional it's our problem, not because someone with intellectual disability needs that kind of service, it's just that core providers are providing the wrong services.**

There are clear changes in the extent to which there is an expectation that people with intellectual disabilities will effectively participate in the way things are developed and run. They have a contribution to make. Of course when you look at the power that people actually have, that is a different matter.

**Do you have areas of optimism or caution for progress in the social, health and welfare of people with intellectual disability in Australia?**

I think the optimism has to be that Australia has a higher policy level which has clearly committed itself to social inclusion and personalised supports for people with intellectual disability and that is worth an awful lot. Having that policy is not going to **make things happen but if you don't have that clear vision at the top things are much harder to happen.** I think that causes great optimism.

I guess the caution is how to deliver that and I think we need to be careful about how we enable some of this to work through the use of individualised funding and individualised budget and personalised funding support etc. because one of the lessons from social policy intervention which have tried to devolve power down to the individuals and families is that some families are better equipped to take ad-

vantage of those opportunities than other families. So it can be quite devious and often the people who benefit most from that are the more articulate middle class families who know how to work systems and so families who are struggling financially, living in poor communities or don't have any supports could be left behind with these resources. It is not inevitable but needs some careful thinking about what you need to put into place to make sure that those families who are going to need additional support, get that additional support and they get it at a quality which is as good as those families who have those capabilities.

**In your view, how important is academic and scientific study to fostering changes of life circumstances for people with intellectual disability?**

I wouldn't overstate it. It can be influential; there is no doubt about that but you need a support of a policy environment for it to be effective. For example, we did a major study on the quality of cluster housing in England and that was used by the government to order the closure of all cluster housing in England. It was influential because it supported the policy direction that **the government wanted to go in. it didn't create that mind shift but it allowed people to act and they could go on and argue to their ministers, look, we have the evidence that this is the right thing to do. So it can be very important in those kinds of ways. Similarly, we have just instituted annual**

health checks for all adults with intellectual disabilities. We would not have been able to do that without the work of people like Nick Lennox in Queensland. So it can be important, those kind of technical bit of evidence can enable things to happen. **They don't make things happen, but enable them. But I think what is more important is the ideas that come from academic work, for example the work of the behaviourists, just changing ideas about what is possible. It was challenging basic ideas rather than providing evidence, it was showing what could be done. I think it is the power of ideas, rather than evidence in a way. Goffman's early work on institutionalisation; incredibly influential. You look at the quality of what he did which wasn't that impressive but it was the idea that was influential.**

**What was the last thing you read?**

Academic paper about employment transitions in the UK.

**What is your favourite book of all time?**

It would have to be an Ian McEwan book, not sure which one though.

**Something you like about your field of work?**

The variety, and just the intellectual challenges. It is like being a detective all the time. Trying to figure out what is happening. Even after all these years trying to

figure out what does this data mean.

**A web-link you would like to share**  
[www.equalitytrust.org.uk](http://www.equalitytrust.org.uk)

**Current Project**

**In the UK, I don't really do research anymore; I am co-director of a population health information unit on intellectual disability. So we provide a government service.**

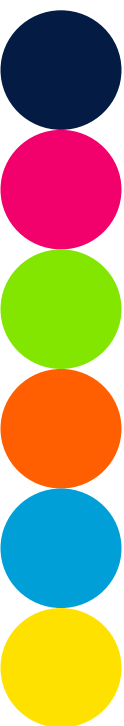
In Australia we are looking at the transitions in and out of disability across the life course, it is not specifically about intellectual disability anymore, it is more disability broadly. We have just finished some work looking at level of disadvantage faced by children in Laos, Bangladesh, Cambodia and Thailand.

**Mental Health and Intellectual Disability in the future what do you see:**

I see greater attention being paid to issues of prevention and thinking about this more as a public health issue rather than a clinical issue. I think that is happening already and is in the air internationally.

I would like to see the benefits of the ideas that we have extended to low and middle income countries but I am not confident that will happen. ●

*Below: Left to Right, Associate Professor David Dossetor, Associate Professor Eric Emerson, School-Link Coordinator Jodie Caruana*





## Disability:

*Implementing a quality complaints management system in the disability sector* – **NSW Ombudsman Training**. In-house training available. \$230. Call 9286 0900, email [training@ombo.nsw.gov.au](mailto:training@ombo.nsw.gov.au) or visit the website [www.ombo.nsw.gov.au/training-workshops-and-events](http://www.ombo.nsw.gov.au/training-workshops-and-events)

**National Disability Services** annual state conference. 11-12th February 2013. Sydney. For general enquiries, please contact Miriam Sosin on 9256 3133 or [miriam.sosin@nds.org.au](mailto:miriam.sosin@nds.org.au). Visit [www.nds.org.au](http://www.nds.org.au) for early program.

Line dancing for people with a disability. Tamworth. First Wednesday of each month. \$4 per class. 6766 1200

**Having a say** conference for people with disabilities. "My community: Choices, Challenges, Contributions". 6-8th February 2013. Fees vary. Deakin University, Geelong. Visit [www.valid.org.au/conference](http://www.valid.org.au/conference) for more information.

## Autism Spectrum Disorder:

*Emotion based Social Skills Training* for Children with Autism and Mild Intellectual Disability is being conducted at **Learning Links** Peakhurst in 2013. Sessions start in March. \$50. Wednesdays from 4-5pm. For more information contact Tracey Hassan 8525 8243 or [thassan@learninglinks.org.au](mailto:thassan@learninglinks.org.au)

Free **Positive Partnerships** workshop for parents/carers of School Aged students on the Autism Spectrum. Sessions begin in February across Australia. Visit the website to register and to find your closest location [www.positivepartnerships.com.au](http://www.positivepartnerships.com.au)

## Mental Health:

*Mental Health focus workshops* run by **Remind, Schizophrenia Fellowship of NSW**. Gladesville, 28th February and 20th June 2013. *Mental Health De-escalation workshop*, 23rd May 2013. \$150. Send an email to [remind@sfnswh.org.au](mailto:remind@sfnswh.org.au).

The **MHS Summer Forum** - *Mental Disorders and Physical Health: linking body and mind*. 21-22 February 2013. Sydney. Visit [www.themhs.org/summer-forum/2013-summer-forum](http://www.themhs.org/summer-forum/2013-summer-forum) for more information and to register closer to the date.

