NEUROPSYCHOTHERAPY IN AUSTRALIA

NEUROSCIENCE IN THE WORKPLACE
From the Editor

Dr Pieter Rossouw

Welcome to our March edition of the Journal. We are encouraged by the ongoing increase in subscriptions to the journal – especially the increasing numbers from countries outside Australia. You are most welcome to introduce this Journal to colleagues – registration is available through the website www.mediros.com.au at no cost. Previous editions can also be accessed through the website.

Neuroscience and the Workplace

In this edition we introduce a topic that is traditionally alien to Neuropsychotherapy and Neuroscience in general – the link between neuroscience and the workplace. Traditionally Organizational Psychology and Neuroscience operated in very different domains despite the links that are clearly demonstrated through workers consulting psychologists and other mental health workers in relation to work related difficulties. The bigger picture of organizational structure and leadership and how it relates to neuroscience is still virtually untouched. A partnership between me and a highly experienced organizational expert has led to a project to explore the neuroscience of leadership, and how it affects the workplace and organizational culture. We also focus on effective leadership – from neural perspective and strategies to manage and maximize wellness for workers. The feature article focuses on some of these aspects.

Professional development

One of the cornerstones of effective professional practice is the focus on professional development (PD). Most professions with statutory professional bodies/councils have a PD requirement. Fulfillment of these requirements need to be carefully logged and is even audited on regular basis. However, the efficacy of PD is hardly ever reviewed. A recent meta-analysis done by the Mediros team came up with a very small number of studies that looked at the efficacy of PD. Mediros has embarked on a large research project to review the efficacy of the Neuropsychotherapy training programs that we ran since 2010. In this edition we focus on the need for a review and the process involved in the research. Over the course of the next two months clinicians who attended one or more of our workshop will be contacted by e-mail and asked to assist with this research by filling out a short questionnaire. It would be highly appreciated if you assist with a response (which will be completely de-identified). We will keep you posted about the outcomes in this journal.

Neuropsychotherapy workshops – 2013

Our workshop schedule for 2013 kicks in in a few weeks. We received a large number of e-mails from clinicians asking why there are limited workshops available in Perth, Canberra, Adelaide and Hobart. Unfortunately research and teaching commitments at The University of Queensland makes it very difficult to run more workshops – hence the limited availability of workshops in these cities.

Enjoy the read!

Pieter Rossouw

Contact us:

Sign up for our Journal – Please register (no cost) on our website www.mediros.com.au go to: “register for the e-journal”.

Email us at: admin@mediros.com.au
Postal: mediros, PO Box 6460, St Lucia 4067 Qld AUSTRALIA
A NEW FRONTIER –
NEUROSCIENCE AND THE WORKPLACE

Pieter Rossouw
BA (Hons), MClinPsych, PhD, MAPS, MCClin
Unit for Neuropsychotherapy
Director Mediros
School of psychology, School of Social Work and Human Services
The University of Queensland
pieter@mediros.com.au

Connie Henson
PhD; MIPH; MAPS
Director Learning Quest
chenson@learningquest.com.au
Research on a neuromolecular level, and the findings of neuroscience have significant implications for our daily lives. The science of Neuropsychotherapy is based on the principles of neuroscience, providing a wealth of information and direction towards effective neural change. These key principles are (to mention a few):

- The fact that neurons are plastic and have the ability to change their patterns of firing, their connectivity with other neurons, in order to facilitate new pathways of activation. This fact has changed the landscape of psychotherapy demonstrating the need for structured talking therapies to facilitate change (Kandel, Swartz & Jessel 2013).
- The pattern of neural activation—lessons from developmental neuroscience. We know now that the brain develops from the deep primitive neural structures (brain stem areas) to the limbic structures and eventually the neo-cortex—the cortical regions (MacLean 1990). This finding has significant implications for understanding the process of therapy, highlighting the need to address safety and attachment first before we engage in higher order (cognitive restructuring) interventions.
- The discovery of mirror neurons. The discovery of mirror neurons and ongoing research in this fascinating field has forever changed the concept of the brain as a closed system to the brain as a social network that is strongly linked in social patterns and interaction with the environment which continues to shape the trajectory of neural activation (Rizzolatti & Craighero 2004).

