

Predicting neurodevelopmental outcomes of moderate to late preterm (MLP) infants: biopsychosocial and cultural determinants

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This project aims to investigate biopsychosocial and cultural risk and protective factors that best predict the neurodevelopmental outcomes of MLP infants.

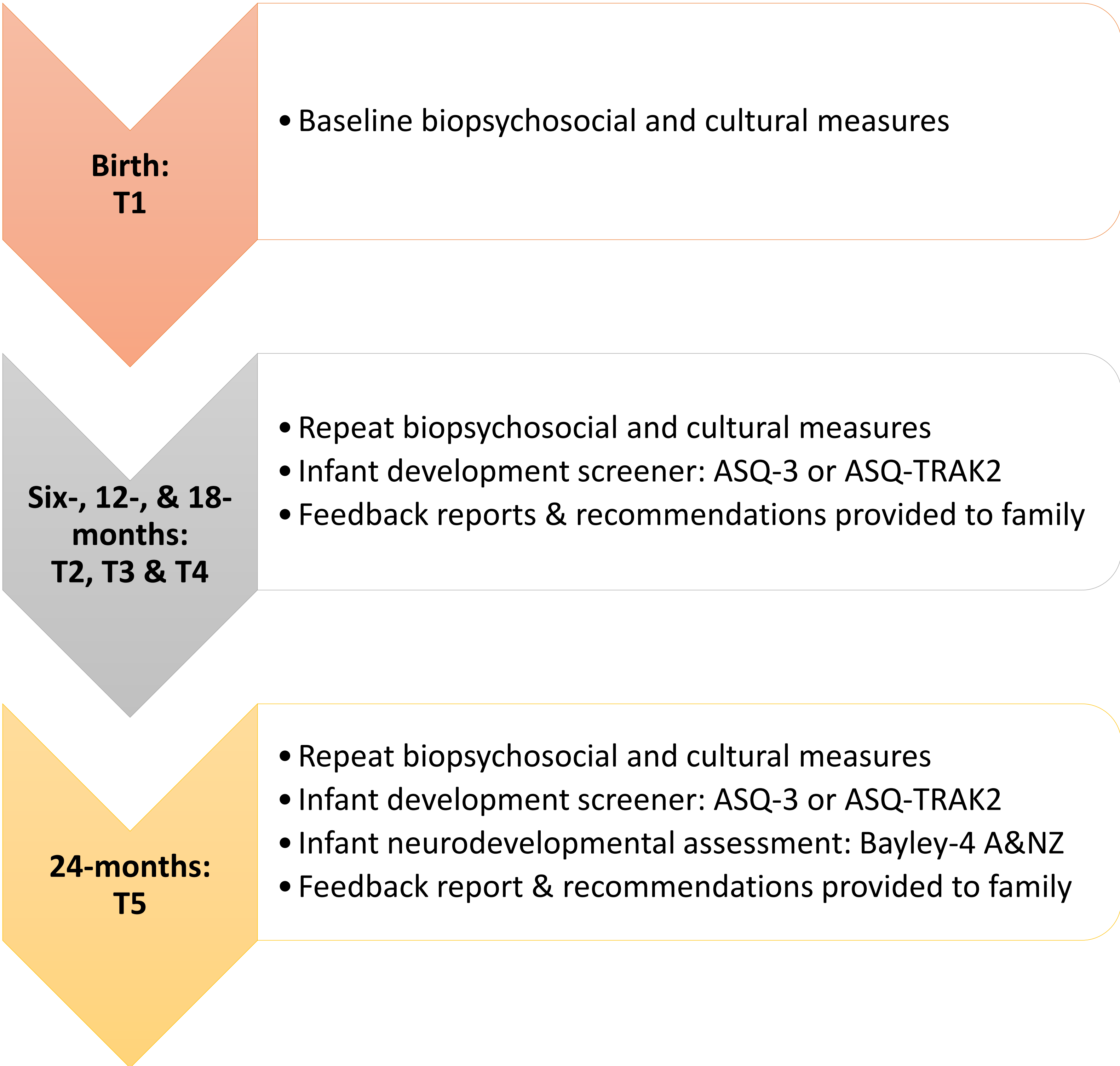
Background

- Rates of preterm birth are increasing, with overrepresentation of Aboriginal and Torres Strait Islander mothers compared to non-Indigenous mothers. Precursors of premature birth are poorly understood and culturally responsive healthcare management practices aimed at improving the outcomes of preterm infants are needed.
- More than 80 per cent of preterm infants are born moderate to late preterm (MLP; 32 weeks and zero days to 36 weeks and six days completed gestation). These infants experience higher rates of short- and long-term morbidities compared to term infants. However, there are no practice guidelines for MLP infants, and these children are not monitored to the extent of infants born at earlier gestations.
- To increase the feasibility of greater developmental surveillance and support, identifying MLP infants at increased risk of poorer outcomes is necessary.



Project Design

Prospective cohort study from birth to two years corrected age. 100+ MLP infants and primary caregivers recruited from Townsville University Hospital (TUH) Neonatal Unit and Maternity Ward for 12-consecutive months.



Biopsychosocial & Cultural Measures			
Biological	Psychological	Social	Cultural
Gestational age at birth	Parenting stress	SES	Cultural connectedness
Growth: weight, length & head circumference	Caregiver depression	Caregiver-child attachment	Cultural strengths and resources
Medical events, interventions & diagnoses	Caregiver anxiety	Caregiver social support	Socioecological resilience

Research Questions

1. What are the biopsychosocial and cultural factors that are associated with the neurodevelopmental outcomes of MLP infants?
 - i. What are the neurodevelopmental outcomes of MLP infants?
 - ii. What factors promote positive MLP infant development?
 - iii. At what points of time do these factors impact MLP infant development?

Outcomes of this research may inform culturally responsive clinical practice guidelines in the identification, monitoring, and intervention of MLP infants at greatest risk of poorer development, and to identify and foster protective factors that may promote the positive development of vulnerable MLP infants and their families.