

Specific behaviour problems in children with FASD in remote Australian Aboriginal communities

Results from the Lililwan Project

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Funders:

- › NHMRC; Australian Government Dept. Families, Housing, Community Services & Indigenous Affairs; Dept. Health & Ageing; University Sydney

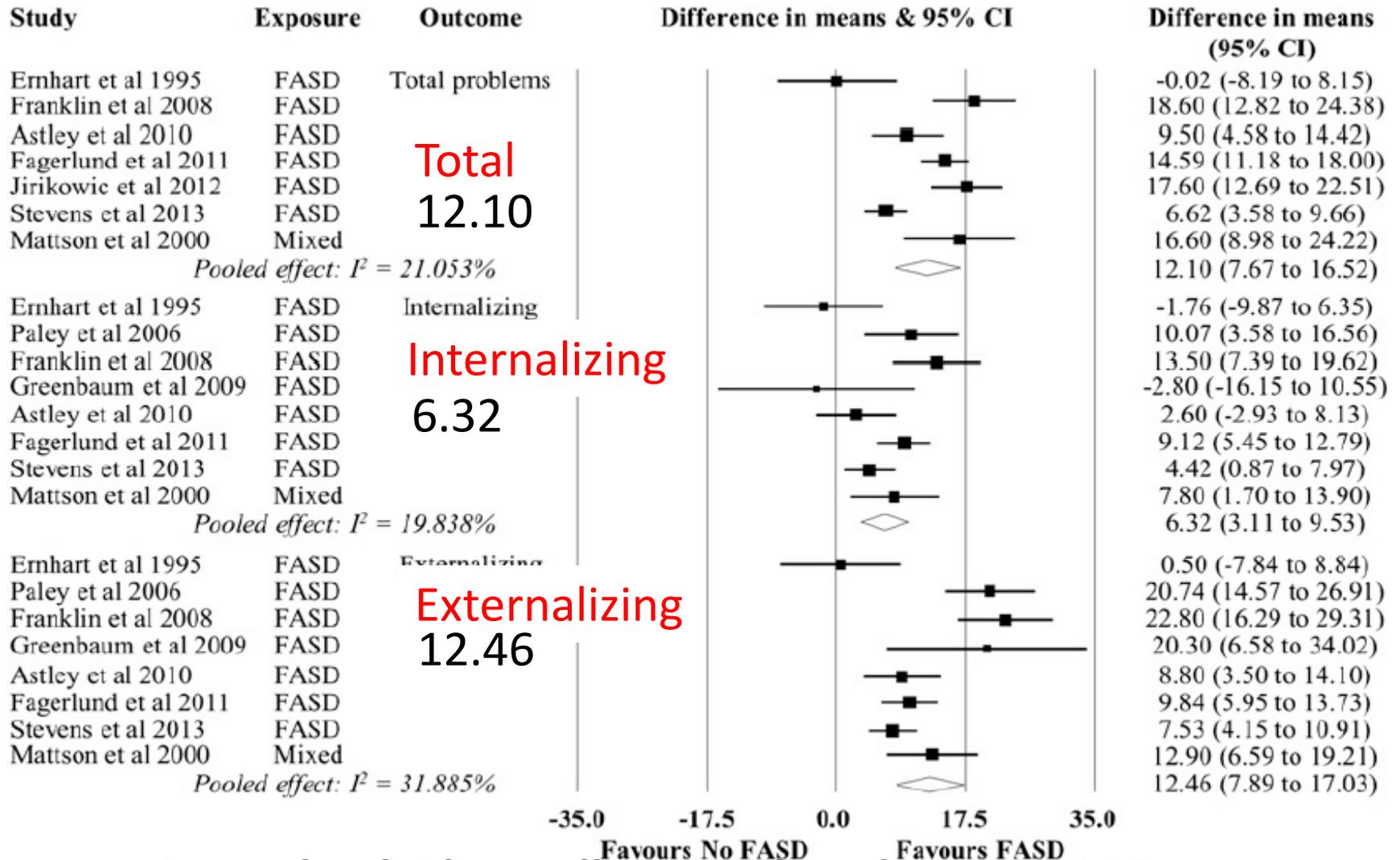


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Meta-analysis No FASD vs FASD (n=16)