Knowledge and understanding of these patterns is vital if neuropsychotherapists are going to engage effectively with clients, and facilitate effective patterns of neural activation, in order to shift uncomfortable, or less helpful patterns of thoughts, feelings and behaviours.

During the last decade, Neuroscience has found an ever growing number of clinicians realising that the classical focus on Neuropsychology (the science that traditionally focuses on the link between the brain and cognition and, to some extent, research models to understand behaviour, emotion and brain injuries) needs to be broadened to a focus on Applied Neuropsychology – the process of intervention. This has given birth to the new focus on neuropsychotherapy—the applied science of psychotherapy from a brain based perspective (Grawe 2007; Rossouw 2011). This science is not at all a reductionistic enterprise – the mirror neuron effect has clearly demonstrated the social interactivity of the brain and how the environment (enriched and traumatic) changes the patterns of neural firing and wiring (Kilner, Friston & Frith 2007, Rossouw 2012, Rossouw 2013b).

One of the frontiers that has not received a lot of attention is the exploration of the organisational environment in terms of the principles of neuroscience. How does the workplace impact the brain? How is the brain impacting the workplace? The answer seems logical—clearly the workplace will have significant effects on the wellness of the brain—it can stimulate the brain or cause trauma resulting on patterns of avoidance and protection.

Although this seems logical – the organizational environment has not been a focus of study from a neuroscience perspective. In 2012 the authors activated a comprehensive project to study organizational leadership patterns and consider the impact from a neuroscience perspective. We specifically targeted organizational leadership and considered the effect of leadership styles on neural wellness. We found that despite the growing body of evidence from neuroscience providing guidelines to maximise neural wellness, the organizational environment is significantly lacking. We are currently finalizing a manuscript on organizational leadership to address some of the current organizational practices and leadership styles from an applied organizational neuroscience perspective.

Grounded in not only in organizational science but also neuroscience, leadership includes practices to smooth the thinking pathways, enabling our thoughts to link with others to produce insights; find answers to complex problems; and create novel approaches/adaptations that will enhance productivity and wellbeing. Neuroscience also enables us to identify barriers or restrictions that can impact each of the elements of leadership, that if not removed can get in the way of clear, creative thinking. The Neuroscience Leadership framework offers a coherent scheme for the practical application of recent neuroscience research to the challenges leaders face when dealing with complex, ambiguous, rapidly changing and multidimensional problems that are typical in current business environments.

How neuroscience has changed the rules

During the last two decades scientists have gained a far more accurate view of human nature and behaviour because of the integration of neuroscience, organizational psychology, social science and physics. Imaging technologies such as magnet-
ic resonance imaging (MRI), functional magnetic resonance imaging (fMRI) and positron emission tomography (PET) as well as enhanced brain wave studies, such as quantitative electroencephalography (QEEG), have greatly enhanced our understanding of neural processes and responses to our environment. Advanced computer analysis has contributed greatly to the development of a clearer theoretical working model not only to understand patterns of thoughts, feelings and social behaviours but also to effectively facilitate change.

Recent findings clearly indicate that traditional strategies to facilitate change are not consistent with basic principles of neuroanatomy, and while they may deliver short-term results they are lacking in terms of facilitating lasting change (Davidson & Begley 2012). Likewise these traditional strategies are particularly flawed when working in environments and market places that are complex, less predictable and changing rapidly. Further introduction of these strategies can also have significant detrimental effects on the facilitator of the change (the leader).

Let us consider a few classical organisational strategies to facilitate change and view them in the light of modern neuroscience:

