South London and Maudsley NHS
NHS Foundation Trust

National Services
A resource for mental health professionals

KING'S HEALTH PARTNERS
Pioneering better health for all

Getting neurodevelopmental assessments right in socially vulnerable kids

ACAMH conference; London 07.10.19

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http://www.nationaladoptionandfosteringclinic.com/
National Conduct Problems Team
https://www.national.slam.nhs.uk/services/camhs/camhs-conductproblems

Plan

- Definitions: ND & Socially vulnerable (ACEs?)
- Formulation- ***Small groups exercise***
- Discussion on areas highlighted in above exercise- ***Case studies in small groups exercises***
- Possible issues in adapting assessments in this group- ***Small groups exercise***
- Adapting interventions for this group

Definitions

- Neurodevelopmental conditions:
  - ADHD
  - ASD
  - Intellectual disability
  - Tic disorders
  - Developmental Coordination Disorder
  - Speech and Language Disorders

Epidemiology-Estimates of ND

- ADHD
  - Estimates of the child population *worldwide* with ADHD range from 3% to 7% (Bauermeister et al., 2003; Polanczyk et al., 2007)
  - Girls are more likely to be predominantly inattentive (type), therefore more difficult to recognise
  - M/F ratio is 4:1 generally
  - Some estimate variance amongst deprived populations
- ASD
  - 2.47% (National Health Interview Survey, 2014-2016)
  - 2.79% (Guifeng et al., JAMA Pediatrics 2016)
  - 1 in 59 US children (CDC Autism and Developmental Disabilities Monitoring Network
  - ASD is reported to occur in all racial, ethnic, and socioeconomic groups.

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Definitions

- Neurodevelopmental conditions:
  - ADHD
  - ASD
  - Intellectual disability
  - Tic disorders
  - Developmental Coordination Disorder
  - Speech and Language Disorders
- Socially vulnerable children:
  - LAC, adopted
  - Refugees
  - YOS
  - Poor families
  - "At risk" families

Adverse Childhood experiences (ACEs)

- Abuse (physical, sexual and emotional)
- Neglect (physical and emotional)
- Home environment:
  - Parent serious mental health
  - Parent substance misuse
  - Parent criminality
  - Witnessing violence
  - Parental separation or divorce
  - Low socioeconomic status, poverty>>>
- Other experiences of victimisation, e.g. bullying.

Low socioeconomic status, poverty>>>

Family income in early childhood and subsequent attention deficit/hyperactivity disorder: a quasi-experimental study

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Key points

- Studies have found negative associations between socioeconomic position and attention deficit/hyperactivity disorder (ADHD), but it remains unclear if this association is causal.
- Quasi-experimental analyses indicated that cousins within the extended family and siblings within the same nuclear family who were differentially exposed to family income during early childhood differed in ADHD risk.
- Although selection factors seem to explain part of the association, the present results highlight family income in early childhood as a potential causal marker for ADHD.

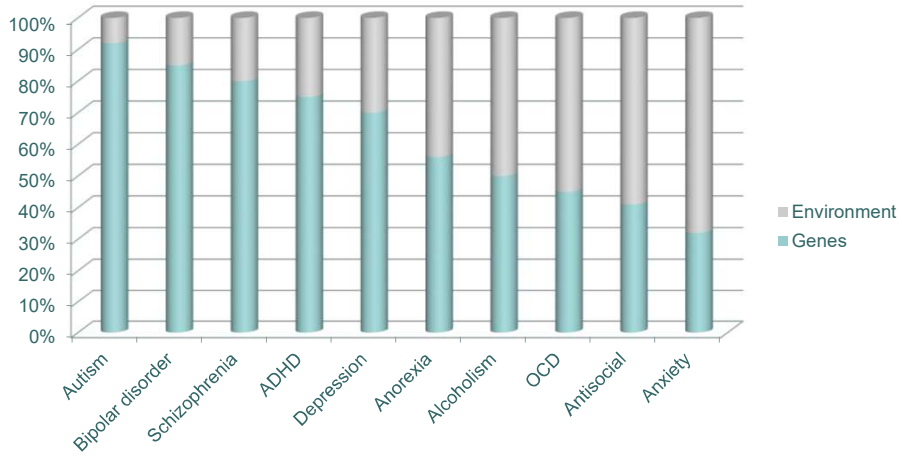
it remained statistically significant across all levels of decreased disposable family income. **Conclusions:** Our results indicated that low family income in early childhood was associated with increased likelihood of ADHD. The link remained even after controlling for unmeasured selection factors, highlighting family income in early childhood as a marker of causal factors for ADHD. **Keywords:** ADHD, family income, childhood, causality, quasi-experimental approaches.