T-scores: Total, Internalizing, Externalizing problems

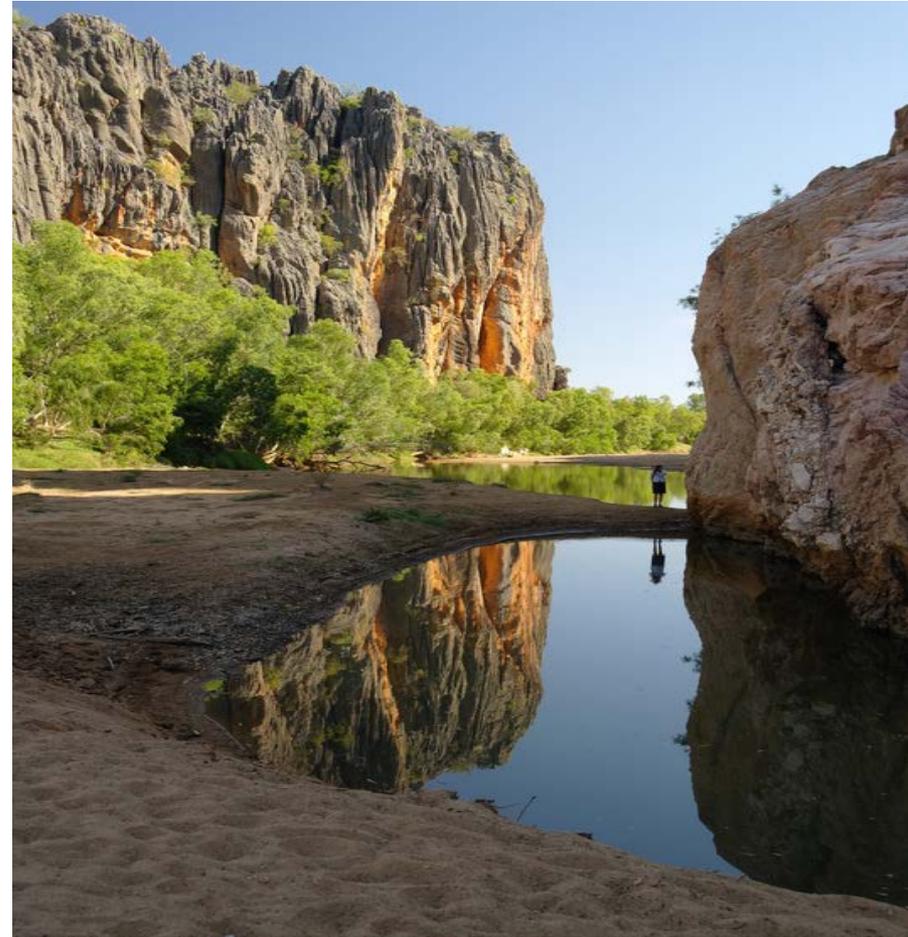
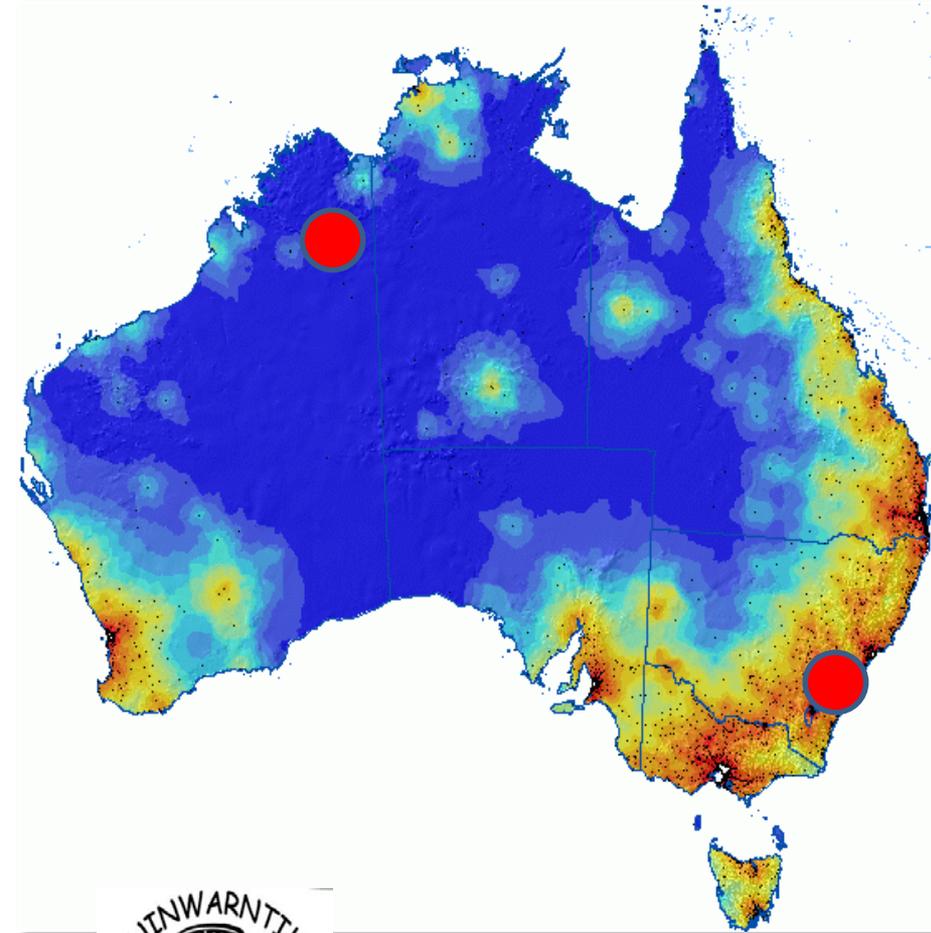