1. The “carrot and stick” principle to facilitate organisational change.

In its essence this principle is based on the premises that change can be facilitated by addressing behaviour. The history of this principle can be directly traced to the early behaviourists – Ivan Pavlov and later the giant in this field B. F. Skinner. These studies are all based on animal studies that demonstrated how certain triggers (the ringing of a bell) activated anticipatory behaviours (salivating) resulting in associations and changes in behaviours. Simply put the principle is operationalized as follows—the fear of being sacked when an individual under-performs and promised incentive when the individual performs well, leads to good performance (the carrot and the stick). This seems like an excellent model of facilitating change/performance, and likely to produce interim results. The problem with this “principle” is that the fear based aspect overrides the performance and the performance is the result of “closed neural activation” (which is associated with narrow and rigid thinking). This approach may have short-term benefits but eventually leads to high levels of discomfort, distress, avoidance, passive resistance, disengagement or even workers quitting as result of ever increasing fear based activation. The carrot and stick principle eventually falls victim to the carrot becoming less and less achievable and the reality of the stick more and more indicative of impending doom. Moreover, the complexity of today’s markets and organisations makes it necessary for managers and even frontline workers to make decisions and implement actions that cannot always be predicted ahead of time. When the focus is on doing the thing that gets the reward or even worse just avoiding doing the thing that gets the punishment, employees thinking and decision-making will be biased away from thinking deeply and taking innovative action.

2. The “listen, be nice, pay a compliment before criticism” principle.

The essence of this “humanistic” approach is the “niceness” approach or the so called “how to make friends and influence people” approach. The principle is clear – make someone at ease and then facilitate change. Although there are aspects of this principle that are aligned with some aspects of neuroscientific findings, the essential feature of this “principle” violates the basic guiding principles of neuroanatomy. Imagine an organisation that adopts this principle to facilitate change. The “listen, be nice and pay a compliment” style will rapidly become a trigger for all employees to real-
The “things will be better when it changes” principle.

The essential feature of this “principle” is the message that change will bring positive outcomes and employees should embrace change. This approach is in direct violation of what we know about neural development, and the effect of change on the brain, as well as ignoring the obvious and inescapable inconvenience and/or loss associated with any change. The brain developed in a sequential pattern from the inside out and from the bottom to the top (MacLean 1990; Rossouw 2011b). This pattern of development, that starts before birth and continues through the first year post birth, is essentially part of the survival response. The young undeveloped brain is highly geared to scan the environment to detect potential danger. Any changes are met with signals to the fear system (the amygdala) to remember to ensure effective responses in future. Babies whose needs were not be fully met, developed patterns of ‘insecure attachment’ to their primary carers (usually the mother), and developed patterns of increased stress activation when change was facilitated. This happened on a neural communication level as a result of insufficient ‘down regulation’ (calming) of the fear system and ‘up-regulation’ (activation) of safety patterns (mother’s care, hugs, talking, feeding, touch etc.). Ongoing violations of basic needs like these can eventually lead to a person activating his/her fear system in any situation of change (Rossouw 2013). Change becomes a symbol of threat and fear. These activations can clearly be seen on PET scans. Blood flow reduces quickly from the frontal (smart) parts of the brain and increases in the impulsive (fear based) parts of the brain. The mere mentioning of “change” leads many people to a freeze response, due to the shift in cortical blood flow. It paralyses people and many cases have been recorded where people indicate that they “cannot think straight” in the wake of change (a very accurate description in light of the rapid deterioration of cognitive control).

Even for the majority of people who have actually had their basic needs fully met (secure attachments) in childhood, these same neurological processes come into play when significant change is detected. This can include any change that will impact personal security including changes in organisational structure, retrenchments, and even less substantial changes such as alterations in technical or management processes, performance measures/expectations or even a manger with a new style. Moreover, even in circumstances where changes do eventually have positive outcomes, this simplistic approach minimises the complexity and inevitable losses associated with any change. Anyone who is old enough to be in the workforce will have experienced many changes in their lives and will have an intuitive sense that no change is completely rosy. If this is not acknowledged and addressed by leaders it will contribute to distrust, and/or a sense that the leaders do not have a clear idea of what they are getting the organisation into. Naturally either of these perceptions will reduce predictability and feelings of control, further exacerbating the neurological and behavioural consequences.

So, why do we have some people who “love” change and embrace the opportunity to be innovative and develop new things? The answer lies in a combination of genetic predispositions and early life experiences (the concept of genetic expression).
We will keep you posted about the publication of the book on Neuroscience and Leadership

References:


MacLean, P.D. (1990). The Neurobiological Underpin-
ing of the Mental Health Renaissance. In: Book of proceed-
ings. Mental Health Services Confer-
ence. 184-189, Sydney, SOS, April. 184-189.

