

UNSETTLED INFANTS

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UNSETTLED INFANTS AKA:

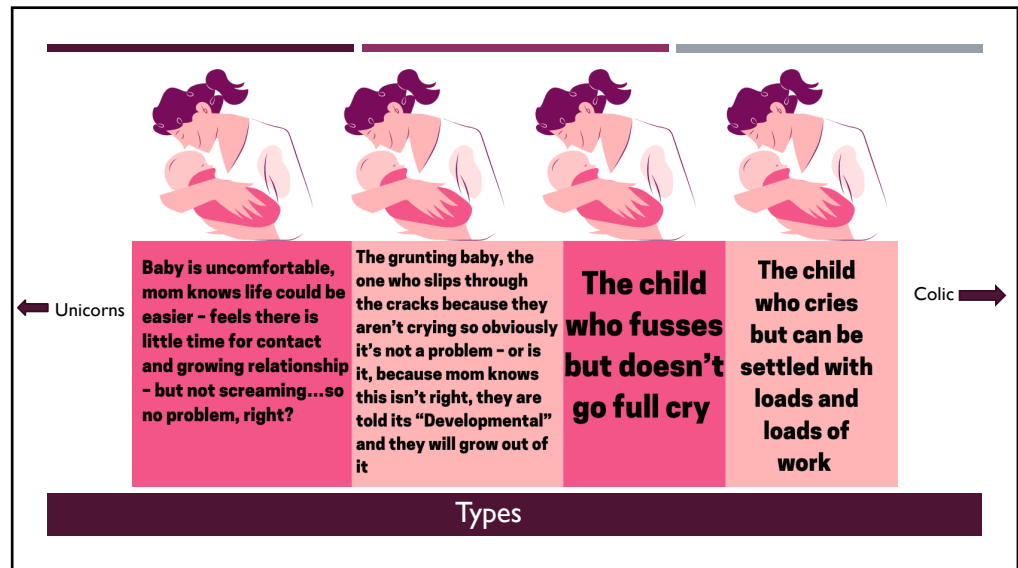
- Cry/Fuss
- Paroxysmal Fussy Infants
- Colic
- Irritable Infants
- Sensory infants
- Attachment issues

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DEFINITIONS

- Spectrum from Grizzle/grunt fuss - prolonged unsoothable screaming
- Multifactorial
- From multiple dynamically interacting and co-evolving factors (genetics, temperament, neurodevelopmental maturity, maternal prenatal stress, birth complications, parental psychosocial disadvantage)
- Crying, Feeding and Sleeping interact and dynamically co-evolve in the first 3-4 months - know as regulatory issues

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SUBGROUPING

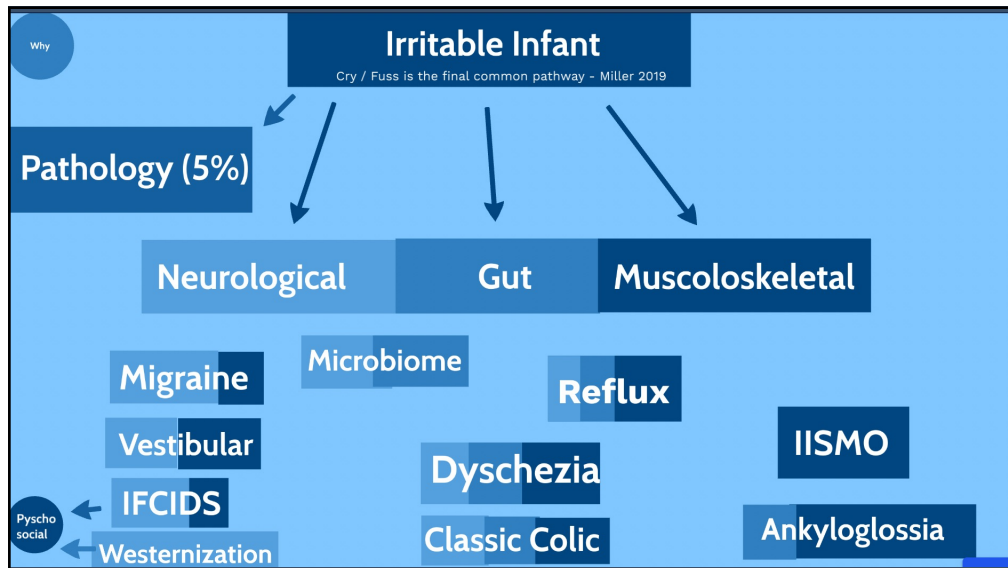
- Steutal et al 2014 - Systematic review shows 20 separate definitions of colic used in 39 trials, 11 different definitions for improvement, 28 different interventions and 19 different outcomes
- And a minority of these trials use parental perception as a primary outcome - important because it may influence their affection toward the child long after the crying has abated
- Many effects involve the relationship – cessation of breastfeeding, harm, scholastic achievement
- The definition changes over time from Wessel's rule of 3's in 1954 to 2016 Rome IV categorization