Behaviour in FASD

- › ***FASD associated with problematic behaviours***
 - Behaviour challenges in Aboriginal children with FASD ?
 - Aboriginality and remote living associated with:
 - Early life trauma; disadvantage
- › ***Secondary outcomes of FASD:***
 - Poor academic achievement; Unemployment; trouble with the law; poor QOL and health
- › ***What do we need to know?:***
 - Behaviour challenges at home and in school
 - Differences between FASD vs. No FASD

The Lililwan Project. Fitzroy Valley, WA, 2009-13

Elliott E, Latimer J, Oscar J, Fitzpatrick J, Carter M



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Lililwan Project

- › Community-initiated, population-based study
- › Objectives:
 1. FASD prevalence (2002-3)
 2. Relationships between prenatal alcohol exposure & neurodevelopmental and behavioural outcomes
 3. Assessment, diagnosis, health, education management plans



The Lililwan Project

Stage 1

Identify all children born
2002 or 2003 living in Fitzroy
Valley;
Interview parents/carers



April-Aug 2010

127 of 134 eligible
(95% participation rate)

Stage 2

Interdisciplinary
assessment;
Achenbach: CBCL, TRF;
Development of individual
management plans



Nov 2010

Trial of clinical
assessments (N=6)

May-Nov 2011

Interdisciplinary
assessment of cohort

Interdisciplinary assessment

Heather Carmichael-Olsen



Barb Lucas

Robyn Doney



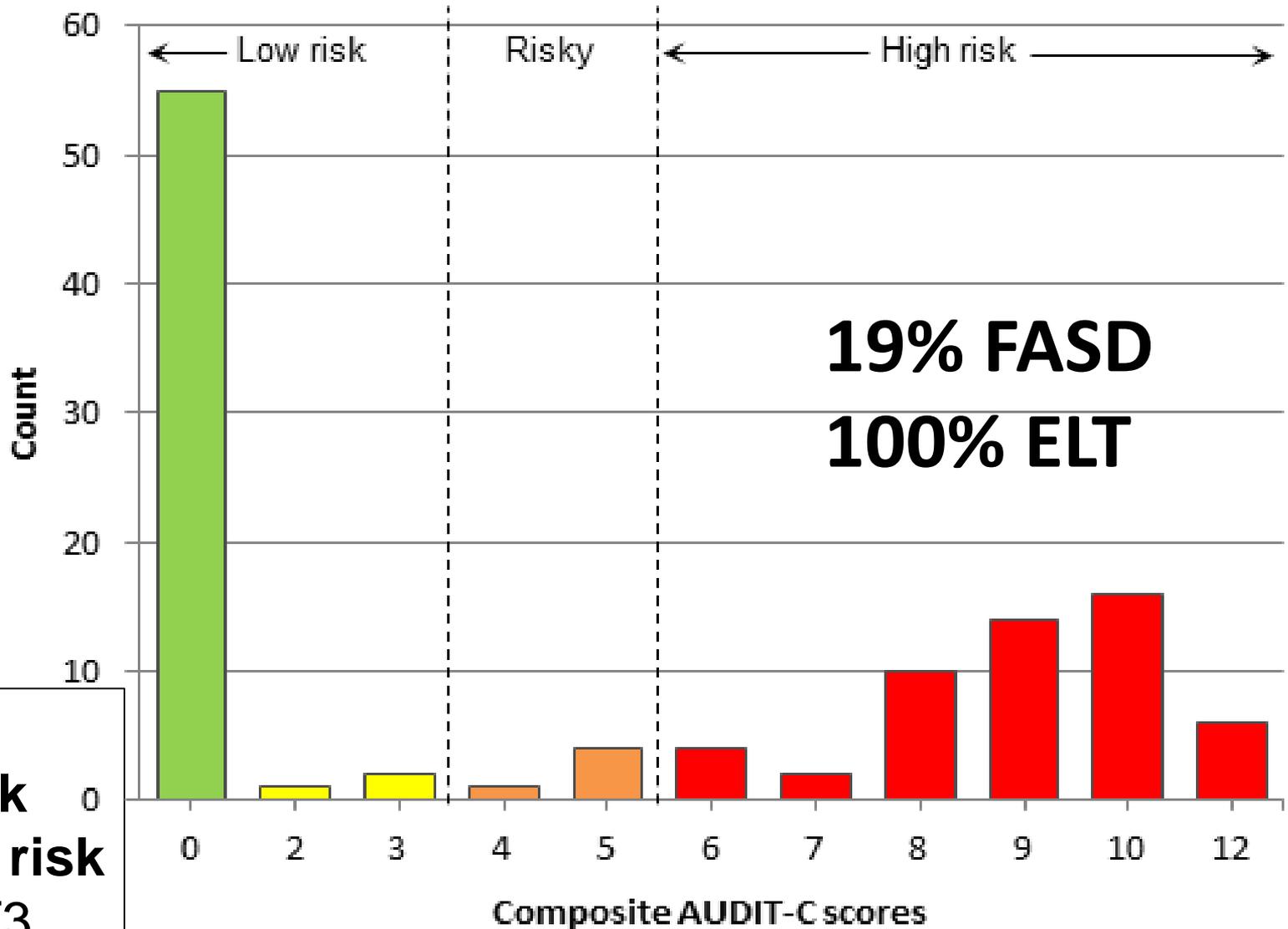
James Fitzpatrick



Clare Salter

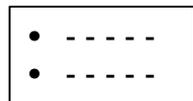
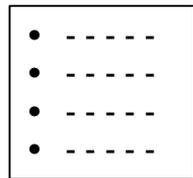
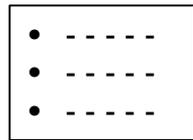
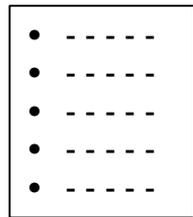
The Lililwan Project; Fitzpatrick et al. Elliott.

PRENATAL ALCOHOL EXPOSURE



Achenbach: CBCL simplified structure

Individual Qs
("items")



...

**(113 items:
12 Critical)**

Scale scores

Scale score A

Scale score B

Scale score C

Scale score D

...