Rossouw, P.J. (2011). Engaging in therapy and his-
tory taking: right brain to right brain commu-

Rossouw, P.J. (2013). Childhood trauma and neural development. Indicators for interventions with special reference to rural and remote environ-
ments. Australia and New Zealand Mental Health Association.74-83.


Shen, S., Battersby, S., et.al. 2000. Refined map-
ning of the human serotonin transporter (SLC6A4) gene within 17q11 adjacent to the CPD and NF1 genes. European Journal of Human Genetics. 8: 75-78.
Mandatory participation in CPD is intended to ensure psychologists remain up-to-date with the latest scientific developments, and are afforded opportunities to advance their knowledge, skills, and competence in the diversity of treatment approaches used by the profession (Bloom, 2005; Psychology Board of Australia, 2012a). Participation in CPD helps to ensure psychologists develop understanding of client care processes and health outcomes, and enhance psychologists’ ability to adapt to clients’ changing needs (Bloom, 2005; Psychology Board of Australia, 2012a).

In recognising that psychologists differ in their work contexts and in skills required to perform their work, the Psychology Board of Australia (PBA) has adopted a flexible yet self-regulatory model of CPD (Psychology Board of Australia, 2012a). Psychologists are expected to self-assess their existing knowledge and skills, and to develop, monitor, evaluate, and reflect upon their CPD learning plan and learning outcomes (Psychology Board of Australia, 2012a). A key rationale underlying the PBA’s CPD model is to ensure the use of evidence-based practices, thus honouring their professional obligations as a psychologist (Psychology Board of Australia, 2011, 2012a).

Yet despite recognition of the fundamental role CPD plays within the profession, and a call some decades ago for greater planning and evaluation of CPD (Webster, 1971), there is surprisingly little evidence outlining the impact of CPD on psychologists’ competence and practice or on client outcomes. Considering the emphasis on evidence-based practice within the profession, this absence of evidence is somewhat paradoxical. As Neimeyer, Taylor, and Wear (2009) note, “for a discipline that prides itself on its clarion theoretical conceptualizations, sound psychometrics, and disciplined, data-driven inquiry, the absence of these features in relation to the examination of continuing education is a conspicuous and quizzical one” (p. 621-622).

While some researchers are making moves to address these gaps in the literature (e.g. Neimeyer, Taylor, & Philip, 2010; Neimeyer et al., 2009), there is currently no universal system for assessing CPD and its impacts on psychological practice (Elman, Illfelder-Kaye, & Robiner, 2005). While mandated CPD requirements in Australia - incorporating self-assessment of skills and knowledge and peer consultation - go part of the way to addressing this issue, “the gap between what is presumed to be true [about the impact of CPD] and what is known to be true is a wide one” (Neimeyer et al., 2009, p. 621). And this is particularly the case in Australia.

One notable issue is the general lack of formal assessment of learning, skill development, or competence within CPD activities. While assessment of competence is a key aspect of medical education (Daniels & Walter, 2002; Davis et al., 1999), it is largely lacking within psychology (Neimeyer et al., 2010). There appears to be a general reluctance among psychologists to engage in formal assessment of learn-
ing (Neimeyer et al., 2009; Sharkin & Plageman, 2003) which, when considering the strong emphasis on evidence-based practice within the profession, is also intriguing. Assessment of competence is an integral component of the novice psychologist’s training, with demonstration of competence mandatory for obtaining general registration (Psychology Board of Australia, 2012b). Yet there tends to be little, if any, formal assessment of competence once registration has been attained (Neimeyer et al., 2010). A number of authors (Eva & Regehr, 2005; Neimeyer et al., 2010; Rubin et al., 2007) have thus called for a greater emphasis on direct, objective assessment of competence throughout a psychologist’s career.

In light of the dearth of understanding about the impact of CPD on psychologists’ competence, clinical practice, and client outcomes, we propose a research agenda seeking to address some of these gaps. Our initial research will focus on neuropsychotherapy CPD provided by Mediros, and will consider the impact that participation in these workshops has on clinical practice. We will shortly survey past workshop participants to assess the extent of learning that has occurred in workshops and the extent that workshop learning has been utilised in practice. We intend to investigate the extent to which CPD has improved clinical practice and consider the factors that influence learning (e.g. didactic versus experiential learning). We then propose to develop a means of self-assessment for future Mediros workshops, encouraging participants to complete brief assessment questions before and after each workshop in order to determine the extent of learning that occurs.

