Understanding the Context of Infant Mental Health

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Full Disclosure
1. You will hear things today that may cause you to reflect on some of your own experiences as a parent or as a child. Remember, science and our understanding of early mental health has come a long way so don’t be hard on yourself. Talk to someone if any of this is overwhelming.
2. This is a sales pitch. I have the following products that I will do my best to sell you.
   - The knowledge that infant mental health exists
   - An understanding and acceptance that you are an influencer on many levels
   - Knowledge about infant mental health is empowering

The Relational Framework of Infant Mental Health Can be a Challenge

- Many agencies, practitioners and/or clinicians working within mental health have a clear focus on who their client/patient is – the child, adolescent or adult in their office
- One of the greatest differences between work with older children and adolescents experiencing mental illness is the relational aspect
- Who is the client/patient? The parent, the infant?
- The parent-child relationship
Strengths vs Challenges

- Infant mental health is also a strength-based discipline.
- Translation – find the strengths of the child, the caregiver, the dyad “from which to build on those to build competence and address problems” (Zeenah, 2009, p6)
- Does this mean the challenges are ignored?
- The interplay between strengths and challenges is complex and often the challenges can overshadow the strengths.
- This often leads to a “let’s fix it” approach.

Defining infant mental health

(Th)e young child’s capacity to experience, regulate, and express emotions, form close and secure relationships, and explore the environment and learn. All of these capacities will be best accomplished within the context of the caregiving environment that includes family, community, and cultural expectations for young children. Developing these capacities is synonymous with health social and emotional development (Zero to Three, 2001).

The Foundation
The Importance of Attachment Focused Parenting

Attachment focused parenting helps children to overcome the distorting effects of trauma that can be due to many things such as maltreatment and interrupted relationships.
Regulation

- In the newborn, regulation is unstable and is not a predictor of regulation capacity later (Kopp, 1982; Porges, 1996 as referenced in Halligan et al, 2013).
- Physical systems are not well regulated in early infancy and will take time.

Regulation is Complex:
- Requires the prefrontal cortex
- Influenced by the brain – requires the child to apply cognitive functions to problem solving and emotions
- When the child is dysregulated, the prefrontal cortex shuts down

Communication and Regulation

- These two are intertwined.
- When a baby cries (communicates) she is dysregulated. The response to that cry helps her regulate.
- Eventually, that baby learns that by communicating distress, caregivers will respond and ultimately help her calm down.
Regulation Requirements
• Learning to attend
• Focusing – effectively being done by 8 – 10 months
• Effortful control – by 36 – 48 months
• Organizing a number of responses:
  ➢ in the brain
  ➢ in the body
  ➢ in emotions
  ➢ in cognitive functioning
  ➢ in behaviour

Cookie Monster – Me Want It

http://www.youtube.com/watch?v=9PnbKL3wuH4

RESILIENCE
Resilience
A system within the individual that requires:
• Competence
• Effective behaviour
• Adaptive capacity
(Masten and Obradovic 2006)

Resilience – Involves Many Systems
• Learning systems of the human brain — problem solving, information processing
• Attachment system — close relationships with caregivers, friends, romantic partners, spiritual figures
• Mastery motivation system — self-efficacy processes, reward systems related to successful behavior
• Stress response systems — alarm and recovery systems
• Self-regulation systems — emotion regulation, executive functioning, activation and inhibition of attention or behavior
• Family system — parenting, interpersonal dynamics, expectations, cohesion, rituals, norms
• School system — teaching, values, standards, expectations
• Peer system — friendships, peer groups, values, norms
• Cultural and societal systems — religion, traditions, rituals, values, standards, laws

Adversity Builds Resilience?
• NO!
• There are no invulnerable children
• There are levels of risk and adversity so overwhelming that resilience does not occur and recovery is extraordinarily rare or impossible
(Masten and Obradovic 2006)
Defining the Context of Infant Mental Health Within One’s Practice – The Village

...a multidisciplinary professional field of inquiry, practice, and policy, concerned with alleviating suffering and enhancing the social and emotional competence of young children (Zeenah, 2009)
Let’s Agree and Move On – Indisputable Facts

- Infancy is a period of profound development in the brain unmatched by any other period with **over 1 million neural connections** made every second – an incredible opportunity (Centre on the Developing Child, 2017)

- Early experiences (both positive and negative) have a decisive effect on how the brain is wired. Practitioners who understand even the most basic brain science of brain development are better equipped to meet the needs of this young group of children.

- When young children focus on getting their basic needs met, these connections in the brain mature, while other circuits may be lost if unused/activated.

Context continued.....

- The greatest opportunity to influence developmental outcomes is in the first three years of life.

- Relationships drive development: For a young child, a supportive relationship is as important as good nutrition – the absence of either can negatively impact development.

- When young children experience adversity and don’t have a reliable and protective caregiver, their physical and mental wellbeing can be derailed.

- Maltreatment is harmful at any age, but the inherent vulnerability of infancy causes an amplification of maltreatment’s harmful impact.
Adverse Childhood Experience (ACE) Study

Largest investigation ever conducted to assess the relationship of early adversity and adult health.

RESEARCH OVERVIEW: THE SCIENTIFIC FOUNDATION OF INFANT MENTAL HEALTH

Concept 1: Neglect Derails Development

Neglect can be a greater threat to development than abuse.

The impact of neglect will be different depending on the child’s age.

For infants and toddlers, we see delays in their ability to understand and manage emotions, cognitive delays, impairments in executive functioning and stress response.

Just removing a child from an environment of severe neglect is not a guarantee of positive outcomes.

Neglect...

When children are experiencing neglect, their brains are focused on getting their needs met with no attention on other areas of development.
Brains and skills are built over time right from conception.

