Four Synactive Systems of Communication

- Autonomic System – Breath; Color; Visceral System (digestive tract and system)
- Motor System – Tone; Posture; Movement
- State System – Range of States (Deep Sleep, Light Sleep, Drowsy, Awake/Alert, Aroused, Upset/Crying); Robustness of States; State to State Transition Patterns
- Self Regulation System: Strategies; Efforts; Success

Behavior

- Continuous expression of brain function and well-being
- Always available to be observed
- Guide for adaptation of environment, interaction and care

Dual Antagonist Differentiation and Integration

- Approach - Avoidance
- Towards - Away
- Flexion - Extension
- Calmness - Arousal/Agitation
- Modulation - Disorganization

Development - continuous process of differential inhibition and activation, which yields increasingly differentiated integration and modulation, i.e. competence.
APIB

Package I: Sleep Distal Package II: Uncover; Prone to Supine Package III: Low Tactile

Als, et al 1982

APIB

Package IV: Medium Tactile Vestibular Package V: High Tactile/Vestibular Package VI: Attention/Interaction

Als, et al 1982

APIB

Summary Scales

Physiological Parameters

Motor Parameters

State Parameters

Self Regulation Maneuvers & Parameters

Als, et al 1982

APIB Summary Score: Attractiveness


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Baby Girl J. T.

- Gestational Age at Birth: 32 weeks 3 days
- Caesarean Section Delivery
- Birthweight: 2160 g (60th percentile)
- Length at Birth: 43 cm (55th percentile)
- Head Circumference at Birth: 32 cm (97th percentile)
- Ponderal Index: 2.72 (80th percentile)
- Apgar Scores: 7 (1 min); 8 (5 min)
- PM Age at Evaluation: 35 weeks 4 days
- Current Weight: 2320 g (50th percentile)

APIB Applications

- Clinical Relevance: Diagnostic
- Parent Support
- Care Support, Recommendations
- Tracking Progress
- Research Application: GA Differentiation at Later Ages
- Clinical Subgroup Differentiation
- Concurrent Validity: EEG Cortical Coherence
- MRI DTI and Tissue Segmentation
- Predictive Validity: 9m, 3 & 7yCA Neuro-Q Functioning

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For each infant care and environment must assure
- Protection
- Predictability
- Restfulness
- Intimacy

H. Als, 1984

Brain development is always affect development.

H. Als, 2001

D. W. Winnicott
*Dependence in Child Care*, 1970

It is valuable to recognize the fact of dependence. Dependence is real. The story of the growing child is a story of absolute dependence—groping towards independence.

H. Als, 1995

D. W. Winnicott
*Dependence in Child Care*, 1970

Babies are liable to the most severe abstractions— if left for too long (hours, minutes) without familiar and human contact; they have experiences which can only be described as: going to pieces
  falling forever
  dying and dying and dying and
  losing all vestige of hope of the renewal of contact.

H. Als, 1995

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D. W. Winnicott
*Dependence in Child Care, 1970*

With good care, going to pieces becomes relaxation and restfulness; falling forever becomes the joy in being carried; dying and dying and dying becomes the delicious awareness of being alive.

H. Als, 1995

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Each child is a person from the very beginning. Each child seeks to be known and cherished by someone.

H. Als, 2001

Individualized Developmental Care is Brain Care
Â Conscious awareness, assessment and documentation of oneself, of the environment, care space and bedding, and of the infantÂ’s contact ecology and the infantÂ’s behavior
Â Framework for support of clinical care implementation

Als, 1986

1. The Path to the Infant
From Community to Hospital Entrance
From Hospital Entrance to the NICU
(1) Strengths of the Community, Hospital Entrance, Path to the NICU
(2) Goals of the Community, Hospital Entrance, Path to the NICU
(3) Challenges of the Community, Hospital Entrance, Path to the NICU
(4) Next Steps for Community, Hospital Entrance, Path to the NICU

Als, 2007

2. In-NICU Environment
Sights; Sounds; Activity; Affective Ambience
(1) Strengths of the In-NICU Environment
(2) Vulnerabilities / Challenges of the In-NICU Environment
(3) Goals of the In-NICU Environment
(4) Next Steps for the In-NICU Environment

Als, 2007

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The Nursery Environment

NIDCAP Observation
Infant Behavior
- At Rest (~ 20 min)
- In Interaction with the Caregiver
- Following Care Interaction (~ 20 min)
- On 24-Hour Ongoing Basis

NIDCAP Observation Sheet
Basic Parameters

NIDCAP Observation: Autonomic System

NIDCAP Observation: Motor System

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**NIDCAP Observation**
State and Attention System

3. Infant's Bedside
(1) Strengths of the Infant's Bedside
(2) Vulnerabilities / Challenges of the Infant's Bedside
(3) Goals of the Infant's Bedside
(4) Next Steps for the Infant's Bedside

H. Als, 2007

4. Bedding and Contact Ecology
(1) Strengths of Bedding and Contact Ecology
(2) Vulnerabilities / Challenges of Bedding and Contact Ecology
(3) Goals of Bedding and Contact Ecology
(4) Next Steps for Bedding and Contact Ecology

Care Giving Vignette
*Courtesy of G. Lawhon, PhD, 2007 With Permission*

5. The Caregiver's Behavior
(1) The Caregiver's Strengths
   *When did the caregiver shine?*
(2) The Caregiver's Vulnerabilities / Challenges
(3) The Caregiver's Goals
(4) The Caregiver's Next Steps

6. The Infant's Behavior
(1) The Infant's Strengths
   *When did the infant shine?*
(2) The Infant's Vulnerabilities / Challenges
(3) The Infant's Goals
(4) The Infant's Next Steps

H. Als, 2007

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7. Infant Caregiver Interaction
(1) The Interaction’s Strengths
When did the caregiver and the infant shine?
(2) The Interaction’s Vulnerabilities/Challenges
(3) The Interaction’s Goals
(4) The Next Steps for the Interaction
H. Als, 2007

Evolving Field of Developmental Care
1982 Four-Member Innovator Team
H. Als, G. Lawhon, R. Gibes, E. Brown
1990 NIDCAP Federation International (NFI)
2004 Website www.NIDCAP.org
2007 Sixteen NIDCAP Training Centers
World-Wide; > 1,000 NIDCAP - Certified Professionals
H. Als, 2007

3-DVD Teaching Set
Focus on the Brain
1: The Science of Preterm Infant Development
2: Clinical Practices for Special Care Nurseries
Preterm Infant Development
VIDA Health Communications, Inc. Cambridge MA 2006
www.VIDA-Health.com
Lisa McElaney, Principal Investigator
Allie Humenuk, Producer
Katherine Rose, Co-Producer
Funded by NICHD, Washington DC USA
H. Als, 2006

NIDCAP
Education of Conscious Awareness and Holding of Care and Environment
H. Als, 2003

Each infant is an opportunity for rebirth
H. Als, 1992

Daring represents our saving human grace.
Let us see how high we can fly before the sun melts the wax in our wings.
Subrahmanyan Chandrasekhar
1983 Nobel Laureate, Physics
H. Als, 1998

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