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Western Australian  
Council of Social Service Inc

*Ways to make  
a difference*

DISCUSSION PAPER:  
**Self-Regulation**

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Self-regulation refers to a child or young person's ability to deal with stressors effectively and efficiently and then return to a baseline of being calmly focused and alert.<sup>1</sup>

The Commissioner for Children and Young People's 2012 Thinker in Residence program, with the theme of 'Self-regulation', generated substantial interest and discussion about the link between self-regulation and the wellbeing of children and young people. Self-regulation is relevant to the Commissioner's priority areas of mental health, wellbeing and early childhood.

The Thinker in Residence, Dr Stuart Shanker, argued that because the capacity to self-regulate is the foundation for a child's development, self-regulation should be the framework for addressing issues of children's behaviour and implementing programs and services from the earliest years.<sup>2</sup>

Dr Shanker in his 2012 report on his residency<sup>3</sup> outlined key areas that are critical to enhancing the self-regulation and wellbeing of children and young people in WA:

- A paradigm shift whereby 'problems' (including, social, emotional, behavioural and learning problems) affecting children and young people's wellbeing are considered within a self-regulation framework.
- The self-regulation framework form the basis for enhancing the effectiveness of current programs and practice and underpin new program and service development.
- Current initiatives now underway in health, mental health, family and community services and education are extended to be universally available.
- A greater commitment to addressing factors that affect a child's capacity to self-regulate.
- Increased coordination and collaboration between government and non-government organisations.

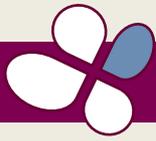
The influence of Dr Shanker's 2012 visit was certainly profound and people across the community sector continued to discuss how we could build on the work he initiated.

For a number of organisations who missed the opportunity to attend any of the sessions Dr Shanker conducted during the Residency, there was an interest in providing a public lecture or master class. Others were interested in working with Dr Shanker and his colleagues in a more in-depth fashion around self-regulation, applying it to the work of their services.

The Western Australian Council of Social Service, working in partnership with five community sector organisations (Parkerville, Child Australia, Communicare, Wanslea and Ngala) arranged for Dr Shanker to return to Western Australia in February 2014. At Dr Shanker's suggestion, the Council also extended an invitation to Mr Mike McKay, Director of the Canadian Self-Regulation Initiative.<sup>4</sup>

A number of activities have arisen from this visit, including the establishment of a group of Practice Leaders to continue the momentum around this work, an ongoing website with resource materials about self-regulation and plans for a broader based practitioner's network.

Both WACOSS and the Commissioner for Children and Young People were of the view that a discussion paper about self-regulation would be a useful contribution to this ongoing work and have collaborated in the preparation of this Discussion Paper.



## What is self-regulation?

Shonkoff and Philips in *From Neurons to Neighbourhoods* describe ten core concepts which are essential to understanding early childhood development. Self-regulation is one of them:

*The growth of self-regulation is a cornerstone of early childhood development that cuts across all domains of behaviour.*<sup>5</sup>

In this context the term 'self-regulation'<sup>6</sup> describes the capacity to regulate physiological arousal, emotions, behaviours and cognitive processes for oneself.<sup>7</sup>

Successful adaptation to a changing world requires reaction and regulation. Babies are reactive but poor at regulation. Their senses are quite well developed but they lack the neural systems necessary to regulate their own internal states and behaviour.<sup>8</sup> Initially they rely on their parents<sup>9</sup> to regulate for them but as they grow they develop an increasing ability to regulate for themselves.<sup>10</sup> Shonkoff and Philips explain it as follows:

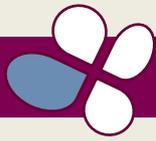
*... everything from maintaining a normal body temperature to orchestrating physiology and behaviour to conform to the day-night rhythm of human existence, to learning to soothe and settle once basic needs are met. Later it means developing the capacity to manage powerful emotions constructively and keep one's attention focused.*<sup>11</sup>

Shonkoff and Philips identify the transition from external to self-regulation as one of three early development tasks<sup>12</sup> that if successfully achieved start a child on a positive developmental pathway.<sup>13</sup> Self-regulation continues to develop into adolescence as brain development continues.<sup>14</sup>

Dr Shanker defines self-regulation as 'a child's ability to deal with stressors effectively and efficiently and then return to a baseline of being calmly focused and alert'.<sup>15</sup> A child who can smoothly make the transitions from being hyper-aroused (necessary to meet a challenge) to hypo-aroused (necessary for recovery) and then return to being calmly focused and alert is better able to learn and meet daily challenges. The more stresses a child is dealing with the harder it becomes to remain calmly focused and alert.<sup>16</sup>

