The “NIF-TY”: the Neuropsychological Integrated Formulation model for use in paediatric and adult acquired brain injury

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Objectives

- Understanding the complex needs of the severely affected paediatric and adult acquired brain injured populations poses a very real challenge to clinicians working in multidisciplinary settings (Limond, Adlam & Cormack, 2014)
- A shared model is required to ensure a co-ordinated and client-centred approach (Reed, Byard & Fine, 2015)
- The objective was thus to devise a transtheoretical integrative model for comprehensive biopsychosocial formulation to guide specific multimodal interventions
- We aimed to provide a model for salient interactive relationships between reported neuropsychological, behavioural and emotional problems to be explicitly documented for clinical use in brain injury settings

Methods

- A review of complex cases formed the basis of identifying improvements to existing methods
- Key theories and models of formulation (from the macro to micro) were drawn upon i.e. the ecological model (Bronfenbrenner), CBT (Beck), family life cycle (Carter & McGoldrick), individual life cycle (Duvall), developmental neuropsychology (Anderson; Varga-Khadem), personhood (Kitwood), phenomenology (Husserl) and the ICF-CY (WHO)
- It was imperative that our new model had the following features:
  - i. It allowed the impact of the brain injury to be explicitly acknowledged through the entirety of the person’s biopsychosocial world
  - ii. To be multifactorial & multisystemic
  - iii. Developmental (primary and secondary impacts)
  - iv. Valuing of a strengths-based empowering approach
  - v. To be explicit enough as to have predictive qualities

Results

- A transtheoretical biopsychosocial formulation model for Neuropsychological Integrated Formulation “NIF-TY”, was devised that satisfied the above essential features
- It is a pragmatic tool that is tangible to all members of a multidisciplinary team that provides an integrated model to understand, intervene and evaluate clinical approaches
- It allows the development of a conceptual rationale for both direct and indirect working across the MDT and other supporting networks, therefore having utility for individual, parent, family, couple and staff work in brain injury

Conclusions

- “NIF-TY” is an example of clinical innovation based on the evidence base that addresses a central clinical dilemma
- It is a biopsychosocial integrated model which features neuropsychology at its heart to formulate the wide reaching impacts of brain injury
- It is anticipated that this model would require minimal adaptation to have utility in other client populations affected by health conditions related to neurological status