



Introducing a Tiered Model for Infant Habilitation

# **Occupational Therapy's Role at Cynthia Day Family Center**

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# Agenda

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- Introductions
- Cynthia Day Family Center
- What is occupational therapy (OT)?
- How could OT help the CDFC population served?
- Outlining OT service delivery at CDFC using a public health framework
  - Tier 1 Universal OT service delivery
  - Tier 2 Targeted OT service delivery
  - Tier 3 Intensive OT service delivery
- Sustainability of OT Program
- Important Disclaimers
- Questions
- References



# Introductions: About Me

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- OT Doctoral Student at UNH
- 800+ hours of hands-on clinical experience
- Current NH-ME Leadership Education in Neurodevelopmental Disabilities (LEND) fellow
- Focus areas based on experience:
  - Pediatric development
  - Caregiver continuums
  - Complex neurological sequela



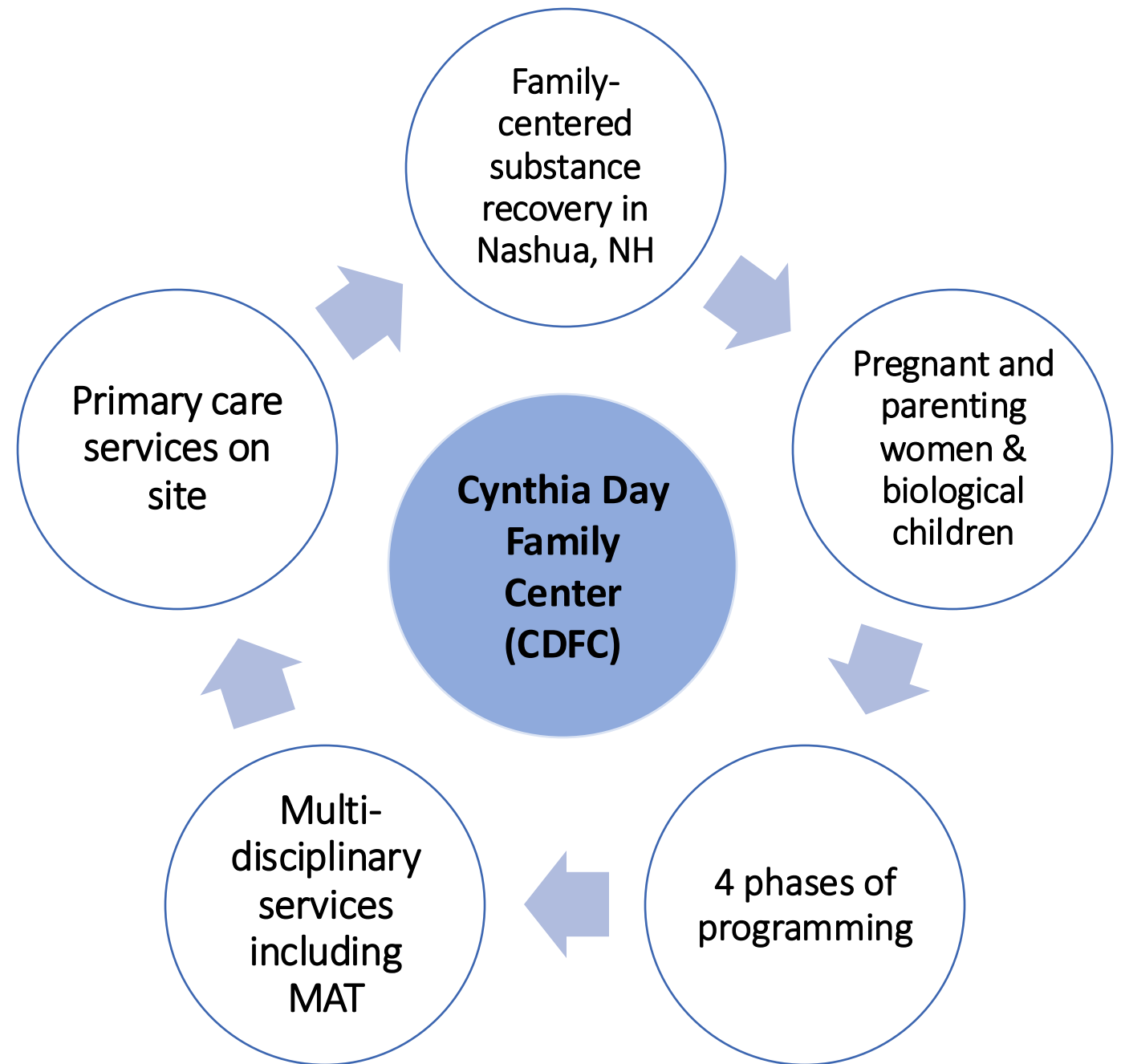
# Introductions: Faculty Mentor

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- BS/MS in OT, University of New Hampshire
- Doctorate in OT, MGH-IHP
- Board Certified Pediatric Occupational Therapist – Boston Children's Hospital
- Clinical Assistant Professor – Occupational Therapy, UNH
- Scholarly focus - Pediatric development and the optimization of functional outcomes for underserved and high-risk populations, with a specific emphasis on occupational therapy service delivery in primary care settings.
- Three young kids of my own!