In moderation the biological stress response is helpful but when excessive or prolonged it negatively affects the neural pathways.<sup>17</sup> Being chronically over-aroused also drains a child's capacity to deal with new stressors.<sup>18</sup> These effects have been found to be the case for children who have experienced severe and prolonged stress as a result of trauma, neglect, abuse and compromised parenting.<sup>19</sup>

Behaviours found to result from chronic stress include poor self-regulation, anxiety, aggression, impulsive behaviours and learned helplessness.<sup>20</sup> Research also suggests that long term health problems can result, for example, heart disease, mental health problems, developmental disorders, academic failure and substance abuse.<sup>21,22</sup>



Stress is a significant issue for Western Australian children and young people. The Commissioner for Children and Young People's 2010 wellbeing research found that stress was identified by children and young people as one of the barriers to their wellbeing.<sup>23</sup>

More than 35 per cent of those who took part in the on-line survey for this research believed they had too much stress in their lives, with more high school age students indicating this than primary school age students.<sup>24</sup> Family conflict and alcohol misuse within the family were identified as a major source of stress for some children and young people.<sup>25</sup> From the age of 12 years onwards, young people began to talk about school work as a source of 'pressure and stress'.<sup>26</sup>

Research confirms that a significant proportion of children and young people are exposed to stress through family adversity or life stresses, including financial hardship, separation or divorce, and hospitalisation or death of a family member. A national study found that 20 per cent of children had been exposed to three or more of these stresses and only 27.5 per cent to none at all.<sup>27</sup>

There is evidence that more Aboriginal children and young people are exposed to life stresses and that the number of life stress they experience is greater. The 2005 *Western Australian Aboriginal Child Health Survey* found 69.6 per cent of primary carers reported three or more life stress events occurring in the family in the preceding 12 months.<sup>28</sup> Twenty two per cent of the children and young people in the survey were living in families where there were seven or more major stress events.<sup>29</sup>

Family adversity or life stresses are consistently linked to poorer developmental, academic and health outcomes during childhood and later adulthood<sup>30</sup> and in the Western Australian survey the proportion of children at high risk of clinically significant emotional or behavioural difficulties increased with the number of life stress events.<sup>31</sup>



## Why is self-regulation important?

In Western Australia children and young people's mental health and wellbeing, stress and behaviour are of increasing concern. This is consistent with national and international trends.<sup>32,33,34</sup> Along with other nations<sup>35</sup> there is also concern that despite the considerable effort expended on programs and services in later childhood and adolescence there are not commensurate improvements in children and young people's wellbeing.<sup>36</sup>

The Commissioner's 2014 report *The State of Western Australia's Children and Young People* highlighted that 23% of WA children are 'developmentally vulnerable' on one or more of the five domains of the Australian Early Development Index (AEDI).<sup>37</sup> Covering the domains of physical health and wellbeing, school-based language and cognitive skills, social competence, emotional maturity, and communication skills and general knowledge, the AEDI is a measure of how well children are doing as they start school (five years of age), a crucial transition period for later development.

There is evidence for some children having significant problems even earlier, for example, WA research found 11.5% of children aged two years and 20 per cent of children aged five years had clinically significant behavioural problems.<sup>38</sup> More than six per cent of these children had clinically significant mental health problems at both age two and five.<sup>39</sup>

Older children and young people's mental health and wellbeing are of considerable concern. The Commissioner for Children and Young People's *Report of the Inquiry into the mental health and wellbeing of children and young people in Western Australia* identified significant concern from schools about the number of students experiencing problems including stress, anxiety and aggression and the increasing numbers with diagnoses of behavioural and developmental disorders.<sup>40</sup>

The extent of mental health problems has been quantified by research by the Telethon Kids Institute. The *Western Australian Child Health Survey* in 1995 and the *Western Australian Aboriginal Child Health Survey* in 2005 found more than one in six children aged four to 17 years had a mental health problem<sup>41</sup> and 24 per cent of Aboriginal children aged four to 17 years were at high risk of clinically significant emotional or behavioural difficulties.<sup>42</sup>

In research by Edith Cowan University in 2009 students' behaviour more generally was examined. During the year approximately 40 per cent of students showed one or more behaviours described as 'unproductive behaviours' and for half of these students their behaviour had an impact on their academic performance.<sup>43</sup> Unproductive behaviours included behaviour such as 'disengaged' (inattentive, unmotivated), 'uncooperative' (aggressive, noncompliant) and 'low-level disruptive' (calling out, seeking attention, provoking others).<sup>44</sup> The causes of these behaviours were not identified.

While there are multiple causes for the problems that children and young people experience, improvements in children and young people's wellbeing beyond early childhood can be achieved by applying recent research in neurobiology and early childhood development – incorporating a self regulation framework - to policy and programs.<sup>45</sup>



## Where to next?

WACOSS in collaboration with our community partners established two broad aims for the 2014 visit of Dr Shanker and Mr McKay. They were:

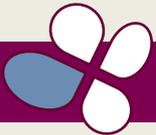
- To build the momentum of the self-regulation movement in WA; and
- Given the application of this framework across a broad range of disciplines, to develop a practice network of interested and committed practitioners in WA.

