NIDCAP Approach to Developmental Care: What Does It Really Mean?

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NIDCAP Approach to Developmental Care

What does it really mean and how is it really practiced in the NICU?
Objectives

Participants will be able to

• Describe components of the NIDCAP or a comprehensive approach to developmentally supportive care

• Discuss ways to customize developmental approach to unique aspects of nursery

• Discuss ways to evaluate developmental care at their NICUs
Newborn Individualized Developmental Care and Assessment Program

Heidelise Als and colleagues
NFI (established, 2001)

NIDCAP Federation International

• 21 Training Centers
  – 9 US, 11 Europe, 1 So. America
  – 4 Centers in development
  – 36 Trainers & 7 Trainers in training

• 2000-2014 over 680 certifications

• 72% of NIDCAP Professionals - RNs

• www.nidcap.org
NIDCAP

• Background
• Describe the NIDCAP approach
• Describe NIDCAP training
Developmentally Supportive Care

- Ongoing determination of how to provide care that best supports the developmental process of babies and families
- Dynamic, changing...
We know the best way...

Nilsson, 1973
... what can we do when faced with premature birth?
Research & Development

- Ongoing for 30+ years
- Many components
  - Infants
  - Families
  - Environment
  - Systems
NIDCAP Approach

- Developmental Care – individualized
- Family-Centered
- Relationship based care
- Theory-based
- Evidenced-based or research validated
- System-wide
NIDCAP Approach

• Started with babies’ behavior

• Careful observation recognized how fragile, reactive, stressful-looking, overwhelmed babies appeared

• ALSO – there were times when the babies were available
NIDCAP Research

- What would happen if care were organized around the baby and the baby’s readiness for handling as determined by behavioral cues?
NIDCAP Development

• APIB
• Naturalistic Observation of Newborn Behavior
  a NIDCAP observation
NIDCAP observation

• Systematic observation
  ❖ Before
  ❖ During
  ❖ After routine care
  ➢ Develop write-up & recommendations
Theoretical Basis

• **Synactive Theory** *(Als, 1982)*
  – Transactions
  – Developmental process
  – Balance
  – Behavior is meaningful
Transactions

- Environment constantly influencing infant
- Infant also influencing environment
Developmental Process

• Skills, behaviors, neural pathways emerging and forming
• Reinforced or inhibited
Balance

- Strives for balance, control within context of challenges from both internal and external influences
Behavior is Meaningful

• Maturation
• Integrity
• Developmental agenda
• Current status
Theoretical Basis

– Behavior understood as efforts to develop, learn and maintain organized behavior, to **Self-Regulate**

  • Strategies
  • Thresholds of disorganization
  • Supports needed to be successful
Theoretical Basis

• Behavioral Communication
  – Autonomic
  – Motor
  – State

• Messages
  – Regulatory Efforts
  – Robustness or Energy
  – Thresholds / Vulnerabilities
NIDCAP Training

• Eligibility
• Process
  – System support
  – Steps in training
## NIDCAP Observations

### Observation Sheet

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<th>Time</th>
<th>0-2</th>
<th>3-4</th>
<th>5-6</th>
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### Observations

- **face**
  - Tonic Extension
  - Hand or Face
  - Gap or Place
  - Grimace
  - Smile

- **extremes**
  - Finger Splay
  - Arms
  - Sitting, Suck
  - Hand, Clasp
  - Foot, Clasp
  - Hand to Mouth
  - Grasping
  - Crying
  - Paddling

- **motor**
  - Flexed Arms
  - Flexed Legs
  - Extremes
  - Extremities
  - Smooth Move, Legs
  - Smooth Move, Trunk
  - Uncoordinated
  - Bellows
  - Soft Suck
  - Arched
  - Fully Open
  - Fully Cleft
  - Fully Closed
  - Fully Open

- **posture**
  - Ears, UV, Palpation
  - Head (Posture, Side, Fullness)
  - Location (Dorsal, Suboccipital, Palpation)

### State

- 1A

### Other

- 1A

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*Federation International NIDCAP*
NIDCAP Observations

