

# Using the International Classification of Functioning, Disability and Health (ICF) Core Sets to describe functioning for young children with, or at risk of neurodevelopmental conditions: A case study

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## Background

The World Health Organization’s International Classification of Functioning, Disability and Health (ICF) and its associated diagnosis specific “Core Sets” are valid and established frameworks for assessing functioning. Core Sets exist for: Autism Spectrum Disorder (ASD) (Bölte, Mahdi, de Vries, et al., 2019), Attention Deficit/Hyperactivity Disorder (ADHD) (Bölte, de Schipper, Holtemann, et al., 2017), and Cerebral Palsy (CP) (Schariti, Selb, Cieza, & O’Donnell, 2015).

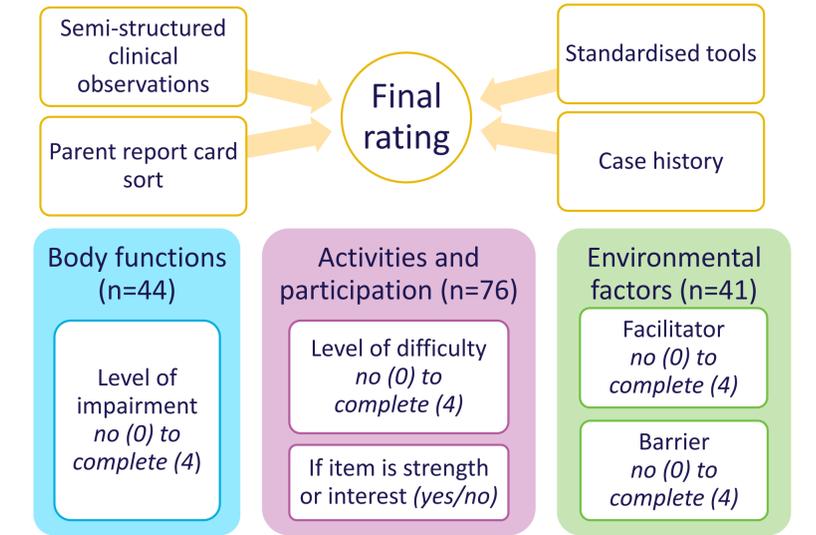
For young children, below the age of six years, a diagnosis of a neurodevelopmental condition (NDC), such as autism, is uncommon with some form of developmental delay diagnosis being often used instead. Rather than an autism specific tool, it is therefore more useful to have a broad assessment for young children with, or who may go on to receive, an NDC diagnosis. Existing assessment of functioning tools do not holistically or comprehensively assess functioning for individuals with NDCs. Despite the recognition of the ICF and Core Sets as gold standards for assessing functioning, they have not been operationalised in a clinically meaningful manner.

Activity and participation chapters	Environmental factor chapters
Ch1 Learning and applying knowledge	Ch1 Products and technology
Ch2 General tasks and demands	Ch2 Natural environment and human-made changes to environment
Ch3 Communication	Ch3 Support and relationships
Ch4 Mobility	Ch4 Attitudes
Ch5 Self-care	Ch5 Services, systems and policies
Ch6 Domestic life	
Ch7 Interpersonal interactions and relationships	
Ch8 Major life areas	
Ch9 Community, social and civic life	

Body function chapters	
Ch1	Mental functions
Ch2	Sensory functions and pain
Ch3	Voice and speech functions
Ch4	Functions of the cardiovascular, haematological, immunological and respiratory systems
Ch5	Functions of the digestive, metabolic and endocrine systems
Ch6	Genitourinary and reproductive functions
Ch7	Neuromusculoskeletal and movement-related functions
Ch8	Functions of the skin and related structures

## Methods

Children under the age of six with an NDC or developmental delay were assessed by an occupational therapist. All items from the three NDC Comprehensive Core sets were scored (161 items).

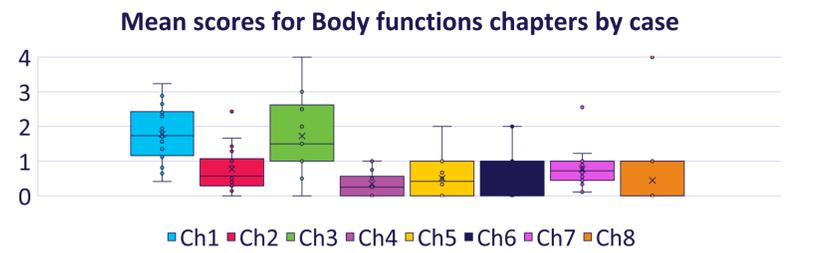


## Results

A sample of n=18 young children were assessed (83% male) from four Australian states. Of the sample, 55% had a diagnosis of ASD, with other diagnoses including cerebral palsy and global developmental delay. All children were aged between three and six years old.

