

Neuro-Physiological Psychotherapy (NPP): An integrative therapeutic approach to working with adopted children who have experienced early life trauma, underpinned by the DDP model

A series of three papers have been published in peer reviewed journals outlining the development and evaluation of the Neuro-Physiological Psychotherapy (NPP) model developed by Family Futures in London, UK. These describe NPP as wrap-around multi-disciplinary, neuro-sequential, attachment-focussed intervention for children and families who present with multiple, clinically significant, emotional and behavioural difficulties.

Family Futures CIC is a Voluntary Adoption Agency and Community Interest Company that specialises in Adoption Support. It has been offering specialised therapeutic support to looked-after children and children adopted from care and their parents since 1998. Family Futures provides a brain-based, sequential and developmental approach to therapeutic treatment of children which integrates attachment and neuroscience research with sensory, somatic, play-based, attachment and trauma-focussed therapy and narrative, therapeutic life story work. As the first organisation to support DDP training in England, Family Futures have always worked closely with Dan Hughes and the DDP model is described as underpinning the NPP approach that they have developed.

The first paper (Vaughan, McCullough and Burnell, 2016), describes the NPP model. The authors describe this as replacing an attachment theory of mind with a brain-based neuro-sequential approach in which attachment is a key element. They describe synergising core modalities to enable the clinicians to respond in a neuro-sequential way to the child's neurophysiological responses to stress and interpersonal relationships. These modalities include, Sensory Integration, Somatic experiencing and sensorimotor psychotherapy, Theraplay, Drama therapy & creative arts, and life story work all underpinned by DDP. The wrap-around approach includes parenting support and therapy; education support and network support.

The second paper (McCullough, Gordon-Jones, Last, Vaughan & Burnell, 2016) reports on the pilot study with 31 young people and their adoptive parents. Baseline measures were repeated, and parents and children interviewed. Analysis of the repeated measures demonstrated statistically significant changes in behavioural regulation, metacognitive executive functioning and externalising and internalising difficulties, alongside an improvement in thought and social problems. An analysis of the parent interviews demonstrated positive results in terms of the children's engagement in education, an absence of further mental health diagnosis or involvement in the criminal justice system.

The third paper (McCullough & Mathura, 2019) compares the outcomes for an NPP intervention group to those of a control group matched in terms of demographics and presentation at assessment. Fifty-four children and young people participated, 31 who had received the full NPP model (intervention group); and 23 who had received an assessment at the service and were recommended the model but did not receive

NPP (the control group). The results demonstrated substantial improvements within the intervention group which were significantly different from the control group across a number of measures of affective and behavioral regulation, relationship quality, behavioural difficulties, self-esteem and social inclusion.

These papers describe the developing evidence for the efficacy of an integrative, biopsychosocial intervention for adopted children who, on average, were within the mid-childhood age range at time of initial assessment. The model uses a synergy of therapeutic approaches, underpinned by DDP, and delivered using a wrap-around approach which supports parents, schools and the professional network.

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Full references:

Vaughan, J.; McCullough, E. and Burnell, A. (2016) Neuro-Physiological Psychotherapy (NPP): The development and application of an integrative, wrap-around service and treatment programme for maltreated children placed in adoptive and foster care placements. *Clinical Child Psychology and Psychiatry* 2016, Vol. 21(4) 568–581

McCullough, E.; Gordon-Jones, S.; Last, A.; Vaughan J. & Burnell, A. (2016) An evaluation of Neuro-Physiological Psychotherapy: An integrative therapeutic approach to working with adopted children who have experienced early life trauma. *Clinical Child Psychology and Psychiatry* 2016, Vol. 21(4) 582– 602

McCullough, E. & Mathura, A. (2019) A comparison between a Neuro-Physiological Psychotherapy (NPP) treatment group and a control group for children adopted from care: Support for a neurodevelopmentally informed approach to therapeutic intervention with maltreated children. *Child Abuse & Neglect* 97 (2019) 104128