



ElmTree Clinic

NURTURING YOUNG MINDS



# *Infant Mental Health and the NICU*

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# Objectives

- ▶ Definition of IMH
- ▶ To discuss rationale for IMH to collaborate with NICU – NICU and IMH facts, overview of regulation theory, developmental care and toxic stress
- ▶ To discuss the various ways the IMH/NICU project has started and how it has evolved

# What Is Infant Mental Health?

- ▶ Infancy 0 - 3, preschool 4 - 5 years
- ▶ Focus on facilitating the child's healthy social and emotional development in the context of a caregiving relationship
- ▶ Infant and Early Childhood Mental Health. ... Understanding infant mental health is the key to preventing and treating the mental health problems of very young children and their families. It also helps guide the development of healthy social and emotional behaviors. – Zero to Three
- ▶ 90 % of brain development occurs by age 3



# Timeline of Evolution of Collaboration

- ▶ Dr. Lorrain moved to Edmonton in Oct 2008 to join Infant Mental Health colleague Dr. Hapchyn
- ▶ Dr. Lorrain attended Nadia Brushweiler-Stern's talk on her NICU work at Zero to Three conference in Dallas in 2009
- ▶ Article in Newspaper about Grey Nuns re-design of their NICU

# INFANT MENTAL HEALTH IN THE NICU

- ▶ Treatment for dysfunction in the mother-infant relationship is rare in the NICU
- ▶ Mismatches in parent-infant interactions usually attributed to the infant's illness or prematurity
- ▶ Focus on the impact of the mother-infant interaction on the child's long-term outcome

# Trauma & the Relationship

- ▶ The birth of a sick premature baby is a psychic trauma for parents
- ▶ → difficulties providing adequate or effective parenting
- ▶ Mourning may interfere with maternal preoccupation
- ▶ Mothers with unprocessed trauma and mourning are more likely to have children who are disorganized in their attachment

# Infant Mental Health in the NICU

- ▶ Interaction influenced more by the severity of the infant's illness than by the status of the mother's psychological health
- ▶ Mothers of the smallest and most ill babies had the highest levels of depression and anxiety, however long term development of the infant is largely influenced by the nurturing environment

# Infant Mental Health in the NICU

- ▶ “Whatever the origins of the difficulty, there is no doubt that actually getting to know a sick or premature baby is a difficult task for parents”  
(McFadyen 1994)





- ▶ There is consensus in the literature that having such a baby, whose life “hangs on a thread” makes for extremely difficult circumstances for the emerging relationship