(24 CBCL scales)

Broad summary
scores

Broad summary score 1

Broad summary score 2

...

(4 CBCL scores)

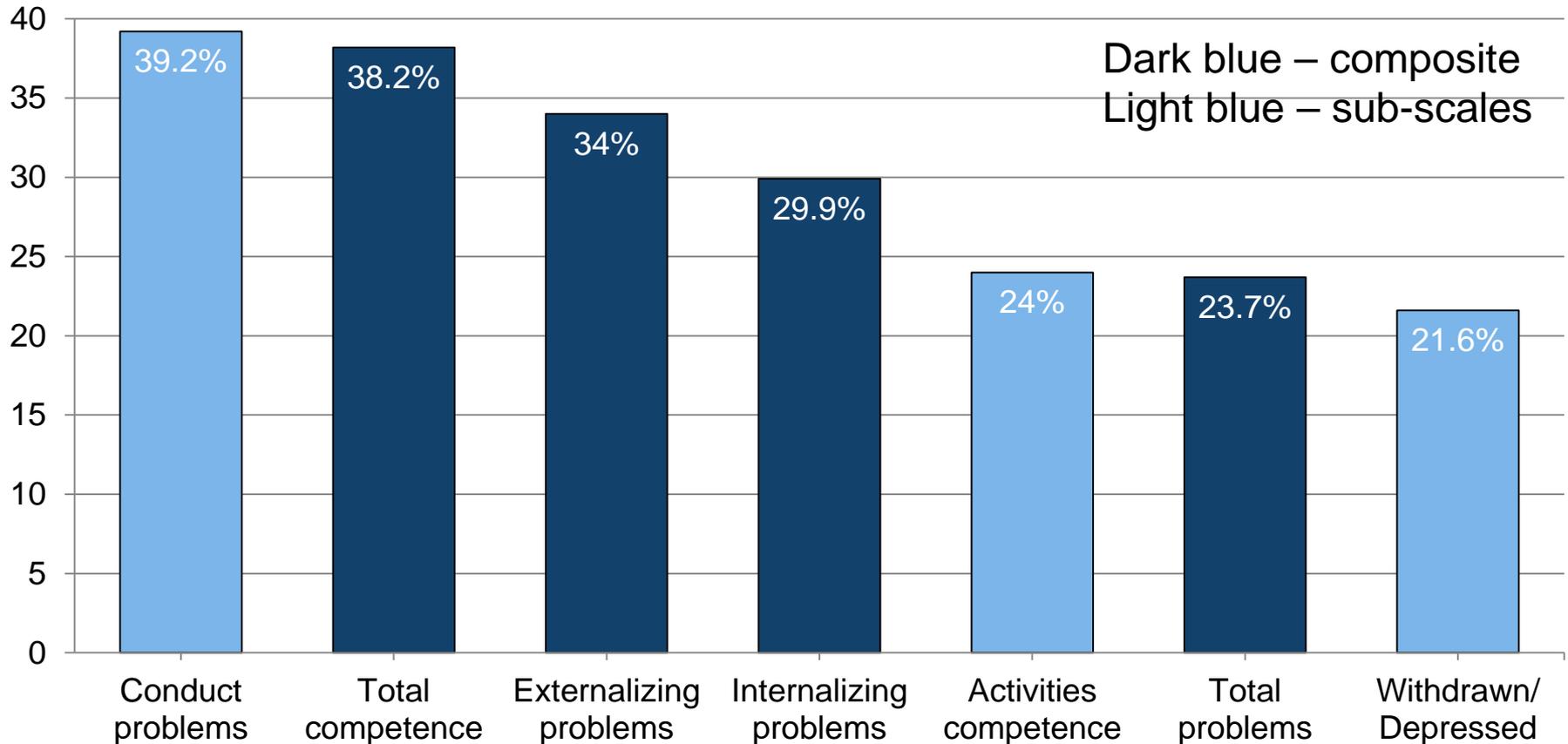
Behaviour data

- › N = 108: CBCL: N=97; TRF: N=106
- › Age: 8.7 ± 0.6 y (range: 7.4 to 9.6 y)
- › FASD 21 (19%)
- › Child Protection: FASD 40%; Non-FASD 14.5% ($p < 0.05$)
- › CBCL trained community navigators
- › TRF self-administered
- › Analyses: FASD v Non-FASD
 - Proportions with “Normal”, & “Borderline / Clinical” scores
 - Total scores
 - Critical items