Both the 2012 Thinker in Residence theme of self-regulation and the 2014 programme generated considerable cross-sectorial interest and support. This is reflected in diverse ways, such as through the range of organisations who were involved in supporting the programme of events in 2014 and the composition of the group of twelve practitioners who have come together through participation in the Practice Leader master classes to lead this work in WA.

Coming from government, community sector and private organisations and working across a variety of disciplines and settings, the Practice Leaders are using the framework of self regulation in a range of ways and developing resources that will be of use to a broader group of practitioners and potentially parents and policy makers.

The WACOSS on line platform, DropIN, is being developed as the key site for Practice Leaders to promote this work.

Other initiatives, such as establishing a book club and developing different methods for identifying and sharing good practice are underway. Resource materials are continually being updated, ways of linking in with the work continuing in Canada are being investigated and plans for a broader practitioner's network are being finalised, with a formal launch likely to be held early in 2015.



## Want to find out more?

Further information can be obtained from:

- Helen Creed, Policy Manager (Vulnerable People), WACOSS on [helen@wacoss.org.au](mailto:helen@wacoss.org.au);
- The WACOSS website — [www.wacoss.org.au/shanker2014](http://www.wacoss.org.au/shanker2014);
- The *Self-Regulation Practice Leaders'* space on [DropIN](http://DropIN) — <https://dropin.org.au/display/SRPLN/> (you will need a DropIN account to access this page).

For further reading, please also refer to the references provided in the endnotes.



- <sup>1</sup> Shanker, S. (2012) [Self-Regulation: Report of the 2012 Thinker in Residence](#), Commissioner for Children and Young People WA, p. 5.
- <sup>2</sup> Ibid, pp. 12–14
- <sup>3</sup> Shanker, S. (2012) [Self-Regulation: Report of the 2012 Thinker in Residence](#), Commissioner for Children and Young People, pp. 20–22.
- <sup>4</sup> For more on the *Canadian Self-Regulation Initiative*, visit <http://www.self-regulation.ca/>.
- <sup>5</sup> Shonkoff, J.P. & Phillips, D.A. (2000) *From neurons to neighborhoods: The science of early childhood development*, National Academies Press, Washington, DC, p. 3
- <sup>6</sup> The term ‘self-regulation’ is widely used in education and psychology. In some contexts the term is quite specific, for example, in education the term can describe a metacognitive strategy related to learning.<sup>6</sup> In other contexts terms including ‘emotion regulation’, ‘emotional regulation’ and self-control are used, along with ‘self-regulation’, to describe a person’s ability to monitor and change their behaviour. The term ‘self-regulation’ in this paper is both inclusive of and different to, these concepts.
- <sup>7</sup> National Research Council Institute of Medicine (2000) from Shonkoff, J.P. & Phillips, D.A. (Eds) (2000) *Neurons to Neighborhoods: The Science of Early Childhood Development*, National Academy Press, Washington DC, p. 92–123.
- <sup>8</sup> Greenspan & Shanker (2004) cited McCain, M.N., Mustard, F.J. & Shanker, S. (2007) [Early years Study 2: Putting Science into Action](#), p. 18.
- <sup>9</sup> Any person with a parenting role inclusive of, but not limited to, parents, carers, grandparents and guardians
- <sup>10</sup> Shonkoff, J.P. & Phillips, D.A. (2000) *From neurons to neighborhoods: The science of early childhood development*, National Academies Press, Washington, DC, p. 92.
- <sup>11</sup> Ibid, p. 93.
- <sup>12</sup> The other 2 are acquiring the capabilities needed for communication and language and learning to relate well to other children and forming friendships.
- <sup>13</sup> Shonkoff, J.P. & Phillips, D.A. (2000) *From neurons to neighborhoods: The science of early childhood development*, National Academies Press, Washington, DC, p. 92.
- <sup>14</sup> McCain, M.N., Mustard, F.J. & Shanker, S. (2007) [Early Years Study 2: Putting Science into Action](#), p. 21.
- <sup>15</sup> Shanker, S. 2012, [Self-Regulation: Report of the 2012 Thinker in Residence](#), Commissioner for Children and Young People WA, p. 5.
- <sup>16</sup> Ibid, p. 12.
- <sup>17</sup> McEwen, B. & Seeman, T. (2009) [Allostatic Load and Allostasis](#), University of California San Francisco.
- <sup>18</sup> Shanker, S. (2012) [Self-Regulation: Report of the 2012 Thinker in Residence](#), Commissioner for Children and Young People WA, p. 12.
- <sup>19</sup> McCain, M.N., Mustard, F.J. & Shanker, S. (2007) [Early years Study 2: Putting Science into Action](#), p. 28-29.
- <sup>20</sup> Delima J. & Vimpani G (2011) ‘[The neurobiological effects of childhood trauma](#)’, *Family Matters*, Australian Institute of Family studies No. 89 pp. 42–52.
- <sup>21</sup> McCain, M.N., Mustard, F.J. & Shanker, S. (2007) [Early Years Study 2: Putting Science into Action](#), p. 34, 36.
- <sup>22</sup> Ibid, p. 28-29.
- <sup>23</sup> Commissioner for Children and Young People WA (2010) [Wellbeing Research Report: Children and young people’s views on wellbeing](#), Perth, Western Australia.
- <sup>24</sup> Ibid, pp. 84 & 88.
- <sup>25</sup> Commissioner for Children and Young People WA (2009) [Speaking out about wellbeing: the views of Western Australian Children and Young People](#), Perth, Western Australia p. 6.
- <sup>26</sup> Commissioner for Children and Young People WA (2010) [Wellbeing Research Report: Children and young people’s views on wellbeing](#), Perth, Western Australia, pp. 55-56.
- <sup>27</sup> Oleson S. et al (2010) ‘[Children’s exposure to parental and familial adversities: Findings from a population survey of Australians](#)’, *Family Matters*, Australian Institute of Family Studies, Issue No. 84, pp43–52
- <sup>28</sup> Zubrick S. (2005) [The Western Australian Aboriginal Child Health Survey: The Social and Emotional Wellbeing of Aboriginal Children and Young People](#), Perth, p. 602.
- <sup>29</sup> Ibid, p. 135.
- <sup>30</sup> Oleson S. et al (2010) ‘[Children’s exposure to parental and familial adversities: Findings from a population survey of Australians](#)’, *Family Matters*, Australian Institute of Family Studies, Issue No. 84, pp43–52
- <sup>31</sup> Zubrick S. (2005) [The Western Australian Aboriginal Child Health Survey: The Social and Emotional Wellbeing of Aboriginal Children and Young People](#), Curtin University of Technology and Telethon Institute for Child Health Research, Perth, p. 135.

