

# Demographic predictors of family functioning and its change over the first five years post-partum: findings from the Healthy Beginnings Trial

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# Family Functioning



**?Maternal Sociodemographic Predictors?**



Decision Making

Relationships

Problem Solving

Communication

**FAMILY  
FUNCTIONING**

**INFANT & EARLY CHILDHOOD  
EXPERIENCES  
(Physical, Social, Emotional)**

**INFANT  
ATTACHMENT**

**INTERNALISING /  
EXTERNALISING  
BEHAVIOURS**

**EMOTIONAL AND  
RELATIONSHIP  
DEVELOPMENT**

**ADULT HEALTH**

# Research to date...

- Mainly cross sectional studies
- The available longitudinal research are in
  - small restricted cohorts
  - short periods of follow up

# Aim

- Identify the maternal socio-demographic factors that influence pre natal family functioning
- Examine the longitudinal change in family functioning over the first five years from birth
- Identify the factors that influence family functioning over these five years

# Study Design

- Prospective cohort study
- Using the large cohort of first time mothers enrolled in *The Healthy Beginnings Trial*\*
- As part of the trial, family functioning data were also collected



[www.healthybeginnings.net.au](http://www.healthybeginnings.net.au)

\* Wen LM, Baur LA, Rissel C, et al. Early intervention of multiple home visits to prevent childhood obesity in a disadvantaged population: a home based randomised controlled trial (Healthy Beginnings Trial). BMC Public Health 2007;7:76

# Study Participants

- Liverpool & Campbelltown Hospitals
  - South Western Sydney
  - June 2007-June 2014
- Mothers
  - 1<sup>st</sup> time mothers
  - 3<sup>rd</sup> trimester
  - $\geq 16$  years
  - able to communicate in English
  - lived in the local area
- **N = 667**

# Data Collection

- Face-to-face interviews
  - baseline (30-36 weeks gestation)
  - 12 months
  - 24 months
  - 3.5 years
  - 5 years
- Family functioning
  - McMaster Family Assessment Device
- Baseline socio-demographic information



# McMaster Family Assessment Device

|  | 1 | 2 | 3 | 4 |
|--|---|---|---|---|
| i. Planning family activities is difficult because we misunderstand each other |   |   |   |   |
| ii. In times of crisis we can turn to each other for support                   |   |   |   |   |
| iii. We cannot talk to each other about sadness we feel                        |   |   |   |   |
| iv. Individuals in the family are accepted for who they are                    |   |   |   |   |
| v. We avoid discussing our fears and concerns                                  |   |   |   |   |
| vi. We express feelings to each other  |   |   |   |   |
| vii. There are lots of bad feelings in our family                              |   |   |   |   |
| viii. We feel accepted for who we are  |   |   |   |   |
| ix. Making decisions is a problem in our family                                |   |   |   |   |
| x. We are able to make decisions about how to solve problems                   |   |   |   |   |
| xi. We don't get on well together  |   |   |   |   |
| xii. We confide in each other  |   |   |   |   |

FAMILY FUNCTIONING SCORE →  
 Average of valid responses →  
 Gives a score between 1 and 4

**Unhealthy family functioning  
 Is a score  $\geq 2$**

Epstein N, Baldwin L, Bishop D.  
 The McMaster Family  
 Assessment Device. J Marital  
 Fam Ther. 1983;9:171-80

# Statistical Data Analysis

- SPSS
- Bivariate & multivariate logistic regression analysis for baseline predictors
- General Estimation Equation Function with bivariate and multivariate analysis to identify longitudinal predictors.
- Interaction between time and each of the potential predictors was also tested when developing the models.

# Results

| Variable                  |                                 | Total (%) |
|---------------------------|---------------------------------|-----------|
| Age (years)               | 16-24                           | 279 (42)  |
|                           | 25-29                           | 226 (34)  |
|                           | ≥30                             | 162 (24)  |
| Country of birth          | Australia                       | 429 (64)  |
|                           | Other                           | 236 (35)  |
| Language spoken at home   | English                         | 592 (89)  |
|                           | Other                           | 72 (11)   |
| Household income (annual) |                                 |           |
|                           | <\$40,000 <sup>∞</sup>          | 208 (31)  |
|                           | \$40,000-<\$80,000 <sup>∞</sup> | 215 (32)  |
|                           | ≥\$80,000 <sup>∞</sup>          | 244 (37)  |
| Employment                | Employed                        | 363 (54)  |
|                           | Unemployed                      | 138 (21)  |
|                           | Other                           | 165 (25)  |
| Marital status            |                                 |           |
|                           | Married/De facto partner        | 584 (88)  |
|                           | Other                           | 81 (12)   |
| Education                 |                                 |           |
|                           | Did not complete school         | 137 (21)  |
|                           | HSC / TAFE                      | 364 (55)  |
|                           | University                      | 163 (24)  |