Formulating ND cases

Small group activity

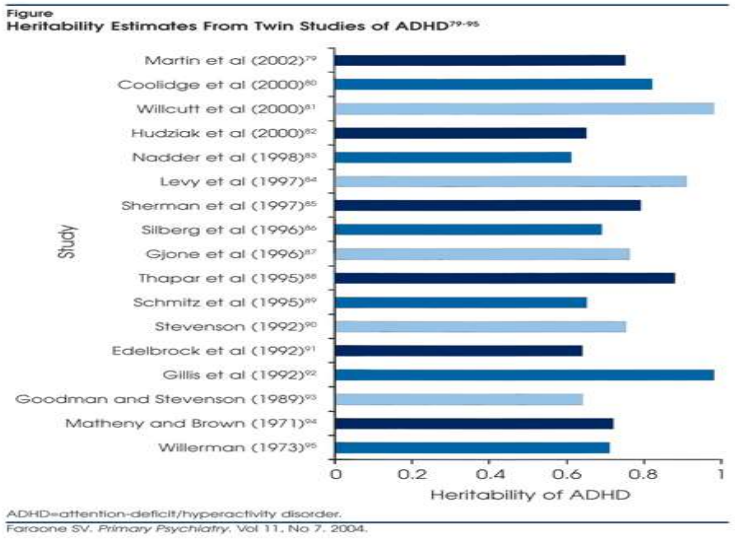
	BIO	PSYCHOL	SOCIAL
Predisposing			
Precipitant			
Perpetuating			
Protective			

1. Parental mental health



Uher & McGuffin 2008 FORESIGHT REVIEW

Heritability-ADHD



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Heritability of ND disorders

- Twin studies have confirmed that NDDs show **moderate-to-high heritability**
- From an etiological viewpoint both ASD and ADHD are best regarded as the **extremes on a continuous** liability distribution.
- Tic disorders, cluster in families primarily because of genetic factors and appear to be among the **most heritable** neuropsychiatric conditions.
- NDDs show substantial **comorbidity** among each other, and with other mental health problems, which is partly because of a shared genetic aetiology between different disorders.

2. Maltreatment

ADHD and early maltreatment/in foster care

Social Psychiatry and Psychiatric Epidemiology
https://doi.org/10.1007/s00127-019-01659-0

ORIGINAL PAPER

Check for updates

Evidence of concurrent and prospective associations between early maltreatment and ADHD through childhood and adolescence

Rafael A. González[1,2] · María C. Vélez-Pastrana[2,3] · Eamon McCrory[4] · Constantinos Kallis[5] · Jivelisse Aguila[3] · Glorisa Canino[6] · Hector Bird[7]

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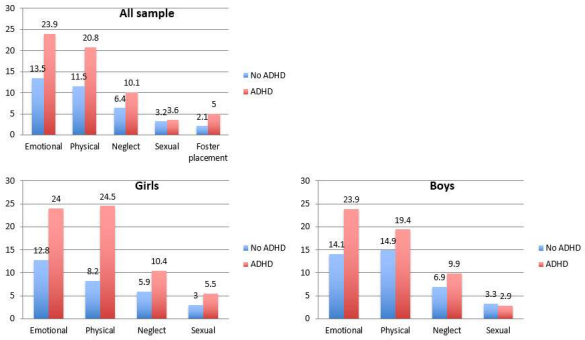
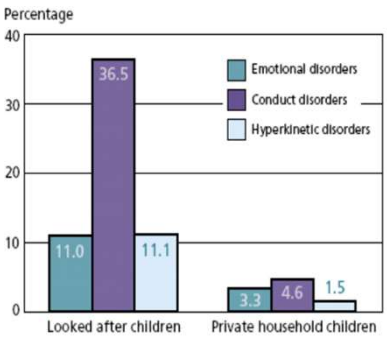


