What is Attachment?
Why does it matter?

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Objectives

- To review the theory of attachment.
- To review some of the biological processes related to attachment.
- To identify the different types of attachment
- To review long term effects of attachment
Social Attachments

- Attachment is a social process
- Types:
  - Maternal – infant
  - Filial
  - Pair formation
- Maintain close physical proximity, elicit care from a primary caregiver, increase the probability of survival to maturity and reproduction. (Panksepp)
Role of Attachment

- To provide regulated affective communications with a familiar, predictable primary caregiver

- To create a positively charged curiosity that fuels the self’s exploration of novel environments (Schore)
Role of Attachment

- Facilitates appropriate organization of the brain processes subserving social cognition

- To equip the individual for the collaborative and cooperative existence with others (Fonagy, 2003)
The brain is the only organ that essentially needs another brain for development to its potential. (Schore 1996)
Theory of Attachment

John Bowlby
(1907-1990)
Salient Features of Bowlby’s Theory

- Organisms regulate their behaviors in specific ways, and they are adaptable.

- Infant behavior is composed of unmistakable instinctual responses that promote binding.

- Attachment performs a natural healthy function even in adult life.
Secure Base Formation

- Exploration of nonmaternal environment
- Positive affect in child, Re Energizing, Increased activity
- Appraises, regulates internal state, Shift to high energy mode
- Low energy, frustration, Comes back to mother
Salient Features of Bowlby’s Theory

- The attachment figure is used as a secure base to explore environment and a safe haven to return to for reassurance.

- Need for balance between familiarity-preserving stress-reducing behaviors and exploratory, information-seeking behaviors.

- When these conflicting needs are recognized, the infant is more likely to view himself as valued.
Mary Ainsworth

Strange Situation Video
Bowlby’s Theory of Attachment

- Three phases of separation response: protest, despair and denial or detachment.

- Separation anxiety occurs when a situation activates both escape and attachment behavior, but an attachment figure is not available.

- Inability to form deep relationships with others may result when the succession of substitutes is too frequent.
Bowlby’s Theory of Attachment

- Internal Working Model
  - organizes thoughts and feelings regarding relationships
  - influences our beliefs and expectations about others
  - may elicit behaviors and responses in others.
Internal Working Models

- Attuned dyad – coupling, amplification of positive state.
- Misattunement ➔ negative affect ➔ repair ➔ positive affect
- Resilience as an indicator of secure attachment
- Contingent responses helps infants understand their own internal state.
- Critical moderators of the consequences of genetic and environmental effects.
Physiological Processes in Attachment
Very Early Biological Processes

- At birth, an infant is a subcortical creature.

- Selective response to maternal voice

- Spontaneous odor preference for human milk.
Regulation of Infant Physiology

- Separation from caregiver
- Loss of homeostasis
- Infant attachment behavior
- Maternal behavior
- Restoration of homeostasis
Neurological Processes in Attachment

The Emotional Brain
IMPRINTING
IMPRINTING

- Increased activity in the visual cortex, critical period where cortical connections are altered by visual experience.

- Mother’s face is the primary source of visuo-affective information. It is the visual imprinting stimulus for the developing nervous system.
The adult’s fronto-limbic cortex is a template for the structural imprinting of the infant’s limbic cortex.

Emotionally charged face-face interactions are critical to the experience dependent maturation of the limbic system.

- Alan Schore
Amygdala

■ 2m: Initial recognition of faces, emotional vocalizations

■ 3-4m: More control over smiling and crying, indiscriminate social smile

■ 8m: Fear of strangers

■ Imprinting in first 3-4 m.
Anterior Cingulate Cortex

- In focused problem solving, error recognition, adaptive response to changing conditions.
- Imprinted from 3-9m
Orbitofrontal Cortex

- Integrates sensory input with motor and visceral information.
- Involved in goal-directed behavior, reward processing and decision making.
- Imprinted between 9m- 2y of age.
Internal Working Models

- Internal working model of the attachment relationship is stored in implicit-procedural memory in the right OFC.
- Revision of this model, updating and checking it for consistency prevents pathological functioning.
- Stability increases as patterns of interaction become more habitual and automatic.
- Dyadic patterns of relating become more resistant to change due to reciprocal expectancies.
Activity dependent interactions between regions sharpens the functions of regions of the brain, so that activity becomes restricted.