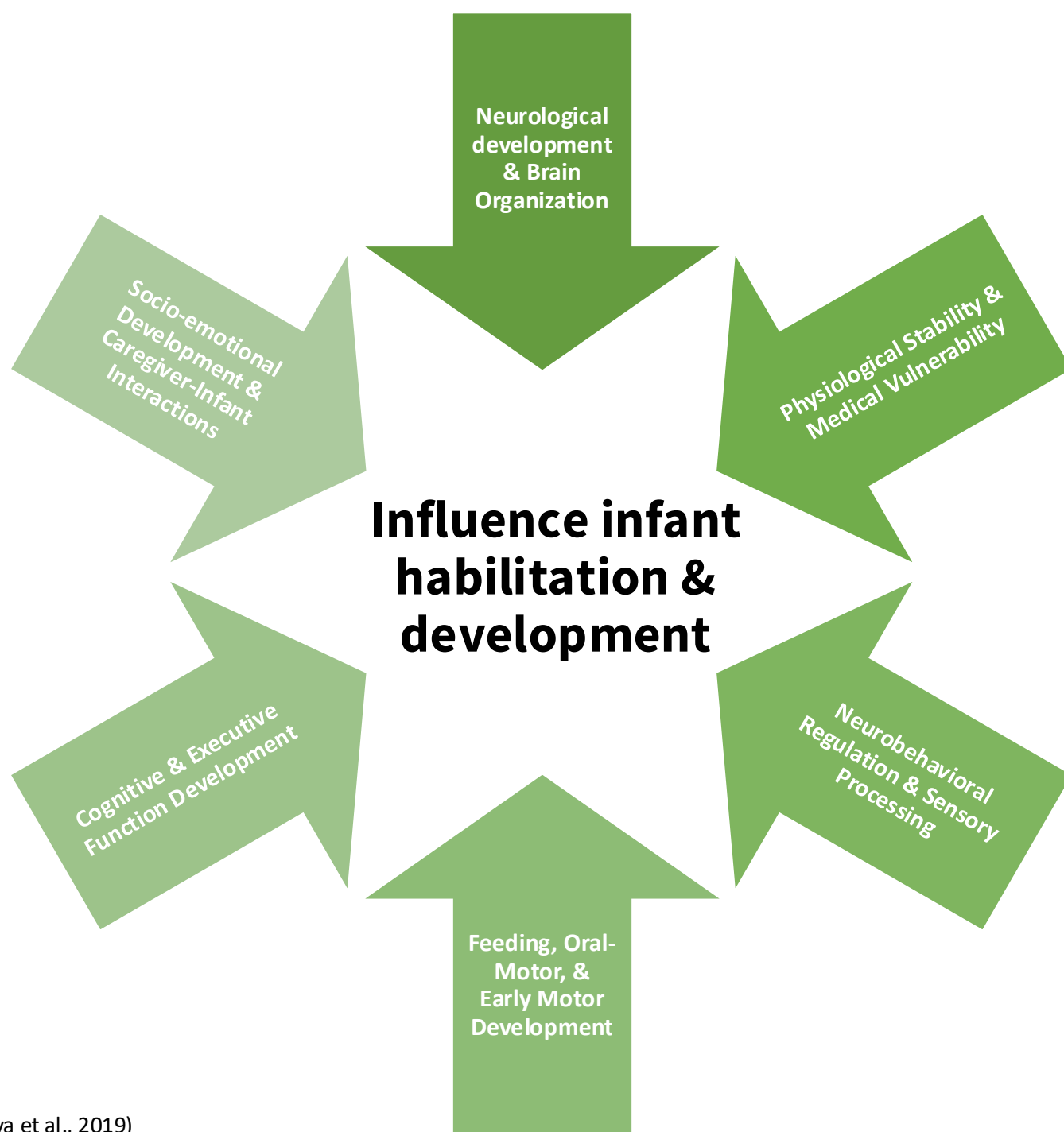


## Overview of Occupational Therapy

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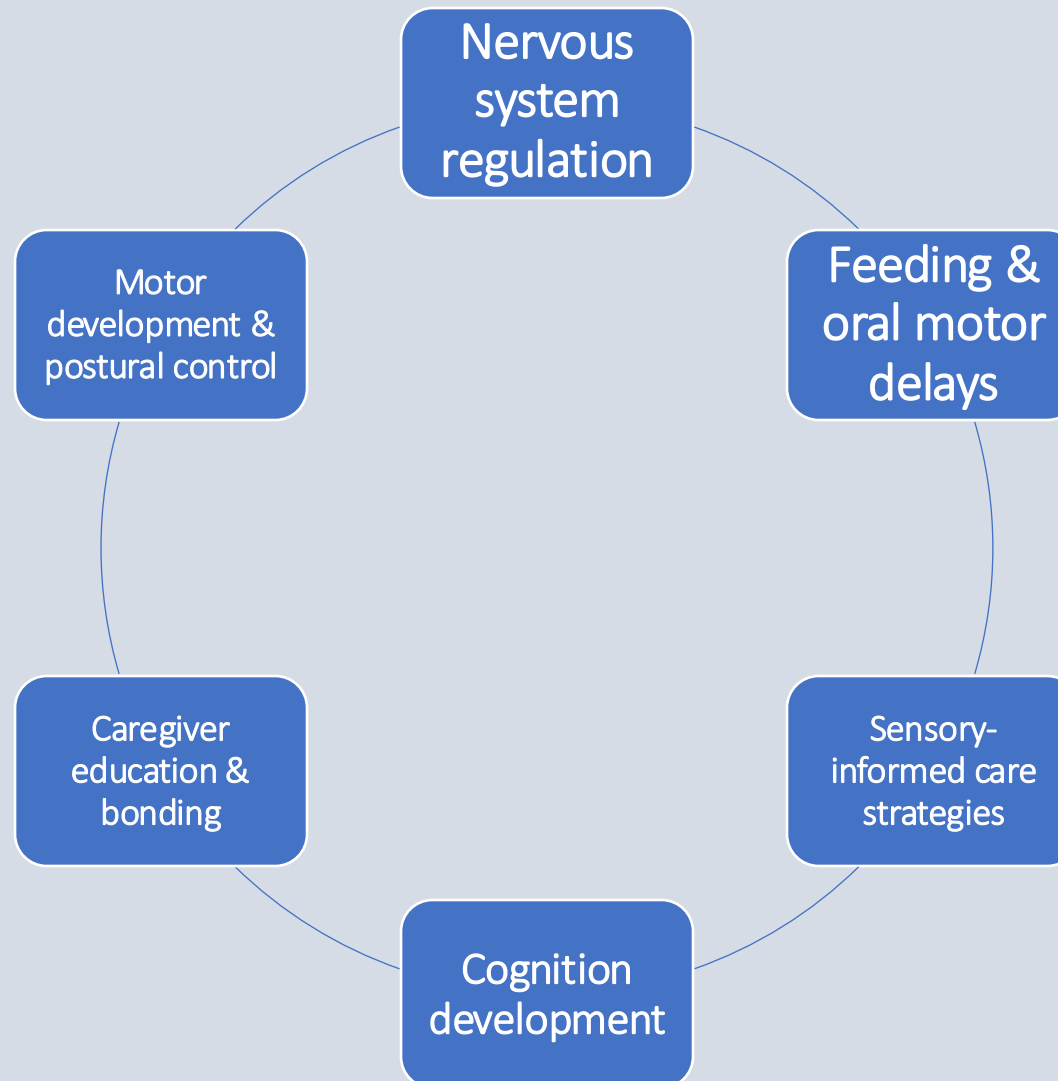
- **Holistic, evidence-based health profession that looks at the whole person**
- **Supports people across the lifespan to participate in meaningful daily activities (“occupations”)**
- **Addresses personal factors, environment, and occupations as needed to optimize function**
- **9 areas of occupation that framework the profession**
- **Emphasizes client-centered, patient/caregiver education, culturally responsive, and interdisciplinary care**