UK: Comparison of behavioural & emotional disorders in private households & LAC (5-10y)

5-10 years	Non LAC	LAC
Conduct	5%	36%
Emotional	3%	11%
ADHD	2%	11%
Any	8%	42%

Figure 3.1

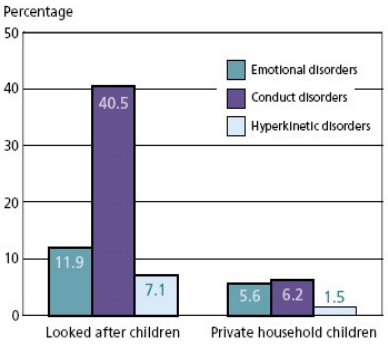
Prevalence of mental disorders among 5- to 10-year-olds; looked after and private household children



UK: Comparison of behavioural & emotional disorders in private households & LAC (11-15y)

Figure 3.2

Prevalence of mental disorders among 11- to 15-year-olds; looked after and private household children



10-15 years	Non LAC	LAC
Conduct	6%	40%
Emotional	6%	12%
ADHD	1%	7%
Any	11%	49%

UK: Comparison of "at risk" households and LAC Ford et al 2007

	LAC	Private households	
		[a]Risk[1]	Others[2]
Neurodevelopmental	12.8[1,2]	4.5	3.3
IQ <60% of peers	10.7[1,2]	1.5	1.3
Autistic Spectrum	2.6[1,2]	0.1	0.3
Literacy / numeracy	34.3[1,2]	20.4[2]	10.4
SEN	23.0[1,2]	4.5[2]	2.9

[a] Socially disadvantaged - parents out of work or in unskilled occupations

3. Parental substance misuse

- Cannabis:
  - the most frequent drug of abuse in pregnant women
  - association with poor executive function (attention/impulsivity & problem-solving)
  - strength of cannabis has increased.
- Opiates:
  - prematurity and intra-uterine growth
  - decreased cognitive performance in younger children,
  - increased behavioural problems in 8-17-year-olds.
  - ADHD and disruptive behaviours at age 10.
- Cocaine:
  - Complex environmental contexts. High psychopathology in the mothers/abused
  - Poly-drugs users (cannabis + alcohol)
  - Mild teratogen.
- Alcohol:
  - influenced by the genetic susceptibility of the mother/foetus,
  - behavioural phenotype can be quite diverse,
  - High rates of comorbidity with psychiatric disorders: ADHD, mood and disruptive disorders the most common.

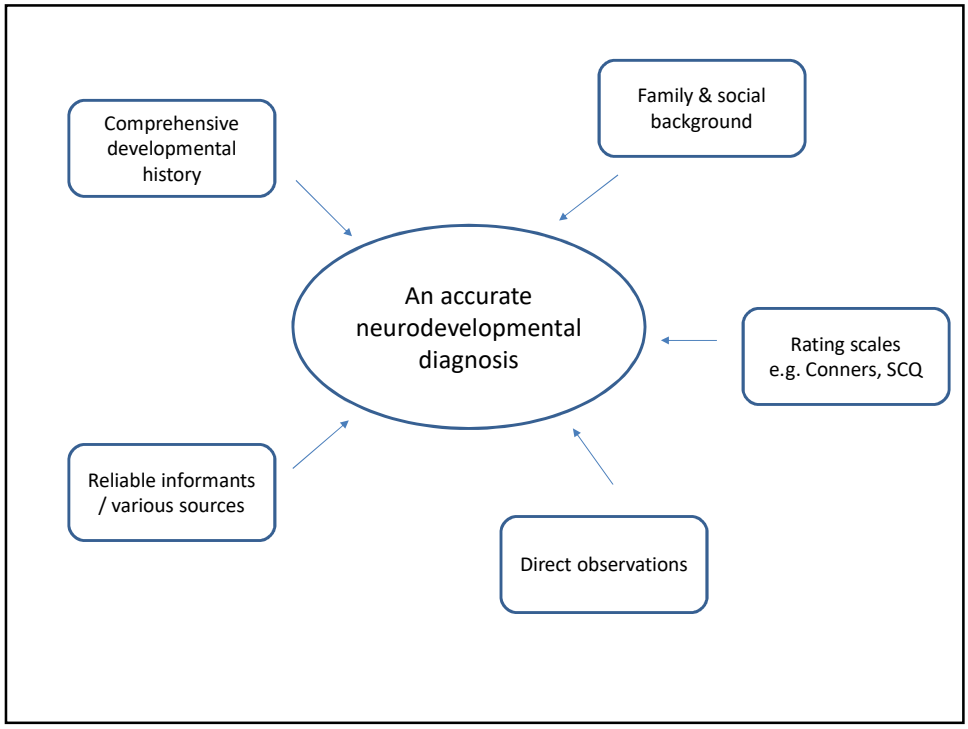
4. Differential diagnoses: Case study.
Small groups exercise