Results: Total Cohort

“Borderline / Clinical” behaviours (%)

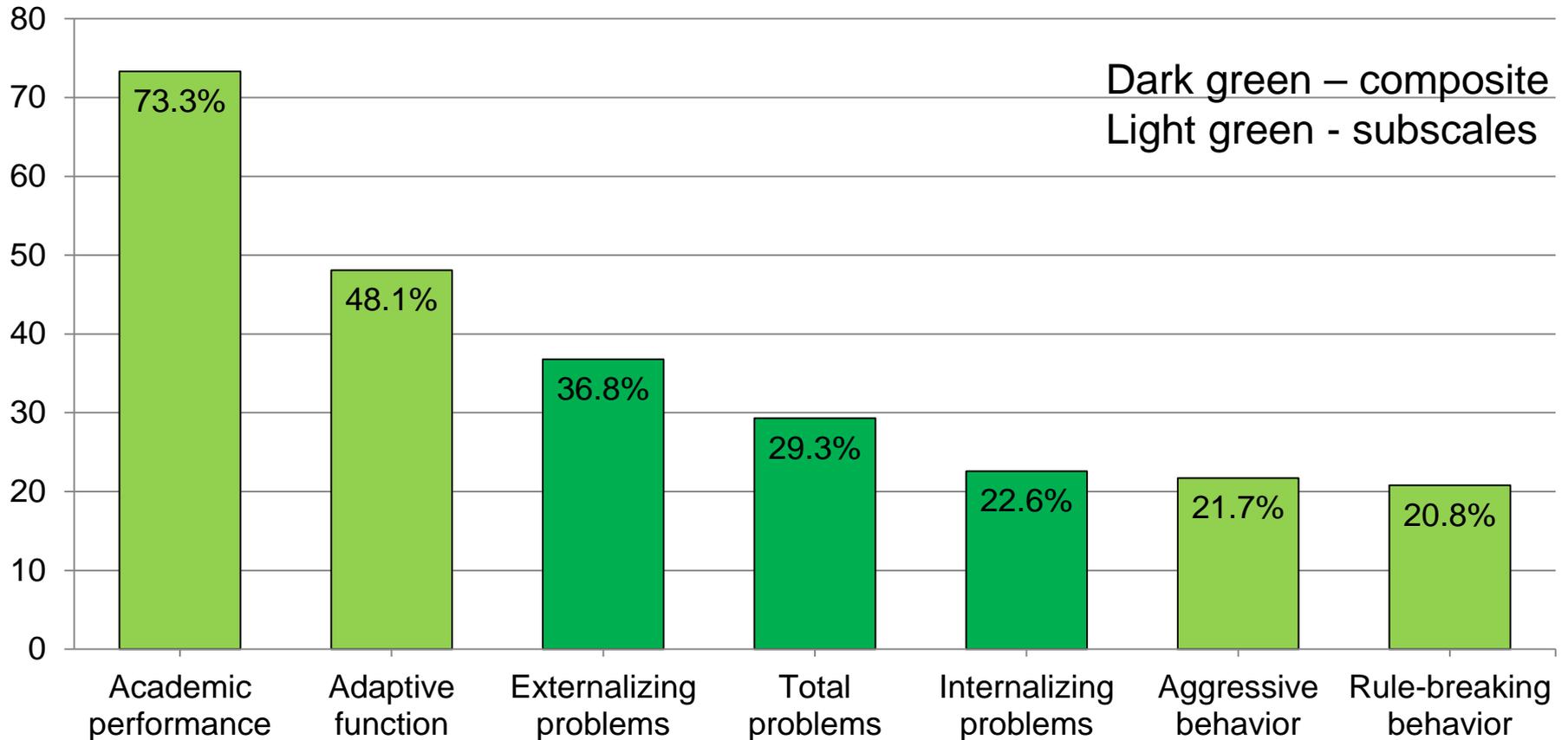
CBCL (parent-rated)



