The Coolamon Study

Courtney Ryder

PhD Candidate, Injury Division

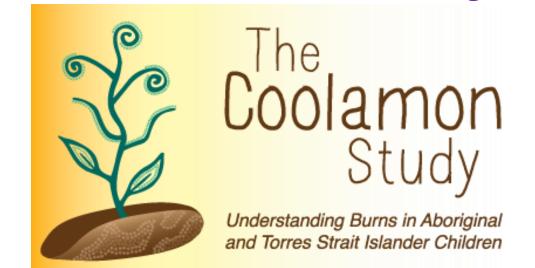
The George Institute for Global Health | AUSTRALIA

Level 5, 1 King St | Newtown NSW 2042 Australia

Postal Address: PO Box M201 | Missenden Rd | NSW 2050 Australia

cryder@georgeinstitute.org.au

@courtcryder











What do we know? ... Not much ...



- Moller et al 2017:
- Higher rates of hospitalisation in Aboriginal children, rate increases (17.6) with remoteness
- With hospitalisation length of stay is greater
- Flame burns incidence greater



Open Access Protocol

BMJ Open Understanding burn injuries in Aboriginal and Torres Strait Islander children: protocol for a prospective

Rebecca Q Ivers,^{1,2} Kate Hunter,^{1,3} Kathleen Clapham,⁴ Julieann Coombes,¹ Sarah Fraser,² Serigne Lo,¹ Belinda Gabbe,⁵ Delia Hendrie,⁶ David Read,⁷ Roy Kimble,⁸ Anthony Sparnon,⁹ Kellie Stockton,⁸ Renee Simpson,⁷ Linda Quinn,⁹ Kurt Towers,¹⁰ Tom Potokar,¹¹ Tamara Mackean,¹² Julian Grant,² Ronan A Lyons,¹³ Lindsey Jones,¹⁴ Sandra Eades,¹⁵ John Daniels,⁴ Andrew J A Holland^{14,16}

To cite: Ivers RQ, Hunter K, Clapham K, et al. Understanding burn injuries in Aboriginal and Torres Strait Islander children: protocol for a prospective cohort study. BMJ Open 2015;5:e009826. doi:10.1136/bmjopen-2015-009826

ABSTRACT

cohort study

Introduction: Although Aboriginal and Torres Strait Islander children in Australia have higher risk of burns compared with non-Aboriginal children, their access to burn care, particularly postdischarge care, is poorly understood, including the impact of care on functional outcomes. The objective of this study is to describe the burden of burns, access to care and functional outcomes in Aboriginal and Torres Strait Islander children in Australia, and develop appropriate models of care.

Strengths and limitations of this study

- The study has support from peak Aboriginal health bodies, and data will be collected by Aboriginal research assistants or staff with significant experience working with Aboriginal people.
- The study will include detailed measures of cost of care as well as functional outcomes in Aboriginal and Torres Strait Islander children

Multi-Site



Source: Map Customise

Coolamon Study

- Study Aims (Ivers et al 2015):
- 1. Describe impact of burns

2. Describe treatment received (including clinical guidelines)

3. Identify barriers to health care

4. Inform, development of clear and practical clinical guidelines

Coolamon Study

•NHMRC – Keeping Research On Track

Aboriginal ownership and involvement in study crucial

- Aboriginal investigators Cis & Als
- Aboriginal students x 3 PhD
- Peak Aboriginal Community
 Controlled Health service support
- Aboriginal steering committee
- Community and health service input
- Capacity building & training



Image: Family participating in the study.

PhD Students





Models of Care – What Informs Burn Care? Sarah Fraser, Flinders University (2015-19)

Determining the support needs of Aboriginal and Torres Strait Islander children and their families.

Hayley Williams, University of Queensland (2017-20) Scholarships: NHMRC & CHF













Is Anybody Listening?

Julieann Coombes, University of Technology (2017-20) Scholarship: Jumbunna

Burns Outcomes in Aboriginal and Torres Strait Islander Children Courtney Ryder, University of New South Wales (2017-20) Scholarship: NHMRC



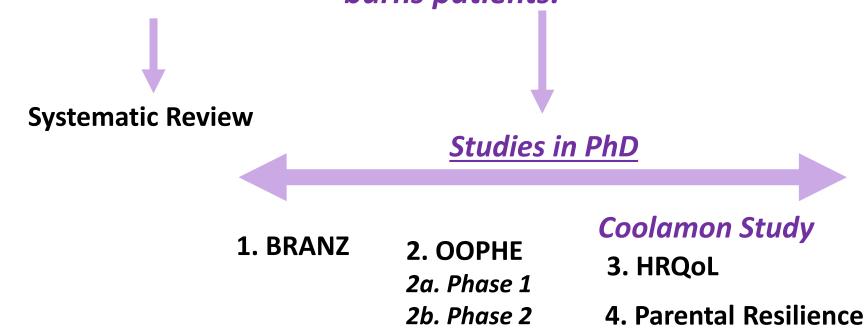


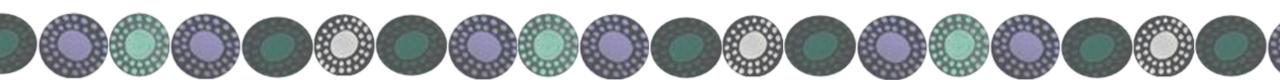




My Journey in Coolamon

Quality of life, associated psychological and economic family impacts, and trajectory of recovery in Aboriginal and Torres Strait Islander paediatric burns patients.





