The unsettled baby in the first 16 weeks: what to do

GP15 Melbourne

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Baby needs to be taught to self-settle? temperment? overtired?
Need to space feeds? normal? migraine?
Reflux? overstimulated?
Allergy? posterior tongue-tie?
Wind? colic?

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THE discontented LITTLE BABY BOOK
Dr Pamela Douglas

www.pameladouglas.com.au
Overview

1. Why is infant crying a problem?
2. Baby’s health
3. Mother’s health
4. Feeds
5. Sensory
6. Sleep

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The average normal crying time per day, for infants 0 to 12 weeks of age

<table>
<thead>
<tr>
<th>Hours of crying (in minutes)</th>
<th>0 6 weeks of age</th>
<th>10 12 weeks of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-20</td>
<td>110-118 min per day</td>
<td>77 min per day</td>
</tr>
<tr>
<td>20-60</td>
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<tr>
<td>60-100</td>
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<tr>
<td>100-120</td>
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<tr>
<td>120</td>
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</tbody>
</table>

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Why is crying a problem?

'Normal' and self-limiting but
- 1 in 5 families report excessive crying
- Many more start formula due to unsettled behaviour

↑ risk of:
- Behavioural problems in later childhood
- Premature weaning
- Child abuse
- Postnatal depression
- Migraine in later childhood


A primary care problem!

Primary care

- Prevention and early intervention in community
- Complexity
- Generalist
  - Integrates across disciplines
  - Whole family
  - De-medicalises (where possible/appropriate)

- Systematic 5 domain approach to a complex presentation
- More than one long consultation
- Preliminary study: halves crying and fussing¹

Mandy and Baby Molly

- 9 week old firstborn
- Partly breastfed partly formula-fed
- Screams > 2 hours/day + grizzlies a lot
- Back-arches and pulls off breast
- Vomits 4-5 x/day
- Paediatrician recommends Losec
Molly

Weight-for-age BOYS

Birth: 3.8 kg
Day 18: 3.5 kg
Day 21: 3.9 kg
Day 28: 4.1 kg
6 weeks: 4.6 kg
8 weeks: 5.1 kg
9 weeks: 5.5 kg

Baby’s health

- Exclude medical conditions
- ?Cow’s milk allergy (CMA)
Baby’s health

- Exclude medical conditions
- ?CMA

- Take thorough history
- Perform thorough examination of baby
- No routine investigations required (unless indicated in history and examination)

- Exclude medical conditions
  - E.g. UTI, pyloric stenosis, Food Protein induced enteropathy syndrome (FPIES)

- Haematemesis requires referral
  - Fresh blood in milk vomit may be due to nipple trauma

- Otherwise vomiting is normal
  - Peaks 4 months
Baby’s health

- Exclude medical conditions
- ?CMA

- Normal weight gain in breastfed babies = 200-250gm/week
- Many babies cry due to poor satiety despite adequate weight gain
- Feed spacing in breastfed babies not a solution

Baby’s health: GORD?

Proton pump inhibitors
- No better than placebo
- Increase risk of infection
- Predispose to food allergies

- Refluxate is not acidic for 2 hours after feeds
- No reason to worry about
  - holding upright after feeds
  - sleeping on wedges

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<5% Serious aetiologies or conditions that may underlie excessive crying in afebrile infants

<table>
<thead>
<tr>
<th>Cardiac</th>
<th>Myocarditis, congestive heart failure, supraventricular tachycardia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chest</td>
<td>Hypoxia, hypercarbia, pneumonia, bronchiolitis, acute airway obstruction (croup, foreign body, asthma)</td>
</tr>
<tr>
<td>General</td>
<td>Bacteraemia, sepsis, hypovolemia, hyperbilirubinemia</td>
</tr>
<tr>
<td>Genitourinary</td>
<td>Testicular/ovarian torsion, genital tourniquet, urinary tract infection, nephrolithiasis</td>
</tr>
<tr>
<td>Head, Eyes, Nose and Throat</td>
<td>Foreign body, otitis media</td>
</tr>
<tr>
<td>Haematologic</td>
<td>Sickle cell disease, malignancy, neutropenia, thrombocytopenia, anaemia</td>
</tr>
<tr>
<td>Skin/musculoskeletal</td>
<td>Septic arthritis, osteomyelitis, digital tourniquet, fracture, dislocation, subluxation, nonaccidental trauma, cellulitis</td>
</tr>
<tr>
<td>Neurologic</td>
<td>Bacterial meningitis, encephalitis, intracranial haemorrhage, hydrocephalus, cerebral oedema, epilepsy, degenerative condition</td>
</tr>
<tr>
<td>Toxic-metabolic</td>
<td>Prenatal drug use, toxic ingestion, electrolyte abnormality, inborn error of metabolism, hyperthyroidism</td>
</tr>
<tr>
<td>Abdominal or gastrointestinal</td>
<td>Appendicitis, malrotation/midgut volvulus, intussusception, incarcerated/strangulated hernia, peritonitis, choledocholithiasis, pancreatitis, intestinal obstruction, GORD</td>
</tr>
</tbody>
</table>
Baby’s health: Allergy?

