

Promoting Positive, Culturally Relevant Infant/ Toddler Outcomes through Responsive Caregiving and Continuity of Care June 7, 2016 | Arlington, VA

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	NATIONAL CENTER ON Early Childhood Development,	Teaching	and Learni
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### Session Objectives

At the end of this presentation, you should be able to:

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- Define responsive caregiving and its critical components
- •Understand the importance of daily routines for infants and toddlers
- Discuss various strategies to promote responsive caregiving, including continuity of care

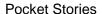
### Session Agenda

Here's our plan for the today's session.

- Definitions of Responsive Caregiving
- Responsive Caregiving and Positive Outcomes
- Components of Responsive Caregiving
- Summary



### Icebreaker





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Definitions of Responsive Caregiving



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### Responsiveness

Responsiveness is defined as caregiver-child interactions in which the caregiver demonstrates concerned and prompt responses to child cues in an individualized and appropriate manner.



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Source: Ota, 2005



### Responsive Caregiving is...

- Being "tuned-in," a keen observer of children and families
- •Understanding the cues of infants and toddlers, then sensitively responding in ways that are helpful
- •Using the environment to support development and extend learning



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### Serve and Return



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### Responsive Caregiving

Why responsive caregiving?







### Outcomes for Children



- Social Emotional Wellness
- School Readiness
- Brain Development



### Outcomes for Staff

- Deeper Relationships
- Intentional Interactions
- Professional Growth





### Early Learning Outcomes Framework

	CENTRAL DOMAINS					
	APPROACHES TO LEARNING	SOCIAL AND EMOTIONAL DEVELOPMENT	LANGUAGE AND LITERACY	COGNITION	PERCEPTUAL, MOTOR, AND PHYSICAL DEVELOPMENT	
▲ INFANT/ TODDLER DOMAINS	Approaches to Learning	Social and Emotional Development	Language and Communication	Cognition	Perceptual, Motor, and Physical Development	
PRESCHOOLER DOMAINS	Approaches to Learning	Social and Emotional Development	Language and Communication	Mathematics Development	Perceptual, Motor, and Physical Development	
			Literacy	Scientific Reasoning		

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# Components of Responsive Caregiving

Schedules and Routines

Responsive Caregiving = Individual Care

Environment

Responsive Continuity of Care



Components of Responsive Caregiving

# Relationships

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Components of Responsive Caregiving

Relationships Are Different from Interactions



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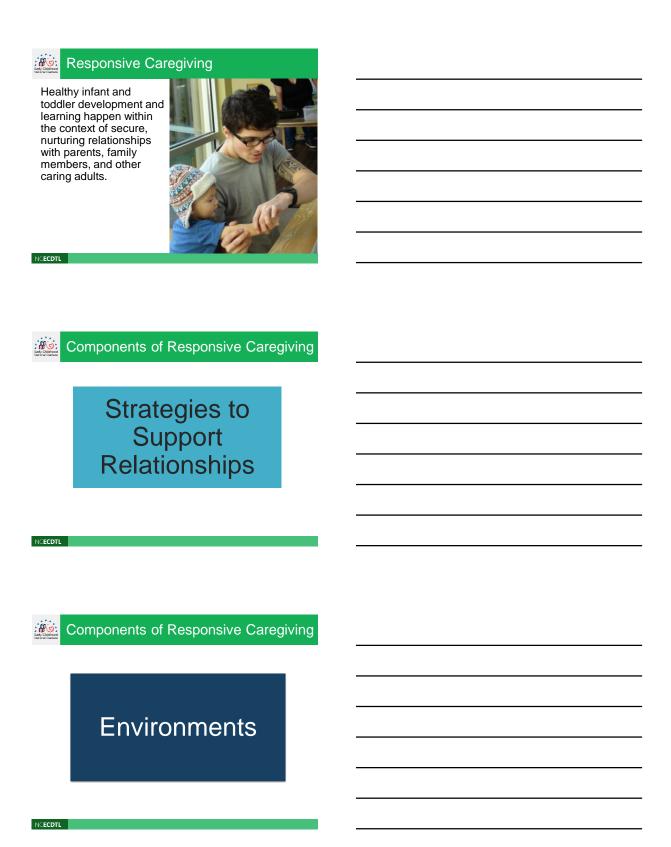
### Understanding Baby's Cues

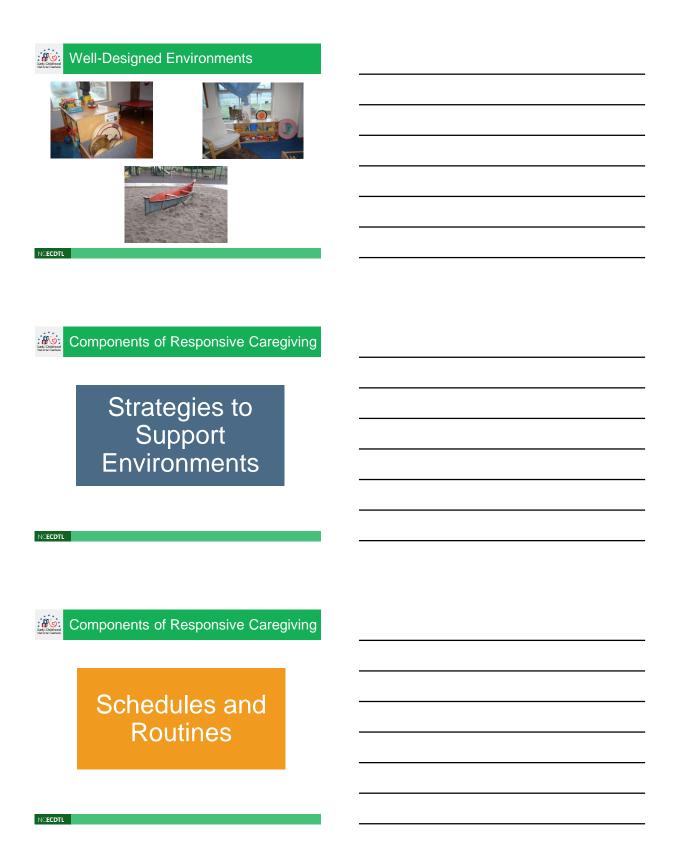












# An Infant or Toddler's Typical Week Daily Routines, 10,000

48.80%

Other,. 1.20%

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### Learning within routines



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### Components of Responsive Caregiving

Strategies to Support Schedules and Routines



Components of Responsive Caregiving

# Continuity of Care

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### Continuity of Care



- Relationships
- Cultural Continuity
- Supports School Readiness

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### Continuity of Care

### Strategies:

- Primary Caregiving
- •Mixed Age Groups or "Looping"





### Components of Responsive Caregiving

### Strategies to Support Continuity of Care

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### Early Childrood

### Reflections

- •What is working?
- •What do you still wonder about?
- •What will you take with you?
- •How will you encourage more and deeper conversations?





