Child development, social-emotional wellbeing and settlement: a longitudinal study of refugee children

A/Prof Karen Zwi
Sydney Children’s Hospital Network
University of New South Wales
What we know about refugee children

• **Highly vulnerable yet resilient** group

• **Routine screening is highly effective** in identifying physical health conditions
  - high rates of infectious diseases, incomplete immunisation, growth and nutrition problems, poor dental health

• **Psychological wellbeing is less well documented**
  - variable rates of post traumatic stress disorder (PTSD); depression, anxiety and behavioural problems

• **Development:** very limited evidence

• **Predictors of wellbeing requires research over long term** - presents multiple challenges
### Known risk and protective factors

#### Mental health population studies (refugee children)

<table>
<thead>
<tr>
<th>RISKS</th>
<th>PROTECTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>parental mental illness</td>
<td>young age</td>
</tr>
<tr>
<td>restricted economic opportunity</td>
<td>family cohesion</td>
</tr>
<tr>
<td>time in detention</td>
<td>employment</td>
</tr>
<tr>
<td>exposure to violence/discrimination</td>
<td>socio-economic support</td>
</tr>
<tr>
<td>unaccompanied children/single parents</td>
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- Few Longitudinal follow-up studies
  - time in Australia
  - family and peer support; social inclusion
  - fall in social status of family
Child development and wellbeing: a longitudinal cohort study of refugee children

Investigators
A/Prof Karen Zwi, SChN
Lisa Woodland, SESLHD
Dr Sue Woolfenden, SChN
Prof Katrina Williams, VIC
Dr Santuri Rungan, SChN

PhD Supervisors
Dr Pam Palasanthiran, UNSW
Prof Adam Jaffe, UNSW

Refugee Health Nurses
ISLHD
Colleen Allen
Lisa Atkins
Jenny Lane
Aims

1. To assess over time
   - Physical health
   - Development (6 mths-5yrs)
   - Social-emotional wellbeing (4-15 yrs)

2. Identify risk and protective factors that contribute to health outcomes in order to provide early intervention for optimal outcomes
Measurements: Outcomes

**Physical Health**
- Ht, Wt, BMI
- GP examination
- Blood tests

**Development** (6mths – 5yrs)
Australian Developmental Screening Tool (ADST)

**Social-emotional wellbeing** (4-15yrs)
The Strengths and Difficulties Questionnaire
Measurements: Risk and Protective factors

- settlement
  - stressful life events in last year
  - education, employment & study status
  - English language proficiency
  - socio-economic resources
  - experience of discrimination
  - access to health care
  - social inclusion & community support

- family
  - region of origin
  - family composition
  - parental disclosure of trauma
  - birth in refugee camp

- child
  - age
  - gender
  - physical health on arrival (presence of chronic disease; body mass index)

Bio-ecological model: Bronfenbrenner
Study Setting: regional NSW

Refugee nurses

Child/Family

Settlement Services

Linked GPs

GP Guidelines provided by Wollongong Hospital, SCH and MHS

Partners in service provision include:
- Sydney Children’s Hospital Network
- Wollongong Hospital
- Multicultural Health Service
Study methods and power

- 2 children per family

- Hypothesis: 80% of children would have normal SDQ by year 3; 20% would have ongoing social-emotional difficulties associated with predictive factors

- Power calculation: power set at 0.8, significance 0.05 and the prevalence of risk factors 11-97%, required a sample size of 40-60 children given a 25-30% difference in SDQ between exposure groups

- Univariate associations between SDQ score at year 3 and predictors at year 2 - exact chi-square

- Multivariate associations - cumulative protective factors - highest P values on univariate analysis
Study sample and follow up up to 3 years

Child (0-15yrs) arrivals to the Illawarra (May 2009 – Dec 2013)

- n=228

Children eligible for the study
- n=158

- 70%

- n=61 children enrolled
  - Assessed at Year 2 n=61
    - SDQ n= 39
    - ADST n= 15
    - Semi structured interview n=54

- 61%

- Children not enrolled n=97
  - Nurses/interpreters unavailable n=47
  - Families declined n=29 children
  - Moved out of area n=13
  - Unable to be contacted n=8

- 30%

Children assessed at Year 3
- n=52

- 85%

- SDQ n=45
- ADST n= 13
- Semi structured interview n=37

Lost to follow up
- n=9 children

- 15%
Demographics of study sample

♀ n = 32 (52%)
♂ n = 29 (48%)

Mean age: 6 years;
Range: 6 months - 15 years

- 40% of parents had low levels of education
- 30% of fathers were absent on arrival
- 13% of children were born in refugee camps, and
- 11% of parents self-disclosed previous trauma

Countries of Origin

- 35% Burma
- 20% Congo
- 16% Iran
- 7% Ethiopia
- 7% Iraq
- 3% Thailand
- 3% Malaysia
- 3% Malawi
- 3% Kenya
- Other
# Physical health

<table>
<thead>
<tr>
<th>Health condition</th>
<th>% positive</th>
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<tbody>
<tr>
<td>Nutritional deficiencies</td>
<td>35%</td>
</tr>
<tr>
<td>Parasitic infections</td>
<td>7%</td>
</tr>
<tr>
<td>Latent TB positive screen</td>
<td>11%</td>
</tr>
<tr>
<td>Chronic Hep B</td>
<td>2%</td>
</tr>
<tr>
<td>Chronic disease (LTBI, Hep B, schisto)</td>
<td>15%</td>
</tr>
<tr>
<td>Weight status</td>
<td></td>
</tr>
<tr>
<td>5-6% underweight</td>
<td></td>
</tr>
<tr>
<td>8-14% overweight</td>
<td></td>
</tr>
<tr>
<td>5-8% obese</td>
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<tr>
<td>No change over time</td>
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</table>
## Results: Development in 6mth - 5yo

<table>
<thead>
<tr>
<th>Year 2 post arrival</th>
<th>Year 3 post arrival</th>
</tr>
</thead>
<tbody>
<tr>
<td>n=15 (71%)</td>
<td>n=13 (81%)</td>
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</table>

In preschool children, 27% had mild developmental problems in year 2; all were normal by year 3.