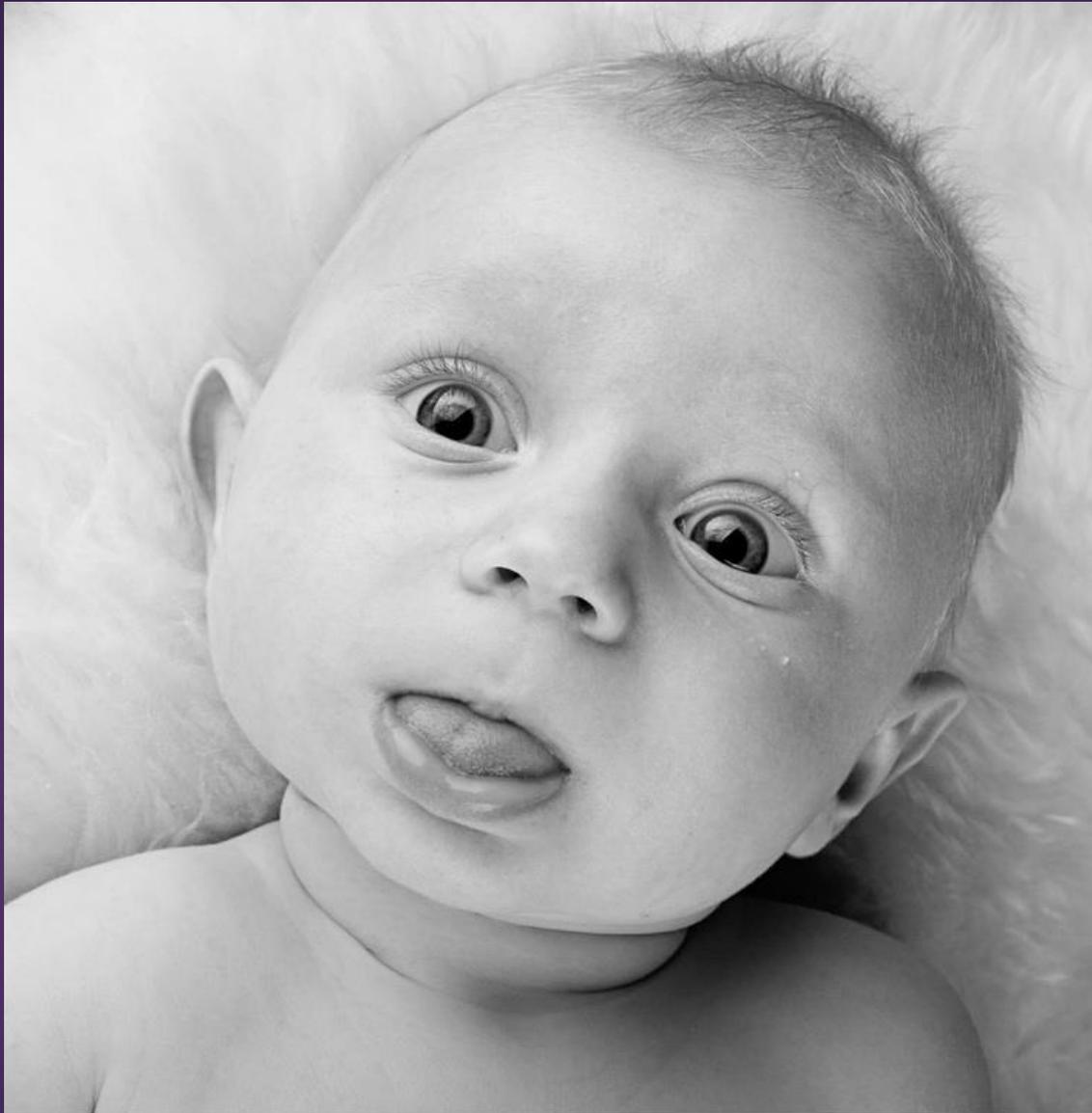
Who is attending to the baby's emotional needs while the medical team see to the baby's physical survival?" (Meltzer 1994)

- ▶ Society seems "blind" to the emotional pain of infants (Reid 1997)



- ▶ “The life of the little one has been saved, it is true but... there is little advance without the love of it’s mother”

Budin 1907- one of the inventors of the incubator



# Infant Mental Health: Regulation Current Theoretical Framework

- ▶ Transactional model based on the dialectical principle that individuals are constantly being changed by and changing their environments