# Baseline Analysis

- Unhealthy family functioning present in 30% of families
- Factors for reduced risk of unhealthy family functioning:
  - **Maternal age 25-29y**
    - compared to 16-24y
    - AOR: 0.64 (95% CI 0.42-0.98, p=0.04)
  - **Presence of a partner (married or de factor)**
    - AOR: 0.47 (95% CI 0.29-0.77, p=0.003)

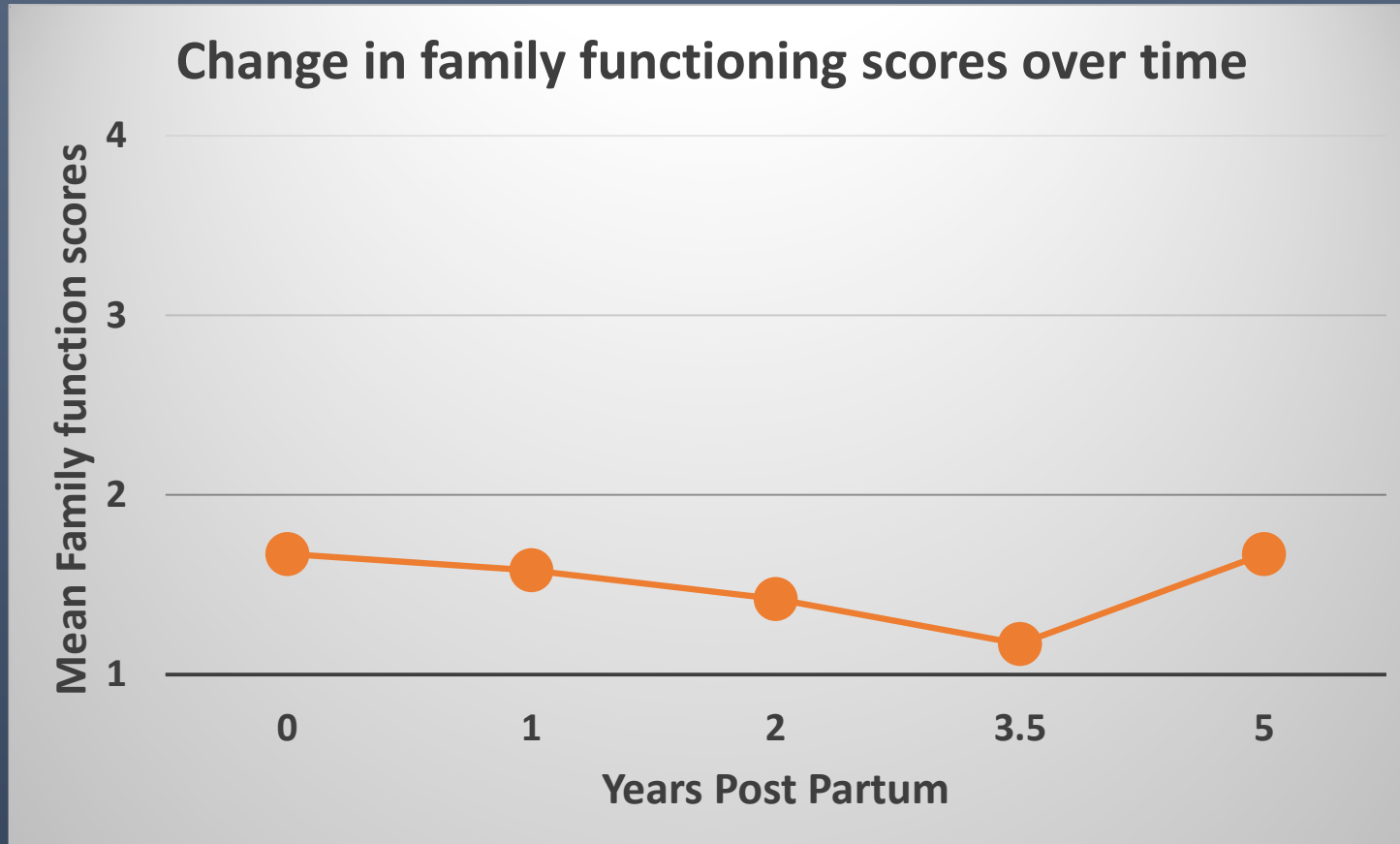
# Follow up rates

| Time      | Total (N) | % Loss to follow up |
|-----------|-----------|---------------------|
| Baseline  | 667       | --                  |
| 1 Year    | 527       | 21                  |
