



Connecting2u – Connecting baby, family and community

Great state. Great opportunity.

A collaboration between Children's Health Queensland,
Griffith University and University of Newcastle



CHQ's- Centre for Children's Health and Wellbeing

- Works in partnership with health services, community agencies and all levels of government to focusing on promoting and protecting children's health and well being
- Multi strategic approach
- Health promotion and child-centred strategies
- Ecological orientation, recognising contexts of relationships, and families, settings, communities, social and economic
- Fosters connection between community health and the acute care system



Why focus on the early years?

“Early childhood development has become an intense focus of attention across the globe and a priority for most developed countries”.

A Head Start for Australia: An Early Years Framework (2004). Qld and NSW Commission for Children and Young People.

The “quality of children's experience in the first three years of their lives can have an impact on the wiring and sculpting of the brain's billions of neurons that lasts a lifetime”

(McCain and Mustard, 1999).

*“The real question is how to use the available funds wisely. The best evidence supports the policy prescription: **Invest in the very young.**”*

James J. Heckman, PhD, Nobel Laureate in Economic Sciences 2000

“There remains a staggering gap between what we know and what we do as a society when it comes to early education and care”

Jack P Shonkoff, MD. From Neurones to Neighbourhoods: the Science of Early Childhood Development (2000) National Research Council and institute of Medicine – National Academy of Science - USA

What is Connecting2U?

- **A text messaging program for new parents that provides strategies to:**
 - Help foster healthy attachment between parents and infant
 - Support healthy infant development and wellbeing
 - Strengthen pathways between health services
- **Project Duration:** 12 months
- **Start Date:** January 2014

Children's Health Queensland Hospital and Health Service
Centre for Children's Health and Wellbeing



Are you expecting?

Mums **and** dads can sign up for helpful tips, reminders and advice on keeping your baby healthy, safe and happy.

As part of our Connecting2U pilot project, you will receive a text message 'from your baby' each week[^] for the first 4 months.

Who can take part?
We're looking for parents whose baby is due between March and June 2014 at Logan Hospital*.

Interested?
Contact Alanna Philipson or Liza Gilbert
07 3412 2940 or 0488 794 938
alanna.philipson@health.qld.gov.au | liza.gilbert@health.qld.gov.au

[^] Two text messages will be sent per week for the first 8 weeks for extra support.
* Some parents will be required for a 'control group'. They will not receive the text messages but will take part in surveys to help us measure the success of the project.

Great state. Great opportunity



Project Rationale:



- The expansion and adoption of mobile phone use provides new opportunities for supporting families in their parenting role.
- Consumer consultation indicated SMS health promotion intervention would support new parents.
- Range of benefits - low cost, wide availability and accessibility, fast, portable, convenient and easy to use for health professionals and the public.
- A scan of the literature identified few projects and initiatives had trialled text messaging as a health promotion intervention.
- Text4baby – USA Initiative provides strong evidence for health promoting early childhood text messaging
- Across the life cycle the prenatal, antenatal and postnatal time can be a period when mothers and families are more motivated to engage in lifestyle changes. This project aims to capture this readiness to change by promoting healthy behaviours, providing access to accurate information
- Secure attachment during early years provides the necessary foundation for children to thrive and develop.

Aim and objectives

- **Aim:**
- To examine the efficacy of an infant health and wellbeing short-term message service (SMS) 16-week intervention in supporting new parents birthing at Logan Hospital during March-June 2013.
- **Objective:**
- To assess whether participation in the Connecting2u intervention increases the confidence of new parents in undertaking their parenting role (impact; Karitane Parenting Confidence Scale)
- To assess the perceived usefulness of the Connecting2u text messages



Project Setting/Location

Setting/Location:

- New parents birthing at the Logan Hospital, Loganlea and Armstrong Roads, Meadowbrook, Queensland.

Population:

- Up to **400** parents birthing at Logan Hospital during April-June 2014. Participants who agree to participate and provide informed consent will be randomised by the project team to enrol in to either:

Group A) SMS exposure group - 100 mothers and up to *100 fathers or

Group B) No exposure (control) group - 100 mothers and up to *100 fathers.

Recruitment strategy:

Recruitment occurred antenatally (at or after 35 weeks gestation) at Logan Hospital antenatal clinic between April and June 2014.