- Signs of CMA
  - Constipation
  - Blood in stool
  - Skin rashes – urticarial, eczema
- CMA may cause oesophagitis (GORD) but takes time to develop (older infants and children)
- CMA is the only allergy reliably linked with cry-fuss problems in first 16 weeks

After all other domains addressed:

- Breastfed babies may benefit from trial of 2 week maternal elimination diet
- Formula-fed fussy babies improve with extensively hydrolysed formula


Baby’s health: The gut (‘the second brain’)

Gut bacteria changed by:
- Crying
- ↑ SNS/HPA arousal (chronic)
- Feed problems
- Not enough cream
- Formula
- Medications (antibiotics, antacids)

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Baby’s health: Other treatments?

No benefit from
- Homeopathic medicines¹,²
- Acute respiratory problems
- Acupuncture³
- ‘Infacol’ (simethicone)⁴
- Herbal preparations⁵

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Baby’s health: Other treatments?

Probiotics¹,²
- Crying worse if formula-fed
- No improvement for breastfed

No study has yet controlled for functional lactose overload!

Mother’s health

- Cued care
- Screen for postnatal depression
- Healthy biopsychosocial rhythms

Mother’s health

- Cued care
- Screen for postnatal depression
- Healthy biopsychosocial rhythms

- Exclude medical conditions (e.g. anaemia, hypothyroidism)
- Screen with Edinburgh Postnatal Depression Scale
- Daylight
- Physical activity
- Focus on meeting own needs out of the house during day

What is “cued care”?

Pattern of sensibly responding to the baby’s communications (cues) over time
- Not always possible
- Won’t always settle the baby
What is “cued care”?

Cued care aims to keep dial on baby’s stress circuitry turned down as far as sensibly possible.

- Pattern of healthy attachment behaviours
- Improved outcomes for baby demonstrated by growing body of data in neuroscience
What is “cued care”?

BUT REMEMBER:

- Hard to read cues
- The SNS-control-knob stuck on high
- Unidentified underlying problems
- Patterns over time

What is “cued care”?

- Flexibility
- Experimentation
- Getting to know individual baby
Mother’s health

_Cued care_

- Improved outcomes for mother and baby demonstrated by substantial body of data in neuroscience and developmental literature.
- **Not consistent with** delayed responses, feed-play-sleep cycles or self-settling strategies in first 6 months.

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**Feeds**

- Identify and manage feeding problems
- No feed spacing
Many babies cry due to the butterfly effect of unidentified feeding problems in the first hours and days and weeks\textsuperscript{1,2}

\textsuperscript{1}Huhtala \textit{et al} 2003
\textsuperscript{2}Hemmi \textit{et al} 2011

The ‘first’ hunger
Prevention
The chin plant

Toni and Baby Tom

- 3 weeks old, third child
- Exclusively breastfed
- Older two had GORD and allergies
- Both treated with PPIs
- Tom unsettled during feeds
- Screams > 4 hours/day, otherwise grizzling
- Wakes every 30-45 mins at night
- Catnaps during day
- Explosive frothy stool + copious wind
Feeds

**Functional lactose overload**¹,²

Not enough cream causes:
- Frothy poo
- Tight tummy
- Copious belches and flatus
- Very frequent waking
- Excessive feeding


Feeds

Poor satiety

If breastfeeding
- impaired milk transfer
- not enough cream
- insufficient milk supply

If bottle-feeding
- impaired milk transfer
- not enough cream (breastmilk)

Breast and formula feeding
- feed spacing

Positional instability\textsuperscript{1,2} causes:
- Poor satiety
  - Cry-fuss behaviours
  - Very frequent waking
  - Excessive feeding
  - Back arching
  - Feeding refusal


\textsuperscript{2}Colson SD, Meek JH, Hawdon JM. Optimal positions for the release of primitive neonatal reflexes stimulating breastfeeding. Early Hum Dev. 2008;84:441-449.
Sensory

- Healthy caregiver biopsychosocial rhythms
- Physical contact 10 hrs/day (awake or asleep)

With permission “Mummy and me yoga”, www.yogababy.com.au

Sensation

- Laying down life-long neuronal templates
- In direct response to sensory input
- Risks of unhealthy sensory diet

Stein et al. 2009

With permission “Mummy and me yoga”, www.yogababy.com.au
Many babies cry due to the butterfly effect of unbalanced sensory diet in the first hours and days and weeks

The ‘second’ hunger

Sensory
A healthy sensory diet

Babies need a rich and healthy sensory diet
- Sight
- Taste
- Touch
- Hearing
- Smell
- Vestibular
- Proprioceptive

Acquired through
- Caregiver pursuing enjoyable social activities outside the house
- Outdoor activities e.g. walking
- Physical contact
- Sibling activity

Babies often cry because they hunger for change in sensory environment (often misinterpreted as ‘tired cue’)

8/10/2015
Sensory
Other approaches?