Arnold Sameroff, 2005

**Parent**

$P_1$

$P_2$

$P_3$

$P_n$

**Child**

$C_1$

$C_2$

$C_3$

$C_n$

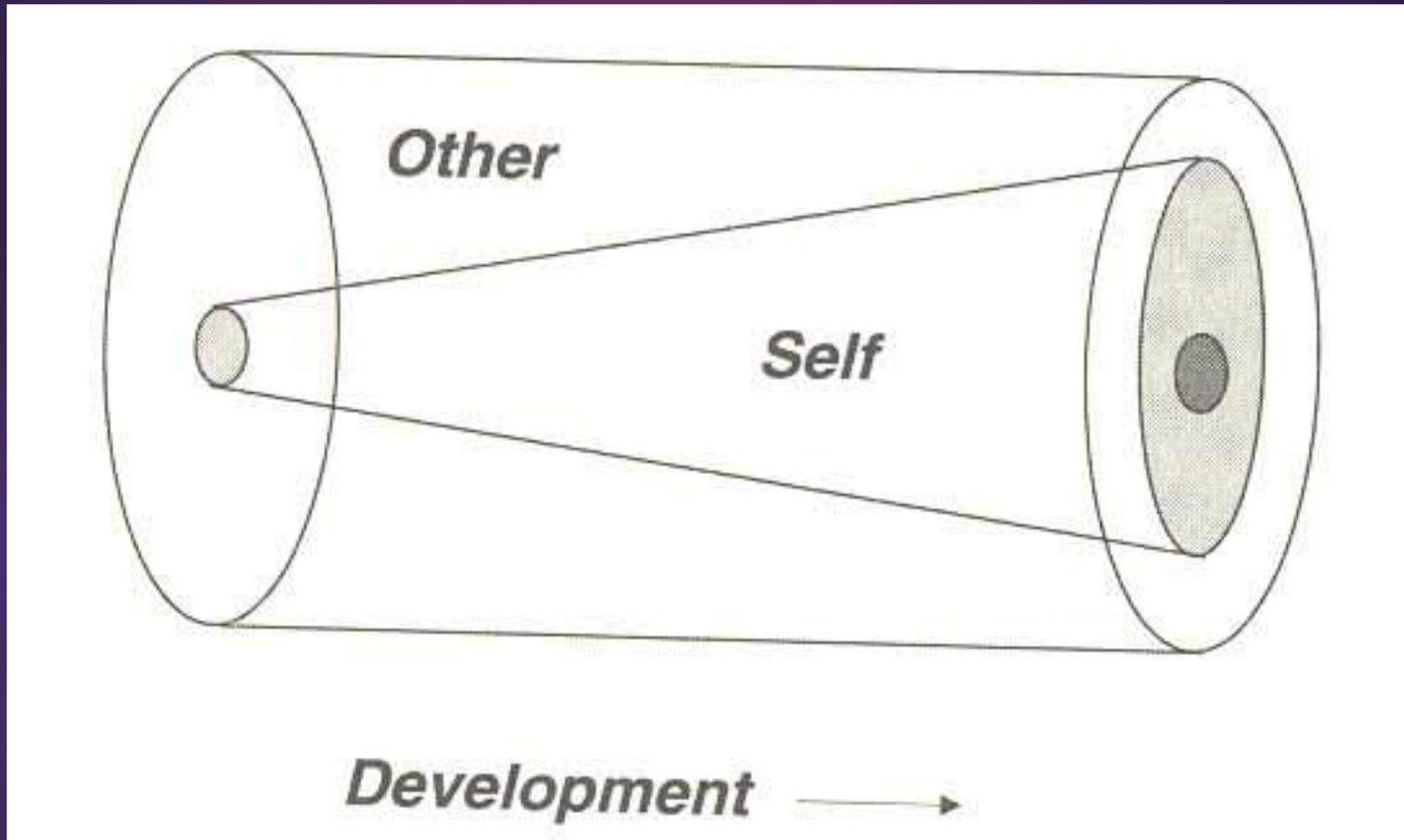
*time* —————→

From: A. Sameroff, Treating Parent-Infant Relationship Problems, 2004

# Infant Mental Health: Regulation Current Theoretical Framework

Adaptive infant mental health, an outcome of optimal attachment experiences, can be defined as the earliest expression of efficient and resilient right brain strategies for **regulation** both negative and positive affective states and for coping with novelty and stress, especially interpersonal stress.

A. Schore, 2005



From: A. Sameroff, *Treating Parent-Infant Relationship Problems*,  
2004

# Infant Mental Health: Regulation Current Theoretical Framework

- ▶ “experiences shape not only what information enters the mind but the way in which the mind develops the ability to process that information”
- ▶ “during childhood human connections allow for the creation of brain connections that are vital for the development of the child’s capacity for self-regulation”

D. Siegel, 1999



# Three Levels of Stress



## Positive

Brief increases in heart rate,  
mild elevations in stress hormone levels.

## Tolerable

Serious, temporary stress responses,  
buffered by supportive relationships.

## Toxic

Prolonged activation of stress response systems  
in the absence of protective relationships.