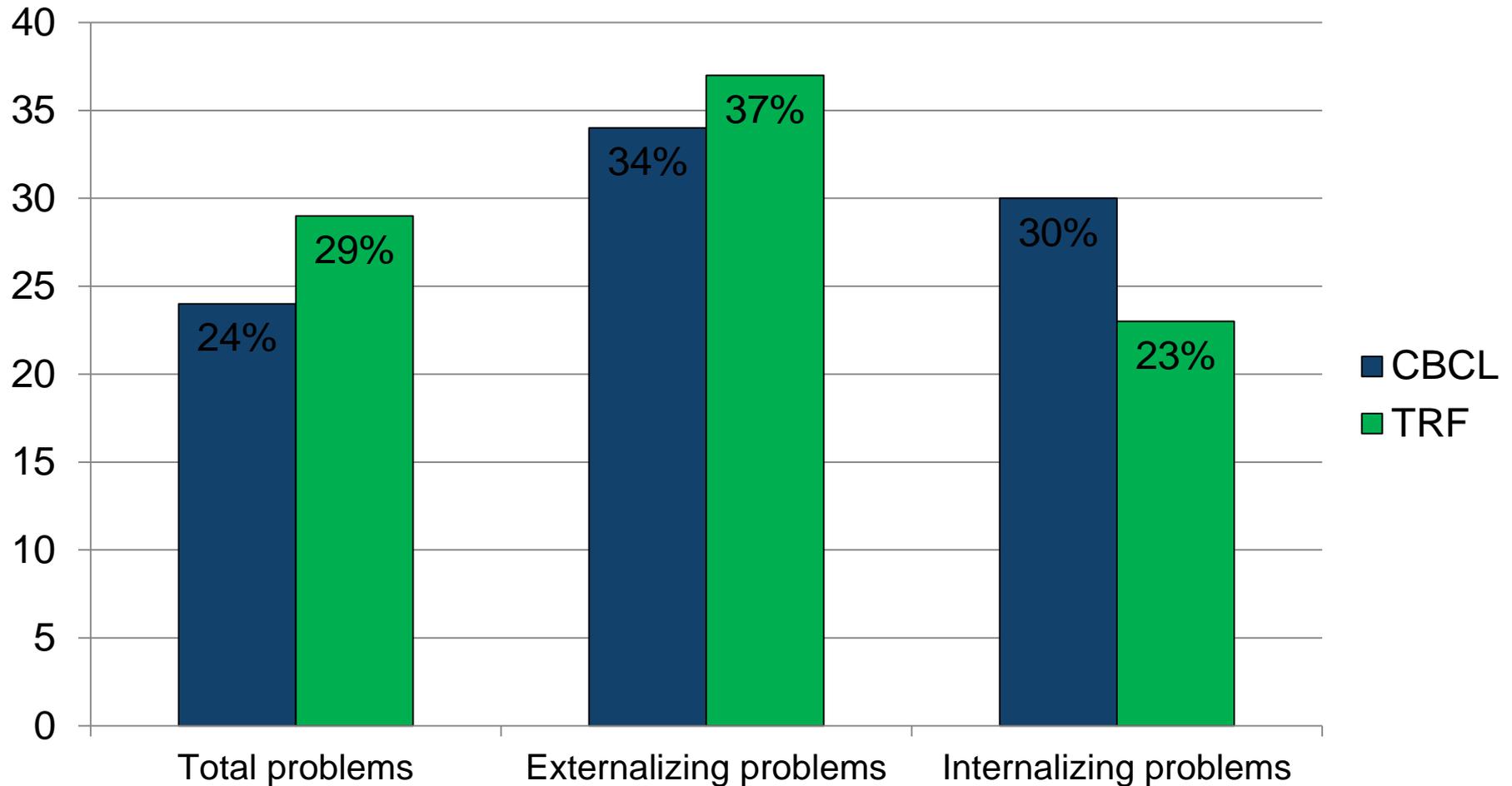
Results: Total Cohort

“Borderline / Clinical” range behaviours (%)