Following outcomes of this initial research, we intend to then expand our research to look at CPD more broadly. We propose to investigate the extent of learning from psychologists’ participation across different types of CPD, and compare learning from different types of CPD. Our research will consider the factors that influence learning in CPD, and particularly how didactic and experiential learning differs in terms of learning and learning outcomes. We intend to look at the impact of CPD on clinical practice, and the factors that influence the extent to which CPD can impact clinical practice. We also propose to provide recommendations for improving CPD to maximise learning as well as recommendations for improving CPD to ensure positive impacts on clinical practice.

Continuing education plays a pivotal role throughout a psychologist’s career. Enhancing our understanding of the role that participation in CPD has on psychologists’ clinical practice and client outcomes is necessary, essential, and long overdue.

References


Neuropsychotherapy workshops 2013

NEUROPSYCHOThERAPY

Neuropsychotherapy is an exciting science, not least because of the recognition that significant changes occur for clients in neural firing and structure as a result of talking therapies. Neuropsychotherapy is the “language” used in the interaction between the clinician and the client to guide the client in the process of restructuring the brain towards higher levels of functioning and well-being. It uses information from neurosciences to assist clients suffering from a wide range of biological, psychological and social challenges to apply strategies to down regulate unhelpful neural stress responses and up regulate neural activation towards neural change. Understanding the neurophysiology of these disorders and activation patterns of neural pathways as well as discussing practical applications, assist clinicians greatly to apply more effective strategies to treat depression, anxiety and trauma.

ABOUT THE PRESENTER

Pieter J. Rossouw  M Clin Psych, PhD, MAPS, CCLIN. Pieter is the Director of the Master of Counselling Program at the School of Psychology and the School of Social Work and Human Services at The University of Queensland. His research and teaching focuses on Neuropsychotherapy. Pieter is also the Director of Mediros – a company that provides training in Neurobiology and Neuropsychotherapy.

Pieter has been in private practice for the past 25 years. Pieter holds Honours Degrees in Philosophy and Psychology, a Master Degree in Clinical Psychology and a PhD. Pieter is a member of the Australian Psychological Society and the APS College of Clinical Psychologists. He provides Mental Health training for GP’s and is accredited at the Royal Australian College of General Practitioners. Pieter was a Professor in Clinical Psychology at Universities in Canada, Holland and South Africa where he also spearheaded a Psycho-Therapeutic Assistance Program to support people being exposed to trauma.

Pieter specialises in neuropsychotherapy and is an expert in anxiety and mood disorders. He has published 5 Scientific Books and 20 scientific articles. He has been involved in research in extensive clinical trials and presented research papers at 30 International Conferences worldwide. He is a member of the Global Association for Interpersonal Neurobiology Studies, the International Society for Traumatic Stress Studies, the International Association for Family Therapy and the Professional Association for Drug and Alcohol Workers and the Australasian Cognitive Neuroscience Society.

CONTACT US:
www.mediros.com.au
OR admin@mediros.com.au

WORKSHOP VENUES

- Sydney
- Melbourne
- Brisbane
- Perth
- Adelaide
- Canberra
- Hobart

1 DAY SKILLS CLASSES

FOCUSED NEUROPSYCHOTHERAPY - Applied Strategies for the treatment of ANXIETY
Continuing Professional Development Hours - CPD – 6 Hours Specialised Training

Brisbane 9 Aug ’13
RBW Hospital, Herston Rd, Herston,
Melbourne 24 Aug ’13
Royal Melbourne Hospital, Grattan Street, Parkville
Sydney 30 Aug ’13
Portside Centre, Portside Centre, Level 5, 207 Kent Street, Sydney

FOCUSED NEUROPSYCHOTHERAPY - Applied Strategies for treatment of DEPRESSION - CPD – 6 Hours Specialised Training