• Observe baby
  – Before
  – During
  – After Caregiving
Write ups & Recommendations

• **Write-up**
  – Detailed description of the experience to let others “see”
  – Summary to help understand
Write ups & Recommendations

- **Recommendations**
  - Help the baby be successful
  - Help caregiver know more about the baby

- **System guidance**
NIDCAP Observations

• **Summary**
  – Describe from baby’s perspective
  – Describe
    • Characterize the baby
    • Apparent goals for the baby

• **Recommendations**
  – Suggest ways to make baby’s efforts successful
NIDCAP Research

• Looking for long-term outcome and found BOTH short and long-term benefits (Als et al 1986)
Research

- Als et al, 1986 - ↓ stay, ↓ O₂
- Becker et al, 1991 - ↓ stay
- Als et al, 1994 - ↓ stay, ↓ O₂, ↓IVH ↑beh
- Fleisher et al, 1995 - ↓ stay, ↓ O₂, ↑beh
- Buehler et al, 1995 - ↑ brain function
- Westrup et al, 2000 - ↓ pulmonary support
- Westrup et al, 2003 - ↓ behavioral problems
- Als et al, 2003 - Improved outcomes
- Als et al, 2004 - ↑ brain function, structure
- Maguire et al, 2009 - No differences
- Peters et al, 2009 - ↓ LOS, ↓ sedation, ↑ outc
Research

• McAnulty et al 2010
  - ↑ beh, sch perf 8yo
• Als et al 2012
  - SGA ↑ org
• McAnulty et al 2012
  - ↑ neuro-phys, -electro
  - ↑ KABC at school age
Research Validated

• Positive Outcomes!
NIDCAP Approach

• Theoretically-based
• Research-validated
• System-wide
Systems Approach

• Development is seen as occurring within systems

• Care occurs within systems

• The nursery system is the unit of implementation
NIDCAP Training

- Observe baby as a way to understand the baby and support babies and families
- Support to nurseries to adapt the environment and delivery of care
NIDCAP Training

• Center-based or team-based
  ➢ Process
  • Individuals
  • Nursery

• Developmentally Supportive Care becomes integrated into the care system
NIDCAP Care

task oriented, protocol based → relationship based
staff schedules → infant rhythms
危机 oriented → developmentally oriented
deficit repair → strength nurturing
technology focused → person & process focused
organ by subspecialty → whole person
action based → reflection based
doing to → engaging with
ICU atmosphere → womb, home and family atmosphere

H. Als, 1998
NIDCAP Nursery Assessment and Certification Program

• Certification through the NFI
• Very high level of integrating NIDCAP-based approach and family-centered approach into all aspects of care
NIDCAP Nursery Certification

- Environment
- Philosophy and Care of Infants
- Philosophy and Care of Families
- Philosophy and Care of Staff
NIDCAP Nursery Certification

• Environment
  – Supportive for infants
    • Light and sound control
    • Comforts
  – Supportive for families
    • Privacy
    • Comforts
    • Individualized
NIDCAP Nursery Certification

• Philosophy and Care of Infants
  – Pain management
  – Support during ALL procedures
    • Bathing
    • Diapering
    • Feeding
    • Positioning
    • Moving
    • etc
NIDCAP Nursery Certification

• Philosophy and Care of Families
  – Inclusion in decisions both bedside and policies
  – Privacy
  – Supports
  – Kangaroo holding
  – Rounds
  – etc
NIDCAP Nursery Certification

• Support of Staff
  – Staffing patterns conducive to appropriate/best care
  – Training - ongoing
  – Mutually supportive
  – Good multidisciplinary collaboration
NIDCAP … day-to-day

• Various models
  – Role in the nursery
  – NICU’s integration of developmentally supportive, family-centered care
  – Unit character and personality
  – Discipline of dev care leadership
Brain Oriented Care

• NIDCAP
  – Many components but more than just components
  – Culture – “enabling parents and staff to provide care in synchrony with the infant’s neurobehavioral function”

(p 214) Tyebkhan 2015
NIDCAP … day-to-day

• Examples…
...developmentally supportive, family-centered...
NIDCAP Approach

• www.nidcap.org