Learning Difficulties

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Learning Difficulties……. what's a paediatrician got to do with it ?

Journal of Paediatrics and Child Health

doi:10.1111/jpc.

ORIGINAL ARTICLE

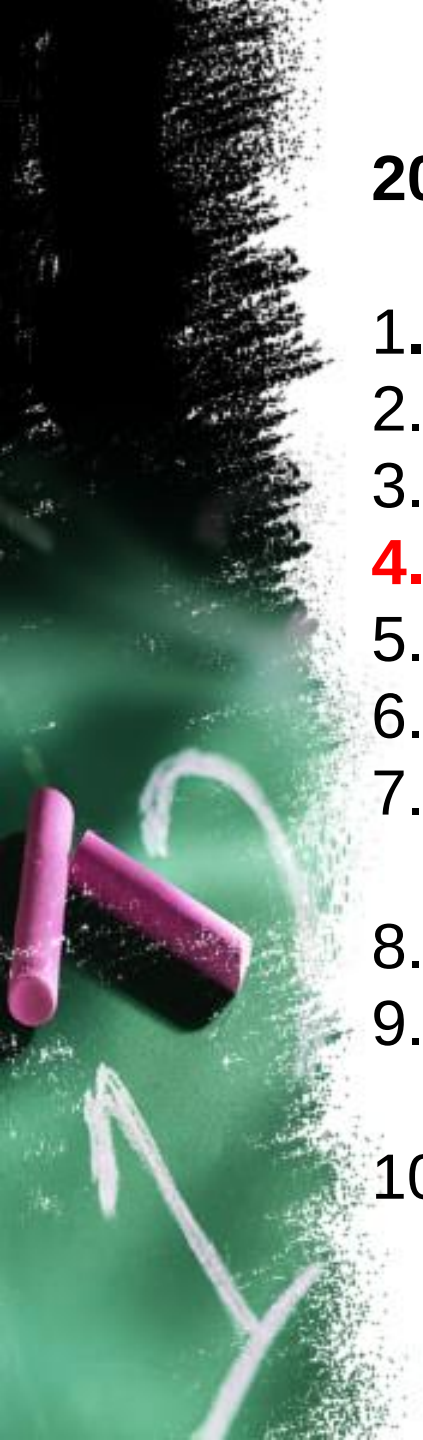
Trends in paediatric practice in Australia: 2008 and 2013 national audits from the Australian Paediatric Research Network

Harriet Hiscock,[1,2,3] Margie H Danchin,[1,2,3] Daryl Efron,[1,2,3] Alisha Gulenc,[2] Stephen Hearps,[2] Gary L Freed,[4,5] Prescilla Perera[2] and Melissa Wake[1,2,3]