# Video

Three Core Concepts in Early Development

# 3 Toxic Stress Derails Healthy Development

NATIONAL SCIENTIFIC COUNCIL ON THE DEVELOPING CHILD

Center on the Developing Child  HARVARD UNIVERSITY

# Adverse Childhood Experiences Scale (ACE)

## ACE List

1. Recurrent physical abuse
2. Recurrent emotional abuse
3. Contact sexual abuse
4. An alcohol and/or drug abuser in the household
5. An incarcerated household member
6. Someone who is chronically depressed, mentally ill, institutionalized, or suicidal
7. Violence between adults in the home
8. Parental separation or divorce
9. Emotional neglect
10. Physical neglect

## Resources

- ▶ <http://acestudy.org/home>
- ▶ <http://www.cavalcadeproductions.com/ace-study.html>
- ▶ <http://wichildrenstrustfund.org/files/WisconsinACEs.pdf>

# ACE Score Higher Than 4

## Score 4 or more

- ▶ Twice as likely to smoke
- ▶ Twice as likely to have heart disease
- ▶ Twice as likely to be diagnosed with cancer
- ▶ Four times as likely to have emphysema or chronic bronchitis
- ▶ Six times as likely to have sex before age 15
- ▶ Seven times as likely to be alcoholics

## Score 4 or more compared to score of 0

### Score 4 or more compared to 0

- ▶ Twelve times as likely to have attempted suicide

### Men with a score of 6 or more compared to 0

- ▶ Forty-six times as likely to have injected drugs

# Stress Patterns & Associated Health Issues:

Disease does not begin at the onset of symptoms.

In fact, maladaptive stress related conditions are implicated in all of the following:

## Toxic Stress Patterns

- ▶ Melancholic depression
- ▶ Obsessive compulsive disorder
- ▶ Panic disorder
- ▶ Alcoholism
- ▶ Lowered immune system
- ▶ Decrease in memory functions
- ▶ Diabetes
- ▶ Malnutrition
- ▶ Hyperthyroidism
- ▶ Functional gastrointestinal disease
- ▶ Increase in heart attack & hypertension

## Toxic Stress Pattern

- ▶ Allergies
- ▶ Asthma
- ▶ Autoimmune diseases
- ▶ Chronic fatigue syndrome
- ▶ Rashes
- ▶ Rheumatoid arthritis
- ▶ Post Traumatic Stress Disorder

McEwen 2002



# DEVELOPMENTAL CARE – slide from 2012

- ▶ (Als & Gilkerson 1995)
- ▶ “ This co-regulatory nurturance of attunement through modeling and through respectful preparations of appropriate settings for parent/infant co-regulation is the professional caregivers most far reaching responsibility in the service of the infant’s well-being”

# DEVELOPMENTAL CARE – slide from 2012

- ▶ The medical care of sick or premature neonates challenges the normal attachment process
- ▶ DC aims to improve neurobehavioral outcomes and support healthy parent-infant relationships for infants in NICU
- ▶ The quality of parent-infant relationships is central to the quality of infant development
- ▶ Cue-based care, reduction of inappropriate environmental stressors, support for parents and staff

# Developmental Care: Approaches – slide from 2012

- ▶ Teaching parents how to soothe/regulate their baby
- ▶ Pacifiers, stroking, waterbeds, human breath sounds in incubator
- ▶ Stabilize premature infant's breathing and sleeping patterns



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- ▶ *Article in Newspaper about Grey Nuns re-design of their NICU*
- ▶ **Grand Rounds Presentation in April 2012 – slides on developmental care**
- ▶ **Met with Juzer after Grand Rounds**
- ▶ **Attended Fragile Infant Feeding Institute - May 2012**
- ▶ **Applied for Grant from Alberta Government**
- ▶ **Developed Pilot Project**
- ▶ **Attended NIDCAP conference in England in Oct 2012**

# Initial roles – At the beginning of the Project

- ▶ Dr. Lorrain initially attended rounds rotating on all pods
- ▶ Dr. Lorrain was available to provide consultation to families and staff
- ▶ Dr. Lorrain met with various staff on unit to understand various roles and intervention methods
- ▶ Dr. Lorrain promoted NIDCAP/IMH principles on the unit

# Types of Projects

- ▶ Bedside consultation
- ▶ Brain Protection Team
- ▶ Reflective Peer Consultation for NIDCAP staff
- ▶ Developmental Care Parent Group
- ▶ Educational Workshops
- ▶ Outpatient Services
- ▶ Trying to link to Adult Mental Health – on-going