### Resources

News You Can Use and Tip Sheets:

- Environment as Curriculum for Infants and Toddlers. News You Can Use. Early Head Start National Resource Center. HHS/ACF/OHS. 2010.
- News You Can Use: Early Experiences Build the Brain -Foundations of School Readiness. HHS/ACF/OHS/EHSNRC. 2012. NYCU DAP
- News You Can Use Developmentally Appropriate Practice. HHS/ACF/OHS. English. 2011.
- What Do We Mean by Continuity of Care in Out-of-Home Care Settings? Early Head Start Tip Sheet No. 21. HHS/ACF/ACYF/HSB. 2004.

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### Resources

### Online Lessons:

- Digging Deeper: Looking Beyond Behavior to Discover Meaning. A Unit of Four Online Lessons. HS/ACF/OHS/EHSNRC. 2006. English.
- Relationships as the Foundation of Quality Infant and Toddler Care. A Unit of Four Online Lessons. HHS/ACF/OHS/EHSNRC. 2014. English.

Training Modules and more:

 Center on the Social and Emotional Foundations of Early Learning.

Video about Brain Development:

• "Serve & Return Interactions Shapes Brain Circuitry." Three Core Concepts in Early Development Series. Center for the Developing Child and the National Scientific Council on the Developing Child.

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- Define responsive caregiving and its critical components
- Understand the importance of daily routines for infants and toddlers
- Discuss various strategies to promote responsive caregiving, including continuity of care

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### EARLY HEAD START TIP SHEET

No. 21

Continuity of Care in EHS Group Settings, May 2004

### What do we mean by continuity of care in out-of-home care settings?

### **Response:**

Continuity of care is an important way to help babies develop secure relationships with caregivers. Ron Lally, Director of the Center for Child & Family Studies, WestEd writes, "The concept of *continuity of care* refers to the policy of assigning a primary caregiver to an infant at the time of enrollment in a child care program and continuing this relationship until the child is three years old or leaves the program." Combined with primary caregiving (the process of assigning one caregiver to a child or small group of children to serve as the primary source of care) and small groups, continuity of care provides the time and intimacy babies need to learn about themselves and form meaningful relationships.

### Possible Approaches

Continuity of care, between a child care provider and a baby, may be achieved in several different ways. The two most important elements involved in continuity of care approaches are:

- 1) The day to day interactions between the primary caregiver and the baby that give the baby a sense of predictability in their daily experiences; and
- 2) The deepening relationship and shared memories created through the enduring, year-after-year relationship between the primary caregiver and the baby.

The extended time together supports a child's development of a sense of history of themselves with the caregiver. It helps babies believe that people remain in their lives, in caring, meaningful ways -- that they can rely on, and safely love other people. For families experiencing multiple challenges (e.g., unstable housing leading to multiple moves, unstable employment, or numerous adults or other individuals rotating in and out of the home), continuity in the caregiving environment is especially beneficial for the young child, who might not otherwise experience regularity in relationships.

When continuity of care is provided by a primary caregiver, there are also many opportunities for the caregiver and parents to develop a caring relationship. Caregivers may learn from parents how the baby expects to be cared for, and any cultural or personal care practices the family utilizes. The caregiver, in turn, may inform the family on the thinking behind some of the care practices in the program. Open, genuine communication between parents and caregivers increases the continuity of the baby's experiences between home and center.

Different structures for continuity of care include mixed age groups of infants and toddlers together, nurtured by primary caregivers throughout their first three years, similar to the design of family child care. Another model is remaining with the same children in a close age group and as the children grow older, moving to a new, age- appropriate space with the same caregiver, providing the caregiver (and child) the opportunity to form long-lasting bonds. As time progresses, caregivers in this arrangement work with various age groups over several years. A third method is to maintain a close age group with the same caregiver but modify the environment as the children's abilities and interests change.

While some caregivers may feel more competent with specific age groups and prefer to work only with young infants or only with two year olds, the caregiver and baby will reap mutual benefits from a more long term relationship spanning the duration of the child's enrollment. The caregiver can feel confident of their ability to *really know* a child, to be able to read each baby's cues, and to know how to individually comfort and challenge each baby. The caregiver avoids the stress of constantly "learning" new babies.

### The case for continuity

A system of continuity of care helps to nurture the important relationships between primary caregiver and the child. It is within the context of these relationships that children grow and develop.

When young children and their caregivers are tuned into one another, and when caregivers can read the child's emotional cues and respond appropriately to his or her needs in a timely fashion, their interactions tend to be successful and the relationship is likely to support [the child's] healthy development in multiple domains, including communication, cognition, social-emotional competence, and moral understanding.<sup>1</sup>

Babies actively use every moment with other people, every sense, and every feeling, to understand their own experience and their own identity. By creating physical pathways in the brain, babies develop a mental model for how they see themselves and the world. They watch adults and learn how people act in different situations, how people act toward them, and how people express their emotions. They learn whether they can trust adults to understand what interests and excites them or how to help them be calm. They learn whether the world is predictable or not. They learn whether they can trust adults to keep them safe.

Because babies learn these important things through many repeated moments of experience, it takes much effort and a long time for a baby to really develop ideas about who they are and what to expect of others. When their caregivers are constantly changing, babies may decide that it is too hard to keep learning about new people, and too painful to repeatedly fall in love and be disappointed by their leaving. They may learn that relationships are superficial and transitory experiences. Recent studies of stress and hormone levels in the brain demonstrate that toddlers who have experienced sensitive, responsive, secure relationships can manage stressful situations without producing potentially damaging levels of cortisol. Good, predictable, dependable relationships help infants to manage challenging circumstances in other areas of their lives.

### **Questions to Consider for Planning and Programming:**

- What does the program staff understand about the process of early learning and early relationships?
- What kinds of trainings does the program offer about continuity of care and primary caregiving?
- How do the organizational structure and personnel policies of the agency support continuity of care?
- How does the staff feel about working with restricted or expanded age groups?
- Does the staff have the range of skills needed to work with mixed age groups or the range of the first three years of life?
- How does the program support children and families when caregivers or home visitors leave?
- How do licensing or accreditation requirements impact the plan for continuity?

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<sup>&</sup>lt;sup>1</sup> National Research Council and Institute of Medicine, 2000, p. 28.

• How can the program modify the physical environment in the classroom to allow for continuity?