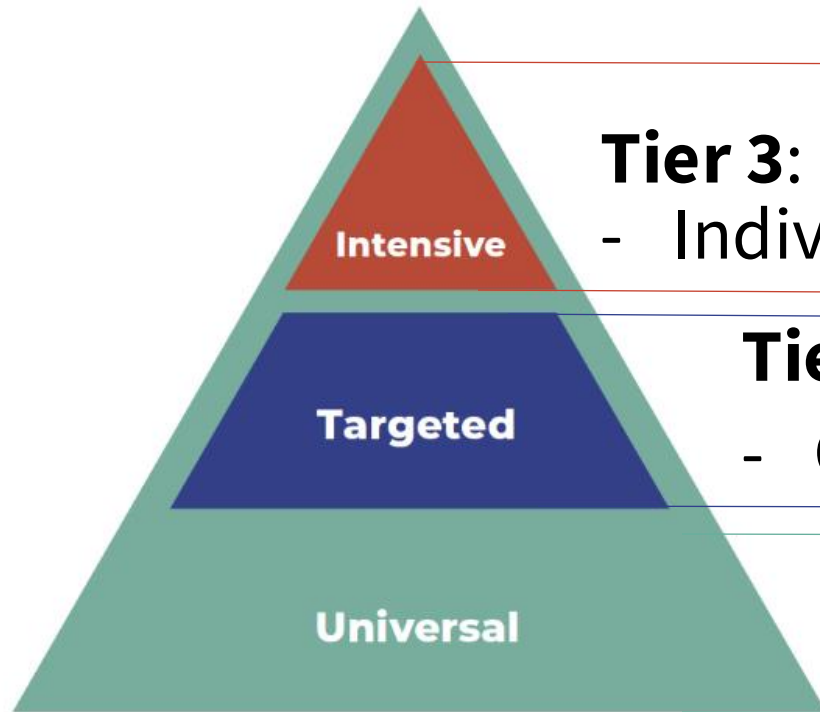
# OT Directly Addresses the NOWS Developmental Barriers

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# OTs Role: A Multi-Tiered Public Health Framework

\* Referencing the “every moment counts” framework\*



## **Tier 3:** Intensive Supports

- Individualized, direct OT service delivery

## **Tier 2:** Targeted Supports

- Group based approaches to OT care

## **Tier 1:** Universal Supports

- CDFC wide approaches to OT care



# Tier 1: Universal OT Support at CDFC

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- Sensory mural / sensory space in CDFC shared rooms
- Interdisciplinary collaboration of OT recommendations
- Attendance at weekly clinic team meetings
- Consultative services for residents & children as needed

Universal



# Tier 2: Targeted OT Support at CDFC

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- Health promotion & wellness groups – designed & facilitated by OT
- Designed around an individual's wellness wheel
- Groups target rehabilitation of skills
- Self-regulation, executive functioning, and engagement in life demands