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<sup>32</sup> See the work of ARACY, for example: ARACY (2011) [“betwixt and between”: A report on ARACY’s Middle Years Project](#).

<sup>33</sup> Office of the Prime Minister’s Science Advisory Committee (2011) [Improving the Transition: Reducing Social and Psychological Morbidity During Adolescence](#), Office of the Prime Minister’s Science Advisory Committee.

<sup>34</sup> Shanker, S. (2012) [Self-Regulation: Report of the 2012 Thinker in Residence](#), Commissioner for Children and Young People WA, p. 7.

<sup>35</sup> See for example, Boivin, M. & Hertzman, C. (Eds) (2012) [Early Childhood Development: adverse experiences and developmental health](#); Shanker, S. in Foreword to Pascal, C.E. (2009) [Every Child, Every Opportunity Curriculum and Pedagogy for the Early Learning Program: A compendium report to 'With Our Best Future in Mind: Implementing Early Learning in Ontario'](#).

<sup>36</sup> Stanley, F., Richardson, S. & Prior, M. (2005) *Children of the Lucky Country? How Australian society has turned its back on children and why children matter*, Pan Macmillan Australia, Sydney.

<sup>37</sup> Commissioner for Children and Young People WA (2014) [The State of Western Australia’s Children and Young People: Edition Two](#), p. 173.

<sup>38</sup> Robinson M. et al [‘Pre- and post natal influences on preschool mental health: a large cohort study’](#), *The Journal of Child Psychology and Psychiatry*, 2008, 49 (10), pp. 1118–28.

<sup>39</sup> Ibid, pp. 1118–28.

<sup>40</sup> Commissioner for Children and Young People WA (2011) pp.117, 138 [Report of the Inquiry into the mental health and wellbeing of children and young people in Western Australia](#), pp.117, 138.

<sup>41</sup> Zubrick, S, et al (1995) [4303.5 Western Australian Child Health Survey: Developing Health and Well-being in the nineties](#), Australian Bureau of Statistics and the Institute for Child Health Research, Perth p. 35

<sup>42</sup> Zubrick S. (2005) [The Western Australian Aboriginal Child Health Survey: The Social and Emotional Wellbeing of Aboriginal Children and Young People](#), Curtin University of Technology and Telethon Institute for Child Health Research, Perth, p. 25

<sup>43</sup> Angus M. et al (2009) *Trajectories of classroom Behaviour and Academic Progress: a study of student engagement with learning*, Edith Cowan University, p. 96

<sup>44</sup> Ibid, p. viii.

<sup>45</sup> Shonkoff, J.P. & Phillips, D.A. (2000) *From neurons to neighborhoods: The science of early childhood development*, National Academies Press, Washington, DC, p. 2.