# Bedside Consultation

- ▶ Infant Observation:
  - ▶ Focus on strengths and struggles of infant, staff and parents
  - ▶ Similar to NIDCAP observation
- ▶ Parent and Infant observation and support:
  - ▶ Help allay parent concerns about infants
  - ▶ Focus on things parents can do to support infants
  - ▶ Focus on strengths of infant
  - ▶ Focus on ways parents can help protect tiny, growing brains
- ▶ Staff and Infant observation and support:
  - Address staff bias and negativity regarding parents
  - Assist staff with better understanding of infants and parents

# Brain Protection Team Involvement

- ▶ Mainly Rounds
- ▶ Once per month – could be more frequent
- ▶ Initially went to all bedsides, now go to ones that staff select
- ▶ Try to limit number of staff on rounds
- ▶ Try to focus on positives
- ▶ Shining stars have helped to recognize excellence
- ▶ Neonatologist commented that parents seem so much happier after BPT goes to the bedside

# Reflective Peer Consultation for NIDCAP staff

- ▶ Idea from Joy Browne during NIDCAP training in Edmonton
- ▶ “What is sharable is made more bearable (Siegel 2010)”
- ▶ Initially every 2 weeks for first 6 months and then tapered off to one time per month
- ▶ Involves NIDCAP team
- ▶ Barriers are the difficulties for staff to attend consistently
- ▶ Issues with different roles of attendees
- ▶ Focus on issues that team members raise that week. Try to find a theme that encompasses all issues under one umbrella
- ▶ Focus on stress and stress recovery strategies

# Developmental Care Parent Group

- ▶ Arose when RAH site was changing to 3 NIDCAP focussed pods - concerns raised that some parents may feel upset if only some and not all infants offered developmental care
- ▶ Started as a strategy to try and enhance developmental care for all infants
- ▶ Initially role of IMH to co-facilitate group
- ▶ Over time, role of IMH has been to increase the skills and abilities of nurse facilitating group
- ▶ Nurse now able to independently facilitate group and nurse's confidence has grown to start another group with OT

# Educational Workshops

- ▶ Contributed to Full day workshops
  - ▶ Topic of Serve and Return
- ▶ Co-Facilitated Full Day workshop on Staff Stress and Stress Recovery Principles and how to assess their own triggers and to find their own toolkits

# Outpatient Services

- ▶ Identification of gap in services for families after discharge by multiple members of NICU staff and FACT committee
- ▶ Attempted to join Neonatal Follow-Up Clinic – outpatient Clinic for certain infants followed as an outpatient after discharge
- ▶ Still trying to ascertain how to offer these services
- ▶ Individual consultation available with IMH outpatient clinic
- ▶ Group available in Edmonton for families

# Link to Adult Mental Health

- ▶ Still in progress
- ▶ Talked with Social Workers at RAH – who continue to provide services to families with infants in the NICU
- ▶ Talked with Women's Mental Health at Lois Hole Center
- ▶ Recently talked to Dept of Psychiatry Chair at U of A and he has asked for a proposal to provide AMH to Stollery NICU families while on the unit
- ▶ Mindfulness Meditation Project at RAH site
- ▶ Misericordia site has some AMH - Mental health and Addiction services at the Misericordia Hospital has agreed to see the Parents of NICU babies in the outpatient services department



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- ▶ **Presented at Zero to Three conference on NICU work in Dec 2017 with Joy Browne et al on NICU work**
- ▶ **Article published in 2016 on NICU work**
- ▶ **Present at NIDCAP conference in Edmonton in Oct 2017**

# Bibliography

- ▶ Harvard Center for the Developing Child
- ▶ Infant/Child Mental Health, Early Intervention and Relationship-Based Therapies: A NEURORELATIONAL FRAMEWORK FOR INTERDISCIPLINARY PRACTICE – by Lillas and Turnbull
- ▶ Treating Parent-Infant Relationship Problems: Strategies for Intervention by Sameroff
- ▶ Work of Bruce Perry, Daniel Siegel and Daniel Stern
- ▶ Work of Dr. Als and NIDCAP literature

# Questions and Comments

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