Brisbane 04 Dec ’13
RBW Hospital, Herston Rd, Herston,
Melbourne 07 Dec ’13
Royal Melbourne Hospital, Grattan Street, Parkville
Sydney 13 Dec ’13
Portside Centre, Portside Centre, Level 5, 207 Kent Street, Sydney,

The neuroscience of Depression: New opportunities for Effective Treatment. Continuing Professional Development Hours - CPD – 12 Hours Specialised Training

Sydney 13 & 14 June ’13
Portside Centre, Level 5, 207 Kent Street, Sydney
Melbourne 21 & 22 June ’13
Royal Melbourne Hospital, Grattan Street, Parkville
Brisbane 27 & 28 June ’13
RBW Hospital, Herston Rd, Herston, Brisbane

THE DEVELOPING BRAIN AND THE NEUROSCIENCE OF MEMORY AND TRAUMA
Continuing Professional Development Hours - CPD – 12 Hours Specialised Training

Brisbane 12 & 13 Sept ’13
RBW Hospital, Herston Rd, Herston, Brisbane

THE SOCIAL BRAIN AND THE NEUROSCIENCE OF RELATIONSHIPS
CPD – 12 Hours Specialised Training

Canberra 18 & 19 Oct ’13
Calvary Priv, Hospital, Mary Potter Cct, Bruce, ACT
Adelaide 25 & 26 Oct ’13
Hackney Hotel, 96 Hackney Road, North Adelaide
Perth 1 & 2 Nov ’13
St Catherine’s Coll, UWA, 2 Park Rd, Nedlands, Perth

Melbourne 20 & 21 Sept ’13
Royal Melbourne Hospital, Grattan Street, Parkville
Sydney 03 & 04 Oct ’13
Portside Centre, Level 5, 207 Kent Street, Sydney

NEW WORKSHOP

Melbourne 15 & 16 Nov ’13
Royal Melbourne Hospital, Grattan Street, Parkville
Brisbane 21 & 22 Nov ’13
RBW Hospital, Herston Rd, Herston, Brisbane
Sydney 28 & 29 Nov ’13
Portside Centre, Level 5, 207 Kent Street, Sydney
Hobart 25th & 26th Nov’13
Grand Mercure Hadley’s Hotel, 34 Murray St, Hobart

Register Online at: www.mediros.com.au  Email to: admin@mediros.com.au
Phone Number: 07 3217 7266  Fax: 07 3294 3220  Address: Mediros, PO Box 6460, St Lucia, Qld, 4067
<table>
<thead>
<tr>
<th>Workshops – Two Days</th>
<th>Workshops – One Day</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Brain &amp; Anxiety: Neurobiological information as Psychotherapeutic Tool</strong></td>
<td><strong>Focused Neuropsychotherapy - Applied Strategies for the treatment of ANXIETY</strong></td>
</tr>
<tr>
<td>Continuing Professional Development Hours: 12 hours specialised training</td>
<td>Continuing Professional Development Hours: 6 hours specialised training</td>
</tr>
<tr>
<td>Sydney: 16 &amp; 17 May 2013</td>
<td>Brisbane: 09 August 2013</td>
</tr>
<tr>
<td>Portside Centre, Level 5, 207 Kent Street, Sydney</td>
<td>RBW Hospital, Herston Rd, Herston, Brisbane</td>
</tr>
<tr>
<td>Calvary Private Hospital, Mary Potter Cct, Bruce, ACT</td>
<td>Royal Melbourne Hospital, Grattan Street, Parkville</td>
</tr>
<tr>
<td>Adelaide: 25 &amp; 26 Oct 2013</td>
<td>Sydney: 30 August 2013</td>
</tr>
<tr>
<td>Hackney Hotel, 96 Hackney Road, North Adelaide</td>
<td>Portside Centre, Level 5, 207 Kent Street, Sydney</td>
</tr>
<tr>
<td>St Catherine's Coll, UWA, 2 Park Rd, Nedlands, Perth</td>
<td>Grand Mercure Hadley's Hotel, 34 Murray St, Hobart</td>
</tr>
<tr>
<td>Melbourne: 15 &amp; 16 Nov 2013</td>
<td><strong>Focused Neuropsychotherapy - Applied Strategies for treatment of DEPRESSION</strong></td>
</tr>
<tr>
<td>Royal Melbourne Hospital, Grattan Street, Parkville</td>
<td>Continuing Professional Development Hours: 6 hours specialised training</td>
</tr>
<tr>
<td>Brisbane: 21 &amp; 22 Nov 2013</td>
<td>Sydney: 04 December 2013</td>
</tr>
<tr>
<td>RBW Hospital, Herston Rd, Herston, Brisbane</td>
<td>RBW Hospital, Herston Rd, Herston, Brisbane</td>
</tr>
<tr>
<td>Melbourne: 07 December 2013</td>
<td>Sydney: 13 December 2013</td>
</tr>
<tr>
<td>Royal Melbourne Hospital, Grattan Street, Parkville</td>
<td>Portside Centre, Level 5, 207 Kent Street, Sydney</td>
</tr>
</tbody>
</table>