*Mental Health and Well-Being Conference* presented by **School-Link** on the Central Coast. Topics include New Developments in Adolescent Health, Psychiatric Management of Autism, Children who challenge us, Living in a sensory world and understanding complex trauma. \$75. 20th December 2012. East Gosford. Contact Dani on 4304 7878 or [dszikszai@nscchahs.health.nsw.gov.au](mailto:dszikszai@nscchahs.health.nsw.gov.au).

**Australian College of Mental Health Nurses (NSW Branch), Greater Western Sydney Regional Branch Mental Health Conference**. 5th April 2013, Parramatta. *Mental Health Nursing Extravaganza: Tailoring Practice, exceeding expectation*. Visit [www.acmhn.org](http://www.acmhn.org) for more information. Call for abstracts close 7th January 2013.

## Intellectual Disability:

**AGOSCI** 11th Biennial Conference, Hilton, Sydney is *Connect2Communicate* 1-4th May 2013 with preconference workshops, breakfast and dinner. You can learn more about the extensive conference program at [www.agosci.org.au](http://www.agosci.org.au). Rates vary depending on which events you apply for.

## Other:

*Self regulation workshop for children with multiple diagnoses*. This workshop is for parents or teachers of children with multiple diagnoses such as ASD and ADHD. Maitland. 19th December. \$75. For more information, call Vicky on 02 4933 9986 or email: [mail@thesensoryclinic.com](mailto:mail@thesensoryclinic.com).

*Secret Agent Society Facilitator Training* presented by the **Social Skills Training Institute** has released training dates for 2013. Auckland, 21-22 February and 19-20 September, Brisbane 21-22 March and 16-17 May, Melbourne 23-24 May, Sydney 3-4 June. Registration closes about a month before each session. Visit [www.sst-institute.net](http://www.sst-institute.net) for more information.

*Helping Families Change Conference* in Los Angeles commissioned by the **Parenting and Family Support Centre at the University of Queensland**. 13th-15th February 2013. This is an international Triple P conference. From \$524. Visit [www.helpingfamilieschange.org](http://www.helpingfamilieschange.org)

*Making Sensible and Ethical decisions about Psychiatric Medications for Children* by Dr Lawrence Diller. This is a one-off **Redbank House Lecture**. 13th February 2013. Contact Chloe on 9845 6577 or [chloe.macdonald@swahs.health.nsw.gov.au](mailto:chloe.macdonald@swahs.health.nsw.gov.au).

Metro North Behaviour Support Forum by **ADHC**. *Evaluation of Behaviour Intervention* in February 2013. For more information, contact [BISEvents@facns.gov.au](mailto:BISEvents@facns.gov.au)

*Sensory Integration Certification Program* is being run by **Sensory Potential**. May-July 2013. Email [info@sensorypotential.com](mailto:info@sensorypotential.com) for more information. This course is a post-graduate pathway to advance competency in sensory integration theory and intervention for Occupational Therapists.

Subscribe to our E-list!

Visit our website and fill in your details at

[www.schoolink.chw.edu.au](http://www.schoolink.chw.edu.au)

Please forward this newsletter to other professionals interested in Mental Health and Intellectual Disability

# the medicine cabinet: mood stabilisers...

## Mood Stabilisers – helping with the ups and downs: Part 1

Judy Longworth  
Senior Clinical Pharmacist  
The Children's Hospital at Westmead

Mood stabilisers help with control of the highs and lows of mood. Sometimes they are used to elevate the low mood or reduce the exuberance of the high mood sometimes exhibited as agitation or impulsivity. Beyondblue describes them as **medications that keep one's moods on an even keel** without the highs and lows. Types of mood stabilisers include carbamazepine, lithium carbonate, and sodium valproate and these will be discussed in part I with lamotrigine and some more other antiepileptics discussed in part II. Sometimes antipsychotics are also used as adjuvant therapies for the mood stabilisers in controlling mood but these will not be discussed here.

In recent years, there have been many clinical trials of atypical antipsychotics being used as mood stabilisers in both adults and adolescents. But there is lack of high level evidence for the antiepileptics in either mental health population or those with developmental disability atypical antipsychotics in the management of behaviour problems in either the adult or child and adolescent population with developmental disabilities. Although there is evidence for use of antiepileptics in the autistic population with comorbid epilepsy, there is little evidence for use as mood stabilisers in this population. Although there is a long clinical history of successful use in this population.

### What are the medications?

Mood stabilisers include lithium and some of the drugs that are antiepileptic medications. These antiepileptic medications include primarily sodium valproate, carbamazepine, and lamotrigine. But other antiepileptics have also been trialled with varying success in mood regulation such as gabapentin, topiramate, levetiracetam and zonisamide and these will be mentioned in part II.

### What do they do?

These medications affect the GABA/glutamate system as well as the ion channels but lithium only affects the ion channels. Although the pathophysiology of abnormal unstable moods is not known, it may be linked to abnormal neuronal activity with increased ionic flow through ion channels in an electric storm, which is

analogous to ictal states such as seizure. (Stahl, 2002) Theoretically, mood stabilisers that normalise the flux of ions would reduce the mania and prevent mood instability.

### What are they?

#### Lithium

An essential salt found worldwide and therapeutically discovered by John Cade in 1949 in Melbourne after discovering that guinea pigs after using lithium urate which appeared conscious but immobile as if in a state of lethargy. From these observations he thought he could use lithium carbonate in manic excitation and agitation. (Thuillier, 1999). Although forgotten it was taken up again by Mogen Schou in 1955 who advocated giving adequate doses to achieve good blood levels but again the work went largely unnoticed until by 1975 there was three thousand reports of lithium extraordinary capacity to be both curative and preventative for mood disorders (Thuillier, 1999).

The distinctive mechanism of action of lithium has not been replicated by the pharmaceutical industry and due to the toxic nature or narrow therapeutic index of lithium it needs regular blood monitoring (Stahl 2002). Lithium can also be toxic to the kidneys, heart and thyroid as well as nervous system, another reason for close monitoring not just of lithium levels but also how these organs are functioning such as measuring thyroid hormone levels and calcium levels..

