

A/Professor Alasdair Vance  
Head, Academic Child Psychiatry  
Department of Paediatrics  
University of Melbourne  
Royal Children's Hospital

[avance@unimelb.edu.au](mailto:avance@unimelb.edu.au)

Telephone: 61 3 9345 4666

Facsimile: 61 3 9345 6002

**Parental psychopathology and Family functioning**

in

primary school age children with

**ADHD, combined type**

**Dysthymic disorder**

**Anxiety disorders**

## Outline of presentation

1. Why are these disorders important?
2. Why are these contextual variables important?
3. How might these variables and disorders be related?

## **Why are these disorders important?**

- common in the community and particularly in clinically referred populations of primary school age children
- associated with significant morbidity, psychological and/or medication treatment non-responsiveness, increased risk of developing further psychiatric disorders both within and across developmental stages

Nomothetic aspects of phenomena:

-those features of a given, particular phenomenon that are able to be validly and reliably demonstrated in groups of individuals with a particular disorder or a range of disorders

### **Problems of Method (1960)**

‘In reality, psychology teaches us at every step that though two types of activity can have the same external manifestation, whether in origin or essence, their nature may differ most profoundly.’

Vygotsky, Lev Semyonovich

## Problems of Method (1960)

‘We believe that child development is a complex dialectical process characterised by periodicity, unevenness in the development of different functions, metamorphosis or qualitative transformation of one form into another, intertwining of external and internal factors, and adaptive processes which overcome impediments that the child encounters....most workers in child psychology ignore those turning points, those spasmodic and revolutionary changes that are so frequent in the history of child development.’

Vygotsky, Lev Semyonovich

# Why are these contextual variables important?

## 1. Parental psychopathology

### -ADHD-CT:

parental **ADHD**, **depressive ds**, bipolar d, anxiety ds, **ASPD** (ODD-CD), alcohol/substance A/D ds

### -dysthymic d:

parental **depressive ds**, **bipolar d**, **PDs** (all clusters/**B**)

### -anxiety ds:

parental **anxiety ds** (especially fathers)

## Why are these contextual variables important?

### 2. Family functioning

#### -ADHD-CT:

increased general dysfunction, behavioural dyscontrol,  
decreased emotional involvement and responsiveness

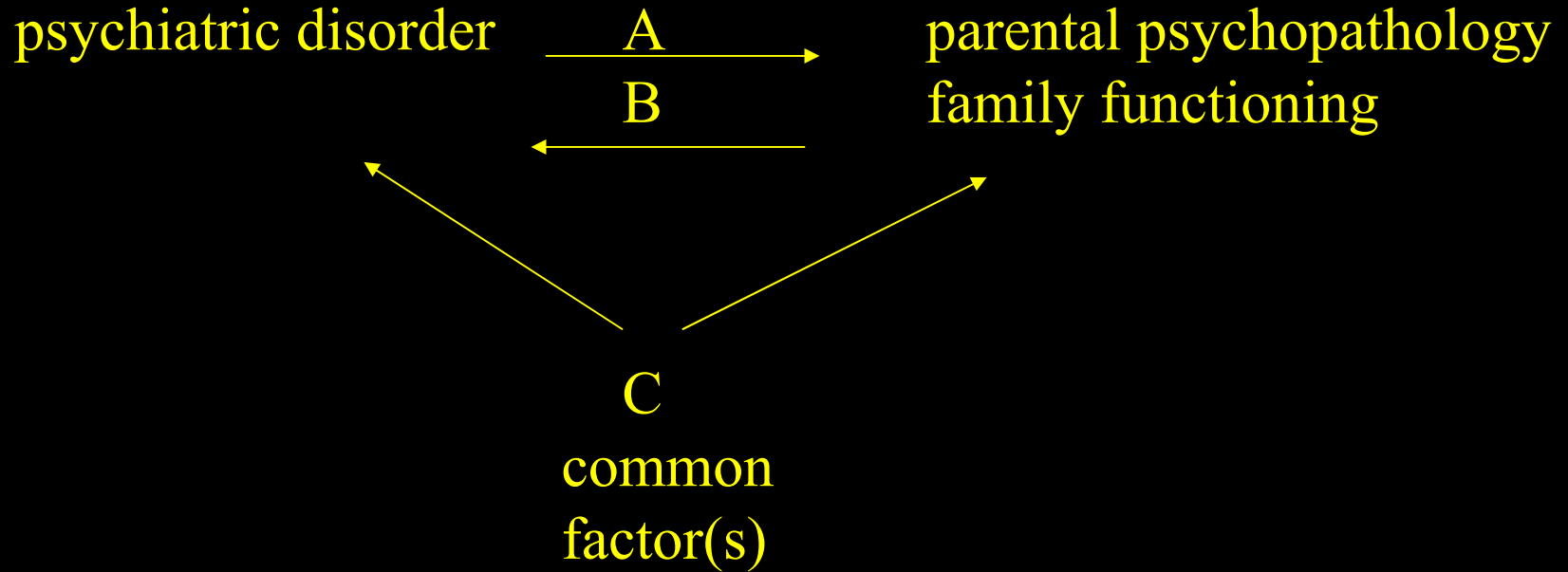
#### -dysthymic d:

increased general dysfunction, chaos,  
decreased emotional involvement and responsiveness

#### -anxiety ds:

no increased general dysfunction,  
increased behavioural control

## How might these variables and disorders be related?



## How might these variables and disorders be related?

referred clinical samples

- Berkson's bias

- increased comorbidity

- increased help-seeking behaviour by parents

versus

- more homogeneous for impairment: academically,  
family functioning,  
socially

- implications for threshold effects at brain and environment

## Subject characteristics

	ADHD-CT	DD	ADs	F*
N	37	27	17	
Age (months)	109.49 (27.64)	114.19 (20.96)	117.12 (21.67)	0.65
Gender (M,F)	34,3	20,7	15,2	0.94
IQ (fullscale)	94.88 (12.94)	98.24 (13.29)	104.02 (9.59)	2.98
SAS	7.58 (1.77)	7.48 (1.50)	6.88 (1.15)	1.10

\* all non-significant ( $p > .05$ )

## Parental psychopathology-HSCL

	1	2	3	F*
	ADHD-CT	DD	ADs	
Total score	86.22 (19.96)	94.64 (23.46)	90.93 (23.43)	0.94
Anxiety	1.24(0.30)	1.47(0.50)#	1.52(0.58)#	2.84
Depression	1.61(0.54)#	1.77(0.48)#	1.62(0.51)#	0.80
<b>Obsessive- compulsive</b>	<b>1.54(0.36)#</b>	<b>1.85(0.47)#</b>	<b>1.65(0.46)#</b>	<b>3.49*</b> 2>1
Interpersonal sensitivity	1.69(0.57)# (1.77)	1.77(0.51)# (1.50)	1.68(0.44)# (1.15)	0.22
Somatisation	1.37(0.37)	1.50(0.51)	1.41(0.38)	0.66

\* p<.05, cohen's d =.74

## Parental psychopathology-HSCL

	1 ADHD-CT	2 ADHD-CT dys d	3 dys d	F*
Obsessive -compulsive	<i>1.54(0.36)#</i>	<i>1.96(0.63)#</i>	<i>1.85(0.47)#</i>	5.61 2=3>1

Cohen's  $d = .85/.74$

	B	$\beta$ (unique)	sr <sup>2</sup>
ADHD-CT	2.61 <i>p</i> > .05	.16	.16 (3%)
	R <sup>2</sup> = .02 Adjusted R <sup>2</sup> = -.01		

	B	$\beta$ (unique)	sr <sup>2</sup>
Dysthymic disorder	1.78* * <i>p</i> < .005	.35	.35 (12%)
	R <sup>2</sup> = .12 Adjusted R <sup>2</sup> = .11		