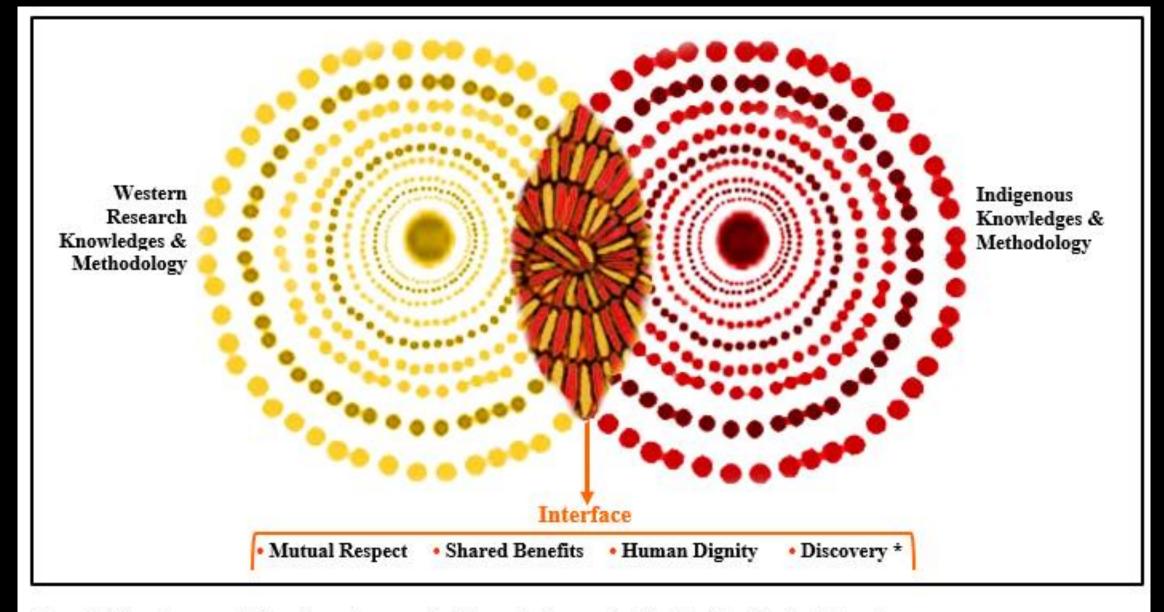


Figure 1. Visual representation of weaving a methodology for 'research at the interface' for the first author.

^{*} The interface for science and Indigenous Knowledge from Durie 2004 (Durie, 2004a).

BRANZ Study



Source & Participants

- Burns Registry of Australia & New Zealand
- July 2009 July 2016, 7 years of data
- Australian Ethnicity, < 16 years, acute burns admission

Methodology – Interface Weaving

Linked NSW hospital data (Moller 2017)

Western Methods

Descriptive Statistics

Correlation – X²

Cox Regression

Equity

Data Analysis

• Stata Version 15.1

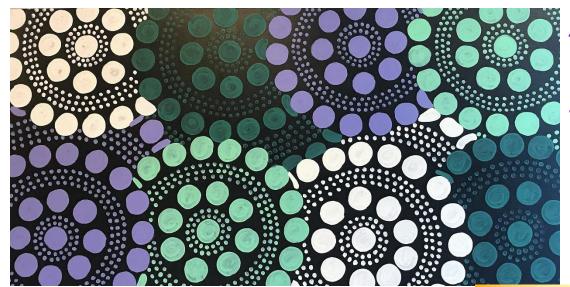


Indigenous Methods

Decolonisation
Nyari Kari
Yuri Ingarnithii
Indigenist Research

Cox Regression Model – Exploring Length of Stay

Children:	Aboriginal & Torres Strait Islander			Other Australian		
Variable	Discharge Ratio	95%	6 CI	Discharge Ratio	959	% CI
Gender (male)	1.12	0.92	1.37	0.93	0.87	1.00
Age	Note: < 1 year reference value					
1-4yrs	1.12	0.74	1.70	1.00	0.89	1.12
5-9yrs	1.04	0.67	1.63	1.06	0.93	1.22
10-15yrs	1.06	0.67	1.68	1.07	0.93	1.23
Remote Area Index	Note: Major City is reference value					
RA2 - Inner Regional	0.89	0.61	1.28	1.09	1.00	1.20
RA3 - Outer Regional	1.26	0.95	1.68	1.32	1.18	1.48
RA4 - Remote	1.84	1.35	2.50	1.52	1.23	1.88
RA5 - Very Remote	1.85	1.32	2.60	1.67	1.22	2.29
Index of Relative Socio-Econ	Economic Advantage and Disadvantage Note: High (8-10) IRSAD is reference Value					
Low: 1-3	1.05	0.74	1.47	1.01	0.93	1.10
Medium: 4-7	0.87	0.69	1.10	1.01	0.92	1.12
Primary Burn Cause	Note: Scald is reference value					
Contact	1.12	0.89	1.41	0.97	0.88	1.07
Flame	1.50	1.14	1.98	1.13	1.00	1.28
Friction	0.95	0.57	1.58	1.01	0.87	1.18
Other	1.63	1.02	2.59	0.94	0.79	1.11
% Total Body Surface Area	Note: < 10 TBSA% is reference value					
10-19%	1.73	1.19	2.50	1.82	1.62	2.05
> 19%	2.32	1.12	4.84	2.31	1.78	3.00
Bacterial Infection (B95X)	1.24	0.96	1.60	1.54	1.38	1.73
Theatre Procedure	1.74	1.38	2.18	1.04	0.96	1.12



Artwork by Zachary Bennett-Brook, artist and owner of Saltwater Dreamtime, a Torres Strait Islander contemporary artist born and raised in Wollongong (Dharawal Country).

Artwork by Kylie Cassidy Native Zests Bush food, Art & Culture