Pacifiers don’t interfere with breastfeeding duration

The following do not make infants more settled:

- Massage
- Manipulative therapies (including craniosacral therapies)
- Wrapping
- ↑ hip dysplasia
- Poorer weight gains

Cued care and 10 hours of physical contact/24 hrs (awake or asleep) correlate with decreased total daily crying duration by 40 mins at 5 wks

St James Roberts et al Pediatrics 2006
Sleep

Identify and remove unnecessary disruptions to healthy sleep
- SNS arousal caused by poor satiety of either milk or sensory needs
- Disruption of circadian clock

Strategies for managing difficult thoughts and feelings - ACT

poor limit-setting

infant demand

overstimulated

vulnerable maternal personality

increased risk of postnatal depression

resists self-settling

bad habit

resists second sleep cycle

sleep breeds sleep

mature anxiety

parent's intrusive bedtime behaviours

difficulty resisting infant demand

poor sleep habits for life

overtired
Sarah and Baby Sam

- ‘Sam doesn’t sleep!
- 12 week old second child
- Sarah can’t cope anymore
- Past history of depression
- Sam wakes every half hour-hour until 11pm then hourly from 2 pm
- Sarah breastfeeds him back to sleep
- Sometimes they fall asleep together in recliner

Sleep

Marathon feeds and excessive night-waking signal a feeding problem
Sleep
Postnatal depression

Correlates with poor maternal sleep efficiency (↑SNS), not number of times of waking in the night.

Warren et al 2006
Dorheim et al 2009
Goyal et al 2009
Miller and LaRusso 2011

Sleep needs are highly variable between babies by up to 9 hrs difference/24 hrs and in any one baby from day to day

Implementation of conventional sleep training in first year of life does not improve infant sleep outcomes in later childhood.


- Supine
- Safest place to sleep baby day and night is in same room as caregiver
- Bed-sharing does not appear to increase risk if done safely
Sleep

First wave behavioural strategies (FWB)

- Modest increase in period of time baby sleeps without waking parents
  - About one less waking episode every other night\(^1\)\(^-\)\(^3\)
- No improved outcomes short or long-term for
  - Baby\(^4\)\(^,\)\(^5\)
  - Mother (beyond effects of any caring intervention)\(^6\)

Population effects of first-wave behavioural strategies

- ↑ total amounts of infant crying\(^1\)\(^-\)\(^3\)
- ↑ adult sleep anxiety (CBT)\(^4\)\(^,\)\(^5\)
- ↓ breastfeeding rates (population level)\(^1\)
- ↑ increased risk of SIDS (population level)\(^6\)
F WB strategies result in
- Disruption of circadian clock
  - Early bed-times
  - Long day-time naps ‘second sleep cycles’
- Decreased social interaction
- Sleep wars
- Increased infant crying
- Insufficient sensory stimulation
- Maternal anxiety and depressed mood

The Possums Sleep Film


http://www.possumsonline.com/sleep-film
- $25
- Includes workbook
Online outreach

- Skype consultations
- Live interactive groups for parents (Possums RN)
- Possums Sleep Film

www.possumsonline.com

Workshops and certification

CPD points for health professionals
3 x 40 category A points RACGP
3 x 10 CPD points ACM, CAN
3 x 10 L-cerps IBLCE

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Summary of approach to the fussy baby under 16 weeks

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<th>Baby's health</th>
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<tbody>
<tr>
<td>• Exclude medical conditions</td>
</tr>
<tr>
<td>• Cow’s milk allergy</td>
</tr>
<tr>
<td>• Gut health</td>
</tr>
<tr>
<td>• No benefits from medications, probiotics, complementary therapies</td>
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<tr>
<th>Mother's health</th>
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<tr>
<td>• Guilt care of baby</td>
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<tr>
<td>• Screen for postnatal depression</td>
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<tr>
<td>• Focus on pleasurable activities out of the house each day</td>
</tr>
<tr>
<td>• ACT (Acceptance and Commitment Therapy)</td>
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<th>Feeds</th>
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</thead>
<tbody>
<tr>
<td>• Identify and manage underlying breastfeeding problems</td>
</tr>
<tr>
<td>• No feed spacing</td>
</tr>
<tr>
<td>• Paced bottle-feeds</td>
</tr>
<tr>
<td>• Sensory</td>
</tr>
<tr>
<td>• Focus on pleasurable activities out of the house each day</td>
</tr>
<tr>
<td>• Average 10 hours physical contact with caregivers/24 hour period</td>
</tr>
<tr>
<td>• No proven benefits from manipulative therapies, massage, or swaddling</td>
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<td>• Identify unnecessary disruptors of sleep</td>
</tr>
<tr>
<td>• – circadian clock misalignment, unidentified feeding problems</td>
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<tr>
<td>• Strategies from ACT (Acceptance and Commitment Therapy)</td>
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