dysthymic disorder

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ADHD-CT

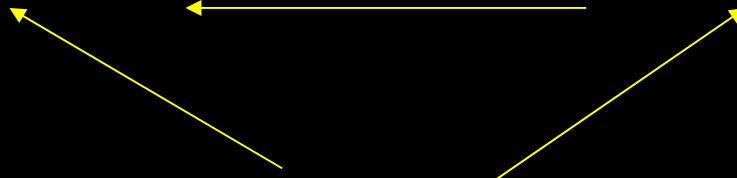
A

obsessive-  
compulsiveness

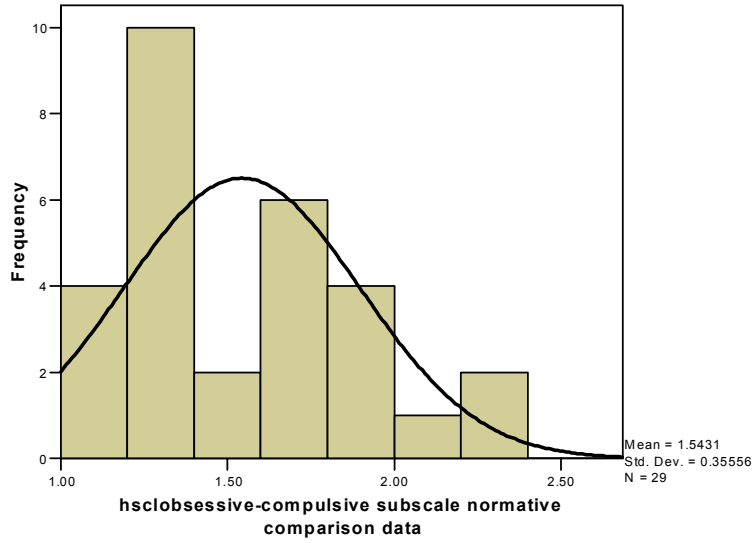
B

C

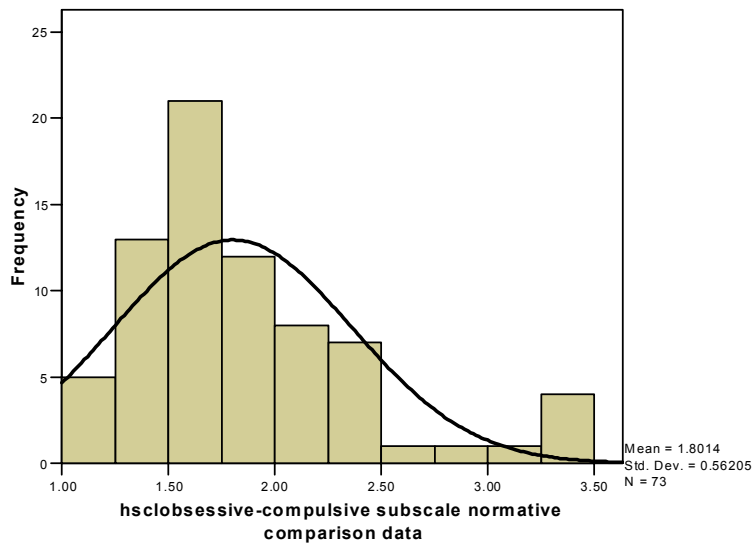
common  
factor(s)



Histogram



Histogram



## Family functioning-FAD

	1	2	3	F*
	ADHD-CT	DD	ADs	
<b>General functioning</b>	<b>2.26(0.47)#</b>	2.08(0.50)	<b>1.87(0.34)</b>	3.67* 1>3
Problem solving	2.14(0.55)	2.10(0.50)	1.97(0.56)	0.62
<b>Communication</b>	<b>2.35(0.35)</b>	2.12(0.48)	<b>1.19(0.37)</b>	6.21* 1>3
<b>Roles</b>	<b>2.53(0.24)#</b>	<b>2.31(0.33)</b>	<b>2.29(0.35)</b>	<b>4.42*</b> 1>3
Affective responsiveness	2.25(0.54)	2.01(0.51)	1.89(0.47)	2.81
Affective involvement	2.38(0.49)	2.11(0.49)	2.44(0.44)	2.91
Behaviour control	2.12(0.62)	1.81(0.40)	1.77(0.35)	3.60

\*  $p < .05$ , *cohen's d* = .85

## Family functioning-FAD

	1	2	3	F*
	ADHD-CT	ADHD-CT Anx ds	Anx ds	
Role definition	<b>2.53(0.24)#</b>	2.39(0.24)#	<b>2.29(0.35)</b>	5.53 1>3

Cohen's  $d = .85$

	B	$\beta$ (unique)	sr <sup>2</sup>
ADHD-CT	6.50 <i>p</i> > .05 R <sup>2</sup> = .08 Adjusted R <sup>2</sup> = .04	.28	.28 (8%)

	B	$\beta$ (unique)	sr <sup>2</sup>
Anxiety disorders	0.71 <i>p</i> > .05 R <sup>2</sup> = .008 Adjusted R <sup>2</sup> = -.04	.09	.09 (0.8%)