TRF (teacher-rated)



Composite Scores: “Borderline / Clinical” (%); Parent & Teacher



Parent ratings

- › Prior to correction, FASD > no-FASD:
 - “Borderline / Clinical” range: Attention problems
 - Total scores:
 - Social problems, Attention problems
 - DSM-oriented scale: ADHD
- › After statistical adjustment for multiple comparisons:
 - No significant differences between FASD v Non-FASD:
 - “Borderline / Clinical” scores
 - Total scores
 - Critical items

TRF Results: FASD vs Non-FASD

Teacher ratings: “Borderline / Clinical” range scores

Behaviour scale	FASD (%) (n=21)	Non-FASD (%) (n=85)
Academic performance	100	67
Affective problems	38	11
Attention problems subscale: Inattention	33	7
Attention problems	33	5
Attention deficit hyperactivity (ADH) problems	33	5
Sluggish cognitive tempo	29	5
ADH subscale: Inattentive	24	6
ADH subscale: Hyperactivity-impulsivity	24	16

Significant differences after adjustment for multiple comparisons

FASD vs Non-FASD TRF T-score (SD); Raw (IQR)

Behaviour scale	FASD	Non-FASD
ADH problems subscale: Inattention	4 (3 – 9)	2 (0 – 4)
Attention problems	60.9 (8.8)	54.1 (5.6)
Attention problems subscale: Inattention	9 (6 – 20)	3 (1 – 9)
Attention problems subscale: Hyperactivity-impulsivity	8 (3 – 13)	4 (0 – 7)
ADH problems	61.3 (9.7)	54.7 (5.9)
ADH problems subscale: Hyperactivity-impulsivity	7 (2 – 10)	3 (0 – 5)
Thought problems	56.8 (5.6)	52.2 (3.9)
Academic performance	35.2 (0.4)	41.6 (9.4)
Social problems	60.4 (8.7)	53.8 (5.5)
Post-traumatic stress	59.2 (8.9)	53.9 (5.4)
Sluggish cognitive tempo	59.5 (9.0)	53.9 (5.4)
Withdrawn / depressed	59.4 (8.1)	54.4 (6.3)

Results: FASD vs Non-FASD

Teacher ratings: Critical Items [N (%)]

Critical item	Total cohort (n=106)	FASD (n=21)	Non-FASD (n=85)
0 critical items	80 (75%)	12 (57%)	68 (80%)
1 critical item	22 (21%)	6 (29%)	16 (19%)
2 critical items	4 (4%)	3 (14%)	1 (1%)
Harms self	1 (0.9%)	0	1 (1.2%)
Hears things	0	0	0
Attacks	23 (21.7%)	8 (38.1%)	15 (17.6%)
Sees things	1 (0.9%)	1 (4.8%)	0
Talks suicide	4 (3.8%)	3 (14.3%)*	1 (1.2%)
Illicit alcohol/drugs	1 (1.0%)	0	1 (1.2%)

* Significant difference

Summary

- › First investigation of behaviour in FASD in remote Aboriginals
- › First study to examine all scales & Critical items, CBCL & TRF
- › Prevalent problems (Total cohort):
 - Academic performance, Attacking others; Internalizing problems, Externalizing problems, Total problems; Aggressive behaviour; Conduct problems.
- › Children with FASD show:
 - Poorer academic performance; more attention problems, sluggish cognitive tempo, adaptive function problems, affective problems, social problems, talking of suicide.
- › Parent vs teacher ratings:
 - Consistent for total cohort for composite problem scores (Total, Internalizing, Externalizing problems)
 - Inconsistent in comparisons of FASD v Non-FASD



JANDU YANI U

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Positive Parenting Program
Triple P International



20 accredited Parent Coaches, 14 Aboriginal, 10 organisations