Lithium is an ion whose mechanism of action is not certain, although it is hypothesised to interact with the second messenger systems to result in a stabilisation of neuronal ion flow. It is possible in mania or even seizures that the ion channels are excessively opened thus not being regulated by the second messenger system consisting of a neurotransmitter such as serotonin in normal neuronal ion flow. (Stahl, 2002)

Lithium has been used successfully in children and adolescents for bipolar disorder, chronic aggressive conduct disorders, and periodic mood and behaviour disorders eg autism. Nausea, vomiting and diarrhoea as well as weight gain are recognised adverse effects. Some of these are eased over the long term but a change to the slow-release dosage preparation can also be helpful. There are also skin effects such as acne and aggravation of psoriasis as well as dryness and thinning of the hair

which could be associated with hypothyroidism associated with lithium therapy. Other common adverse effects include tremor, polyuria, myoclonus, and EPS have been reported. Recent reports have shown there are no significant increased risks of congenital malformations.

Lithium is also shown to have reduced suicide rates in bipolar disorder. This effect may be due to reduced dysphoria, anger, aggression and impulsivity. All these characteristics are valuable in the pervasive developmental disability population who are able to cope with blood tests.

Sodium Valproate (overseas preparations contain valproic acid or divalproex a combination of valproic acid and valproate)

---

“When any  
psychometric testing is  
being done it is important to  
take into account  
medication and its effect on  
the student's functioning...”

---

Valproate increases serotonergic activity by blocking the voltage-dependent sodium and calcium channels. Originally used as anticonvulsant or antiepileptic but now licensed for the treatment of acute mania in Australia. Valproate was also discovered serendipitously by Pierre Emymard in 1962 while doing studies on rats and rabbits testing an antiepileptic effect.

Valproate is now widely used as an antiepileptic in both adults and children as well as licensed for treatment of mania associated with bipolar disorder. There have been a number of clinical trials about use of valproate for aggression in pervasive developmental disorders.

Valproate has a number of adverse effects such as sedation, tremor, cognitive problems, and hyperammonemia leading to delirium and tremor and these may be caused sodium and calcium channel effects or GABA effects. Valproate associated liver toxicity is associated with nausea, jaundice and anorexia. Other rarer reported adverse effects include sedation, tremor, dizziness, diplopia (double vision) blurred vision, cognitive problems. Nausea, vomiting, abdominal pain, diarrhoea, anorexia and constipation are more common but problematic weight gain, periph-

eral oedema, bronchitis, pharyngitis, alopecia and carnitine depletion is less common.

Another important aspect of sodium valproate is its effect on organogenesis and thus its action as a teratogen. This can be helped with careful planning as well as addition of folate supplements.

### Carbamazepine

GABA modulator ([www.psychotropics.dk](http://www.psychotropics.dk)) licensed for treatment of epilepsy since 1974 (USA) and trigeminal neuralgia. In the USA it is also licensed for use in bipolar 1 disorder as well as acute mania.

Chemically related to the tricyclic antidepressants (Goodman and Gilman, 2011), like phenytoin, carbamazepine limits the repetitive firing of action potentials evoked by a sustained depolarization experimentally in mouse spinal cord or cortical neurons. Carbamazepine is absorbed slowly and erratically after oral administration. Peak concentrations in plasma usually are observed 4-8 hours after oral ingestion, but may be delayed by as much as 24 hours, especially following the administration of a large dose. The drug distributes rapidly into all tissues. Approximately 75% of carbamazepine binds to plasma proteins, and concentrations in the cerebrospinal fluid appear to correspond to the concentration of free drug in plasma.

Carbamazepine induces the P450 cytochrome (CYP) 2C, CYP3A, and uridine 5 diphosphate glucuronosyltransferase (UGT) liver enzymes, thus enhancing the metabolism of other drugs degraded by these enzymes. Of particular importance in this regard are oral contraceptives, which are also metabolized by CYP3A4.

There is no simple relationship between the dose of carbamazepine and concentrations of the drug in plasma. Therapeutic concentrations are reported to be 6-12 microg/ml, although considerable variation occurs. Side effects referable to the CNS are frequent at concentrations above 9 microg/ml. However the **patient's response is the best measure of therapeutic limitation.**

Carbamazepine patients have reported low white blood cell counts with increased infections or bruising at the beginning of therapy, this can be monitored by careful watching for any new infections or general feeling of unwell. Liver enzymes need to be monitored where prac-



tical with patients taking valproate, topiramate and carbamazepine.

Although used in child and adolescent psychiatry both for its affect in controlling moods and irritability, there is little evidence published for its use in this population (Haessler 2010) but is licensed for use in adults who are unresponsive to lithium in the Great Britain.

### Other important factors

When any psychometric testing is being done it is important to take into account medication and its effect on the **student's functioning.**

Drug	Behavioural Effects	Cognitive Effects
Carbamazepine	Difficulty sleeping, agitation, irritability, emotional lability	Impaired task performance
Valproic acid	Drowsiness (especially when used in combination with barbiturates)	Minimal adverse effects on psychosocial tests

### Adverse Behavioural and Cognitive Effects Associated with Anticonvulsants.

(AHFS 2012 accessed 3/4/12)

The antiepileptics have metabolic and immune effects with valproate having notably weight gain and somnolence as well as transient nausea to vomiting and increased appetite has been noted. Increased weight gain is also associated with lithium as well as gastrointestinal symptoms including nausea, vomiting and diarrhoea. Other adverse effects are polyuria, polydipsia and enuresis. Benign rash can occur in 5-20% patients taking antiepileptics but the inci-

dence of the severe Steven Johnson syndrome is more 1 in 3000. (Amaladoss et al 2010)

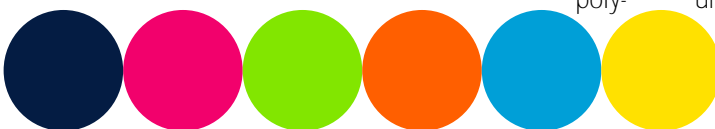
### Conclusion

These medications have their place in the **doctor's pharmacopeia but with all medications** they have their limitations and are not quick fix agents to fix a long standing problem but are powerful agents that can help pay a part the management of mood and other affective disorders.