ADHD-CT

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Anxiety disorders

A



role

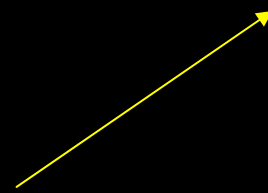
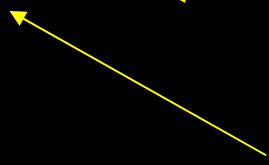
definition

B

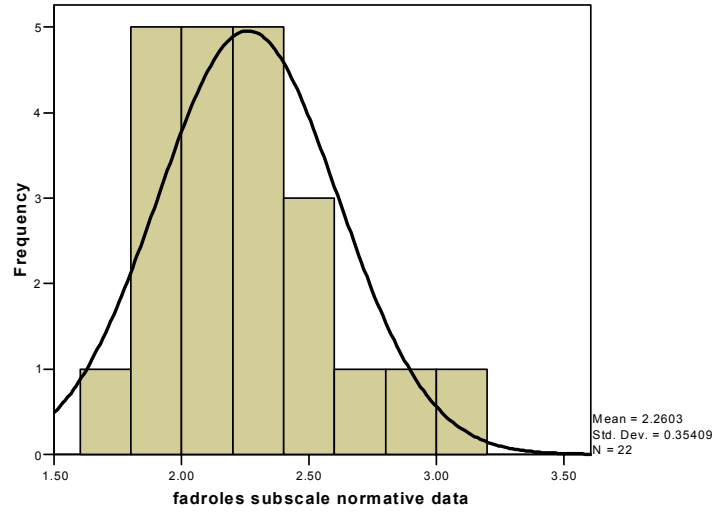


C

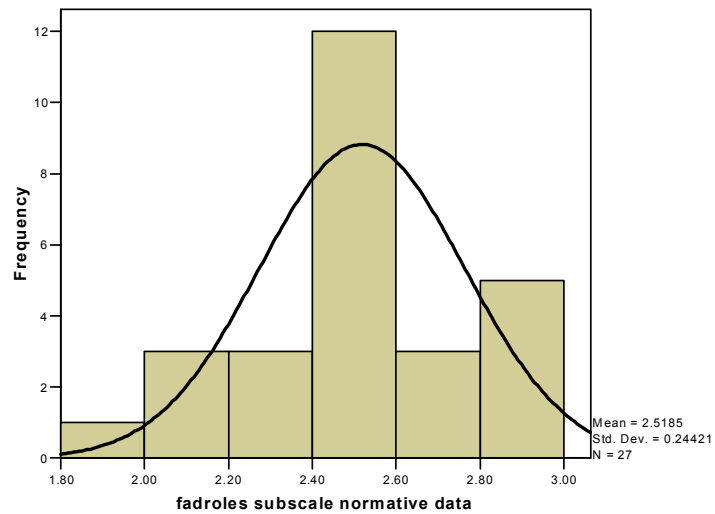
common  
factor(s)



Histogram



Histogram



## Summary of Results

- parental obsessive-compulsive symptoms are associated with dysthymic disorder whether ADHD-CT present or not with a large effect size and each uniquely contributes 12% of the variance of the other
- the relationship is clearly not causal but the strong association is bi-directional and probably reflects a common relationship with other common factor(s) that may be biological or environmental

### *IN CONTRAST*

- family role definition difficulties have a more tenuous relationship with ADHD-CT only compared to anxiety disorders alone, albeit with a large effect size but no unique contribution to the variance of the other

## **Clinical Implications**

- more targeted parent only and parent child dyadic psychotherapy interventions and separate parental psychiatric management, for all three clinical groups, although especially when dysthymic disorder present
- more targeted family therapy interventions specifically around role definition difficulties when ADHD-CT present

## Research Implications

### 1. parental obsessive-compulsiveness: dysthymic disorder

- developmental phase dependent or independent

- biological associations, especially striatal neural networks

- further environmental associations

### 2. family role definition: ADHD-CT

- as above, but particularly exploring whether there is/are a common vulnerability factor(s) that uniquely contribute(s) to the variance of ADHD-CT (and vice versa) and separately family role definition

## Research Implications

3. biological and environmental factors in interaction as a separate realm of enquiry compared to main effects alone



"All right, Billy, you just go right ahead! . . . I've warned you enough times about playing under the anvil tree!"

# calvin and HOBBS

by WATSON