**The Developing Brain and the Neuroscience of Memory and Trauma**

Continuing Professional Development Hours: 12 hours specialised training

- Sydney: 13 & 14 Sept 2013
  - RBW Hospital, Herston Rd, Herston, Brisbane
- Melbourne: 20 & 21 Sept 2013
  - Royal Melbourne Hospital, Grattan Street, Parkville
- Sydney: 3 & 4 October 2013
  - Portside Centre, Level 5, 207 Kent Street, Sydney

**The Social Brain and the Neuroscience of Relationships**

Continuing Professional Development Hours: 12 hours specialised training

- Canberra: 18 & 19 Oct 2013
  - Calvary Private Hospital, Mary Potter Cct, Bruce, ACT
- Adelaide: 25 & 26 Oct 2013
  - Hackney Hotel, 96 Hackney Road, North Adelaide
- Perth: 1 & 2 Nov 2013
  - St Catherine’s Coll, UWA, 2 Park Rd, Nedlands, Perth
- Melbourne: 15 & 16 Nov 2013
  - Royal Melbourne Hospital, Grattan Street, Parkville
- Brisbane: 21 & 22 Nov 2013
  - RBW Hospital, Herston Rd, Herston, Brisbane
- Sydney: 28 & 29 Nov 2013
  - Portside Centre, Level 5, 207 Kent Street, Sydney
- Hobart: 25th & 26th Nov 2013
  - Grand Mercure Hadley's Hotel, 34 Murray St, Hobart

**Registration Form or Register online: www.mediros.com.au**

- Online registration available early 2013

**COSTS**

**Two day Workshops:**
- Early Bird rate (60 days prior)
  - Sydney: $495.00
  - Melbourne: $545.00
- Standard Rate
  - Sydney: $545.00
  - Melbourne: $545.00
- Student rate (copy of st card)
  - Sydney: $465.00
  - Melbourne: $465.00
- Group (4+, one payment)
  - Sydney: $450.00
  - Melbourne: $450.00

**One day Skills Classes:**
- Early Bird rate (60 days prior)
  - Sydney: $295.00
  - Melbourne: $345.00
- Standard Rate
  - Sydney: $345.00
  - Melbourne: $345.00
- Student rate (copy of st card)
  - Sydney: $265.00
  - Melbourne: $265.00
- Group (4+, one payment)
  - Sydney: $270.00
  - Melbourne: $270.00

**Discount rate on Skills Classes if booked at the same time as a two day Workshop**
- Early Bird rate (60 days prior)
  - Sydney: $265.00
  - Melbourne: $310.00
- Student rate (copy of st card)
  - Sydney: $240.00
  - Melbourne: $240.00
- Group (4+, one payment)
  - Sydney: $245.00
  - Melbourne: $245.00

**TOTAL COSTS:**

- __________________________

**PAYMENT OPTIONS**

- □ CREDIT CARD (Visa of Master only)
  - Card Number: __________________________
  - Expiry Date: __________Three digits on back of card __________
  - Name of Card: __________________________
  - Amount: __________________________Signed: __________________________

- □ Cheque □ Bank Transfer – we will email you the invoice & Mediros bank details

- Email to: andie@mediros.com.au
- Fax: 07 3294 3220
- Mail: Mediros (Admin), PO Box 6460, St Lucia, Qld, 4067
- Mediros Phone Number: 07 3217 7266