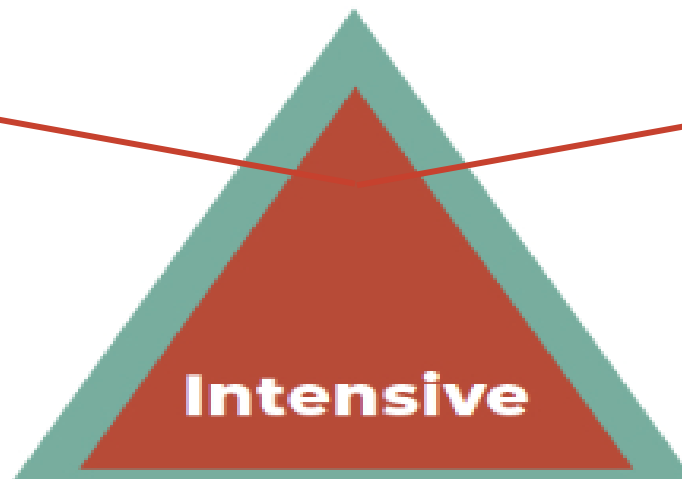
**Targeted**



# Tier 3: Intensive OT Support at CDFC

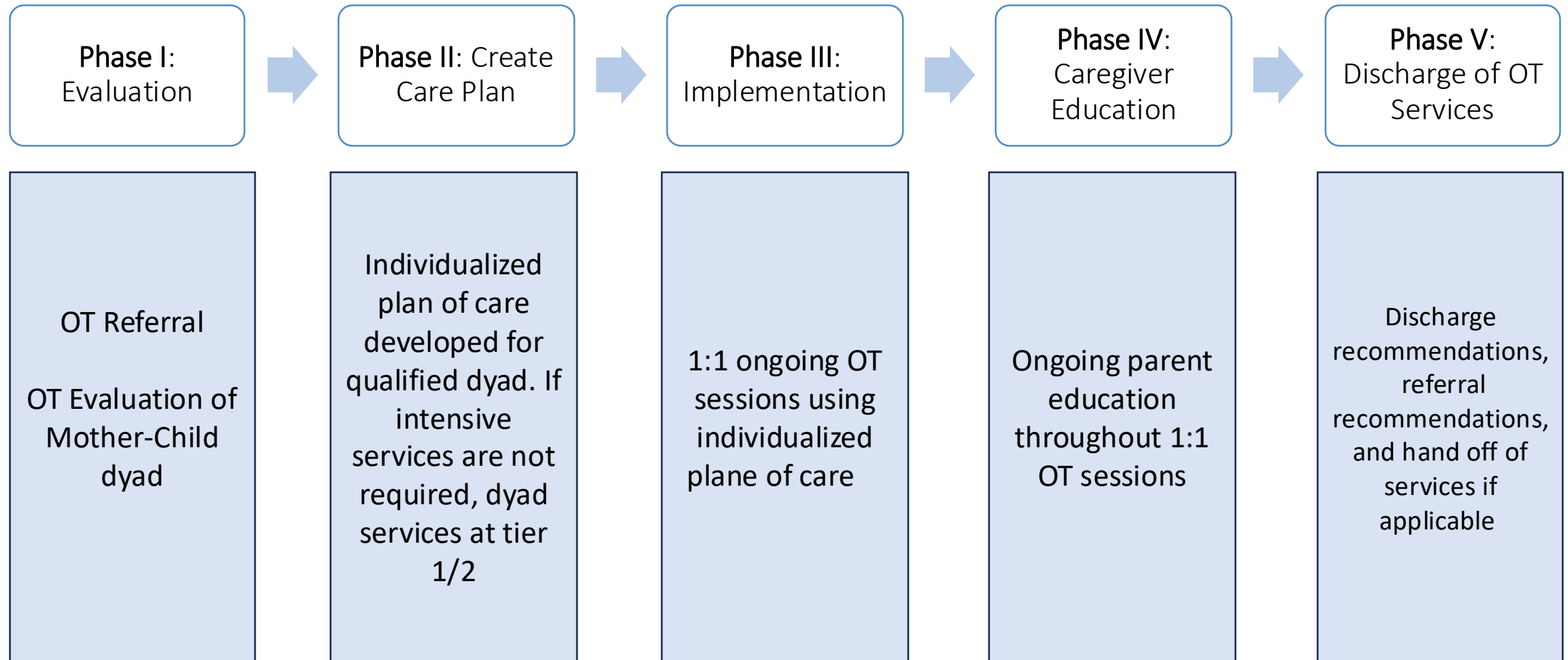
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- Individual caseload using 5-phase OT program
  - For children at risk of developmental delays from prenatal opioid exposure
  - Direct, individualized care
  - Children ages birth – 2 years
  - Novel model of service provision that joins the continuum of care between NICU and EI based settings, and improved access to care in this vulnerable population