### References

1. [www.beyondblue.org.au](http://www.beyondblue.org.au) (accessed 5/1/12)
2. Stahl SM. Essential Psychopharmacology of Antipsychotics and Mood Stabilisers. 2002 Cambridge UP Cambridge UK.
3. Thullier J Ten Years that changed the face of mental illness. 1999 Martin Dunitz London
4. Goodman and Gilman 12<sup>th</sup> ed 2011 accessed through ACCESS Medicine (through CIAP 8/3/12)
5. [www.psychotropics.dk](http://www.psychotropics.dk) (accessed 8/3/12)
6. Taylor D, Paton C and Kapur S. The Maudsley Prescribing Guidelines in Psychiatry 11<sup>th</sup> ed 2012 Wiley Blackwell
7. AHFS 2012 online (accessed through CIAP 3/4/12)
8. Amaladoss A, Roberts N, Amaladoss F. Evidence for use of mood stabilisers and anticonvulsants in the treatment of non-affective disorders in children and adolescents. Clin Neuropharm 2010: 33(6) 303-11
9. Haessler F, Reis O. Pharmacotherapy of disruptive behavior in mentally retarded subjects: a review of the current literature. Developmental Disabilities Research Reviews 2010 16: 265-72

For further information the following websites may be of help  
[www.beyondblue.com.au](http://www.beyondblue.com.au)  
 Black Dog  
[www.blackdog.com.au](http://www.blackdog.com.au)  
 Reach Out  
[www.au.reachout.com](http://www.au.reachout.com)  
 National Prescribing Service  
[www.nps.org.au](http://www.nps.org.au)



# helping families thrive via stepping stones program...

## What is Group Stepping Stones Triple P?

Stepping Stones Triple P (SSTP) forms part of the Triple P positive program system of family intervention for parents of children who have or are at risk of, developing behaviour problems. SSTP includes adaptations for preadolescent children who have a disability. Group SSTP is an intensive 9 session parent training program provided in group format.

## The School-Link Children's Hospital at Westmead Group Stepping Stones Triple P Pilot

The Children's Hospital at Westmead School-Link research in 2009 identified the need for the development of mental health promotion, prevention and early identification programs for students with an intellectual disability. CHW has partnered with Ageing Disability and Home Care – Department of Family and Communities (ADHC) to evaluate the program as delivered in the school community. The Triple P parenting program compliments the existing positive behaviour systems that an increasing number of schools are becoming engaged in. The delivery in the school community will ensure a consistent positive behaviour approach between the home and school, improving the environment for decreased problem behaviours in the home and classroom. In 2011 and 2012, the parent training package was delivered in 12 NSW government Schools for Specific Purposes (SSPs) by school and ADHC co-facilitators. The schools and their facilitators have done an amazing job with recruiting families and running sessions within their schools. Fisher Rd School, Kurrambee and Beverley Park School share some experiences below.

## Fisher Road School Group Stepping Stones Triple P Program



*Jen Plunkett  
Teacher and  
Computer Coordinator  
Fisher Road School*

My name is Jen Plunkett (Special Education Teacher) and I ran the program with Joy Thompson (ADHC psychologist). I work at Fisher Road SSP where we cater for students with moderate to severe disabili-

ties. This was the 2nd year we have implemented the program for a group of parents who have children that attend our school. We have had an extremely successful outcome each year and we will continue to run the program.

As a presenter of the program I really enjoyed making a difference in the home lives of families and helping them to become more positive and confident parents when dealing with difficult situations. The parents loved coming each week and they enjoyed sharing stories and nutting out problems they were having at home.

Every one of our parents has success with the issues they were working through. Some of them couldn't believe that they were able to change difficult behaviour that they had been struggling with for years. Each week the parents became close and some of them started meeting outside of the group, this is a very rare occasion at our school due to the nature of the children and the isolation our parents experience. Some of the parents are still in contact today and we all plan to meet up for reunions throughout the year. The program is so beneficial and really helps parents to make a change in their parenting skills. I look forward to my next group of parents in 2013 and I know that we will have great success again.

## Kurrambee School Group Stepping Stones Triple P Program

In 2011, Kurrambee School was given the opportunity to participate in the Triple P facilitator training. After a few full days of training and a (slightly scary) accreditation process we returned to our school ready to offer our families the opportunity to participate in a Group Stepping Stones Triple PPP course run in the familiar environment of our school in 2012.

Due to a lack of funds at Kurrambee School to release two staff to run this program it was decided that only one of the facilitators would run the initial course, with the other staff member providing support if needed. Kylie Isaacs (Assistant Principal, Kurrambee School) partnered with **ADHC, Penrith's Senior Psychologist, Kasha Bedford**. We sent out expressions of interest to our families in our primary school and had lots of interest. We found that lots of families had difficulty committing to the length of the program, so ended up with a small group that was attended by 5 parents in total, 3 grandparent carers, a grandparent foster carer and a single par-

ent of children with severe to profound intellectual disabilities. We found this group to be very supportive of each other. They listened to each other and shared their stories and became a support network for each other, even swapping phone numbers at the end of the course. The group has also met a couple of times since the course to share how they are going and catch up over some cake and a cup of tea or coffee. The opportunity to maintain a stepping stones support group will continue to be facilitated by our school.

---

**“There were significant changes and improvements noted in parental adjustment levels with reductions in depression, anxiety and stress levels of all parents/carers who attended...”**

---

It was fantastic to have the support of The **Children's Hospital, Westmead** to collate and analyse data collected and provide support and feedback as necessary. From a co-facilitator point of view a teacher and a psychologist running the course together was very effective. A strength of this group was the involvement of a trained practitioner from the school attending the group who had knowledge of the children and their specific needs. The opportunity to have a class teacher involved in the week to week running of the program has proved extremely beneficial in providing and maintaining increased knowledge of the client group and consistency across environments for implementation of Stepping Stones Triple P interventions.

A further strength of the group was the opportunity to network with other grandparents/parents of children with similar needs of a more severe nature. Of greatest benefit was the parents opportunity to vent and share their experiences with parenting to **date which included the high's and lows of parenting a child with additional needs**. All of the children were non verbal and had significant support needs.

The outcomes of the course for our families was very positive. There were significant changes and improvements noted in parental adjustment levels with reductions in depression, anxiety and stress levels of all parents/carers who attended. All parents reported significant improvements in their

mental health. All parents reported improvements in their parenting competence with each reporting improved confidence in managing their child's behaviour and improved confidence in managing their child in particular settings. One parent reported following completion of the group "I am assertive" now.