### **Performance Standards,** Title 45, Code of Federal Regulations:

- 1304.20(f)(1) Grantee and delegate agencies must use the information from the screening for developmental, sensory, and behavioral concerns, the ongoing observations, medical and dental evaluations and treatments, and insights from the child's parents to help staff and parents determine how the program can best respond to each child's individual characteristics, strengths and needs.
- 1304.21(a)(1)(i)&(iii) In order to help children gain the skills and confidence necessary to be prepared to succeed in their present environment and with later responsibilities in school and life, grantee and delegate agencies' approach to child development and education must:
  - (i) Be developmentally and linguistically appropriate, recognizing that children have individual rates of development as well as individual interests, temperaments, languages, cultural backgrounds, and learning styles.
  - (iii) Provide an environment of acceptance that supports and respects gender, culture, language, ethnicity and family composition.
- 1304.21 (a)(2)(i)-(ii) Parents must be:
  - (i) Invited to become integrally involved in the development of the program's curriculum and approach to child development and education
  - (ii) Provided opportunities to increase their child observation skills and to share assessments with staff that will help plan the learning experiences.
- 1304.21(a)(3)(i)(A)-(E) Grantee and delegate agencies must support social and emotional development by encouraging development which enhances each child's strengths by:
  - (A) Building trust;
  - (B) Fostering independence;
  - (C) Encouraging self-control by setting clear, consistent limits, and having realistic expectations;
  - (D) Encouraging respect for the feelings and rights of others; and
  - (E) Supporting and respecting the home language, culture and family composition of each child in ways that support the child's health and well being.
- 1304.21(a)(4)(i) Grantee and delegate agencies must provide for the development of each child's cognitive and language skills by supporting each child's learning, using various strategies including experimentation, inquiry, observation, play and exploration.
- 1304.21(b)(1)(i)-(iii) Child development and education approach for infants and toddlers. Grantee and delegate agencies' program of services for infants and toddlers must encourage:
  - (i) The development of secure relationships in out-of-home care settings for infants and toddlers by having a limited number of consistent teachers over an extended period of time. Teachers must demonstrate an understanding of the child's family culture and whenever possible, speak the child's language.
  - (ii) Trust and emotional security so that each child can explore their environment according to his or her developmental level and
  - (iii) Opportunities for each child to explore a variety of sensory and motor experiences with support and stimulation from teaches and family members.
- 1304.21(b)(2)(i)-(ii) Grantee and delegate agencies must support the social and emotional development of infants and toddlers by promoting and environment that:
  - (i) Encourages the development of self awareness, autonomy, and self expression; and

- (ii) Supports the emerging communications skills of infants and toddlers by providing daily opportunities for each child to interact with others and to express himself or herself freely.
- 1304.23(b)(4) Parents and appropriate community agencies must be involved in planning, implementing and evaluating the agencies' nutritional services.
- 1304.23(c)(5) Infants are held while being fed and are not laid down to sleep with a bottle.
- 1304.24(a)(1)(i)-(vi) Grantee and delegate agencies must work collaboratively with parents by:
  - (i) Soliciting parental information, observations, and concerns about their child's mental health;
  - (ii) Sharing staff observations of their child and discussing and anticipating with parents their child's behavior and development, including separation and attachment issues;
  - (iii) Discussing and identifying with parents appropriate responses to their child's behaviors;
  - (iv) Discussing how to strengthen nurturing, supportive environments and relationships in the home and at the program;
  - (v) Helping parents to better understand mental health issues; and
  - (vi) Supporting parents' participation in any needed mental health interventions.
- 1304.40(a)(1) Grantee and delegate agencies must engage in a process of collaborative partnership- building with parents to establish mutual trust and to identify family goals, strengths and necessary services and other supports.
- 1304.40(d)(2) Early Head Start and Head Start settings must be open to parents during all program hours. Parents must be welcomed as visitors and encouraged to observe children as often as possible and to participate with children in group activities.
- 1304.40(e)(1) Grantee and delegate agencies must provide opportunities to include parents in the development of the program's curriculum and approach to child development and education.
- 1304.40(e)(3) Grantee and delegate agencies must provide opportunities for parents to enhance their parenting skills, knowledge, and understanding of the educational and developmental needs and activities of their children and to share concerns about their children with program staff.
- 1304.52(g)(4) Grantee and delegate agencies must ensure that each teacher working exclusively with infants and toddlers has responsibility for no more than four infants and toddlers and that no more than eight infants and toddlers are placed in any one group.

### **Resources:**

Early Head Start National Resource Center. **Maintaining Relationships: Continuity in Early Head Start and Migrant and Seasonal Head Start Programs [audiocast].** DHHS/ACF/ACYF/HSB. July 25, 2001.

http://eclkc.ohs.acf.hhs.gov/hslc/resources/cinema/Maintaining%20Relationships%20Audio%20Cast/MaintainingRelat.htm (accessed August 14, 2010).

Gunnar, M. "Quality of Care and the Buffering of Stress Physiology: Its Potential Role in Protecting the Developing Human Brain." Newsletter of the Infant Mental Health Promotion Project, (21): 4–7. University of Minnesota: Minneapolis. 1998.

Howes, Carollee. **Infant Child Care.** ERIC Digest (EDO-PS-91-6), ERIC Clearinghouse on Elementary and Early Childhood Education, University of Illinois at Urbana-Champaign. (1991). <a href="http://www.ericdigests.org/pre-9220/infant.htm">http://www.ericdigests.org/pre-9220/infant.htm</a> (accessed August 14, 2010).

Lally, J. Ronald and Sheila M. Signer. **Introduction to Continuity.** Sacramento: WestEd, The Program for Infant/Toddler Care.

<a href="http://www.pitc.org/cs/pitclib/download/pitc\_res/360/Introduction%20to%20Continuity.pdf?x-r=pcfile\_d">http://www.pitc.org/cs/pitclib/download/pitc\_res/360/Introduction%20to%20Continuity.pdf?x-r=pcfile\_d</a> (accessed August 14, 2010).

National Research Council and Institute of Medicine. From Neurons to Neighborhoods: The Science of Early Childhood Development. J.P. Shonkoff and D. Phillops, Eds., Board on Children, Youth, and Families, Commission on Behavioral and Social Sciences and Education. Washington, DC: National Academy Press. 2000.

Needleman, Robert. Continuity of Care: Why It's So Important. Dr. Spock. 2003.

Parlakian, Rebecca and Nancy L. Seibel. **Building Strong Foundations: Practical Guidance for Promoting the Social-Emotional Development of Infants and Toddlers.** Washington, DC: ZERO TO THREE. 2002.