# 5-Phase Intensive Tier Model of OT Service Delivery

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# Case Application Using 5-Phase Intensive Tier Model

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- **Infant:** Baby O and Baby K, 6 month old twins (5 months adjusted), born with NOWS at 36 weeks gestation
- **CDFC Resident / Infant's Mother:** Parent has been in active substance recovery at CDFC for 4 months, but prior to being at CDFC, was unhoused living in a homeless shelter with twins and actively using substances

- **OT Referral Reason:**

Staff at CDFC, primary care, and mother noticed developmental differences in twins:

- Difficulty regulating sleep-wake periods / sleeping in car seats overnight
- Difficulty self-soothing (hyperirritability)
- Abnormal increased muscle tone (hypertonicity)
- Limited infant social engagement
- Significant plagiocephaly on both children from sedentary lifestyle

Mother also reported increased stress and uncertainty managing twins' care needs multiple times to various CDFC staff members.



# Phase I: Evaluation

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## Results from the Bayley Developmental Assessment:

- Motor delays
- Self-regulation difficulties
- Cognitive delays
- Delays with adaptive behavior patterns

## Naturalistic Environment Observation:

- Environmental barriers to safe sleep, play, developmental stim, and healthy routines

# Phase II: Create Care Plan



## Baby Goals:

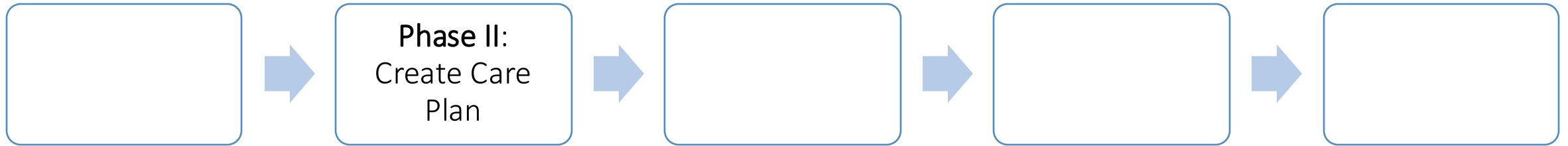
Gross motor goals

Cognition goals

Fine motor goals

Postural control goals

# Phase II: Create Care Plan



## Family Goals:

Parenting confidence goal

Environmental modification goal

Sleep routine goal

Developmental facilitation goal

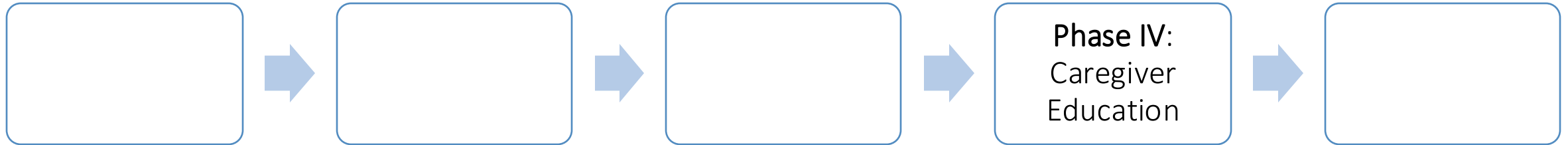
# Phase III: Implementation



- Gross motor facilitation
- Fine motor facilitation
- Cognitive facilitation
- Safety assessment and environmental modifications of naturalistic environment
- Car seat to crib sleep transition plan
- Facilitated occupational engagement in naturalistic environment