Issues raised in the group have also been followed up. In Term 4 of 2012 we ran a toileting clinic at Kurrambee School as this was an issue that seemed to reoccur. We also plan to run fussy eating groups and anger management groups for families in the near future.

As the running of this group at Kurrambee School was so successful we also plan to target specific intellectual disability populations such as fathers, grandparents, foster carers, children with ASD, and children with specific syndromes such as Downs Syndrome.

We would thoroughly recommend that all SSP's have at least one staff member trained in Triple P – it is definitely a worthwhile experience!!!

*Kylie Isaacs, Assistant Principal,  
Kurrambee School, DEC  
Kasha Bedford, Senior Psychologist,  
ADHC*

### Beverley Park Triple P Stepping Stones Program

Parents gain skills to tackle tricky kids  
By Scott Dougherty Aug. 8, 2012, 12:30 a.m.



Graduation day: Beverley Park School parents Lisa Pozzecco, Vicki Veneran, Christine Willis, Tina Krakue, Amanda Dennis, Kylie Jone and Iemaima Mote celebrate finishing the school's inaugural Triple P course last week. Picture: Jonathan Ng

SEVEN parents of Campbelltown's Beverley Park School pupils last week graduated from the school's first Triple P Parenting Program.

The school was invited by the Children's Hospital at Westmead to be part of a pilot

program that introduces effective management strategies for dealing with a range of childhood behaviour problems and developmental difficulties.

"It's a wonderful program that gives parents the confidence to develop lifelong skills at home," said Campbelltown mayor Annoulack Chantivong, who attended the graduation. "I really commend the school and the program and look forward to seeing more graduates."

The course provides specific training for parents of children with a disability. The parents donned uni-style graduation gowns and hats for the occasion.

"We'd like to continue the program as these seven parents have seen it as a success," principal Carmel Seeto said. "It strengthens the partnership between home and school and whole families benefit."

Source: <http://www.macarthuradvertiser.com.au/story/245053/parents-gain-skills-to-tackle-tricky-kids/>

### Karonga School Musical

A giant octopus with flashing rope lights and a remote-controlled shark were part of the spectacle when Karonga Special school recently staged a whole-school musical, called Under the Sea, showcasing the musical talents of our students.

The story about two children who go to sleep and dream of being in an octopuses' garden was performed by all 71 students from kindergarten to Year 12. As part of the show, each class dressed up as a different sea animal including octopus, turtles, dolphins, soldier crabs, jellyfish, clownfish, stingrays and starfish, with the father of one student volunteering the services of his sound and lighting company to

give our students the full theatrical experience.

In preparation for the musical each class rehearsed weekly for an entire semester with our music therapist Jann Birks. Students painted and contributed artwork to the scenery and some also made parts of their costumes.

The musical was supported in class with a cross-curriculum program including researching, reading stories and creating artworks about their chosen sea animal. Several classes also went on an excursion to the Sydney Aquarium to see their sea animal in its natural habitat.

Whilst the challenges were many and varied, there were none that couldn't be overcome. Students needs in order to achieve success were at all times a priority. Musical instruments were modified, with in several instances head switches and foot switches connected to the electric piano to allow students the opportunity to accompany the music. The needs of our students on the autism spectrum were also considered with modifications to the sound and lighting effects to avoid a sensory overload.

Despite all the challenges our students performed brilliantly. They seemed to have a sense of the importance of the occasion and it was an interesting journey for me to see just how important dressing up and performing is to every child regardless of their disability.

The school musical has been an important component in creating a positive school community, encouraging increased confidence and self-esteem in our students and a greater sense of belonging and inclusion in our school. The musical culminated in an enormous sense of achievement for all our staff and students.

**One student said to me, "thank you for believing in me that I could do it."**

*Janelle Simpson-Goodwin  
Assistant Principal, Karonga Special School*



# retirement message from Ruth Still...



Ruth Still (pictured right)  
Department of Education and  
Communities

In the many roles I had throughout my career in public education- teacher, special educator, school counsellor, leader in equity/ student services coordinator, investigator in child protection and manager in student wellbeing/ behaviour, student counselling I have tried to better the educational outcomes- not just academic but social, emotional, physical, spiritual, the mental health and wellbeing of all students.

Very early in my career as a school counsellor I realised I could drain the swamp (for example training the student welfare team in a school in interviewing skills) as well as kill the crocodiles (endless students to see at my office door)- that it **didn't need to me going to every serious incident** in the then Metropolitan West region but that the school counselling workforce along with principals and other teachers could be trained in the management of such incidents and school counsellors be provided with ongoing resourcing, research-based skill development in dealing with the psychological effects of traumatic events. This good practice is documented and updated continuously in the school counsellor manual.

The values I believe I demonstrated throughout my career include:  
Firstly in social justice- a fair go for all – all students need the opportunity for good educational outcomes to have a better future- good teaching, good programs.

This girl who wanted to know more about **Aboriginal culture in Warren in the '50's** when I saw my clothes going out to Beemunal and was told by my parents I could not mix with them at school, became the girl who then as now is determined to learn more about Aboriginal ways of being, in particular developing cultural competence, **I'm proud to be called a titta girl by my Aboriginal friends**. In a similar way my parents were somewhat taken aback that I would teach children with disabilities- **I don't shy away from challenges**, or difference whether it is disability, race, culture, sexuality – it is something to be celebrated and accommodated.

---

**“I value the collegiality, thinking, planning, research, evidence base for good practice...”**

---

Secondly-the right for women to learn, succeed, have a career not just a job. Our daughters are both teachers and I am enormously proud of them.

Thirdly - developing excellence- by generalising good practice examples into systems improvements (draining the swamp) being strategic- keeping the school counsellor manual well researched, practical sound advice with professional learning for others whether it is serious incident management, supervision practices- peer consultation,

psychological harm including risk of suicide, mental health and wellbeing, autism, legal requirements- privacy etc with writing with the Australian Psychological Society- Psychologists in Schools reference group, role statements on lifespan with the Psychology Board of Australia, functional assessment, supporting students with a refugee background in rural NSW and supporting students who are also carers. This helps maintain the excellent standard of practice in the school counselling service and flows onto the teaching service. My career attests to my courage in getting on the front foot, being an advocate at all levels for sound, evidence based psychological advice be it organisational, counselling, developmental, educational practice in the bureaucracy, with government agencies and peak organisations and not being afraid of action.