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This Tip Sheet is not a regulatory document. Its intent is to provide a basis for dialogue, clarification, and problem solving among Office of Head Start, Regional Offices, TA consultants, and grantees. If you need further clarification on Head Start Policies and regulations, please contact your Regional Program Specialist.

# **Environment as Curriculum for Infants and Toddlers**

### In This Article:

- Create an Environment of YES!
- Planning Play Spaces
- Environment as Curriculum
- Play Materials within the Environment
- Appreciating the Natural Environment
- Conclusion
- Words You CanUse

### Introduction

One important way infants and toddlers learn is through exploring their environment. Children will naturally be drawn to explore an environment that is inviting. Whether the environment is a home, socialization space, or a child care center; creating a safe, playful, and welcoming learning environment for infants and toddlers requires a thoughtful process. Thinking about play spaces, areas for caregiving routines (like diaper changes), and ways to integrate home cultures into the environment are important aspects of planning. Programs should also consider the flexibility of space, which supports the changing ages, interests, and characteristics of a group of children over time. In this News You Can Use we will explore ideas about building nurturing environments to support the learning of very young children.





### Create an Environment of YES!

The toddlers in Annika's family child care created a new game. The game involves taking trucks up the short loft and rolling them down the slide. Annika watches the children delight in the added momentum that the slide gives to their trucks, but she is uneasy about allowing this activity. Before she says "no" out loud, Annika asks herself if anyone could get seriously injured from this activity. She doesn't think She asks herself, "What are they learning from this?" She realizes that by joyfully rolling trucks down the slide children are learning important concepts about physics, gravity, and momentum. The children are also taking turns and working together without any adult support! After she weighs the risks she decides to stay nearby, but to let the activity continue. She also decides to come up with some plans about what to put out in her space that will allow for similar experiments in the days to come.

An environment of "yes" means that everything infants and toddlers can get their hands on is safe and acceptable for them to use. One way to ensure this is to for adults to do ongoing safety checks in group care spaces and provide families with information about doing safety checks of their own. The teacher, home visitor, and the child's family play a vital role in making sure everything is safe, then stepping back to allow exploration.

Sometimes infants and toddlers will use materials in creative ways that surprise us! When you feel uncomfortable about an activity, stop and ask yourself two questions:

- •Is it dangerous?
- •What are the children learning from this experience? i

If you decide the activity is safe with supervision, stay nearby. Be thoughtful and open to what the children might be learning. If the activity is not safe, can you find something that addresses their curiosity in the same way? For example, if young toddlers are delighted to discover that by shaking their sippy cups, liquid comes out; you may be worried that this water on the floor will lead to a slippery accident. Instead, you might provide squeeze bottles outside or at the water table. Remember, the adult is responsible for keeping children safe and encouraging learning through curiosity.

Elia prepares the space for socialization. She thinks about what the children have been interested in the past few weeks and remembers a few struggles from the last socialization. Elia wants the socialization time to provide opportunities for children to play together but the older toddlers seem to need so much support around sharing and being safe. Last time the group came together it seemed like the older toddlers were constantly fighting over one toy or another.



For today, Elia plans to have experiences set up for the children that include multiples of items – a water table filled with pom-poms and many containers, a basket with lots of balls, and play clay with cookie cutters. She will also create a cozy book area just the right size for one child and one adult for children who want a break.

Saying "no" to infants and toddlers or asking them to "share" is a strategy that rarely works. One way to prevent conflict is to reflect on, and then set up, the space where children play in ways that promote "yes!"

- •What areas generate the most "no's" or require the most adult guidance?
- •What do the children need and enjoy the most when it comes to playtime?
- •Do you have multiples of favorite toys?
- •Do you have enough places where toddlers can play alone or with few friends?
- •Do you have adequate space for active play?
- •Is the room appropriately child-proofed?

Try drawing a rough sketch of the space you are using with infants and toddlers to help you think through the questions above. The process might generate some ideas about what to change or try in order to make the space work better and reduce the "no's." For example, perhaps the toddlers in your classroom often argue over who gets to play at the water table—which is placed against the wall in your classroom. You might try pulling it out so that it can be accessed by all four sides and create room for more children, reducing the conflicts.

The area that your group is most interested in will change over time. Continue to make changes that follow their interests like making the block area bigger, or creating a large gross motor space. Remember that we all learn through trial and error! Feel free to try something new, assess how it works, and then adapt until it is successful.

### **Planning Play Spaces**

Twenty-two-month old Alex is creating a tower with his blocks. He looks away for a moment to find another block and as he turns back he sees fifteen-month-old Vivienne knock his tower over accidentally as she crawls by. Alex screams and reaches to hit her but their caregiver Elena stops him in time. After some reflection, Elena realizes that the block area is in a "high traffic area" or a space where children frequently walk or crawl through. That afternoon Elena uses furniture to create a protected area for block play.

Elena's observation about where the block area was located helped her form a plan about how to design her classroom. Keeping some play areas protected can have the added benefit of keeping the materials contained. You may also think about your classroom in terms of areas that are quiet, like a rest area or book area, and areas that are louder, like the sensory table and block areas. Keeping these areas apart from each other will naturally reduce disturbances in the quieter spaces.

Another idea is to create spaces that are only big enough for one, two, or three children at a time. For example, a table in a corner with two chairs on the remaining sides is the perfect area for two toddlers to work on puzzles. The space is only big enough to accommodate two so the adult spends less time "reminding" children that only two can do puzzles at a time. If a small area gets crowded, rather than ordering children to move in order of "who got there last" the adult can say, "This looks really crowded. I don't think anyone can have fun with so many of us here. Who wants to come play dress up with me?"

### **Environment as Curriculum**

Monica and Jen are sitting together at planning time thinking about their group. Monica feels like lately all they are saying is, "Keep your feet on the ground please," or "It's not safe to climb on the table." The other day they noticed 17-month-old Kailey climbing the bookshelf. When they pulled her off she turned around and hit Jen. Monica and Jen realize that the room must not be meeting the gross motor interests of the children. Since they share the playground with other rooms, they cannot extend outside time. They make a plan to rearrange their room to create more space for safe jumping, climbing, throwing, tumbling, and running.

Monica and Jen are teachers who understand how the environment is a part of their curriculum. During their planning they realized that the room set-up is no longer a good fit for their children -and they found a creative way to make some changes. Taking time to evaluate your environment from the perspective of curriculum, with a focus on what children are showing you they want to learn about, can lead to new insights and ideas about how to create space for learning.