Project Partners:

- Griffith University, School of Medicine - Public Health
- University of Newcastle, Faculty of Health
- **Children's Health Queensland/ Metro-South Hospital and Health Service**
 - Centre for Children's Health and Wellbeing
 - Media and Communications branch
 - Child Development Service
 - Child Health
 - Perinatal and Infant Mental Health
 - Deadly Ears
 - Healthy Hearing Program
 - Maternity Services (Logan Hospital)
 - Oral Health
 - Communicable Disease Control



The Text Messaging Content

- Informed by pre-intervention focus groups (3 held throughout Logan area)
- Developed by a Content Expert Group
- Topics include areas such as: - **Breastfeeding - Attachment and bonding - Self care – Settling - Safe sleeping - Communication - Consistent response to baby – Positive playful interactions - Reading - Tummy time - PND/anxiety - Child health clinic and immunisation reminders**

Week	SMS Theme/ topic	SMS Content
1 (day 1)	Breastfeeding	<i>[C2U] Breastmilk has all the nutrients I need to grow and develop until 6 months. It protects me against certain illnesses. Call 134325 or http://goo.gl/XsXNaU</i>
1 (day 6)	Attachment and bonding	<i>[C2U] It takes time for us to get to know each other. I love it when you talk to me, smile at me and help me learn about the world. It helps me feel safe.</i>
2 (day 9)	Feeding support	<i>[C2U] Feeding and cuddling is what I love to do most. Need more info? Visit ABA at http://goo.gl/Hif5f or call Child Health on 134325.</i>
2 (day 13)	Self care	<i>[C2U] Being my parent can be tiring. You are worth looking after. Try to eat healthy, rest when you can and be kind to yourself. http://goo.gl/eLxauF</i>
3 (day 16)	Settling	<i>[C2U] It's normal for me to wake at night. The safe way for me to sleep is in a smoke free space, on my back, in my own cot near your bed. http://goo.gl/OPUdbN</i>
3 (day 19)	Attachment and bonding	<i>[C2U] Bonding with me takes time. With your love and gentle touch, our bond will strengthen and my brain and body will grow and develop. http://goo.gl/TIQViy</i>

Methodology

- The evaluation includes two phases of data collection:
 - Baseline data collection via telephone survey
 - Parental confidence will be captured by the *Karitane Parenting Confidence Scale* (KPCS).
 - Personal Wellbeing Scale
 - Lubben Social Network Scale (LSNS)
 - Post-intervention data collection via telephone survey to examine changes in parental confidence.
 - Qualitative collection of data will be via two focus groups to further investigate the process of the intervention and impact on parental self-efficacy.



Karitane Parenting Confidence Scale

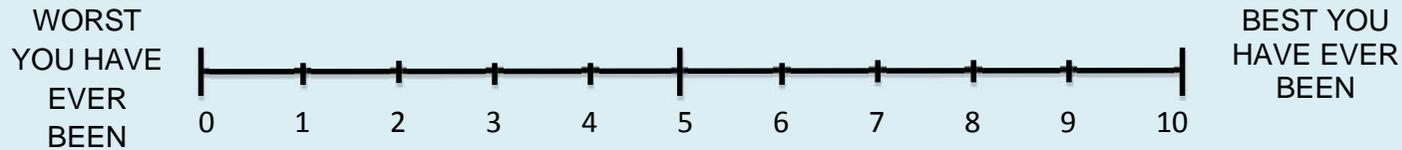
Please circle <u>one</u> answer for each question	No, hardly ever	No, not very often	Yes, some of the time	Yes, most of the time
A1. I am confident about feeding my baby	0	1	2	3
A2. I can settle my baby	0	1	2	3
A3. I am confident about helping my baby to establish a good sleep routine	0	1	2	3
A4. I know what to do when my baby cries	0	1	2	3
A5. I understand what my baby is trying to tell me	0	1	2	3
A6. I can soothe my baby when he/she is distressed	0	1	2	3
A7. I am confident about playing with my baby	0	1	2	3
A8. If my baby has a common cold or slight fever, I am confident about handling this	0	1	2	3
A9. I feel sure that my partner will be there for me when I need support	0	1	2	3
A10. I am confident that my baby is doing well	0	1	2	3
A11. I can make decisions about the care of my baby	0	1	2	3
A12. Being a mother/father is very stressful for me	0	1	2	3
A13. I feel I am doing a good job as mother/father	0	1	2	3
A14. Other people think I am doing a good job as a mother/father	0	1	2	3
A15. I feel sure that people will be there for me when I need support	0	1	2	3

Personal Wellbeing

The following questions are about how satisfied you are with your life. Below are five statements that you may agree or disagree with. Please be open and honest in your responding.

<i>Please mark <u>one</u> answer for each question</i>	Strongly disagree	Disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Agree	Strongly agree
B1. In most ways my life is close to my ideal.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B2. The conditions of my life are excellent.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B3. I am satisfied with my life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B4. So far I have gotten the important things I want in life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B5. If I could live my life over, I would change almost nothing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B6. Please reflect on your sense of wellbeing, taking into account your physical, mental, emotional, social, and spiritual condition over the past month. Use X on the scale to mark your answer to the question.