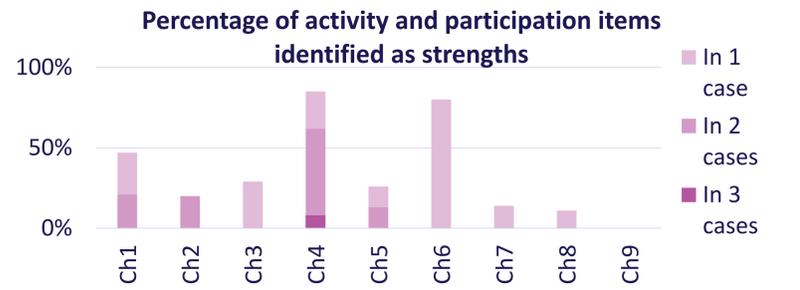
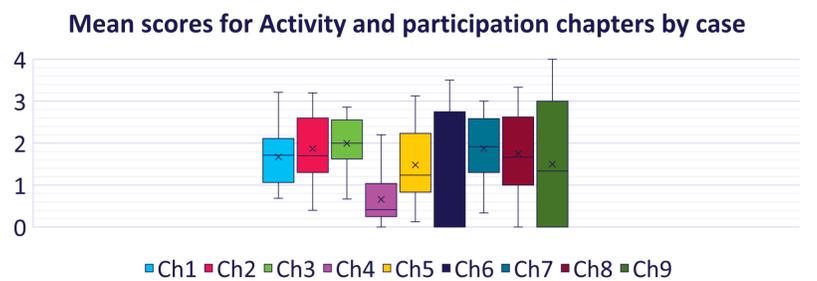
### Body functions

Areas with the most impairment were mental functions and voice and speech functions. Other areas were less affected, but not negligibly.



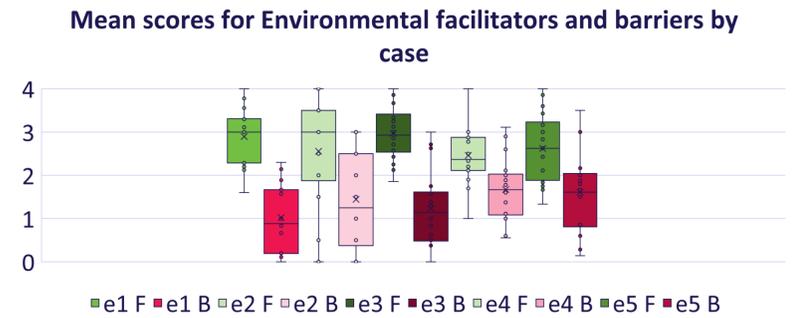
### Activities and participation

Areas with the highest level of difficulty included communication and interpersonal interactions and relationships. Mobility items were rated the least difficult for most children, and this was the area where most strengths were identified. Scores for domestic life and community, social and civic life had very large variability between cases. Other key areas of strength identified were learning and applying knowledge and domestic life.



### Environmental factors

Generally, environmental factors were rated as being stronger facilitators than barriers. The range for services, systems and policies as barriers and facilitators were quite large, as were natural environment and human-made changes to the environment, suggesting these impact children in different ways.



## Conclusions

Large variability in results emphasise the heterogeneity of children with or at risk of NDCs, and the need for children and their environments to be comprehensively assessed. Environmental factors should be assessed as both facilitators and barriers and be considered during assessments of functioning.

### Related Presentations:

- #33472 Development and piloting of an ICF Core Set based assessment of functioning tool for young people diagnosed with autism or other neurodevelopmental conditions
- #34533 Coproducing holistic proxy and self report assessment of functioning tools based on the ICF Core Sets for ASD
- #33474 Formalising an Assessment of Functioning Process for Individuals Undergoing an Autism Diagnostic Evaluation and/or Service Planning in Australia

### For more information:

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