*Good news – most are normal over time*
Social-emotional wellbeing improved over time

<table>
<thead>
<tr>
<th>SDQ</th>
<th>No. children requiring further assessment</th>
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<tbody>
<tr>
<td></td>
<td>Year 2</td>
</tr>
<tr>
<td>Overall score</td>
<td>5/39 (13%)</td>
</tr>
<tr>
<td>Emotional symptoms (headaches, worries, feeling unhappy or fearful)</td>
<td>9/39 (23%)</td>
</tr>
<tr>
<td>Conduct problems</td>
<td>5/39 (13%)</td>
</tr>
<tr>
<td>Hyperactivity &amp; inattention</td>
<td>3/39 (8%)</td>
</tr>
<tr>
<td>Peer relations (preferring to play alone, not having friends, being bullied)</td>
<td>8/39 (21%)</td>
</tr>
<tr>
<td>Pro-social behaviour</td>
<td>0/39 (0%)</td>
</tr>
</tbody>
</table>
## Access to health care

<table>
<thead>
<tr>
<th>Access to health care (Parent report)</th>
<th>Year 2 post arrival</th>
<th>Year 3 post arrival</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visited GP (every 1-3 months) Good access to GP</td>
<td>38/51 (75%)</td>
<td>22/54 (41%)</td>
</tr>
<tr>
<td></td>
<td>50/51 (98%)</td>
<td>45/52 (87%)</td>
</tr>
<tr>
<td>Presented to ED (last 12 months)</td>
<td>6/51 (12%)</td>
<td>4/51 (7%)</td>
</tr>
<tr>
<td>Visited Early childhood services (last 12 months)</td>
<td>5/22 (23%)</td>
<td>1/26 (4%)</td>
</tr>
<tr>
<td>Visited Dentist (last 12 months)</td>
<td>26/51 (51%)</td>
<td>33/52 (63%)</td>
</tr>
<tr>
<td>Fully Immunised</td>
<td>42/51 (82%)</td>
<td>48/51 (94%)</td>
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Changes over time

- increased parental employment \((p=0.001)\)
- improved English proficiency for partners \((p=0.02)\)
- reduced stressful life events in the last 12 months \((p=0.003)\)

Parents were:

- studying English \((96\% \text{ at year 2} - 76\% \text{ at year 3})\)
- accessing government financial support \((96\%;100\%)\)
- feeling supported by their own community \((78\%;73\%)\)
- feeling supported by the general community \((69\%;63\%)\)
Parental employment over time n= 87

- Employment in home country: 3%
- Employment in Australia Year 2: 97%
- Employment in Australia Year 3: 87% unemployed

Legend:
- Blue: Professional
- Red: Semi-skilled/unskilled
- Green: Voluntary
- Purple: Unemployed
### Protective Factors for social-emotional wellbeing at Year 3

<table>
<thead>
<tr>
<th>Category</th>
<th>Factors</th>
</tr>
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<tbody>
<tr>
<td><strong>Child factors</strong></td>
<td>Younger age, Gender, Chronic disease, BMI</td>
</tr>
<tr>
<td><strong>Family factors</strong></td>
<td>Region of origin - Africa, Family composition – father present, No parental disclosure of torture or trauma, Birth in a refugee camp</td>
</tr>
<tr>
<td><strong>Settlement factors</strong></td>
<td>Fewer stressful life events in the past year, Social inclusion and community support, Family in Australia prior to arrival, Proximity to one’s own community and external community support, Stability in child’s school and residence, Financial stability, Marital stability, Parental employment, Education, and study status, English language proficiency, Access to health care</td>
</tr>
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Cumulative protective factors predict social-emotional wellbeing.

All have normal SDQ if 4 or more protective factors.
All parents found the research respectful

The majority found the questionnaires:

- easy to answer (83%)
- did not raise uncomfortable feelings (92%-100%)

Study retention was high (85%)
What this study adds

• Measurement of health over time

• Measurement of developmental and psychological wellbeing

• Identification of early protective factors

• Predicting children requiring proactive follow-up if <4 protective factors
Summary of findings

- Most refugee children do well over the first 3 years:
  Physical, developmental, social-emotional

- We can predict social-emotional wellbeing by measuring protective factors early on
Implications for policy and practice

- recommendations likely to promote resilience and optimise outcomes in accompanied refugee children settling in high-income settings include:

  - child and family level:
    - reduce postmigration exposure to violence & discrimination
    - promote stability and belonging in school and residence
    - promote access to health services
    - facilitate integration of children and families into host communities
    - prioritise reunion of children with families and provide support for families to remain intact

  - community and societal level:
    - promote welcoming environment in the host country
    - facilitate employment opportunities
    - provide supported educational placements
    - provide access to social and economic resources
Strengths and limitations

**STRENGTHS**

- unbiased recruitment of a population based cohort
- Predictive factors prospectively collected
- analysis of association between standardised wellbeing outcomes and predictors
- adds to limited evidence based

**LIMITATIONS**

- small sample
- 3 year follow-up
- good model of care thus not representative
- Psychological wellbeing of carers & domestic violence not measured
Next steps in research

How do we do that?
Which interventions are effective in producing better outcomes?
How do we promote employment?
social inclusion?
education...?
Thank you and questions

A/Professor Karen Zwi UNSW

Email:
karen.zwi@health.nsw.gov.au