Cortical specialization indicates closure of sensitive periods.

- Mark Johnson
Types of Attachment

- Secure attachment (Type B)
- Insecure-avoidant attachment (Type A)
- Insecure-resistant attachment (Type C)
- Disorganized attachment (Type D)
The Development of Attachment

Is the attachment figure sufficiently near, attentive, and responsive?

If yes, then the child feels security, love, self-confidence...

...and is playful, less inhibited, smiling, exploration-oriented, and sociable.

If no, then the child becomes preoccupied with the attachment figure, clinging, and anxious about separation and exploration.

If inconsistently no, a hierarchy of attachment behaviors develop due to increasing fear and anxiety (visual checking; signaling to re-establish contact; calling, pleading; moving to reestablish contact).

If consistently no, the child becomes defensively avoidant of contact and appears indifferent about separation and reunion.
Insecure Avoidant Attachment

- Infant shows no sign of distress when mother leaves. Infant is okay with the stranger and plays normally when the stranger is present.
- Infant shows little interest when mother returns.
- Mother and stranger are able to comfort the infant equally well.
Insecure Avoidant Attachment

- Insecure avoidant children do not orientate to their attachment figure while investigating the environment.
- They are very independent of the attachment figure both physically and emotionally (Behrens, Hesse, & Main, 2007).
- They do not seek contact with the attachment figure when distressed. Such children are likely to have a caregiver who is insensitive and rejecting of their needs (Ainsworth, 1979). The attachment figure may withdraw from helping during difficult tasks (Stevenson-Hinde, & Verschueren, 2002) and is often unavailable during times of emotional distress.
Insecure Resistant/Ambivalent Attachment

- Infant shows signs of intense distress when mother leaves.
- Infant avoids the stranger - shows fear of stranger.
- Child approaches mother, but resists contact, may even push her away.
- Will use the mother as a safe base to explore their environment.
Insecure Resistant/Ambivalent Attachment

- Here children adopt an ambivalent behavioral style towards the attachment figure. The child will commonly exhibit clingy and dependent behavior, but will be rejecting of the attachment figure when they engage in interaction.

- The child fails to develop any feelings of security from the attachment figure. Accordingly, they exhibit difficulty moving away from the attachment figure to explore novel surroundings. When distressed they are difficult to soothe and are not comforted by interaction with the attachment figure. This behavior results from an inconsistent level of response to their needs from the primary caregiver.
Disorganised Attachment

- When there is no organized strategy for a child to feel safe.
- Child is stuck in an awful situation where they instinctively run to their caregiver when afraid, but then have to pull away because the caregiver themselves are the source of terror or fear.
- Happens in parents who are abusive/mentally ill/have unresolved trauma themselves.
Disorganised Attachment

- Often, the parent has not been able to make sense of their life, unable to come up with a coherent narrative, their stories are fragmented.
- It causes them to behave in a disorienting manner to the child and sometimes to act out destructive behaviors.
- Children with this type of attachment are unable to self regulate their emotions, they do not know how to use others in the society to help them regulate their emotions.
Disorganised Attachment

- Children with this type struggle to trust people, they lack social skills needed to relate to peers and other adults such as teachers.
- They have trouble managing stress and may revert to hostile or aggressive behaviors to get their needs met.
- They have trouble maintaining solid relationships.
- If not dealt with, it can be passed on from generation to generation.
Attachment Theory provides an insight into understanding behavioral motivations. There is supporting evidence across species as well as in developmental neurobiology. There are clearly defined types of attachments that are fairly stable into adulthood and predictive of relationship styles. Awareness and identification of these types can help begin the healing process.