| 2 years   | 497       | 25                  |
| 3.5 years | 415       | 38                  |
| 5 years   | 369       | 45                  |

At baseline, the rate of unhealthy family functioning did not differ between those lost to follow up and those remaining in the study.

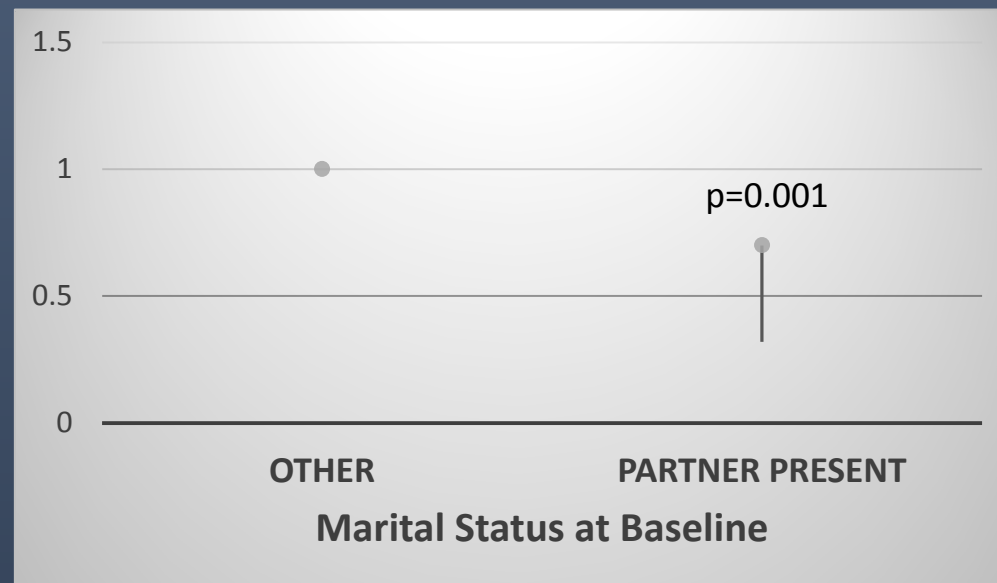
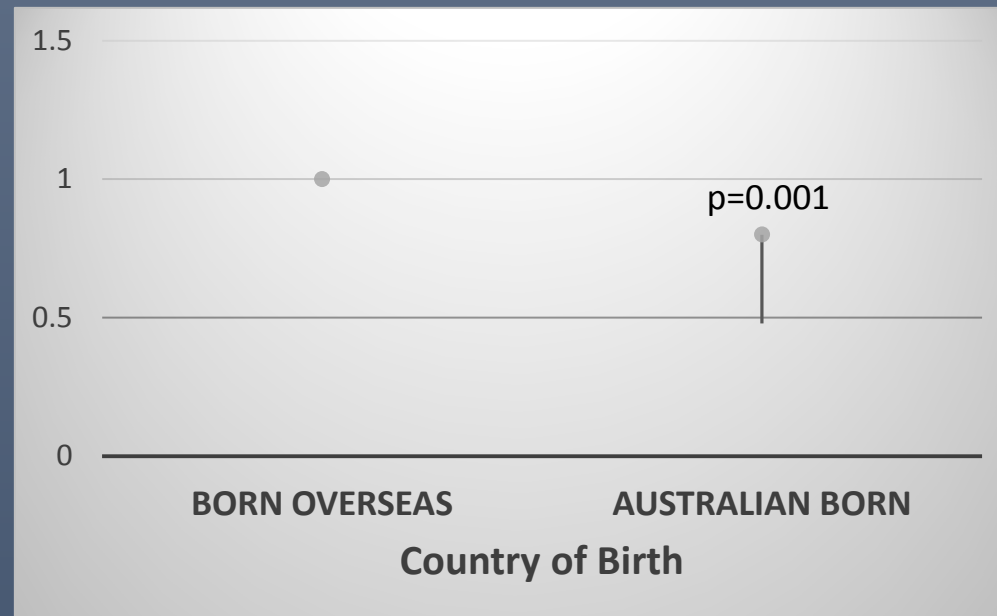
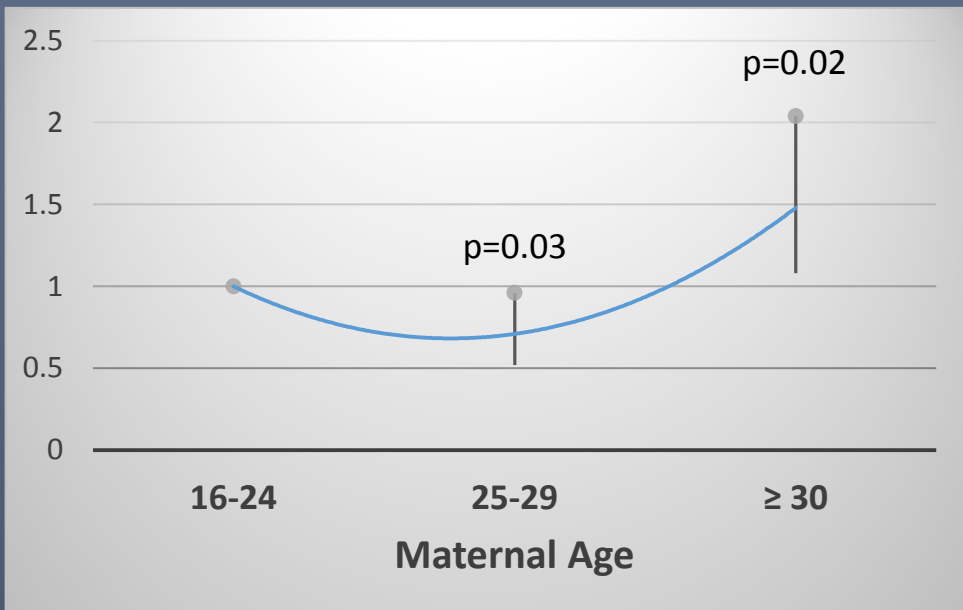
The families that were lost to follow-up tended to be younger mothers who were single, of non-English speaking backgrounds, with lower levels of income and education