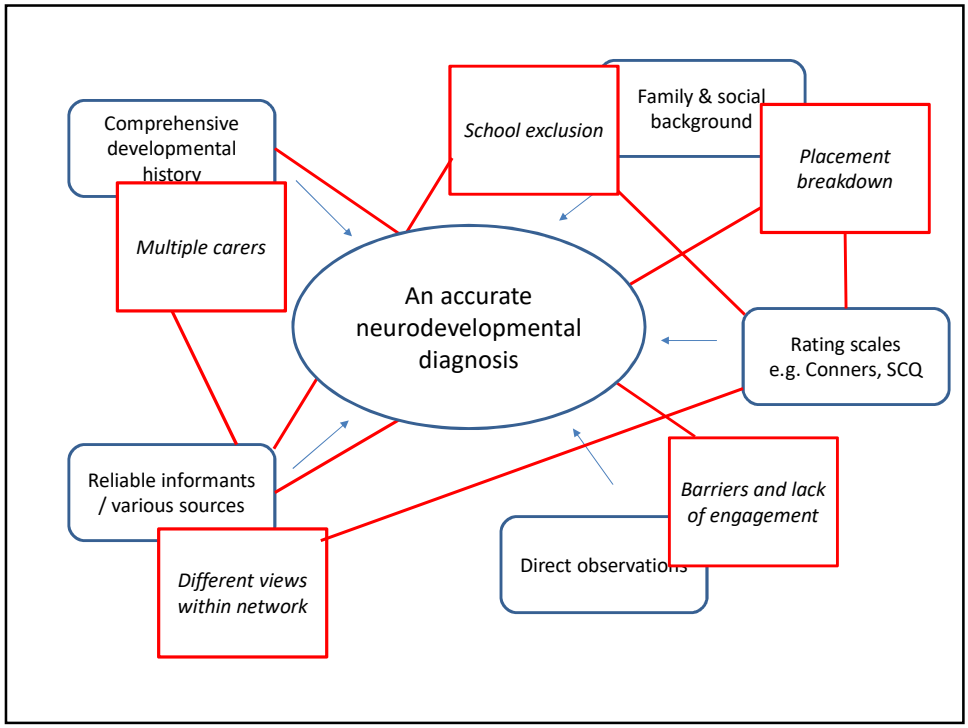
5. Attachment: Case Study

Small groups exercise

Possible issues in assessing this group?

Small groups exercise


Comprehensive developmental history
Family & social background
An accurate neurodevelopmental diagnosis
Rating scales e.g. Conners, SCQ
Reliable informants / various sources
Direct observations


Comprehensive developmental history
School exclusion
Family & social background
Placement breakdown
Multiple carers
An accurate neurodevelopmental diagnosis
Rating scales e.g. Conners, SCQ
Reliable informants / various sources
Barriers and lack of engagement
Direct observations
Different views within network

Adapting interventions for this group

- Psychoeducation
  - ≠ On the condition and the management (including medication)
- Parent training and individual behavioural approaches
- Educational advice

- Cognitive Behavioural Therapy
  - ≠ Problem solving
  - ≠ Social skills
  - ≠ Stop and think
- Medication

- Psychoeducation-Multiple prof in network
- Parent training-e.g. adapted in programs link "Fostering Changes"
- Educational advice
  - Comprehensive assessment of learning difficulties
  - Advocacy
  - Social stigma
  - Mentoring and support in school
  - Appropriate school placements

- Cognitive Behavioural Therapy
  - ≠ Problem solving
  - ≠ Social skills
  - ≠ Stop and think
- Medication

Final thoughts

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