The experiences of the early years will influence both the brain and the genes – often referred to as the architecture and or the foundation for all learning to come

**Critical Periods**

- Critical periods of brain development are times of significant opportunity.
- Experiences that occur during critical periods have an extraordinary power to shape brain development.
- These periods tend to occur early in life, making early experiences important to understand.
- Based on the instructions received from the system, the brain may adapt to optimize the expectation of a similar experience in the future
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Brain Development

- 700 new neural connections are made every second in the first three years of life – but environment and experience can change that for a baby
- This period of brain growth devours more calories than any other phase of development

Brain Growth in the Early Months
Brain Architecture and Skills are Built in a « Bottom Up » Sequence

- The circuits that process basic information are wired before those that process more complex information.
- Those circuits that will process more complex information will be built on the earlier circuits.
- The architecture of those higher skilled circuits will be compromised if the lower level circuits are not properly wired.


Development Counts but Who is Watching?

- “Developmental structures are incorporated into later developmental structures, so that early competence tends to foster later competence, and early incompetence tends to promote later incompetence”

(Cicchetti & Cohen, 1995; Waters & Sroufe, 1983)

Use it or lose it!

The more a system, or set of brain cells is activated, the more that system changes in response. The stronger the repetitions the stronger the memory.

(Corballis & Cohen, 1995; Adams & Squire, 1981)
Plasticity is the brain's ability to change in response to stimulation. However, as we get older, brain circuits stabilize, making it harder to change. The opportunity to change exists even after the early years, but the cost of remediation grows with age.


Brain Plasticity – The Ability to Change Decreases Over Time

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Ability to change brains decreases with age

Owl Brain Circuits

The Power of New Circuits

- Normal
- After Prior Experience
Serve and Return is essential to early learning, health and wellbeing


We Influence Gene Expression


Epigenetics
  • Experiences influence gene expression
  • The expression of genes will influence brain development

Babies are born relationship ready – their growth is dependent on the relationships they have in their daily life

We Influence Gene Expression

Early Experiences Alter Gene Expression & Shape Development

Epigenetics:

- When a baby interacts with her environment, that experience can leave a chemical signature on a baby's genes.
- This can potentially mute some genes and amplify the expression of others.

• Map of human genome in 2001 was heralded as a triumph of biological science

• “...evidence suggests that the social environment has a profound impact upon the function of one’s genes, providing the context and stimulus for the variable expression of an inherited code.”


• Epigenetics is helping us understand how maternal care is transmitted across generations

• Through epigenetics, we are gaining an understanding how parents shape the future parental behaviour of their children

• Epigenetics helps us to understand the pathways environmental experiences take to become embedded internally within genes and ultimately brain architecture
Human Development

Concept 7

Toxic Stress Derails Development
• Can be experienced by infants, toddlers and preschoolers
• For infants, the existence of such stress occurs within the primary caregiving relationship

What is Stress to a Baby?
• Takes place in the caregiver relationship
• Not a specific event but chronic stress that impairs development
• The repetitive & sustained failure to help infant manage distress
• When caregivers are extraordinarily inconsistent, frightening, intrusive or neglectful

Positive stress – Brief increase in heart rate, mild elevations in stress hormone levels

Tolerable stress – Serious, temporary stress responses, buffered by supportive relationships

Toxic stress – Prolonged activation of stress response in the absence of protective relationships

Toxic Stress & Brain Development

• Toxic stress is the frequent, prolonged activation of the stress response system
• Triggers the release of chemicals that impair brain development and functioning
• World wide data on the lifelong implications of stress in early childhood


No longer a debate

Environment leaves its mark on our genome and can modulate future gene expression in a sometimes heritable fashion

The study of how environment leaves its footprint on the genome falls into the domain of Epigenetics

Hamilton Regional Child Welfare Conference September 2010
Dr. Robin Gibb U of Lethbridge
Watch Development – Early Identification Can be a Game Changer

- Tools are now available that enable early identification of delays even if there is not an etiologic explanation
- If young children are not provided appropriate help, emotional difficulties that emerge early in life can become more serious disorders over time

**Concept 8**

**Strategies to Improve Healthy Development and School Readiness Trajectories**
This is not rocket science

• NEED IMAGE OF ROCKET LAUNCHING

Concept 9

Respond Early & Generously

• Early identification is most valuable when there is an immediate and generous response:
  The early years present an unmatched opportunity to intervene effectively with children at risk for poor developmental delay.
  (National Research Council of Medicine, From Neurons to Neighborhoods (2002))

If appropriate intervention occurs very early, substantially improved functioning in cognition, attention, and memory can be achieved.

Children’s recovery rates are influenced by the severity, duration, and timing of the deprivation as well as by the timing and type of intervention that is provided.

So what can we do?
Build the Relationship...

- **Recognize** the significance of the relationship
- **Capitalize** on the relationship-dependent feature of infant development
- **Repair** through caring, consistent, secure, and protective primary caregiver

Actively Engage

- Do our best to ensure every child has an emotionally available adult to provide support and care for them
- Do our best to support caregivers to create that important Relationship

Learn Through Inquiry

- Learn about the family - the culture, the people, the relationships, the history
- Learn about family traditions, rituals, values and beliefs
- Learn about routines
- Learn about their understanding - the child, the relationship
Create a Plan that is Caregiver Friendly

Support Caregivers to Build Security

Remind caregivers:

- When a baby cries and parents respond, security builds
- When older children test and parents respond, security builds
- Security cannot be transplanted, it needs to be built
- Relationships build moment by moment, interaction by interaction

Engage in Promising Practices

- Developmental Screening and Developmental Support Planning
- Ages and Stages Questionnaire
  - Child's developmental profile across multiple domains
  - Social-emotional development
- Relational strategies