# Phase IV: Caregiver Education

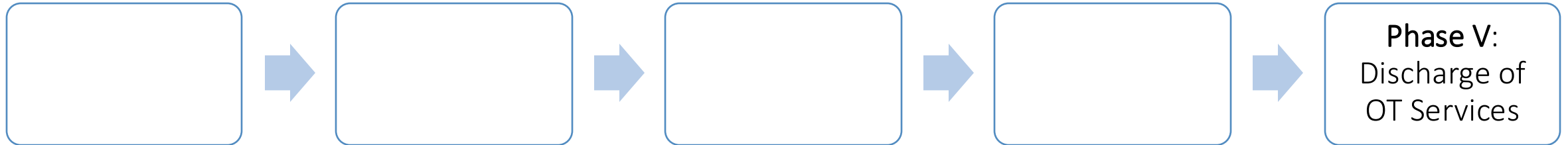
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- Coach Mom in setting up safe floor-based play spaces (clear mat, quiet room, toy placement) and gradually fading therapist support.
- Demonstrate and practice tummy time, rolling facilitation, and supported sitting with Mom using hands-on guided practice.
- Provide simple visual cues and step-by-step routines Mom can replicate for daily play sessions (2×/day, 5 minutes each).
- Teach Mom how to identify regulated vs. dysregulated states and adjust play demands to match baby's readiness.
- Model safe sleep-environment setup (crib positioning, lighting, noise control) and coach Mom through nighttime routines in naturalistic environment.
- Use gradual-exposure strategies with Mom to transition baby from car seat sleeping to crib with confidence.
- Incorporate teach-back learning: have Mom explain or demonstrate nighttime routine with crib sleeping back to therapist
- Provide written and visual home program materials so Mom can independently follow routines and track progress across the week.

# Phase V: Discharge of OT Services

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- Review progress toward OT goals
- Ensure mother demonstrates confidence
- Provide individualized **discharge education packet** (cue charts, routines, play ideas)
- Finalize **home program** with simple, realistic daily routines
- Coordinate with CDFC behavioral health, primary care, and other staff to ensure continuity
- Provide referral recommendations (EI, outpatient OT, developmental pediatrics) as appropriate
- Complete discharge summary with progress, strengths, and ongoing needs
- Reinforce caregiver strengths and readiness for continued independent caregiving
- Ensure mother knows when and how to reach out if questions or concerns arise

# Logistics of Service Delivery

## Triage Criteria

- Inclusion Criteria
  - Children aged 0-2 year old
  - Infant diagnosed with or at risk for NOWS
  - Mother residing at CDFC and willing to participate in OT
  - Observed regulation or developmental concern for child
  - Caregiver demonstrates capacity to engage in intervention sessions
- First come first serve following met criteria

## Caseload Limits

- 6-8 infant-caregiver pilot dyads
- 1-2 sessions per week per dyad depending on dyad need

## Referral Process

- Identification of need
- Referral submission
- Triage from referral
- Communicate with team for coordination of services
- Schedule sessions with accepted dyads



# Sustainability of OT at CDFC

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Pilot program establishes a **foundation for infant-caregiver OT services** and demonstrates feasibility

**Documented interventions, outcomes, and processes** create a reference for staff and future programs

**Training and handoff materials** enable staff to continue caregiver coaching and apply OT strategies in daily routines

**Integration into routines** (feeding, sleep, play, bonding) ensures ongoing support without continuous OT involvement

Provides a **framework for future referrals, caseload expansion, and collaboration** with Early Intervention or outpatient OT



## OT Program at CDFC

- Focus on motor learning principals
- Hands on facilitation
- Frequency of care can change often
- Short-term episodic care
- Immersed in interdisciplinary team model
- Embedded member of daily wrap around care team
- Provides sessions in both naturalistic and clinic settings for seamless transitions between structured therapy and real life routine

## Early Intervention Models

- Home based
- Utilizes coaching model
- Broader developmental scope
- Typically lower service frequency
- Providers are typically mixed discipline
- Goals are typically broader rather than directed at motor acquisition



# Critical Disclaimers

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- This was a pilot OT program:
  - Developed and implemented by the capstone student under supervision
  - These approaches are not yet routine practice
  - Data collection and evaluation will inform future sustainability, scaling, and refinement
  - OT interventions follow best practice and evidence-based guidelines
  - Small Cohort Size
  - Results may be influenced by the short capstone project timeline
  - Billing / reimbursement model can and should be considered for future programming



# References

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