The University of Sydney

The New South Wales Institute of Psychiatry
Mental Health Education Provider

Detection of at-risk mental states for psychosis in young Aboriginal & non-Aboriginal people (DARMSPA)

Dr. Blake Hamilton, Prof. Alex Blaszczynski, Anthony Dillon

Aims of the research

- To investigate whether young Aboriginal people can be effectively assessed for at-risk mental states using the CAARMS

- To examine aspects of the phenomenology of early psychosis in young Aboriginal people compared to young non-Aboriginal people

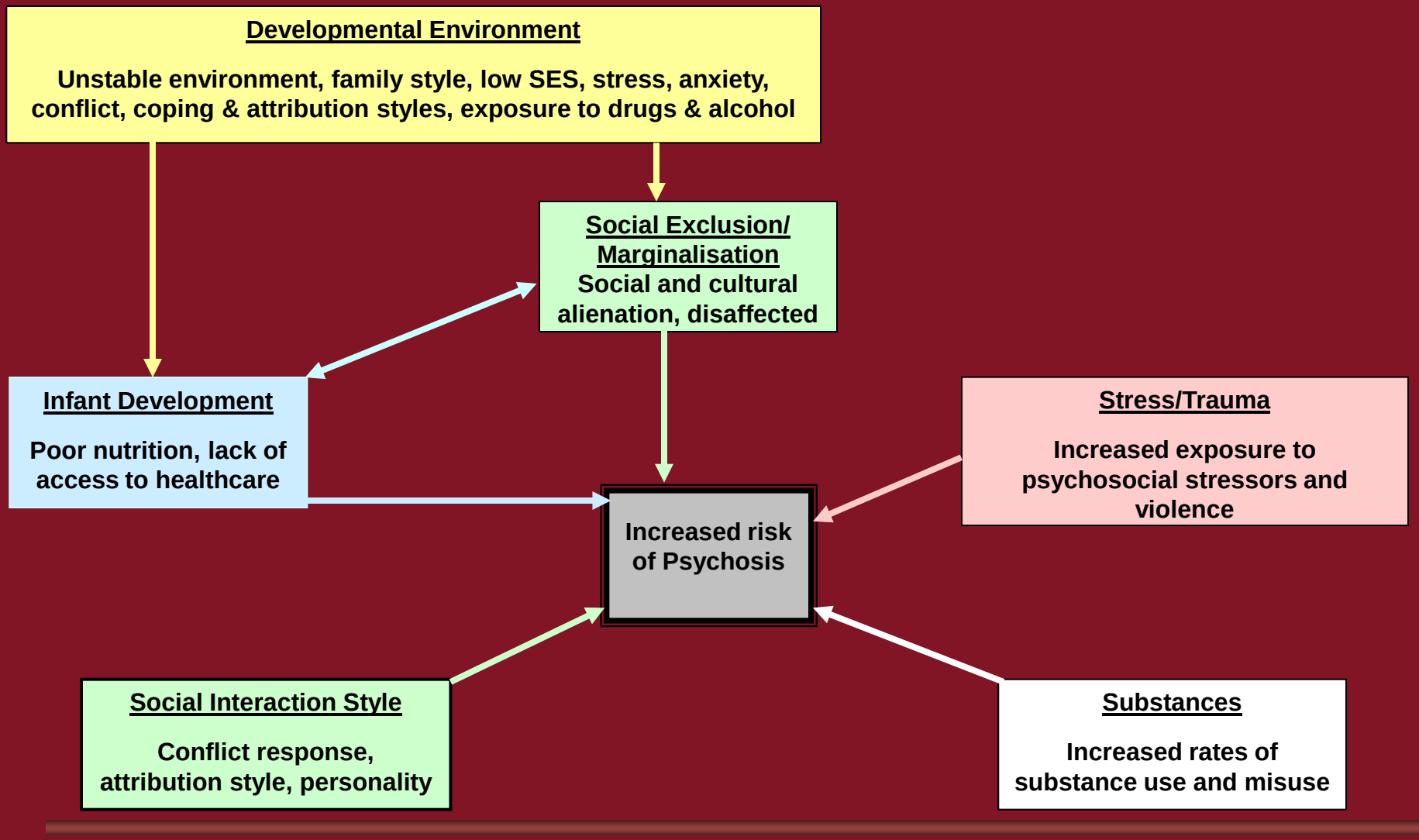
Background

- Psychosis: $46,200 pa + 0.5-1.7% prevalence.
- Early Psychosis programs- good evidence
- - Disadvantage = - Psychosis
- Aboriginal people = high rates of disadvantage
- Aboriginal psychosis estimate = 1.8 – 2.4x

Conceptual Model

‘Why might Aboriginal people be at increased risk of Psychosis?’

Conceptual model of increased risk for psychosis amongst Aboriginal people



Background

- Aboriginal people are at higher risk of psychosis.

However…..

- Little data or literature
- Characteristics of Aboriginal psychosis?
- How to assess for ARMSP in young Aboriginal people?