# Longitudinal results



| Time      | Unhealthy Family Functioning (% of total) |
|-----------|---|
| Baseline  | 30  |
| 1 Year    | 29  |
| 2 years   | 25  |
| 3.5 years | 25  |
| 5 years   | 32  |

ADJUSTED ODDS RATIO AND 95% CI  
FOR UNHEALTHY FAMILY FUNCTIONING





# Summary of Major Findings

- No change in family functioning over time
  - ? pre-determined characteristic of each family
- Maternal age
  - “U” shape distribution
- Being Australian born
  - Greater level of English proficiency, access resources & supports
  - Greater family supports
- Maternal Employment
  - ?marker of family’s socioeconomic status / decreased financial stress
- Partner
  - Presence at time of birth was more functional than their absence

# Strengths & Limitations

- First large scale study to examine demographic predictors for the longitudinal change in family functioning in early childhood
- McMaster family assessment device
  - Most commonly used assessment of family functioning
  - Reliable and valid tool for assessment of family functioning
- Limitation- loss to follow up
  - Lost to follow-up mothers tended to be younger, single, of non-English speaking backgrounds, with lower levels of income and education.
  - If the lost to follow up mothers had remained in the study
    - the effect of the identified predictors may have been greater
    - the longitudinal family functioning scores may have been higher.

# Potential Public Health Implications

- Need for greater inclusiveness of immigrant mothers during the early childhood years
- More family friendly maternal employment incentives
- More partner and relationship support and counselling in the early years so that families remain as a strong supportive unit



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**THANK YOU**