2008 → 2013

% of general paediatric consultations for developmental and behavioural concerns

48% → 60%



2013 APRN survey - NEW REFERRALS

1. ASD
2. ADHD
3. Sleep disturbance
4. **Learning difficulty/ disability**
5. Behaviour
6. Language delay
7. Anxiety

8. Asthma
9. Allergy

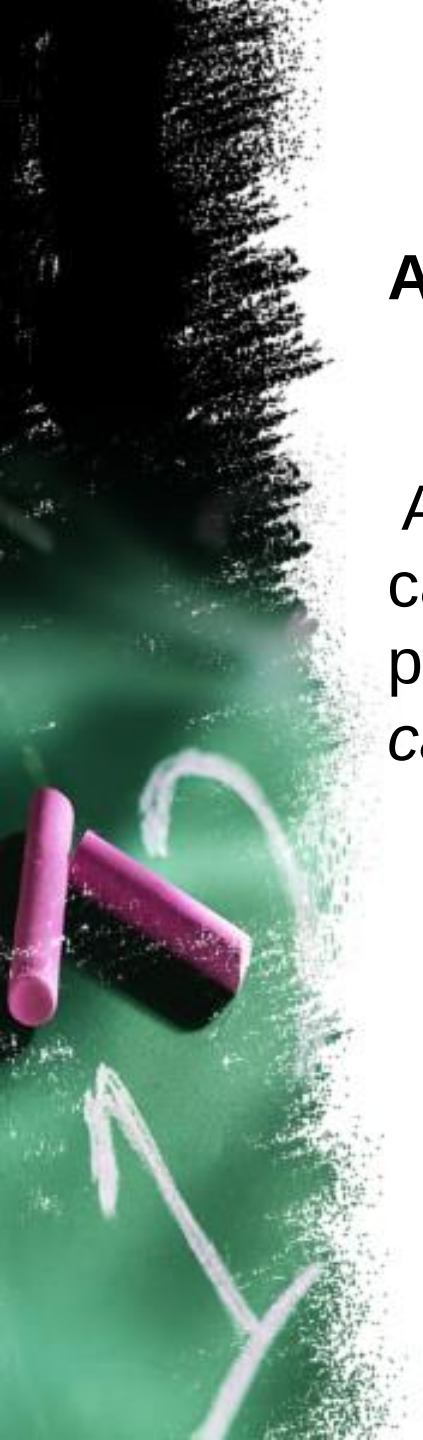
10. Intellectual Disability

2013 APRN survey - REVIEWS

1. ADHD
2. ASD
3. **Learning difficulty/ disability**

Golden opportunity to change a child's developmental trajectory

Learning Difficulties – Paediatrician's Role



ASSESSMENT

A suitably skilled paediatrician will have the capacity for a BioPsychoSocial formulation of the problem that *no other single professional is capable of providing*

MANAGEMENT

*****Empowerment**
- Parents
- Child

Eg through ;

Coherent explanation

Foster Empathy
- home
- school

Link to info & resources

MANAGEMENT

Help ;
→ set up a goal directed, multimodal, team-based approach ……. long term focus on capacity building & resilience

→ narrow down search for appropriate intervention

→ BS detection

→ ** families interface with systems

Broaden beyond the deficits….to include a Strength-based approach

MANAGEMENT

Advocate
Put it in the school's radar….
…..but not limit scope of intervention to schools

Advocate
- for accomm/ special consid
- assistive technology

*****Manage Co-morbidities**

Stay involved
→ long term focus on capacity building & resilience

APPROACH – THE MEDICAL MODEL FANTASY

Hx & Exam → one simple diagnostic test → Dx → simple prescribed treatment → fixed

Sx (Learning troubles) → test (WISC) → Dx → tell school to fix it

Different approach required…..

APPROACH – COMPREHENSIVE MODEL OF DIAGNOSTIC FORMULATION

Journal of Paediatrics and Child Health

doi:10.1111/j.1440-1754.2011.02071.x

ANNOTATION

Diagnosis in developmental–behavioural paediatrics: The art of diagnostic formulation

Mick O'Keeffe and Caroline Macaulay

Child Development Program, Royal Children's Hospital Health Service District, Brisbane, Queensland, Australia

BIOLOGY

“Physicians have got to Physish”

- unifying, etiological “big D” biological diagnosis (rare)

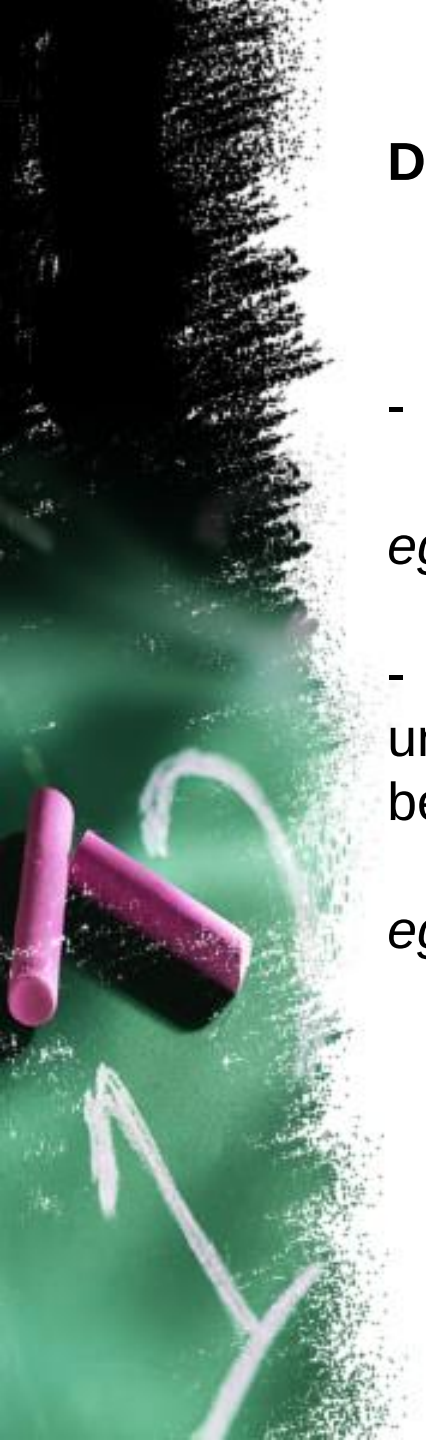
- comorbid physical problems - making things worse (hearing / vision, sleep, diet/ nutrition, constipation / soiling, illness etc)

Mandatory……. but not sufficient

DEVELOPMENTAL and BEHAVIOURAL DOMAINS

- regarding primary concern (eg learning)