### **Play Materials within the Environment**

During a socialization, seven-month-old Wesley has found a wooden spoon. The first thing he does to explore this spoon is to put it up to his mouth and touch it with his tongue. He makes a face and his mother, Kara, laughs and says, "That doesn't taste very good, does it?" He looks at her and tries it in his mouth again. Wesley decides instead to bang the spoon on a table and delights in the sound he is makina.

When choosing play materials for infants and toddlers you rarely have to spend a lot of money to find something that will fascinate. Think of all that Wesley was able to do with his spoon. Wesley was able to hold it because it was light enough. He also tried tasting it and found he did not want to eat it. He had the opportunity to hold onto it long enough that he was able to explore different ways to play with from touching to tasting to making noises. The whole experience for Wesley was full of sensory opportunities.



# Play Materials within the Environment (Cont'd.)

When you are providing materials for young children the best toys lend themselves to many different play experiences. Toys that can be used in many different ways are called openended materials. Blocks are a good example of open-ended materials. Blocks can be used for building towers, houses, zoos, beds, and anything a child can imagine. They can also be step stools, roads, and ramps. When they are combined with sand in a sand and water table they are platforms for animals or a surface for rolling balls along. Most teachers and home visitors have many. many ways they use blocks, and children always come up with surprising new ways to use materials.

Some play materials are not open-ended because they can only be played with in one way. Often these toys are more expensive, plastic, and marketed as "educational." Think about a toy that sings the ABC song when you press a button. Infants are likely to bore quickly of such a toy. It only does one thing, over and over. This type of toy is more likely to be mouthed or thrown by babies trying to figure out a new way to use it.

Some open-ended materials to consider using in your classroom might be:

- •Blocks wooden, plush, foam and cardboard (Can be made from tissue boxes covered in paper)
- •Clean, empty containers from yogurt, coffee, formula
- •Muffin tins, ice cube trays, empty egg cartons
- Measuring cups (for pouring and nesting)
- Clean liquid laundry detergent caps
- •Pom Poms (from craft stores)

•"Sand" tables don't always have to have sand in them. They can also be filled with cedar shavings, soapy water and sponges, rocks, snow, soil, leaves, wrapping paper scraps, shredded paper, straws, hay or other creative things.

### **Appreciating the Natural Environment**

Eighteen-month-old Zach points to the plants on the window sill. It is clear to his caregiver Anna that he wants a closer look. She takes down the small container and tells him, "This is rosemary; you can touch it if you are gentle." She demonstrates a gentle touch. Zach imitates her gentle touch. She shows him how she smells the herb and he takes a big sniff.

Young children have such a strong desire to experience nature in a real way. Have you ever seen a baby fascinated by a leaf? Have you noticed how toddlers will react in different ways when they notice a bug? Young children who have experiences with grass, bugs, trees, rocks and sticks will be more likely to care for the natural environment.iii

Some wonderful ways to share nature with young children is to grow organic, nontoxic plants in your classroom and outside play area. Even if you only have a small space you can have a container garden<sup>iv</sup>(a great use for that broken water table in the shed). Find out what grows easily in your climate and start with a few seeds. When you have herbs, try floating them in your water table or mixing them into sand. Talk about the smells and encourage children to touch and rub the herbs to help the scent come out.





# Appreciating the Natural Environment (Cont'd.)

Family child care provider Jason has created an outdoor "classroom" with a small sink, places to change diapers, tables for eating and activities, and shelves for storage. On warm days he leaves the back door open for free play and children can choose where they want to be. Today, fifteen-month-old Elliot has a bag of animal figures he is bringing to the sand box. He carefully takes each animal out of the bag and when they are all out, he goes back inside. Jason says, "Would you like this box to use as a barn for those animals?" and Elliot says, "Ya." Jason hands him the box and Elliot toddles back outside.

If you are lucky enough to have direct access to an outside play area, consider bringing some of your "inside" items outside. For some reason, blocks in a sandbox have a completely different allure than when they are in your classroom. Paper taped to a fence for painting can be inviting and allow many toddlers to create together. Spray bottles filled with water can be used to magically turn cement to dark gray.

Chalk artwork done outside on a deck or cement area can be photographed and remembered long after it is rained away. Infants often enjoy time outside on a soft blanket with just a few simple toys.

Sometimes we have to let go of "grown-up" ideas about activities that only belong "inside" or "outside." Almost every activity that happens indoors can happen in some fashion outdoors as well. When adults are creative and open like Jason, children have the freedom to experiment with items in new spaces. Remember that most things, including children, are pretty easy to clean (especially when you are outside!).

### Conclusion

The environment plays such a large role in the lives of young children. Wherever children spend their days should be a place where they feel welcome. Think of all the homes you have ever been in; no two homes are exactly the same. Classrooms and family child care programs should have the same individual feel and even change over time. It is important to make the environment safe, nurturing, culturally respectful, and reflective of families. Look for the next News You Can Use to learn more about creating homelike environments that are reflective of families. Infant and toddler teachers and home visitors can create and support environments that inspire loving and learning together.



### Words You Can Use:

Open ended materials: Toys that can be used in many different ways. For some ideas about how to choose toys use this link: http://main.zerotothree.org/site/PageServer?p agename=ter key play choosetovs&AddInte rest=1503

### Footnotes:

- <sup>1</sup> Bev Bos and Jenny Chapman, Tumbling Over the Edge (California: Turn the Page Press, 2005), 59.
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# **NEWS YOU CAN USE**

News for Head Start, Early Head Start, & Migrant/Seasonal Programs

### **INSIDE:**

Brain Development | Building Connections | Serve and Return | Toxic Stress and the Brain | Conclusion | Words You Can Use

# FOUNDATIONS OF SCHOOL READINESS SERIES: EARLY EXPERIENCES BUILD THE BRAIN

The content is also presented in "Hablemos de... cerebro y su relación con la preparación escolar."

### Brain Development

Science has shown that the relationships with the important people in a baby's life literally shape and form the architecture of the infant's brain. Deceptively simple, moment-to-moment interactions with responsive caregivers build the brain, creating or strengthening it one connection at a time. By the time children are two years old, the structures of their brain that will influence later learning are mostly formed. This means that the most important brain growth and development, the kind that will physically form the brain, begins long before a child ever picks up a pencil, reads a book, or goes to school.



"We now know that when brain architecture has a strong foundation in the early years, infants and toddlers are more likely to be robust learners throughout their lives."

We now know that when brain architecture has a strong foundation in the early years, infants and toddlers are more likely to be robust learners throughout their lives. In this *News You Can Use*, we explore how the connections within the brain are created and made strong, the negative effects of chronic stress at an early age, and how caring adults can help even in difficult situations.