Fourthly- leading and managing teams. **Team** has been key to all the programs involving me.

The collaboration, shared ideas, professional expertise coming from our different professional skills and knowledge has meant the project whole is greater than the sum of the parts; be it the collaboration with **The Childrens' Hospital Westmead, NSW Ministry of Health- MH Kids- School-Link Initiative, Community Services- GOT IT, Ageing and Disability- Autism and challenging students and NSW Department of Education and Communities staff**, particularly its school counselling workforce has benefitted from the expertise of paediatricians, clinical psychologists, doctors, social workers, speech therapists and other allied health professionals.

I value the collegiality, thinking, planning, research, evidence base for good practice and good humour in the development of professional learning, joint agency supervision structures, better delivery of services to some of our most challenging students and families when health, education and community services are working in collaboration. Many of the school health surveys carried out by the Ministry of Health inform the directions the School-Link Initiative in particular takes. Recently the shared care schedule was released jointly by both departments and it is hoped the directions flagged in the schedule will mean better access to and from health care services. I am grateful for the many opportunities I have had to lead and manage many aspects of the School-Link Initiative and wish everyone involved, continuing success in the evolving directions it will take. ●



# sensory modulation, trauma and attachment informed care workshop...

Sarah White  
Occupational Therapist  
Department of Psychological Medicine  
The Children's Hospital at Westmead

The sensory modulation, trauma and attachment-informed care workshop was a NSW Health MH-Kids initiative held in May 2012. Mental health inpatient unit staff and CAMHS Occupational Therapists were invited to attend this workshop presented by Dr Tina Champagne. Dr Champagne, an Occupational Therapist in the United States, has had extensive experience both in research and clinical mental health. She consults internationally on sensory processing, trauma and attachment-informed care, and seclusion and restraint reduction.

This workshop focused on sensory modulation, trauma and attachment-informed care theory and practical strategies for inpatient unit staff and Occupational Therapists working with children and adolescents with mental illness.

Dr Champagne's goal is to create a community approach to teaching the concept of self-regulation through sensory modulation interventions. By identifying current tools and strategies already being used, we can integrate more specialised tools and strategies into each individual or group programme. Research into the benefits of sensory interventions in inpatient units in the United States has revealed significant decreases in restraint episodes (Champagne, 2012).



Both clinical and research evidence to date reinforces the use of sensory approaches in mental health to foster relationships, support development, provide a safe sense of containment and facilitate a sense of safety and stability.

Sensory modulation is an individual's ability to regulate or balance their responses

to sensory input in an organised manner. This allows the person to perform in the "just right" (optimal) range of alertness throughout their day.

Sensory diets have important roles in crisis de-escalation, general health and wellness, prevention and maintenance. A sensory diet refers to the sensorimotor experiences that help individuals function optimally within their environment (Champagne & Stromberg, 2004). It is the things we do throughout the day to help us self-regulate and engage in purposeful activities. We all have things we do, consciously or not, to help ourselves self-regulate. When working with people with mental illness, intellectual disability and special needs we may need to help individuals create their own sensory diet. We

---

**"Every person has their own individual sensory preferences, which means we all can respond differently to the same sensory input or sensory experience..."**

---

need to do our detective work and gather information about that person's sensory preferences. What sensory input calms him/her? What sensory input alerts him/her? What is that person's current sensory diet? All of the sensory systems should play a part in a sensory diet – vision, olfactory (smell), auditory, taste, touch, vestibular (movement) and proprioception (body position sense). In particular the three "powerhouse" senses- touch, vestibular and proprioception have very important roles in self-regulation and should be incorporated at regular intervals throughout the day.

Every person has their own individual sensory preferences, which means we all can respond differently to the same sensory input or sensory experience. There was ample opportunity to discuss and trial different sensory activities, such as sensory fidget toys, weighted objects, and vibrating toys and cushions. Practical workshop activities such as this reinforced to inpatient staff and therapists that the same item for each person may be activating or may be calming. Developing individual sensory kits that are personalised and meet that person's own sensory needs is

therefore a very useful tool. Weighted modalities such as lap and neck bags, weighted vests and weighted blankets are also very important sensory strategies to consider when working with children and adolescents. Weighted modalities used appropriately with certain individuals, can increase on-task attention, improve sleep, and calm and relax a person (Champagne, 2011).

Through her years of experience Dr Champagne has also had extensive experience creating sensory modulation rooms/spaces in inpatient mental health units. Guidelines that need to be considered when creating such a space are the goals of the space/room, population who will be using it, environmental and equipment considerations such as lighting, colours, and furniture. Examples used in such spaces are rocking/glider chairs, beanbags, textured and vibrating cushions; music, weighted modalities, and assortments of fidget and stress balls.

Though in recent years there has been a significant growth in the use of sensory assessment and treatment approaches in mental health, this is still emerging practice area for many occupational therapists (Champagne & Koomar, 2011). This workshop highlighted the need for occupational therapists to gain greater knowledge and skills in using sensory approaches consistently in our roles in mental health settings.

Overall it was a really interesting workshop that provided many practical ideas for mental health inpatient staff and Occupational Therapists to be able to use with children and adolescents with mental illness, intellectual disability and special needs.

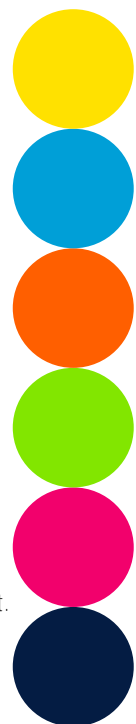
## References:

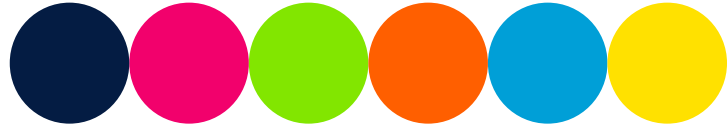
Champagne, T. (2011). *Sensory modulation & environment: Essential elements of occupation* (3<sup>rd</sup> ed. Rev.). Sydney, Australia: Pearson Assessment.

Champagne, T. (2012). *Sensory modulation, trauma & attachment informed care workshop notes*. Sydney, Australia.