Hypotheses

1. That the CAARMS will be able to detect young Aboriginal people with at-risk mental states for psychosis
2. That the aspects of the phenomenology of early psychosis in young Aboriginal people will be equivalent compared to young non-Aboriginal people

Method

- Comparing CAARMS and BPRS across groups
- Cross-sectional 2x2 factorial design with Semi-structured interviews of:

	Aboriginal	Non-Aboriginal
Psychotic	**20**	**21**
Non-Psychotic	**20**	**20**

Measures

- Demographics questionnaire
- CAARMS (alternated)
- AUDIT
- OTI-R
- BPRS (alternated)
- SOFAS
- GARF

Results

	Recruitment location (%)			
Group	Prison	Community	Educational	Early Psychosis Service
Aboriginal psychotic	20 (100)	-	-	-
Aboriginal healthy	10 (50)	4 (20)	6 (30)	-
Non-Aboriginal psychotic	13 (62)	-	-	8 (38)
Non-Aboriginal healthy	6 (30)	14 (70)	-	-

Results- Sample

- n=81, 80.2% male. x = 22.27yrs
  male age = female age.
- Aboriginal y grp sig older than non-Aboriginal healthy (all x's < 25, small SD's)
- No other age diff's between groups

Results- Alcohol use

	Group (SD)			
Alcohol use	**Aboriginal Psychotic (n = 20)**	**Aboriginal Healthy (n = 20)**	**Non-Aboriginal Psychotic (n = 21)**	**Non-Aboriginal Healthy (n = 20)**
AUDIT Score	**14.75 (12.48)**	**10.00 (9.21)**	**11.76 (8.26)**	**10.00 (5.22)**

- No sig diffs between groups ($F_{(3,77)} = 1.198$, $p = 0.316$)
- 59% sample score > 8
- 20% sample score > 20

Results- Drug Use

	Group (SD)			
Drug use	**Aboriginal Psychotic (n = 20)**	**Aboriginal Healthy (n = 20)**	**Non-Aboriginal Psychotic (n = 21)**	**Non-Aboriginal Healthy (n = 20)**
OTI-R Poly drug Score	**4.25 (1.65)**	**3.00 (2.08)**	**2.91 (1.67)**	**2.10 (1.89)**

- Aboriginal y grp > non-Aboriginal healthy ($F_{(3,77)} = 4.720$, $p = 0.004$)

Results- Sofas & GARF

	Group (SD)			
Drug use	**Aboriginal Psychotic (n = 20)**	**Aboriginal Healthy (n = 20)**	**Non-Aboriginal Psychotic (n = 21)**	**Non-Aboriginal Healthy (n = 20)**
SOFAS	**42.25 (13.42)**	**66.35 (19.24)**	**53.24 (12.30)**	**79.70 (10.17)**
GARF	**49.05 (24.71)**	**62.95 (26.63)**	**63.81 (23.39)**	**78.65 (19.18)**

- SOFAS: Aboriginal healthy = non-Aboriginal y , otherwise sig. Diffs.
- GARF: Aboriginal y grp < non-Aboriginal healthy

Results- CAARMS Psychotic

	Group (SD)			
	Aboriginal Psychotic (n = 20)	Aboriginal Healthy (n = 20)	Non-Aboriginal Psychotic (n = 21)	Non-Aboriginal Healthy (n = 20)
CAARMS Psychotic Score	3.80 (1.21)	0.58 (0.84)	2.14 (2.01)	0.23 (0.37)

ANOVA: sig. Diff ($F_{(3,77)} = 33.016$, $p < 0.001$)

Sig. effect for Aboriginality ($t = 3.559$, df = 77, $p = 0.001$)

Sig. effect for psychosis ($t = -9.066$, df = 77, $p < 0.001$)

Results- CAARMS Overall

	Group (SD)			
	Aboriginal Psychotic (n = 20)	Aboriginal Healthy (n = 20)	Non-Aboriginal Psychotic (n = 21)	Non-Aboriginal Healthy (n = 20)
CAARMS Overall Score	2.19 (0.89)	0.70 (0.80)	1.51 (1.06)	0.39 (0.40)

ANOVA: sig. Diff ($F_{(3,77)} = 19.731$, $p < 0.001$)

Sig. effect for Aboriginality ($t = 2.701$, df = 77, $p = 0.009$) +

Sig. effect for psychosis ($t = -7.097$, df = 77, $p < 0.001$)

Results - CAARMS Overall

- Compared to CARRMS validation sample:

Aboriginal y group = ARMS sample

Non- Aboriginal y group sig < ARMS sample

Aboriginal hlthy group sig > ARMS H sample

Non- Aboriginal hlthy group = ARMS healthy

Results- BPRS

	Group (SD)			
	Aboriginal Psychotic (n = 20)	Aboriginal Healthy (n = 20)	Non-Aboriginal Psychotic (n = 21)	Non-Aboriginal Healthy (n = 20)
BPRS Overall Score	2.41 (0.47)	1.40 (0.36)	1.99 (0.62)	1.15 (0.13)