Personal Wellbeing

	Strongly disagree	Disagree	Slightly disagree	Mixed or neither agree nor disagree	Slightly agree	Agree	Strongly agree
<i>Please mark one box that best describes your present agreement or disagreement with each statement.</i>							
B7. I lead a purposeful and meaningful life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B8. My social relationships are supportive and rewarding.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B9. I am engaged and interested in my daily activities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B10. I actively contribute to the happiness and well-being of others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B11. I am competent and capable in the activities that are important to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B12. I am a good person and live a good life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B13. I am optimistic about my future.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B14. People respect me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Leuben Social Network Scale

FAMILY: Considering the people to whom you are related by birth, marriage, adoption etc. Answer the following questions carefully and tick the box that is most relevant.

Please mark one box that best answers the statement.

	None	One	Two	Three or four	Five Through eight	Nine or more
C1. How many relatives do you see or hear from at least once a month?	<input type="checkbox"/>					
	Less than monthly	Monthly	Few times a month	Weekly	Few times a week	Daily
C2. How often do you see or hear from a relative with whom you have the most contact?	<input type="checkbox"/>					
	None	One	Two	Three or four	Five Through eight	Nine or more
C3. How many relatives do you feel at ease with that you can talk about private matters?	<input type="checkbox"/>					
C4. How many relatives do you feel close to such that you could call on them for help?	<input type="checkbox"/>					
	Never	Seldom	Sometimes	Often	Very often	Always
C5. When one of your relatives has an important decision to make, how often do they talk to you about it?	<input type="checkbox"/>					
C6. How often is one of your relatives available for you to talk to when you have an important decision to make?	<input type="checkbox"/>					

The Results:

INTERVENTION GROUP

- Total of Mothers = 100
- Total of Fathers = 51

CONTROL GROUP

- Total of Mothers = 96
- Total of Fathers = 13

- Pre- and Post- survey data - The analysis was focused on first time parents only as there was no significance found when second time parents were included.

Demographic variables	n (%)
Sex	
Male	10 (16.9)
Female	49 (83.1)
Ethnicity*	
Caucasian	45 (76.3)
Non-Caucasian	14 (23.7)
Relationship Status*	
Single/Divorced/Separated	9 (15.3)
Married/Partnership	50 (84.7)
Employment Status*	
Full time/Part-time/Casual	15 (25.4)
Not in paid employment	23 (39.0)
Maternity leave	20 (33.9)
Education*	
Primary School	0 (0.0)
High School	17 (28.8)
Vocational/Trade	28 (47.5)
University	14 (23.7)
Total Yearly Income*	
Up to \$70,000	31 (52.5)
More than \$70,001	28 (47.5)

*Variables have been collapsed to ensure adequate cell count

The Results – Correlations between parental self-confidence, wellbeing and social networks and support

	Parental Confidence	Satisfaction with life	Personal wellbeing	Flourishing	SN Family	SN Neighbours	SN Friends
Parental Confidence	1.00						
Satisfaction with life	0.159	1.00					
Personal wellbeing	0.143	0.459**	1.00				
Flourishing	0.241	0.667**	0.449**	1.00			
SN Family	-0.087	-0.061	0.164	0.433**	1.00		
SN Neighbours	0.011	0.473**	0.107	-0.02	0.184	1.00	
SN Friends	0.242	0.12	0.289*	0.628**	0.521**	0.226	1.00

* p<0.05, ** p<0.01

The Results – Relationship status and parental self-confidence, wellbeing and social networks and support.

Variable	Single, divorced, separated Mean (SD)	Married, partnership Mean (SD)	t	p value
Satisfaction with life	30.00 (4.18)	30.10 (4.61)	-.061	.952
Personal Wellbeing	3.50 (0.54)	3.10 (0.62)	1.710	.093
Flourishing	52.00 (3.32)	49.84 (5.08)	1.225	.226
Social network: Family	30.78 (4.15)	27.96 (5.00)	1.592	.117
Social network: Neighbours	13.22 (5.93)	12.25 (6.71)	.405	.687
Social network: Friends	29.78 (3.63)	25.30 (6.15)	2.109*	.039
	Median (min, max)	Median (min, max)	z	p value
Parental confidence	38.00 (37, 43)	41.00 (27, 45)	-2.473*	.013

*p<0.05 **P<0.01 ***P<0.001

The Results: Parental confidence, first time parents and previous children

	First time parents Median (min, max)	Previous children Median (min, max)	z	p value
Parental confidence	40.00 (27.00,45.00)	42.00 (34.00, 45.00)	-3.416***	0.001

*p<0.05 **P<0.01 ***P<0.001

The Results – Employment status and parental self-confidence, wellbeing and social networks and support.

