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NEUROPSYCHOLOGICAL ASSESSMENT IN MIDDLE CHILDHOOD:

Objective and subjective assessment of executive and social functioning

A thesis presented in partial fulfilment of the requirements for the degree of

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New Zealand.

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ABSTRACT

This thesis presents a research study that aimed to explore measurement issues in child neuropsychological assessment, within a NZ cultural context.

Neuropsychological assessment tools should be developmentally and culturally appropriate, yet most measures used with NZ children have not been evaluated with this population. Further, both subjective and objective assessment tools have been developed, but it is unclear how information gained from these assessment tools relate to each other and inform clinical practice.

Child neuropsychology has undergone many changes in recent years. With an increasing understanding of autism spectrum disorders, new domains of functioning have been introduced in neuropsychological assessment instruments, notably, executive functioning (EF), theory of mind (ToM), and affect recognition (AR). Numerous similarities have been documented between these constructs however, making interpretation of assessment results complex. Though these constructs are thought to develop across middle childhood, this population is vastly understudied.

This thesis aimed to evaluate patterns of performance on the BASC-2, BRIEF and NEPSY-II measures with NZ school-aged children. Normative data for these measures is not available for NZ children, therefore this research aimed to evaluate the suitability of test norms for this demographic. Further, the thesis aimed to explore the relationship between parent and teacher reports of function and evaluate how subjective (broadband and narrowband) and objective measures of EF, ToM and AR are related. Participants were 241 children from schools within the Wellington and Hawke's Bay regions, recruited as part of a larger study.

Ratings on the BASC-2 and BRIEF measures differed substantially from American norms, with parents and teachers tending to report fewer problem behaviours and more adaptive behaviours than their American counterparts. Results indicated a discrepancy between parent and teacher reports, and between the information gained from subjective versus objective measures. The results of this research have important clinical implications not just for the use and interpretation of these measures, but also for the neuropsychological assessment of EF, ToM and AR in NZ children.

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ABBREVIATIONS

Abbreviations are presented in order of appearance within the body of the text

EF Executive Function

ToM Theory of Mind

NZ New Zealand

AR Affect Recognition

PFC Prefrontal Cortex

ADHD Attention-Deficit Hyperactivity Disorder

ASD Autism Spectrum Disorders

ABI Acquired Brain Injury

MOH Ministry of Health

NEPSY-II Developmental NEuroPSYchological Assessment, Second Edition

BRIEF Behaviour Rating Inventory of Executive Function

BASC-2 Behaviour Assessment System for Children, Second Edition

TRS Teacher Rating Scale (BASC-2)

PRS Parent Rating Scale (BASC-2)

SDH Structured Developmental History (BASC-2)

CBCL Child Behaviour Checklist

SDQ Strengths and Difficulties Questionnaire

WISC-IV Wechsler Intelligence Scale for Children, Fourth Edition

TEA-Ch Test of Everyday Attention for Children