### Building Connections

Although the brain looks like a gray blob, it is, in fact, made up of billions of cells called **neurons** that make electrical connections with each other. Each new experience, each piece of information releases chemicals called **hormones** that create a new connection, or synapse, in the brain. More connections are formed in the brain prenatally and in the first few years of life than at any other time. After early childhood, the connections that are not used as frequently will be **pruned**, or removed, to allow for more useful connections to grow stronger. Sometimes this process is referred to as "use it or lose it," since the parts of your brain you use the most become stronger, while the parts you use less die off.

Two-month-old Elijah is crying. His father, Daniel, goes to him and says, "Ohh, what's going on, little one?" When Elijah sees his father's face and hears his voice, he immediately begins to calm down. At two months old, he already knows that when he cries, his father responds.

For newborns and young infants, most of their emotional experiences happen in moments of interaction with their caregivers. Newborn and caregiver interactions usually occur around activities such as comforting, feeding, and holding. As Elijah is calmed, hormones are released that help him be more alert and able to learn. The synapses in the brain that respond to and expect caring behavior from others will grow strong. This allows Elijah to feel safe and fully able to learn about the many interesting things in the world. Repeated many times during Elijah's first years of life, moments like these build the neural connections that will support learning for the rest of his life.

### Serve and Return

Two-month-old Amelia begins a "conversation" with her mother. She babbles, makes faces, gestures, and eventually cries when she has had enough. Her mother responds by echoing the sounds she makes,

mirroring her facial expressions, and comforting her when she cries.



Thirteen-month-old Ethan brings his teacher a toy tiger. He hands her the tiger, and she says, "Thank you." Ethan then holds his hand out, and she gives the tiger back. He says, "Da du." They repeat this exchange half a dozen times before Ethan goes to find a new toy and they start again.

Thirty-month-old Miguel is playing in the backyard. When he reaches the crest of a small hill, he turns to his family child care provider and shouts, "Look at me!!" She looks at him and says, "You climbed to the top of the hill. Now what will you do?" He grins and says, "Roll!" After he rolls down the hill, he runs to her and touches her shoulder. She smiles at him, and he runs off again.

These vignettes illustrate typical interactions throughout the day of an infant or toddler. Each vignette provides an example of a common quality in relationships that is often repeated, called "serve and return." Although the kind of exchanges that occur might differ depending on

a child's age, each infant or toddler reaches out to a trusted adult, who then responds. The adult's response acknowledges the child's intention or need and also encourages further interactions. Amelia is only two months old, yet she is able to engage her mother's attention, bring out her mother's smile, and elicit comfort. Ethan is engaged in a give-and-take game with his teacher. Miguel is much more independent but still checks with his caregiver as a secure base. These serve-and-return interactions build and strengthen neural connections that support feelings of safety and of being an effective communicator. These strong connections build a foundation for all later learning.

### ■ Toxic Stress and the Brain

Jonah, a two-year-old who grew up in a chronically stressful environment, is playing with some blocks. Aiden comes over to join his play. As Aiden picks up a block, Jonah reacts impulsively by hitting and attempting to bite Aiden.

The strongest connections in Jonah's brain, those that warn him of danger, react first. He strikes Aiden to protect himself and his belongings.



When infants and toddlers are regularly ignored, frequently experience violence, or spend much of their time in highly stressful environments, they are considered to be exposed to **toxic stress**. While normal life stressors are not dangerous, and can even be healthy for a developing brain, toxic stress occurs when the body's response system to stress is activated much of the time. Our bodies produce a hormone called **cortisol** as part of the natural reaction to stress. In moderation, cortisol can contribute to a healthy brain structure. In extreme situations where a young child is feeling stressed much of the time, constant exposure to cortisol can alter the way the brain might otherwise develop. For example, a baby exposed to chronic stress is more likely to develop strong connections in the areas of her brain that are on alert for danger. Their brains may expect the world to be a dangerous place. When these babies are older, their brains interpret neutral events as more negative. When they become children and adults, their brains may spend more energy figuring out if they are in danger and have less attention for things their peers are focused on and learning.

The great news is that you can reduce the effects of toxic stress experienced by babies and young children. The loving, nurturing relationship that parents, family members, and teachers provide can act as a buffer to the effects of toxic stress. Consistent adult support can help a young child come through such difficulties with a brain that is still fully able to learn.

### Conclusion

Parents, families, teachers, home visitors, policymakers, and anyone who works with or for infants and toddlers who have a solid understanding of how young brains develop and grow can make informed choices in their work for infants and toddlers. Adults who have the knowledge and skills to provide responsive interactions will help to shape the physical architecture of a child's brain so that he or she will be fully able to learn now, in school, and beyond.

### Words You Can Use

• **Cortisol** Cortisol is the name of the hormone, or chemical, released when someone is experiencing a situation that feels stressful to him or her. In small doses, cortisol is actually helpful to a developing brain. In extreme circumstances, too much cortisol can adversely affect brain architecture.

- **Hormones** Hormones are chemicals that the body creates as a way to send "messages" or information throughout the nervous system. Some hormones are specific to positive feelings, and some are specific to stressful feelings.
- Neurons

  Neurons are cells that are specific to the nervous system. Their job is to carry information in the form of chemicals.
- **Pruning**\* Pruning occurs as people age and the brain figures out which connections are most important, those that are used most frequently, and which connections are not. The less frequently used connections will be "pruned" or die off, leaving more room for the stronger connections to continue to grow.
- **Synapse**\*A synapse is the space between two neurons where "messages" are sent through hormones.
- **Serve and return** Serve and return is a way to describe the types of interactions that are most helpful for infants' and toddlers' early learning and brain development. This describes the type of responsive interaction in which a child reaches out through vocalizations, gestures, or facial expressions and an adult responds appropriately to the child. This may be repeated many times and, for newborns and young infants, occurs most frequently during routines.
- **Toxic stress** Toxic stress is the term used to describe the amount of stress that causes so much cortisol to be created and released in the body that it can cause damage to the architecture of the brain. The effect of toxic stress can be lessened when a baby or young child has at least one stable, secure relationship.

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<sup>v</sup>National Scientific Council on the Developing Child, "InBrief: The Science of Early Childhood Development," InBrief Series, retrieved from http://developingchild.harvard.edu/index.php/resources/briefs/inbrief\_series/inbrief\_the\_science\_of\_ecd/. 
<sup>vi</sup>Ibid.

viiIbid.

viii Jonathan Cohn, "The Two Year Window: The New Science of Babies and Brains—and How It Could Revolutionize the Fight Against Poverty," *The New Republic* 242 (December 2011): 10–13, retrieved from http://www.developingchild.net. http://www.newrepublic.com/article/economy/magazine/97268/the-two-year-window.