- co morbid developmental & behavioural problems - making situation worse



DEVELOPMENTAL and BEHAVIOURAL DOMAINS

- Function (observable behaviours)

eg reading

- Neuropsychological constructs (that we use to describe underlying brain processes that underpin observable behaviours)

eg working memory, phonological processing

DEVELOPMENTAL and BEHAVIOURAL DOMAINS : ORGANISING THE DATA

- **Learning & Cognition**
  - Academic achievement**,** cognitive skills**,** memory**,** visual perception (& higher order non-verbal cognitive skills)**,** phonological processing
- **Attention & Executive Function**
  - Attention control, planning/ organisation, initiation, self-monitoring, impulse control
- **Communication**
  - Speech, Language, Oromotor
- **Social Competence**
  - Social skills, play skills, verbal pragmatics
- **Self Care & ADL's**
  - Hygiene, toileting, eating, sleep, exercise, media usage, interests
- **Emotions & Behaviour**
  - Behaviour (including aberrant behaviour such as aggression, defiance, obsessions, self-injury, repetitive behaviours), sensory reactivity, mood / emotional regulation, temperament, self-concept
- **Motor Coordination**
  - Fine & Gross Motor skills

DEVELOPMENTAL and BEHAVIOURAL DOMAINS : SOURCES OF DATA

History

Office Assessment
- developmental skills
- behavioural observations

Collateral Data
- pre-appointment questionnaires
- checklists
- phone calls/ emails (teachers, allied health)

incl ***naturalistic academic achievement measures
- school reports
- Naplan
- curriculum-based teacher assessments of core skills (literacy, numeracy)

***grade equivalent if you can !

Formal Assessments

FAMILY / ENVIRONMENT

A structured family assessment is always part of my approach to DBP cases

ALWAYS a value-add for me

FORMAL ASSESSMENTS

Functional level

- **Academic Achievement** (eg WIAT)

(eg reading accuracy/ fluency/ comprehension, spelling, written output, maths operations)

Underlying Neuropsychological Processes (various tools)

- **Phonological processing** (eg QUIL, CTOPP, Sutherland etc)
- **Language (core skills, higher order skills)**

  (eg CELF, VCI from WISC)
- **Visual perception**
- **Higher order visual-spatial processing**

  (eg VSI, Fluid Reasoning) }
- **Working Memory** } eg WISC

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UNIVERSITY PRESS

Archives of Clinical Neuropsychology 32 (2017) 2–7

Archives
of
CLINICAL
NEUROPSYCHOLOGY

Comprehensive Cognitive Assessments are not Necessary for the Identification and Treatment of Learning Disabilities

Jack M. Fletcher*, Jeremy Miciak

Department of Psychology, University of Houston, Houston, TX, USA

It’s not all about the WISC

WISC (& OTHER COGNITIVE Ax) ; USEFULNESS

FSIQ → general estimate of aptitude

ID → borderline→ low average

If it's fine, evidence against "I am dumb"

Identifying Learning Strengths & Weaknesses (*with care)**

- **Big Holes/ Discrepancies**
  eg verbal vs visual cognition
- **Big Strengths**

…..to be
Understood
Accommodated
Utilised (strengths)

PATTERNS

SPECIFIC vs GLOBAL

PATTERNS : SPECIFIC

Literacy terrible, maths fine

→suspect phonological processing deficit

+- other comorbid stuff

eg WM, some language

Maths terrible, Literacy fine

→I tend to describe functionally

Written output alone

→?motor component

PATTERNS : GLOBAL

Intellectual Disability

….>“Borderline”

….> Low average

Attention / Executive Function

Working Memory

Language Impairment

+- Social cognitive

- Eg ASD Patchy engagement driven by idiosyncratic interests

“Garden Variety” LD

under-developed rather than disordered
secondary to external phenomenon, rather than primary

eg
lower exposure
missed schooling
ESL
inadequate teaching
disruptive behaviour
mood
family issues

DIAGNOSTIC LABEL IF (ONLY IF) APPROPRIATE

Use DSM 5 criteria
**** Incl Specific Learning Disorder

“Meets criteria for Specific Learning Disorder (as per DSM 5) affe
reading, and/or written expression and/or maths”

Some resources

NSW Centre for Effective Reading

Macquarie University Special Education Centre (MUSEC) Briefings

AUSPELD (= Australian Federation of SPELD organisations)

Incl booklets

“ Understanding Learning Difficulties” (one for parents, one for teachers)

Further reading : tasters

DSM 5 SLD criteria & notes

Developmental-Behavioral Pediatrics 4th ed
Carey et al 2009

- various chapters

See above websites

Further reading : deeper

Website

What Works Clearinghouse

Texts

Diagnosis of Learning Disorders : 2017 Pennington

Overcoming Dyslexia : Sally Shaywitz