Champagne, T., & Koomar, J. (2011). Expanding the focus: Addressing sensory discrimination concerns in mental health. *Mental Health Special Interest Section Quarterly*, 34 (1), 1-4.

Champagne, T & Stromberg, N. (2004). Sensory approaches in inpatient psychiatric settings: Innovative alternatives to seclusion and restraint. *Journal of Psychosocial Nursing*, 42, 35-44.





## Educating Children and Young People with Fetal Alcohol Spectrum Disorders: Constructing personalised pathways to learning.

Blackburn C, Carpenter B, Egerton J. 2012. London & New York: Routledge.

*Reviewed by Associate Professor David Dossetor, Child Psychiatrist with a special interest in Intellectual Disability and Autism, Area Director for Mental Health, The Children's Hospital at Westmead.*



This book is by educators for educators, and the arrival is well timed, following on from my article on FASD in last issue of the CHW School-link Newsletter. It also provides a novel framework for Complex Learning and Developmental Disabilities (CLDD) which may influence current thinking on the range of special education skills that all teachers are going to need. While our understanding of these problems grows, there is increasing demand that they should be taught in a mainstream setting.

Young people with FASD present educators with the following challenges: hyperactivity, short attention span, erratic mood swings, poor memory, lack of social skills, auditory/vocal processing, visual sequencing, sensory integration difficulties (particularly lack of co-ordination), poor retention of task instruction and numeracy/mathematical difficulties. FASD now account for the largest group (1/100) of young people presenting with non-genetic learning difficulties/disabilities. FASD often co-exist with ADHD, ASD, ODD, compounded by attachment difficulties, and sensory processing difficulties.

Awareness of FASD is the key to identifying the learning/clinical predicament, the complexity of co-morbidities in behaviourally dysregulated kids, developing individualised teaching plans, as well as preventing the problem in future cases. This book informs educators and other multidisciplinary professionals on the implications for learning and development, attachment, family life, life outcomes and society.

Amongst teratogens (substances that cause abnormal development of babies in pregnancy) such as heavy metals, other recreational drugs, alcohol produces by far the most serious neurobehavioural effects. Chapter 2 describes how this happens and what factors contribute to the developmental catastrophe. Advances in diagnosis include computer aided 3D recognition of facial features, slower initiation of eye movements in test tasks, and a recognisable neurocognitive profile of executive function and spatial processing. Recognition of the disorder is the first stage: in helping the young person and those involved understand why they are so challenged and modifying expectations. Young people with FASD may be warm and articulate, be good with long-term learning and practical artistic skills, but lack short term/working memory and comprehension skills.

Chapter 3 explains what learning patterns are associated with what areas of brain damage, such as R parietal lobe with mathematics, spatial awareness, and dyspraxia, the corpus callosum with the speed of processing. Amongst the medical, learning, behavioural and emotional difficulties, there may be the social problems of not understanding the impact they have on others. Sensory processing problems may involve hypersensitivity, hyposensitivity or sensory seeking or fluctuations between the two, in any of the 8 senses (including the 3 internal senses: proprioceptive, vestibular and organic). There may be problems distinguishing between imagination and reality. The impact of different types of attachment disorder on teacher relationship and task challenge is described. 87% have mental health problems. The interaction of these factors can lead to variation of learning performance day to day and moment to moment. 22 different disciplines are identified that may need to be involved to appropriately support their needs.

Chapter 4 introduces a teaching and learning framework of a collection of ideas and interventions from which to develop a personalised curriculum for a young person with FASD within an inclusive educational

or classroom framework. Personalised learning starts with an appreciation of difference of learning trajectory in relation to **an individual's neurodiversity**. For example a young person may have problems with concepts, time, money, relationships, and key life skills, but may have practical strengths and learn well through visual-kinetic approaches. Information on strengths and difficulties, relating to learn-

---

**“This book informs educators and other professionals on the implications for learning and development...”**

---

ing and behaviour, needs to be collected from different sources, including the family. Cognitive and communicative skills need understanding along with the impact of hyperactivity, inattention and distractibility (often due to sensory processing difficulties), and supportive approaches developed, such as home learning, life skills, picture communication, and a buddy system (a list of suggestions is provided). Sometimes classroom environment needs changing because of sensory processing needs, catering for a low arousal physical environment, with specific sensory regulatory activities including exercise. Schools can provide a secure base for young people with attachment difficulties, enabling them to function effectively, this includes: respect no matter their skills and difficulties, adequate safety and supervision, sensitivity to communication, predictable routines, consistent rules and expectations, familiar long-term relationships, modelling good relationships between adults, informed reflection on incidents, and disciplinary procedures that are fair to all.

Disinhibited, overexcited or impulsive and inappropriate behaviour, failure to understand consequences can lead to being exploited or bullied, putting the young people with FASD in danger, prone to substance abuse and even drawing attention from the criminal justice system. These young people need additional support and supervision to form appropriate relationships, understand rules, and learn life skills (again possible strategies are listed). A number of teaching strategies are also suggested to

support social and emotional development, which can be delayed by lack of understanding of social cues, theory of mind and memory deficits.

Physical development can be affected by medical problems such as epilepsy, sensory deficits of vision and hearing, poor sleep, poor diet and other lifestyle factors. They are easily led and vulnerable to substance abuse. Learning healthy lifestyle skills is therefore important. Lastly employment/work skills need support and development, as well as supported processes into employment.

Chapter 7 looks at the implications for the educational scientific holistic framework (pedagogy). The unevenness of profile of Complex Learning and Developmental Disabilities (CLDD) is not only characteristic of FASD but also developmental problems arising from prematurity, low birth weight, assisted conception and other genetic problems. This was illustrated with an 18 year old boy with FASD who had 20 year old expressive language, 16 year old reading ability, 11 year old living skills, 8 year old concepts of money and time, 7 year old social skills and 6 year old comprehension and emotional maturity. Such a boy has difficulty with standardised curricula. They are at risk of trouble with the law, homelessness, re-current imprisonment, and mental health

problems including suicidal risk. Schools need to engage with individual approaches with a curriculum that is calibrated to their learning profile to prevent such abhorrent outcomes. Over time such an approach enables the individual to engage with their educational tasks and thereby build resilience.

