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Assessment for diagnosis, assessment of need

With particular reference to occupational therapy, Developmental Coordination Disorder & sensory needs

Sally Payne

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Introducing Johnny

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- 8 years old, born at term, no complications. Early walker, late talker.
- Attends mainstream primary school. Teacher concerns re quality/quantity of writing, can't sit still, disruptive in class.
- Parent concerns about independence skills & handwriting, mealtimes, daily routines, underachieving academically
- Johnny likes football but is excluded from playground games. Gets told off for presentation of self/work. Wants to work in a bank.

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Occupational therapists are interested in…

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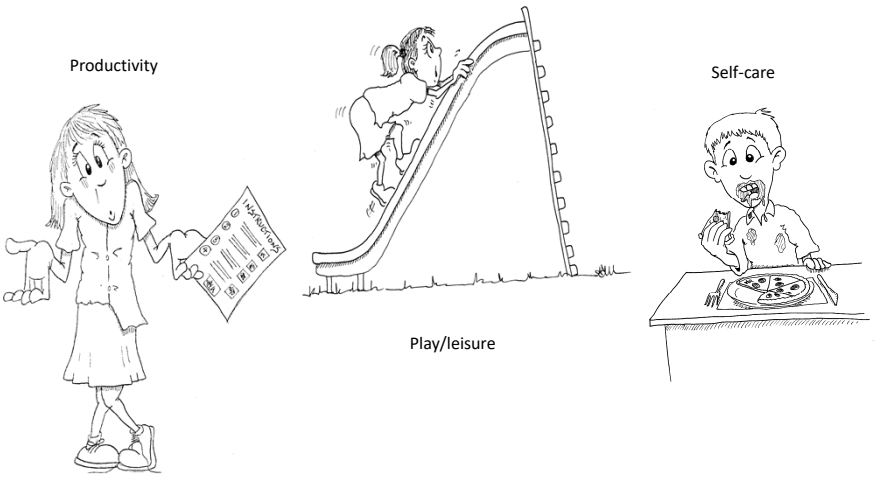

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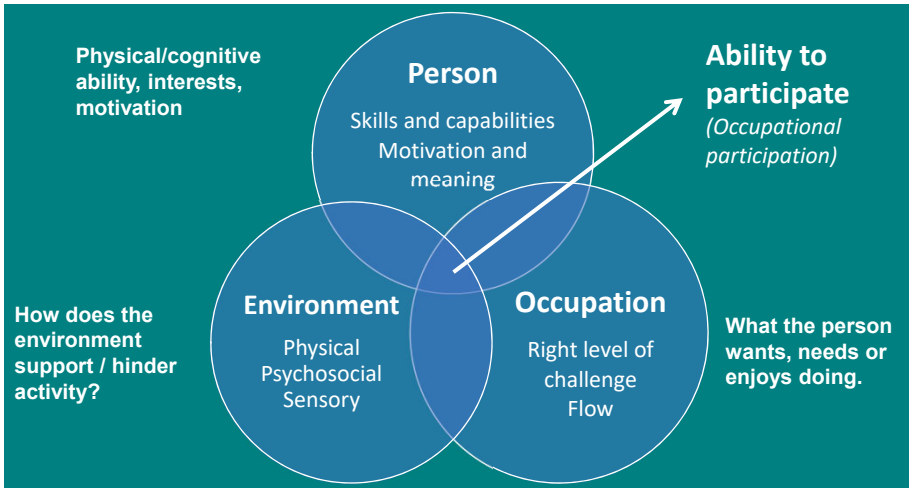
The Person , Environment, Occupation (PEO) model



Reference: Law M Cooper B Strong S Stewart D, Rigby P, Letts L (1996) *The Person Environment Occupational Model: A transactive approach to occupational performance.* Canadian Journal of Occupational Therapy. 63(1), 9-23

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Assessment & recommendations

Assessment

- Person
  - Poor gross & fine motor skills
  - Touch sensitive, under-responsive to sounds
- Environment
  - Small school
  - Supportive parents
- Occupation
  - Writing
  - Mealtimes
  - Getting ready for school

Recommendations

- Football club
- Motor skills group at school

- Classroom chair, position in class
- Teacher training – sensory & physical needs

- Alternative pencils
- 'Giving instructions' advice
- Cutlery, mealtime arrangements
- Morning routines

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Is there a reason to explain Johnny's difficulties?

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Developmental Coordination Disorder

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	Criterion
A	The ***acquisition and execution of coordinated motor skills is substantially below that expected given the individual's chronological age and opportunity*** for skill learning and use. Difficulties are manifested as clumsiness (e.g. dropping or bumping into objects) as well as slowness and inaccuracy of performance of motor skills (e.g. catching an objects, using scissors or cutlery, handwriting, riding a bike or participating in sports)
B	The motor skills in criterion A ***significantly and persistently interfere with activities of daily living appropriate to chronological age*** (e.g. self-care and self-maintenance) and impacts academic/school productivity, prevocational and vocational activities, leisure and play.
C	***Onset of symptoms is in the early developmental period***
D	The ***motor skills deficits are not better explained by intellectual disability or visual impairment and are not attributable to a neurological condition*** affecting movement (e.g. cerebral palsy, muscular dystrophy, degenerative disorder).