Eric H. Chudler, "Neuroscience for Kids," National Center for Research Resources (November 29, 2011), retrieved from http://faculty.washington.edu/chudler/neurok.html.

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xiIbid.

xiiNational Scientific Council on the Developing Child, "InBrief."



STUDY GUIDE

FOUNDATIONS OF SCHOOL READINESS: EARLY EXPERIENCES BUILD THE BRAIN

### **SUMMARY:**

This News You Can Use (NYCU) describes the basics of brain development for infants and toddlers. So much of brain development depends on the relationships and interactions between very young infants and the important adults in their lives. Parents, family members, teachers, family child care providers, and home visitors can all have a positive impact on a child's developing brain.



### **Key Messages:**

- Interactions with important adults create physical connections in the brain.
- Responsive interactions, referred to as serve and return interactions, create the kind of neural (brain) foundation that contributes to lifelong learning, positive relationships, and school success.
- Prolonged exposure to extremely stressful situations, called toxic stress, can be very harmful to brain development.



### Think:

- How do you support healthy brain development in your work with infants, toddlers, and their
- Think of a time when you and a child engaged in serve and return. What does the NYCU description of that process tell you about what that time meant for the child?



### Reflect:

- Reflect on the role of stress in your own life. When has it been too much, and how or what has helped bring it back to a more manageable state?
- Recall a time when you noticed a child or a family in a stressful situation. Think about what you might do differently as a result of reading this newsletter.



### Discuss:

- How does understanding brain development, especially the concept of serve and return, influence your understanding of the kinds of interactions adults should have with infants and toddlers?
- How might your understanding of the way connections are made in the brain change how you work with young children?
- Think about how toxic stress can affect the developing brain. Discuss how you might share this information with parents and families in ways that are nonjudgmental and respect that they are doing the best they can.

### **Next Steps:**

Try a multimedia experience to learn more about brain development! Watch these videos: http://developingchild.harvard.edu/topics/science\_of\_early\_childhood/.



# NEWS YOU CAN USE

Developmentally Appropriate Practice

**Putting it Together** 

Relationships: The Foundation of Developmentally Appropriate Practice for Infants and Toddlers

Building relationships through continuity of care

Building Relationships through Primary caregiving

Words You Can Use

Resources

### **Developmentally Appropriate Practice**

Linda is new to working with young children. She sits at a training, hoping to learn more about babies. The presenter frequently says, "developmentally appropriate practice" to explain why one might do certain things in group care or on a home visit. Although she is not sure what that means, Linda does not want to raise her hand to ask for an explanation.

Developmentally appropriate practice (DAP) is a term that you often hear when talking about young children. In the field of early childhood education, it is something that educators, presenters, and administrators use. It's an important term to understand, but what does it mean? How would you explain developmentally appropriate practice to the parents in your program?



Developmentally refers, of course, to development. Infants and toddlers are developing rapidly in the first three years of life. You can easily see infants and toddlers developing their physical skills – as they are able to first hold up their heads, then sit, crawl, stand, walk, run, jump and climb in just three short years! It may not be as apparent, but their brains are growing too. Infants' and toddlers' brains are constantly creating and strengthening connections in response to their experiences. Young children are also developing language, social-emotional, and thinking skills.

Appropriate means something that is fitting or just right. It may surprise you but often what is thought of as appropriate may have more to do with our culture than anything else! Take, for example, learning how to walk. In some cultures it is considered a sign of physical ability when children learn how to walk early. There are cultures, however, that believe children who learn to walk later will live longer<sup>1</sup>. Think about how different beliefs, such as those about when children should walk, might lead to different parenting or caregiving practices.

<u>Practice</u> refers to what we actually do. How do we take the information about a child's development and our thoughts about what would be appropriate for them, and translate that into what we do in a home visit or in the classroom?

### **Putting It Together**



Now, think about "appropriate" and "development" together. It would be normal for a young baby to pick up a toy and suck on it. This would not be considered appropriate for an adult! It is also true that some things are appropriate for older children-like sitting still for long periods of time-but are not realistic expectations for toddlers because of their developmental age or stage (e.g., a lack of self-control and their inability to understand concepts of time). Keeping the concepts of "development" and "appropriate" together helps us remember that we are deciding what is important on the basis of knowledge about each individual child.

When we talk about "developmentally appropriate," it is important to remember that babies' development happens within the context of the relationships with adults in their lives. Those who care for them not only take care of their physical needs, but also help to regulate their emotional and sensory understanding of the world around them. A baby is usually closest to the adults in his or her family. Because of this, when we consider the development of babies, we need to know something about their families. For example, when we are figuring out what is appropriate for each individual child, we have to take into account the goals and values of the family.

If you put these words together, the term developmentally appropriate practice means individualized, responsive care that is just right for the child's age, cultural context, and personality. How does that look when we are talking about home visiting, family, and center-based child care? Read on to find out!



# Relationships: The Foundation of Developmentally Appropriate Practice for Infants and Toddlers

Your relationship with the children you care for makes a difference in their lives. This is especially true for social-emotional development<sup>2</sup>. Being **responsive** is a key relationship element. Responsive adults read the cues babies give and then respond in nurturing ways. Because relationships are so important in the lives of infants and toddlers, having responsive, loving, nurturing relationships are the most important part of developmentally appropriate practice.

### **Building Relationships Through Continuity of Care**

People who work with very young children and their families have amazing opportunities and awesome responsibilities! Research has shown that early learning is greatly influenced by the relationships infants and toddlers have with the important people in their lives<sup>3</sup>. One of the best ways to support ongoing relationships is to practice **continuity of care**<sup>4</sup>. Continuity of care is when the same teacher or home visitor stays with the family for a year or longer and, at best, over the course of their whole time in Early Head Start.

Georgia, a teacher in an Early Head Start classroom, is going on a home visit to meet the family of a baby who will join her group next week. Julisa and her 5-week-old baby, Amelia, meet Georgia at the door of their home. Georgia senses that Julisa is worried about leaving Amelia in her care. Georgia says, "Amelia is a wonderful baby! Tell me all about her." Julisa begins describing Amelia as a baby who likes to be held all of the time. She looks concerned because she has heard from other moms that, in child care, the caregivers don't have time to hold a baby all the time. Georgia says, "I wonder if she'll feel comfortable letting me hold her?

May I try?"

The first home visit before a child enters a program is an opportunity to begin building a relationship with a family. Georgia may have been on many such visits, but for Julisa this is a brand new experience and she feels nervous. Georgia understands how hard this is for Julisa and takes a very gentle approach. She knows that she can help ease the transition from home to a child care center by helping Julisa understand that she will take excellent care of her baby.

