# Driver 1: Readiness Sensory Environment

# Diane Delgado Allen, OTR/L, NTMTC, CNT Patoula Panagos-Billiris, MD

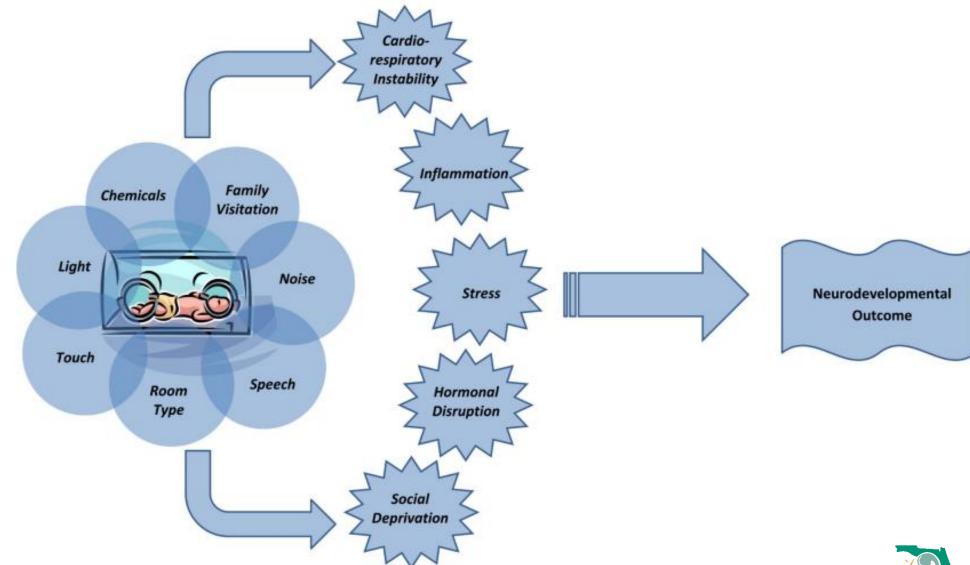
Alexa Mutchler
Bernadette Butler
Bethyna Blaise
Emily Bronson
Jodi Dolezel
Janelle Ferry

Linda Detman
Margie Boyer
Marie Berg
Susie Johnson
Suzanne Schneider





# Environmental Exposures Occur During Critical Neurodevelopment Periods







# **Readiness:**Sensory Environment



# **Secondary Drivers**

Modulate sound and provide positive auditory input in the NICU

Promote a developmentally appropriate light environment

Enhance early olfactory and oral sensory experiences





# **Secondary Drivers**

**Readiness:** 

**Sensory Environment** 

Modulate sound and provide positive auditory input in the NICU

Promote a developmentally appropriate light environment

Enhance early olfactory and oral sensory experiences



**Secondary Drivers** 

Readiness:
Sensory Environment

Modulate sound and provide positive auditory input in the NICU

# **Potentially Better Practices**

#### **Reduce Environmental Noise:**

Perform routine dB checks, aim for sustained noise reduction, and implement scheduled quiet/rest periods.

#### **Language-Rich Environment:**

Encourage parental voice (live or recorded) and implement a routine reading program.

#### **Calming Sounds:**

Recommend use of evidence-based calming sounds within safe environmental noise limits.



# Secondary Drivers

**Readiness:**Sensory Environment

Modulate sound and provide positive auditory input in the NICU

Promote a developmentally appropriate light environment

Enhance early olfactory and oral sensory experiences



**Secondary Drivers** 

**Readiness:** 

**Sensory Environment** 

Promote a developmentally appropriate light environment

### **Potentially Better Practices**

#### **Gestational Age Guidelines:**

Develop dimming/light cycling protocols (e.g., >32 GA).

#### **Preterm Infants (<28 weeks):**

Keep lighting minimal and purposeful; after ~28 weeks PMA, introduce cycled light with smooth transitions.

#### **Lighting Approach:**

Use indirect lighting to ensure comfort and visibility without overstimulation.

#### **Special Populations:**

Create light guidelines for post—eye exams, procedures, Golden Hour, birthing room transitions, and ELBW care.



# Readiness:

Sensory Environment

### **Secondary Drivers**

Modulate sound and provide positive auditory input in the NICU

Promote a developmentally appropriate light environment

Enhance early olfactory and oral sensory experiences



**Secondary Drivers** 

Readiness:

**Sensory Environment** 

Enhance early olfactory and oral sensory experiences

# **Potentially Better Practices**

#### **Mouth Care with Breastmilk:**

Use oral swabs and milk drops per guideline.

#### **Skin-to-Skin Care:**

Facilitate exposure to parental scent.

#### **Scent Cloth Program:**

Promote soothing smells to support parent-infant attachment.

#### **Reduce Negative Sensory Input:**

Implement policy favoring unscented products for premature infants.



# Readiness: Sensory Environment

# **Secondary Drivers**

Modulate sound and provide positive auditory input in the NICU

Promote a developmentally appropriate light environment

Enhance early olfactory and oral sensory experiences



**Secondary Drivers** 

Readiness:
Sensory Environment

Optimize developmental positioning and transition to safe sleep

#### **Potentially Better Practices**

#### **Midline Flexion & Containment:**

Promote 360-degree containment to mimic in utero positioning while allowing appropriate movement.

#### **Safe Sleep Education:**

Incorporate safe sleep teaching into discharge planning.

# Questions?