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SUBGROUPING

- Causes are vast
- You must know what you're treating
- This is not a diagnosis – it's a symptom of graded severity
- The road to understanding what is happening gives a deeper appreciation of who it is happening to and what the effects are

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GROUND RULES

- What is excessive crying...whatever the caregiver says it is
- This is a relationship issue
- It's a well child that cannot find balance
- Crying, pushing, sucking, shouting – all attempts to balance
- Colic is self-limiting but not limited to self
- Not the initial communication route (body conversation to pre-cry to cry)
- Cry places baby and carer into mutual state of nervous system activation

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NEUROLOGY OF UNSETTLED BABIES

- Amygdala activated by perceived need/threat
- Hypothalamic-Pituitary-Adrenal Axis upregulates
- Triggers Sympathetic activity and adrenaline release
- Sympathetic arousal causes release of cortisol
- Adrenaline & Cortisol upregulate Sympathetic activity
- Negative feedback loops to shut down cortisol production
- Positive feedback loop – initial distress may become a temporary stable behavioural state

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NEUROLOGY OF UNSETTLED BABIES

- Sympathetic arousal and HPA activation sensitizes the limbic circuitry at highly plastic time – conditioned fear response
- Sensitized stress response persists after early triggers resolve (continue to respond to insignificant triggers)
- Sensitized response settles at 3-4 months with maturity – more on this later
- Some babies pass right by the pre-cry stage

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WESTERNIZATION

- 99% of human history we were carried, constant access to breast and co-sleeping
- Western world has contact between parent and infant for less than ¼ of the day and vestibular stimulation for 1.5 hours a day
- The more the sensory input, the more likely the infant will reach their potential
- Evidence that babies carried for 3 hours daily cry 43% less
- Douglas proposes that infant capacity to integrate a discrepant event without signaling distress decreases when the biological expectations of rich sensory nourishment /overload are not met
- Carry, frequent feeds, - impact the regulatory component of infant response systems
- Even Plagiocephaly is involved (Dr Renz Polster)

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WESTERNIZATION

“Evolutionary medicine takes the view that many contemporary social, psychological, and physical ills are related to incompatibility between the life- styles and environments in which humans currently live and the conditions under which human biology evolved.” Douglas 2005

- | | |
|---|--|
| ■ Breastmilk gives us away | ■ Baby Language with Priscilla Dunstan |
| ■ Adjusting to release biomechanical restrictions | ■ Teach parents to read cues (parent videos) |
| ■ Adjusting to reset/balance the ANS | ■ Less containers |
| ■ Explain the needs of babies to the parents | ■ Less restrictive feeding patterns |
| ■ Skin to Skin contact | ■ Sleep in sensory contact |

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DYSCHEZIA

- Noticed many babies were bearing down
- I found FGIDS, I found Dyschezia, and I found Dr Geraldine Jordan
- "Infant Dyschezia is a functional GI disorder characterized by otherwise healthy infants <6 months of age experiencing at least 10 minutes of straining and crying before the successful passage of soft stools." - no bleeding, can happen many times a day, otherwise healthy child. - no longer have to be associated with successful defecation only, but may also be associated with unsuccessful passage of stools. (Zeevenhoven. 2017)

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DYSCHEZIA

- It is self- limiting but...
- Children get medicated for this
- Can lead to reflux
- Cause of baby being moved from the parent's room

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DYSCHEZIA

- Sakakibara et al - Showed that squatting gives you greater hip flexion (also safe position because of hip position relative to acetabulum) - while concomitantly straightening the ano-rectal angle – this results in less strain during defecation compared to upright sitting.
- Sikirov – showed time spent emptying the bowel in a squat = 1/2 the time on standard toilet and subjective assessment showed 1/3 the effort used in squat compared to standard toilet.
- The Puborectalis (part of levator ani group of the pelvic floor muscles acts as a sling between rectum and colon – creates angle which reinforces continence in sitting and standing position. – squatting relaxes puborectalis reducing anorectal angle
- Han et al. = showed the infant puborectalis at rest in supine, leg ventroflexion = this body position is the horizontal analogue to squatting

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DYSCHEZIA

- Western infants – lying/reclining to defecate
- Rao et al – showed 1/3 of healthy adult subjects experienced dyssynergia in the lying position and half volunteers actually couldn't expel the stool in this position
- horizontal = the most difficult position in which to defecate. - Not biologically appropriate

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