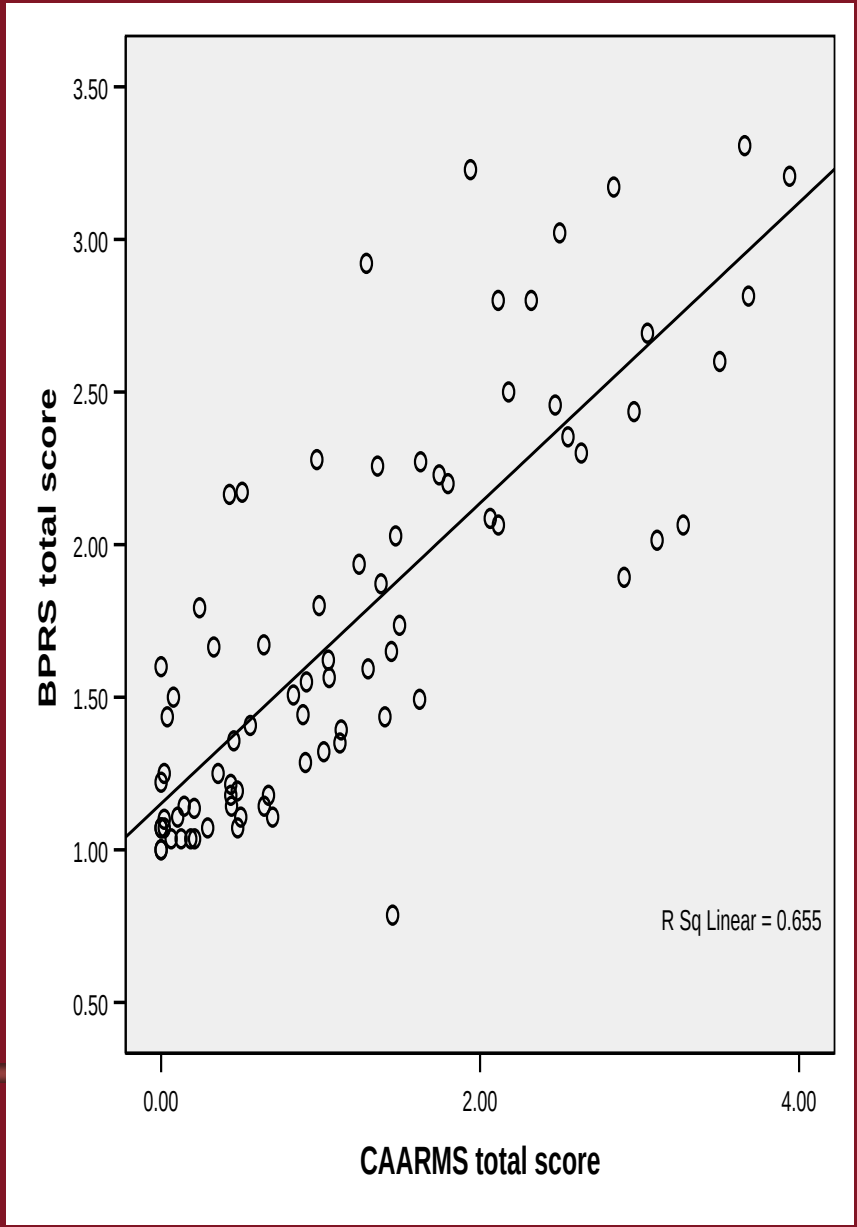
ANOVA: sig. Diff ($F_{(3,77)} = 33.852$, $p < 0.001$)

Sig. effect for Aboriginality ($t = 3.468$, df = 77, $p = 0.001$) +

Sig. effect for psychosis ($t = -9.466$, df = 77, $p < 0.001$)

Results

- Scatter-plot of CAARMS Vs. BPRS
- $R^2 = 0.655$



Results- Understanding

% (SD)

	CAARMS	BPRS
Average % of Q's not understood per subject	1.2 % (1.8)	0.7% (1.1)

- No sig diff b/w groups on CAARMS ($F_{(3,77)} = 2.024$, $p = 0.118$)
- No sig diff b/w groups on BPRS ($F_{(3,77)} = 0.564$, $p = 0.641$)

Discussion

- Hypothesis 1: CAARMS can detect y
  - only partially supported

1. Use of CAARMS > type 1 error (false +)
2. Use of BPRS > inflated scores
3. CAARMS does not differentiate Aboriginal phenomenology

Discussion

- Young Aboriginal people understand CAARMS- endorse items
- CAARMS may not assess unique cultural factors

- Hypothesis 2: Aboriginal phenomenology is same as non-Aboriginal
  - can’t confirm or deny

Limitations

- Single interview non-blind to group
- Aboriginal y group = forensic sample
- Significantly more male subjects
- No matching for y illness
- Limited Aboriginal clinical input

Implications

- Highlights limited data on MH and y Ax in young Aboriginal people
- CAARMS Still the best chance to answer phenomenology questions (new measure?)
- No accurate Ax tools = no data on effective Tx's