DSM V American Psychiatric Association, 2013

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Prevalence & co-occurrence

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- **Around 5% of school-aged children, 2% to a severe degree** (Lingam et al 2009)
- **2 boys to every girl** (Lingam et al 2009) (girls at risk of 'missed diagnosis'?)
- Co-occurrence is common
  - 50% of children with **ADHD** also have DCD (Watemberg et al 2007)
  - Around 33% of children with **Specific Language Impairment** meet criteria for DCD (Flapper & Shoemaker 2013)
  - **Learning disabilities are common** e.g. reading, spelling, maths (Alloway 2007, Lingam et al 2010)
  - **Autism –** 79% children with autism have motor difficulties but 90% of children with DCD do not have autism (Green et al 2009)
- **Cognitive profiles** of individuals with DCD are inconsistent (Sumner et al 2016)
- Non-motor difficulties (i.e. poor **executive functioning**) are common (Rigoli et al 2012)
- Difficulties persist into adulthood in many cases (Tal Saban et al 2014)
- Probable neurological basis. Genetics, socio-economic factors, birth before 37 weeks are risk factors (Lingam et al 2009).

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International clinical practice recommendations on the definition, diagnosis, assessment, intervention and psychosocial aspects of DCD (Blank et al, 2019, Developmental Medicine and Child Neurology)

Diagnosis

- Should be made by a **medical professional** or a **multi-professional team suitably qualified** to assess the individual according to the specified criteria
- Shouldn't be made **if motor performance can't be assessed by a motor test** or **if motor difficulties can be explained by another condition** or moderate/severe learning disability
- Is **not normally given for under the age of 5** years
- **Multiple diagnoses** should be given where appropriate (co-occurrence)

Assessment should include:

- ***Information*** from: Parents/carers, teachers and the young person
- ***Clinical examination*** to exclude other medical conditions that may explain motor difficulties
- ***Standardised test of motor function*** e.g. Movement ABC or Bruininks-Oseretsky
- Separate assessment of ***handwriting*** if this is an area of concern

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Dyspraxia or DCD?

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- Arguments for DCD:
  - Clear diagnostic criteria – an individual either meets criteria or they don't
  - Diagnostic criteria are useful for research (e.g. when comparing interventions, trying to identify causes of the condition)
  - Common, shared understanding between professionals nationally and internationally
- However:
  - DSM V criteria focus on gross and fine motor skills. Teenagers/adults report that non-motor difficulties have more impact on daily life than motor difficulties over time
  - Parents dislike DCD as it implies motor coordination is the problem, detracting from the wider difficulties their children experience (Novak 2012)
  - Adults are uncomfortable with the terms 'developmental' and 'disorder' (is it a disorder or a 'difference')

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What about sensory needs?

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Sensory differences can have a significant impact on a person's daily life

However:

- There are no internationally agreed criteria/guidelines for the identification, measurement and treatment of sensory differences
- 'Sensory processing disorder' is not included as a separate **diagnosis** in DSM 5 or ICD 10.
- Sensory differences occur across a range of diagnoses

We can improve participation, performance and well-being by identifying:

- A person's sensory strengths and differences
- Strategies and adjustments that support & enable people to manage their sensory **needs**

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Why is diagnosis important?

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"It's a bit of a relief really, knowing there's a reason why my coordination is all over the place and I'm not just stupid." (boy aged 12 years)

"Rather than blaming myself for being 'clumsy', 'weak' or 'lazy' I can now comfortably focus on where my skills are best and not worry about the things that are never going to be strong for me. As a consequence it's hugely improved my mental health which was poor (so now it's less poor, certainly not perfect)" (adult)

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Occupational therapy: Unlocking the potential of children and young people

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- **<u>Outcome 1</u>: To equip children and young people to live full and happy lives**
  - ***Recommendation 1***: Embedding opportunities to promote physical and mental health into children's daily routines and activities
- **<u>Outcome 2</u>: To equip children and young people to realise their potential**
  - ***Recommendation 2***: Developing partnerships to build community capacity and address needs early
  - ***Recommendation 3***: Working across traditional service boundaries to address physical and mental health
  - ***Recommendation 4***: Adopting a strengths-based approach that fosters self-management and independence
- **<u>Outcome 3</u>: To equip children to participate as valued members of their community regardless of physical, learning and mental health needs**
  - ***Recommendation 5:*** Anticipating the changing needs of children, young people and their carers to facilitate positive transitions

https://www.rcot.co.uk/news/latest-rcot-report-shows-value-occupational-therapists-helping-children-and-young-people

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