The Specialist Schools and Academic Trust Complex Needs Project has developed the Engagement Profile and Scale ([www.complexld.ssatrust.org.uk](http://www.complexld.ssatrust.org.uk)), a classroom tool to help increase learners' engagement leading to deep learning, modifying the learning process through dimensions of awareness, curiosity, investigation, discovery, anticipation, persistence and initiation, with a range of interventions. The authors anticipate the future strengthening of the interface of neuroscience and education to raise the attainment of these vulnerable children. The last two chapters describe the influence of understanding FASD on families and the impact on educational organisation.

This brief book (106 pages) sets the challenge for inclusive education to meet the needs of CLDD cases through detailed individualised bio, neurodevelopmental, psychosocial cultural understanding. It provides a good summary of the empirical literature and should therefore be compulsory reading for all teachers. I have tried

to provide a conceptual summary but it also provides a lot of valuable hints and resources, but will need careful study to get the best from it and apply it to mainstream or special educational setting. It reassures me that the authors use the same developmental competency language that our book *Mental Health for Children and Adolescent with Intellectual and Developmental Disabilities* promotes to enable necessary interdisciplinary communication.

FASD is an important issue but this book also provides an important model for understanding the means to engage and educate those with CLDDs. When one considers the rising number of young people entering our Juvenile Justice System, of whom 30-50% have high rates of complex learning problems and high rates of recidivism, as a community we need to look at what we can do better for these people with CLDD. They may have complex disabilities but ironically most do not reach criteria for an intellectual disability as defined by DSM. The education system is the main community resource that could impact such individual and community failure. I think this book sets the agenda for bringing 'state of the art' science to assessing and intervening to the sad stories that too often accompany FASD and complex learning and developmental disabilities. ●

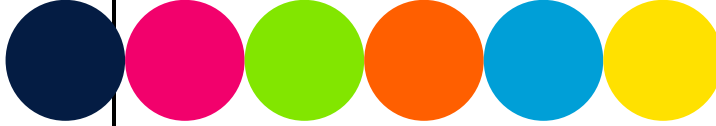


DirtyFeet is a not for profit contemporary dance organisation based in Sydney, run by artists. DirtyFeet presented "The Right Foot Project" - integrated dance workshops for people with and without disabilities between the ages of 14 and 26 years. The workshops were held in Redfern in September and was led by professional dance artist and disability arts practitioner Sarah-Vyne Vassallo,

alongside professional DirtyFeet dancers. This was a unique opportunity for emerging dancers with disabilities to connect with professional artists in a creative and inclusive way. Participants had a hand in creating a short dance over two days, which was presented at the end of day two to friends and family.

Former Restless Dance Theatre Artistic Director, Philip Channells, is mentoring the project and says, "The Right Foot Project is an exciting new venture...that promises to narrow the divide between mainstream and integrated dance practice. We hope that 'The Right Foot Project' becomes a permanent fixture of DirtyFeet's future community-based work."

"From what I observed of Wendy and of the rest of the group it proved to be a worthwhile activity. The second day certainly showed great potential as they were all far more comfortable with each other, which was quite evident in the performance piece at the end. Well done." Colin Jeff: Support Worker, House With No Steps. Visit [www.dirtyfeet.com.au](http://www.dirtyfeet.com.au) for more information.



## reviews...



### Congratulations Judy Longworth

Awarded Staff Excellence at the Children's Hospital at Westmead

Judy is a Senior Clinical Pharmacist and a great asset to the Department of Psychological Medicine. We are lucky to have Judy as our regular medicine cabinet writer in this newsletter.

Well done Judy, this award is well deserved.



#### Website Review:

[www.mca.com.au/learn](http://www.mca.com.au/learn)

The Museum of Contemporary Art has a great program running called the Bella program. Look, touch, listen and create in the Bella Program. Explore exhibitions, develop new skills and have fun in this free art-making workshop for young people with specific needs, including physical, intellectual, emotional or behavioural disabilities. The Bella program is offered during school term, Monday 10-11.30 and 12.30-2 or by appointment. You can email [learning@mca.com.au](mailto:learning@mca.com.au) or call 9245 2484

The museum also has a multi-sensory Bella room; a highly tactile environment inspired by nature with multiple sculptural elements to interact with.

The Museums website has had an overhaul to match the new museum. There is something for everyone to learn including talks and lessons and it truly brings out the inspiration for creativity in us all.



#### Organisation Review:

**ACAP Psychology Clinic**  
[www.acap.edu.au/psychology-clinic](http://www.acap.edu.au/psychology-clinic)

The ACAP Psychology Clinic provides psychological services to the community at nominal or no cost. The ACAP Psychology Clinic is a professional treatment facility staffed by provisionally registered and registered psychologists supervised by experienced clinical psychologists. The Clinic provides assessment and intervention for children, adolescents and adults in the following areas; anxiety, mood disorders, eating problems, sleep issues, psychological assessment, substance misuse, divorce, chronic illness, lifestyle changes, self esteem, anger management, behavioural problems and parenting etc.

The Clinic is located in Sydney and is easily accessible by train, bus and ferry.

For more information or to arrange an appointment, call the call the ACAP Psychology Clinic on 02 8236 8070 or visit their website.

Have you been to a conference, read a book or visited a website that you loved? Send us an overview to: [schoollink@health.nsw.gov.au](mailto:schoollink@health.nsw.gov.au)

The beautiful artworks in this newsletter are taken from the participants of the **Operation Art project** at the Children's Hospital at Westmead. You can find out more at [www.artsunit.nsw.edu.au](http://www.artsunit.nsw.edu.au)

A sincere thankyou to all children and adults involved in the production of these artworks and this newsletter. Remember; **Think Kids**



## contact us...

The Children's Hospital at Westmead  
School-Link Initiative  
Department of Psychological Medicine  
Cnr Hawkesbury Rd and Hainsworth St,  
Westmead NSW 2145  
[schoollink@chw.edu.au](mailto:schoollink@chw.edu.au)  
P: 9891 7208 F: 9891 7222

W: [www.schoollink.chw.edu.au](http://www.schoollink.chw.edu.au)  
If you would like to contribute to our next edition, please contact  
**CHW School-Link Newsletter Editor**  
Hebah Saleh  
[schoollink@chw.edu.au](mailto:schoollink@chw.edu.au) or  
[hebah.saleh@health.nsw.gov.au](mailto:hebah.saleh@health.nsw.gov.au)