Variables	Full/part-time, casual (A) (n=15) M(SD)	Not in paid employment (B) (n=23) M(SD)	Maternity leave (C) (n=20) M(SD)	F	Post hoc
Satisfaction with life	30.27 (4.13)	28.26 (5.57)	31.80 (2.29)	3.649	B>C*
Personal Wellbeing	3.07 (0.62)	3.04 (0.64)	3.32 (0.58)	1.149	
Flourishing	50.47 (5.18)	49.09 (5.61)	50.90 (3.61)	0.802	
Social network: Family	28.07 (4.10)	28.13 (5.72)	28.85 (4.90)	0.142	
Social network: Neighbours	11.93 (7.43)	13.77 (5.95)	11.25 (6.56)	0.823	
Social network: Friends	24.87 (6.20)	24.96 (6.56)	28.25 (4.91)	2.057	
	Median (Min, Max)	Median (Min, Max)	Median (Min, Max)	Z	Post hoc
Parental confidence	39.00 (28, 43)	40.00 (27, 45)		-1.971	A>B*
		40.00 (27, 45)	41.00 (38, 44)	-1.168	
	39.00 (28, 43)		41.00 (38, 44)	-2.786	A>C**

*p<0.05 **P<0.01 ***P<0.001

The Results – Post intervention

Parental confidence pre and post intervention in intervention group

Variable	PRE Intervention	POST Intervention	z	p value
	Median (min, max) N = 42	Median (min, max) N = 19		
Parental confidence	40.00 (27, 44)	42.00 (35, 43)	-2.222*	.026*

*p<0.05 **P<0.01 ***P<0.001

Key findings from the survey tool

- Participation resulted in a significant increase in parental confidence for first time parents.
- Employment status is associated with parental confidence - employed parents have less parental confidence than unemployed or those on maternity leave , and
- Marital status is associated with parental confidence - married and parents in partnership have greater parental confidence than single or divorced parents.
- The analysis suggests some sub-populations such as, first time and single parent families, may particularly benefit from participation in the intervention.



Focus Groups

2 focus groups held locally at the Logan library with a sample of mothers and fathers recruited to the intervention group.

Theme - Usefulness

- Reassurance

Participants felt that because the text messages were timely and appropriate for the child's stages of development, it helped them feel more confident

“I liked that the messages would make me feel like what I was doing was the right thing at the right time.”

- Convenience

Use of texting as a platform for delivering information was easy to understand and access. Parents liked the fact that they could save messages.

“I thought it was really useful that the messages were not too long...I usually would go back later that night and read them again.”

Focus Groups

- **Theme - Improvements**

- Community Support

Need for access to support networks in the community - Connecting2U project could have provided more opportunities for this.

“It would be handy to be able to have someone to speak to if you have a question or be able to write back to the messages and ask something”

- Duration

Participants believed the duration of the intervention was too short - more beneficial to receive the texts for 6-12 months

“I really loved the messages; I just personally wish they went for longer... maybe 6 months to a year at least”

- Detail of Information

Suggested that the project cover more topics as parents felt they had other areas of concern

“No one explained to me how to know if my baby is too hot or too cold, I wasn't really sure what to do in the middle of the night”

Challenges:

- **Recruitment:**

- From postnatal to antenatal recruitment
- Required significant input and support from Midwifery Unit Manager to identify eligible participants (antenatal eligibility form)
- Father involvement in project presented challenges
- Challenges associated with completion of postnatal checklist

- Text messages – dissemination system, only 1 way communication set-up
- Baseline survey conducted over the phone vs face-to-face
- Survey items – Edinburgh postnatal depression scale vs personal wellbeing scale
- Participation in focus groups
- Funding

Limitations

- Small sample size
- Participants lost to follow up
- Primarily only mothers involved
- No incentives for participants



What was effective?

- Effective partnership with Griffith University in conducting the evaluation
- Formation of a Steering Committee to provide expert content knowledge, strategic advice and direction for the project,
- Expertise from working party groups to develop message content, service processes and protocols.
- Consultation with target group regarding the development of intervention,
- Development of strong relationships with key stakeholders in maternity units such as Midwifery Unit Manager, Antenatal Clinic Coordinator, senior midwifery and administrative staff.



Future research opportunity – Phase 2 of C2U

- Phase 2 of Connecting2U has commenced under the state-wide project 'Promoting Optimal Maternal and Infant Nutrition' Project
 - will include antenatal text messages
 - text messages up to when the infant is 6 months of age.
- Trialled over a 12 month period with approximately 600 mothers and up to 600 fathers birthing at QLD Hospital and Health Services (HHS) selected through an Expressions of Interest (EOI) process.



Enquiries:

- **Alanna Philipson**

Senior Project Officer

Centre for Children's Health and Wellbeing

Statewide and Specialised Services, Child and Youth
Community Health Services

Children's Health Queensland Hospital and Health Service

- T: 07 3412 2940

- E: Alanna.Philipson@health.qld.gov.au