Six-week-old Amelia is arriving at her first day of child

care. Although they have made a few visits to the classroom, her mother has a very difficult time saying goodbye. Georgia is there to greet both mother and baby and suggests they spend some time together in the classroom before Julisa has to leave. Georgia has printed and laminated a

photo of Julisa and Amelia together that she took on her home visit. She shows Julisa and tells her it is one way that she will help Amelia feel connected to her mom all day long.



Although it is hard for Julisa to leave, she feels that Georgia will take good care of Amelia. Julisa has gotten to know Georgia better through the home visit and a few classroom visits.

Amelia's first day in Georgia's room is just the beginning of this relationship between teacher, parent, and child.

Georgia feeds 4-month-old Amelia her bottle. Amelia is gazing at Georgia as Georgia talks to her, "You were so hungry, weren't you? I'm glad you like that bottle. It must be delicious. Would you like me to sing to you while you have your bottle? How about the song your mommy sings to you? Arroz con leche me quiero casar..."

Julisa has shared some of the songs she sings to Amelia with Georgia. Now Georgia can sing the songs that Amelia knows from home. This is another kind of continuity that supports a child's connection to home while they are in child care. Sharing

things like lullabies and home routines may be something that families do slowly, over time, as the relationship becomes safer and stronger.

One-year-old Amelia is toddling toward her caregiver, Georgia, with a smile on her face. Georgia kneels down to greet her and says, "Good morning, birthday girl!" Julisa smiles and thinks of the amazing year she has had as a mother. Throughout the year, Georgia has been more than a caregiver-she has been a source of support. Julisa has asked her about everything from diaper rash to feeding. Whenever Julisa has shared a concern, Georgia has responded with an open mind. Together, they have figured out an answer for any problem that has come up. Julisa is thrilled that Amelia will be able to stay with Georgia for the



next 2 years. It took a long time to build the relationship they share, and now everyone is enjoying the benefits.

### **Building Relationships Through Primary Caregiving**

Taking care of other people's children is intimate work. **Primary caregiving** is the practice of assigning one person to a small group of children and families. The main goal of primary caregiving is to build strong relationships between the family and the home visitor or provider and between the child and the home visitor or provider. Primary caregiving provides families and caregivers many opportunities to build relationships with each other. When practiced together, primary care and continuity of care are powerful tools to build relationships with children and their families.

Many programs that practice primary caregiving assign teachers or home visitors to families on the basis of availability. For some children and families, this works just fine, but sometimes a teacher and infant or toddler really connect with each other. What if they are not assigned to each other? Is it okay to change the assigned primary caregiver? Of course it is! It is natural for some people to connect with each other better than others. Some programs even wait until a child is enrolled for a while before determining the primary caregiver assignment. If you can't change the official "primary caregiver," find ways to respect the relationship a very young child has sought.

Four-month-old Anthony has been in Joanna and Elena's classroom a few months. He spent the first 2 months of his life at home and was held most of the time by his family. Elena, his primary caregiver, has spent as much time holding him as possible these past few months. She knows that if that is what feels like home to him, that is what will make him most comfortable in her classroom. Now when Anthony cries he looks for Elena. Her co-teacher, Joanna, will try to comfort Anthony but he really prefers Elena. Joanna tells Elena that Anthony needs to start getting used to some other people now.

Sometimes issues come up for people around primary caregiving. One person may build a relationship with an infant or toddler and then that child will prefer them when they need comforting. When a consistent caregiver responds to young babies who are upset, it actually helps them, over time, learn how to soothe themselves and develop the ability to regulate their emotions later on<sup>5</sup>.

Primary caregiving supports the ongoing relationship between the caregiver, the child, and the family. When primary caregiving is practiced well, babies respond just like Anthony did and prefer their primary person when they feel distressed. Even toddlers will walk past other adults to look for the person they know best. Families also have the opportunity to build relationships over time with caregivers so they can feel even more comfortable sharing information about their child and themselves.



Twelve-month-old Geneva has just joined Miss Ruth's

family child care home. She follows Miss Ruth around whining and crying until Miss Ruth picks her up. Alone with Geneva and five other children, Miss Ruth is not sure she can meet Geneva's intense needs.

One-year-old Geneva seems to be having a rough time starting with Miss Ruth. She is in a new situation with new children and is trying to cope by being held as much as possible. Miss Ruth, who is also responsible for five other children, is feeling overwhelmed by the intensity of Geneva's sadness and her constant need for attention.

Miss Ruth decides to check in with Geneva's family to learn what might help Geneva feel more comfortable in her care. After some discussions, Miss Ruth and Geneva's family decide to try getting Geneva to Miss Ruth's house a little earlier in the morning, before the other children arrive. This gives Miss Ruth some one-on-one time with Geneva and also lets Geneva "find her footing" at Miss Ruth's before having to cope with the social interactions and energy level of the five other children. By taking some time to help Geneva feel safe and settled in the morning, everyone ends up having a better day! After just a few weeks Geneva has become very comfortable at Miss Ruth's house and easily joins in the daily routines and experiences.



### Words You Can Use:

<u>Continuity of care</u> – when the same teacher or home visitor stays with the family for at least a year and sometimes over the course of their time in Early Head Start. This also refers to continuity from home to child care setting. Home routines, songs, language, and even how a baby is held can all be ways that help him feel more at home.

<u>Developmentally appropriate practice</u> – individualized, responsive care that is just right for the child's age, cultural context, and personality.

<u>Primary caregiving</u> - the practice of assigning one person to a small group of children and families.

### **Resources**

<sup>1</sup> Jaan Valsiner, Culture and the Development of Children's Actions: A Theory of Human Development, (New York: Wiley, 1997), 15.

<sup>2</sup> Jack P. Shonkoff and Deborah A. Phillips, (Eds.), Neurons to Neighborhoods: The science of Early Child Development, (Washington, D.C.: National Academy Press, 2000),313.

<sup>3</sup> Jack P. Shonkoff and Deborah A. Phillips, (Eds.), Neurons to Neighborhoods: The science of Early Child Development, (Washington, D.C.: National Academy Press, 2000),226.

<sup>4</sup> Sandy Petersen and Betty Bardige, Caring for Infants and Toddlers in Groups: Developmentally Appropriate Practice (2nd Ed.), (Washington, D.C.: Zero to Three, 2008), 44.

<sup>5</sup> Silvia M. Bell, and Mary D. Salter Ainsworth, "Infant Crying and Maternal Responsiveness," Child Development, 43 no. 4 (1972), 1187